



*Approval of ARR and Tariff for State Discoms for FY 2021-22, APR of FY 2020-21 and True-up of FY 2019-20*

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**UTTAR PRADESH ELECTRICITY REGULATORY COMMISSION**

**LUCKNOW**

Petition No. 1690 / 2021, 1689 / 2021, 1687 / 2021, 1688 /2021 and 1691 / 2021

**TRUING UP OF TARIFF FOR FY 2019-20, ANNUAL PERFORMANCE REVIEW (APR) FOR FY 2020-21**

**AND**

**APPROVAL OF AGGREGATE REVENUE REQUIREMENT AND TARIFF FOR FY 2021-22**

**FOR**

Dakshinanchal Vidyut Vitran Nigam Ltd., Agra (DVVNL)- (Petition No. 1690 / 2021)

Madhyanchal Vidyut Vitran Nigam Ltd., Lucknow (MVVNL)- (Petition No. 1689 / 2021)

Pashchimanchal Vidyut Vitran Nigam Ltd., Meerut (PVVNL)- (Petition No. 1687 / 2021)

Purvanchal Vidyut Vitran Nigam Ltd., Varanasi (PuVVNL)- (Petition No. 1688 /2021)

Kanpur Electricity Supply Company Ltd., Kanpur (KESCO)- (Petition No. 1691 / 2021)

ORDER UNDER SECTIONS 62 & 64 OF-

THE ELECTRICITY ACT, 2003

July 29, 2021



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**Before**

**UTTAR PRADESH ELECTRICITY REGULATORY COMMISSION**

Petition No. 1690 / 2021, 1689 / 2021, 1687 / 2021, 1688 /2021 and 1691 / 2021

**IN THE MATTER OF:**

TRUING UP OF TARIFF FOR FY 2019-20, ANNUAL PERFORMANCE REVIEW (APR) FOR FY 2020-21 AND APPROVAL OF AGGREGATE REVENUE REQUIREMENT AND TARIFF FOR FY 2021-22

**And**

**IN THE MATTER OF:**

Dakshinanchal Vidyut Vitran Nigam Ltd., Agra (DVVNL) - (Petition No. 1690 / 2021)

Madhyanchal Vidyut Vitran Nigam Ltd., Lucknow (MNVNL) - (Petition No. 1689 / 2021)

Pashchimanchal Vidyut Vitran Nigam Ltd., Meerut (PVVNL) - (Petition No. 1687 / 2021)

Purvanchal Vidyut Vitran Nigam Ltd., Varanasi (PuVVNL) - (Petition No. 1688 /2021)

Kanpur Electricity Supply Company Ltd., Kanpur (KESCO) - (Petition No. 1691 / 2021)

**ORDER**

The Commission having deliberated upon the above Petitions and the subsequent filings by the Petitioners, thereafter being admitted on April 08, 2021 and having considered the views / comments / suggestions / objections / representations received from the stakeholders during the course of the above proceedings and also in the public hearings held, in exercise of powers vested under Sections 61, 62, 64 and 86 of the Electricity Act, 2003 (hereinafter referred to as 'the Act'), hereby passes this Order.

The State owned Discoms / Licensees, in accordance with Regulation 5.10 of the Uttar Pradesh Electricity Regulatory Commission (Multi Year Tariff for Distribution & Transmission) Regulations, 2019, shall publish the Tariff approved by the Commission in at least two (2) English and two (2) Hindi daily newspapers having wide circulation in the area of supply and shall put up the approved Tariff on its internet website.

The Tariff so published shall be in force after seven days from the date of such publication of the Tariffs and shall, unless amended or revised, continue to be in force for such period as may be stipulated therein. The Commission may issue clarification / corrigendum / addendum to this Order as it deems fit from time to time with the reasons to be recorded in writing.



## 1. BACKGROUND AND BREIF HISTORY

### 1.1. BACKGROUND

1.1.1. The Uttar Pradesh Electricity Regulatory Commission (UPERC) was formed under U.P. Electricity Reforms Act, 1999 by Government of Uttar Pradesh (GoUP) in one of the first steps of reforms and restructuring process of the power sector in the State. Thereafter, in pursuance of the reforms and restructuring process, the erstwhile Uttar Pradesh State Electricity Board (UPSEB) was unbundled into the following three separate entities through the first reforms Transfer Scheme dated January 14, 2000:

- Uttar Pradesh Power Corporation Limited (UPPCL): vested with the function of Transmission and Distribution within the State.
- Uttar Pradesh Rajya Vidyut Utpadan Nigam Limited (UPRVUNL): vested with the function of Thermal Generation within the State.
- Uttar Pradesh Jal Vidyut Nigam Limited (UPJVNL): vested with the function of Hydro Generation within the State.

1.1.2. Through another Transfer Scheme dated January 15, 2000, assets, liabilities and personnel of Kanpur Electricity Supply Authority (KESA) under UPSEB were transferred to Kanpur Electricity Supply Company Limited (KESCO), a company registered under the Companies Act, 1956.

1.1.3. After the enactment of the Electricity Act, 2003 (EA 2003) the need was felt for further unbundling of UPPCL (responsible for both Transmission and Distribution functions) along functional lines. Therefore, the following four new Distribution companies (hereinafter collectively referred to as 'Discoms' / 'Distribution Licensees') were created vide Uttar Pradesh Transfer of Distribution Undertaking Scheme, 2003 dated August 12, 2003 to undertake distribution and supply of electricity in the areas under their respective zones specified in the scheme:

- Dakshinanchal Vidyut Vitran Nigam Limited (Agra Discom or DVVNL)
- Madhyanchal Vidyut Vitran Nigam Limited (Lucknow Discom or MVVNL)
- Paschimanchal Vidyut Vitran Nigam Limited (Meerut Discom or PVVNL)
- Purvanchal Vidyut Vitran Nigam Limited (Varanasi Discom or PuVVNL)

1.1.4. Under this scheme, the role of UPPCL was specified as "Bulk Supply Licensee" as per the licence granted by the Commission and as "State Transmission Utility" under sub-section (1) of Section 27-B of the Indian Electricity Act, 1910.



1.1.5. Subsequently, the Uttar Pradesh Power Transmission Corporation Limited (UPPTCL), a Transmission Company (Transco), was incorporated under the Companies Act, 1956 by an amendment in the 'Object and Name' clause of the Uttar Pradesh Vidyut Vyapar Nigam Limited. The Transco is entrusted with the business of transmission of electrical energy to various utilities and open access consumers within the State of Uttar Pradesh. This function was earlier vested with UPPCL. Further, Government of Uttar Pradesh (GoUP), in exercise of power under the Section 30 of the EA 2003, vide notification No. 122/U.N.N.P/24-07 dated July 18, 2007, notified Uttar Pradesh Power Transmission Corporation Limited as the "State Transmission Utility" of Uttar Pradesh. Subsequently, on December 23, 2010, the Government of Uttar Pradesh notified the Uttar Pradesh Electricity Reforms (Transfer of Transmission and Related Activities Including the Assets, Liabilities and Related Proceedings) Scheme, 2010, which provided for the transfer of assets and liabilities from UPPCL to UPPTCL with effect from April 1, 2007.

1.1.6. Thereafter, on January 21, 2010, as the successor Distribution companies of UPPCL (a deemed Licensee), the Distribution Companies, which were created through the notification of the UP-Power Sector Reforms (Transfer of Distribution Undertakings) Scheme, 2003 were issued fresh Distribution Licenses, which replaced the UP-Power Corporation Ltd (UPPCL) Distribution, Retail & Bulk Supply License, 2000.

## 1.2. DISTRIBUTION TARIFF REGULATIONS

1.2.1. The Uttar Pradesh Electricity Regulatory Commission (Multi Year Distribution Tariff) Regulations, 2014 (herein after referred to as "Distribution MYT Regulations, 2014") were notified on May 12, 2014. These Regulations are applicable for determination of ARR and Tariff from FY 2017-18 to FY 2019-20. Embarking upon the MYT framework, the Commission has divided the period of five years (i.e. April 1, 2015 to March 31, 2020) into two periods namely –

- Transition period (April 1, 2015 to March 31, 2017)
- Control Period (April 1, 2017 to March 31, 2020)

1.2.2. The transition period of two years ended in FY 2016-17. The Distribution Tariff Regulations, 2006 were made applicable for the Truing Up of ARR for the transition period (FY 2015-16 to FY 2016-17), whereas the first Control Period of the MYT Period (FY 2017-18 to FY 2019-20), was governed in accordance with the Distribution MYT Regulations, 2014.



1.2.3. Subsequently, the Commission notified the Uttar Pradesh Electricity Regulatory Commission (Multi Year Tariff for Distribution and Transmission) Regulations, 2019 (hereinafter referred to as “MYT Regulations 2019”) applicable for determination of tariff from April 1, 2020 onwards up to FY 2024-25 [i.e., till March 31, 2025] unless extended by the Commission. These Regulations were finalized by the Commission on 23rd September 2019 and were finally uploaded on the Commission’s website on 22nd November 2019, after gazette notification. These Regulations are applicable for the purpose of submission of Multi Year Tariff Petition for Business Plan, True-up, Annual Performance Review (APR), determination of Aggregate Revenue Requirement (ARR) and Tariff of all the distribution and transmission licensees within the State of Uttar Pradesh for the Control Period FY 2020-21 to FY 2024-25.

## **2. PROCEDURAL HISTORY**

### **2.1. BUSINESS PLAN, MULTI YEAR ARR & TARIFF AND TRUE UP PETITION BY THE LICENSEES**

2.1.1. The Commission, vide its Tariff Order dated November 30, 2017, approved the Business Plan for MYT Control Period (FY 2017-18, FY 2018-19 and FY 2019-20) for State Discoms along with the ARR / Tariff for FY 2017-18. In the said Order, the Commission also approved the True Up for FY 2014-15.

### **2.2. SUO-MOTO PROCEEDINGS ON ANNUAL PERFORMANCE REVIEW (APR) FOR FY 2017-18, AGGREGATE REVENUE REQUIREMENT (ARR) FOR FY 2018-19 AND PETITION FOR TRUE UP OF ARR FOR FY 2015-16 and FY 2016-17 FILED BY THE PETITIONERS**

2.2.1. The Commission, vide its Order dated January 22, 2019, approved the ARR / Tariff for FY 2018-19 for State Discoms and the Annual Performance Review (APR) for FY 2016-17 and FY 2017-18. In the said Order, the Commission also approved the true up for FY 2015-16.

### **2.3. BUSINESS PLAN for FY 2020-21 to FY 2024-25, TRUING UP FY 2018-19, ANNUAL PERFORMANCE REVIEW (APR) of FY 2019-20 AND DETERMINATION OF TARIFF FOR FY 2020-21**

2.3.1. The Commission, vide its Order dated October 27, 2020, the Commission approved the Business Plan for FY 2020-21 to FY 2024-. In the Order 25dated November 11, 2020, approved the ARR / Tariff for FY 2020-21 for State Discoms and the Annual Performance Review (APR) for FY 2019-20 and true up for FY 2018-19.



## 2.4. DETERMINATION OF TARIFF FOR FY 2021-22, ANNUAL PERFORMANCE REVIEW (APR) of FY 2020-21 AND TRUING UP FY 2019-20

2.4.1. As per the provisions of the Distribution MYT Regulations, 2014 the Distribution Licensees were required to file their ARR / Tariff Filings before the Commission latest by November 30th each year so that the tariff can be determined and be made applicable for the subsequent financial year.

2.4.2. The Regulation 4 of Uttar Pradesh Electricity Regulatory Commission (Multi Year Tariff for Transmission & Distribution) Regulations, 2019 stipulates the detailed principles, procedures and timelines for determination of tariff. The relevant extract of the same is reproduced below:

Quote

### **4. Petitions to be filed in the Control Period**

*4.1 The Petitions to be filed in the Control Period under these Regulations will comprise of the following:*

<b>Filing date</b>	<b>True- Up</b>	<b>APR</b>	<b>ARR / Tariff</b>
<b>15.10.2019</b>	<b>Business Plan for FY 2020-21 to FY 2024-25</b>		
<b>30.11.2019</b>	<i>FY 2018-19 (as per MYT Regulations, 2014)*</i>	<i>FY 2019-20 (as per MYT Regulations, 2014)*</i>	<i>FY 2020-21</i>
<b>30.11.2020</b>	<i>FY 2019-20 (as per MYT Regulations, 2014)*</i>	<i>FY 2020-21</i>	<i>FY 2021-22</i>
<b>30.11.2021</b>	<i>FY 2020-21</i>	<i>FY 2021-22</i>	<i>FY 2022-23</i>
<b>30.11.2022</b>	<i>FY 2021-22</i>	<i>FY 2022-23</i>	<i>FY 2023-24</i>
<b>30.11.2023</b>	<i>FY 2022-23</i>	<i>FY 2023-24</i>	<i>FY 2024-25</i>

*\*The filings shall be as per Multi-Year Distribution Tariff Regulations, 2014 and Multi-Year Transmission Tariff Regulations, 2014, however, filings have to be made on 30th November of the respective year as per these Regulations*

*4.2 The Licensee shall submit the data regarding the above as per Guidelines and Format prescribed and added/ amended from time to time by the Commission.*

Unquote

2.4.3. In light of COVID-19 scenario the Ministry of Corporate Affairs, Government of India, had extended time for holding of Annual General Meeting (AGM) for the FY 2019-



20 by a period of three months and extended the finalization of Annual Accounts till December 2020.

2.4.4. In this context the Petitioner requested the Commission to provide time extension of two months vide letter dated 08.12.2020. The Commission vide letter No. UPERC/D(T)/2020-21/Tariff/1485 dated 14.12.2020 had granted the time extension for filing of petition by two months.

2.4.5. Further, the Petitioners requested for another time extension of one month due to non-completion of audit process and non-availability of Audited Annual Accounts vide letter dated 29.01.2021. The Commission vide letter No. UPERC/Secy/JD(D)/2021-22-1771 dated 09.02.2021 had again approved the time extension sought by the Petitioners.

2.4.6. The Petitioners thereafter submitted their Petitions in the matter of Determination of Tariff for FY 2021-22, Annual Performance Review (APR) FY 2020-21 and True-up for FY 2019-20 for the State Discoms (DVVNL, MVVNL, PVVNL, PuVVNL and KESCO) before the Commission, after a delay of more than 3 months, on the following dates:

S. No.	Distribution Licensee	Date of Filing	Petition No.
1	DVVNL	22.02.2021	1690
2	MVVNL	22.02.2021	1689
3	PVVNL	22.02.2021	1687
4	PuVVNL	22.02.2021	1688
5	KESCO	22.02.2021	1691

2.4.7. The Commission would like to caution the Petitioners that such delays in future in filing of True-Up, APR and ARR Petitions during this control period would be dealt strictly considering the directions contained under Hon'ble APTEL's Judgement dated 11.11.2011 in OP No. 1/2011 referred above.

## 2.5. PRELIMINARY SCRUTINY OF THE FILINGS

2.5.1. A preliminary analysis was conducted of the Petitions, wherein the Commission asked the Petitioners to revise its ARR based on the billing determinants and distribution loss trajectory approved by the Commission in the Business Plan Order dated 26.10.2020, along with various other deficiencies observed, which were communicated vide letters dated March 12, 2021. The State-owned Distribution



Licensees submitted their response to the deficiencies in respect to ARR FY 2021-22, APR FY 2020-21 & True-Up of FY 2019-20 on March 23, 2021.

- 2.5.2. The Commission had asked the State-owned Distribution Licensees to submit the revised Rate Schedule for various categories of consumers in reference to the Tariff Rationalization proposed for FY 2021-22. Further, the State-owned Distribution Licensees were also directed to submit the Revenue models depicting existing rate schedule v/s Proposed Rate schedule after Tariff Rationalization. In reply, State-owned Distribution Licensees did not submit the required data but have submitted that they request the Commission to determine the tariff without government subsidy and mention separately the subsidy rates as communicated by GoUP. They further submitted that the proposal for rate schedule requires the cross subsidy amongst various consumer categories and the road map for cross-subsidy reduction has not yet been approved, hence the Commission may determine the Tariff without government subsidy, as per approved road map of cross subsidy and approved average cost of supply.
- 2.5.3. Taking into consideration the above, the State-owned Distribution Licensees should have taken the existing rates and the GoUP subsidy approved per unit for the subsidised categories and should have submitted the Rate Schedule accordingly. Hence, the tariff rationalization proposal cannot be considered as such. The Licensees have also not submitted any tariff proposal and any details as to how the consolidated revenue gap proposed for FY 2021-22 would be managed.
- 2.5.4. The Technical Validation Session covering all the Petitions was conducted on April 01, 2021 which was attended by the senior officials of the Commission and the State-owned Distribution Licensees and during the Technical Validation Session (TVS), the State-owned Distribution Licensees explained various issues raised in the deficiencies. Subsequently, minutes of meeting (M.O.M) along with pending data / information were issued and the Licensees were directed to submit the pending information within 10 days. Pending information such as Audited Accounts of UPPCL for FY 2019-20, CAG Audit Report for FY 2018-19 and FY 2019-20, category/sub-category wise Revenue Models (for each Discom separately & consolidated 5 Discoms) depicting revenue before and after tariff rationalization, details of voltage-wise (132 kV, 33kV, 11kV & LT) distribution losses essentially required for computing CSS (without which the Commission will be forced to approve CSS as 'NIL' for FY 2021-22), category & sub-category wise billing determinants & Revenue for Torrent Power Agra DF, FAR (zone-wise data needs to be consolidated and reconciled with



the Balance sheet), other matters captured in the Minutes of Meeting (M.O.M.) was to be submitted by the Licensees.

- 2.5.5. The Commission also reiterated that the Licensee has not submitted any Tariff Proposal and since the determination of ARR / Tariffs had already been significantly delayed, the Commission admitted the Petitions. The Commission directed the State-owned Distribution Licensees to submit the pending responses immediately and also directed them that they shall furnish further information / clarifications, if any, as deemed necessary by the Commission during the processing of the Petitions and provide the same to the satisfaction of the Commission within the time frame as stipulated by the Commission, failing which the Commission may proceed to dispose of the matter as it deems fit based on the information available with it.

## **2.6. ADMITTANCE OF THE TRUE-UP, APR AND ARR / TARIFF FILINGS**

- 2.6.1. The Commission, vide its Admittance Order dated April 08, 2021, directed the Petitioner to publish a Public Notice consisting of the summary and highlights of the proposed Aggregate Revenue Requirement and Tariff for FY 2021-22, Annual Performance Review for FY 2020-21 and True-Up for FY 2019-20 in at least two (2) English and two (2) Hindi daily newspapers having wide circulation in its licence area, inviting suggestions and objections within 15 days from the date of publication of the Public Notice(s) from the stakeholders and public at large. The Petitioner shall also upload on its website the Public Notice, Petitions filed before the Commission along with all regulatory filings, information, particulars and related documents which shall be signed digitally and in searchable pdf formats along with all excel files.
- 2.6.2. The Commission also directed that the Public Notice(s) should also contain the details of the cumulative revenue gap and its treatment, Distribution & Transmission losses, average power purchase cost, Bulk Supply Tariff, DBST, Average Cost of Supply, average retail Tariff realised from each category / sub-category of consumers, wheeling charges, transmission charges, open access related charges, subsidy by GoUP etc
- 2.6.3. The Commission also directed that the Public Notices should also indicate that the stakeholders should regularly check the websites of the Petitioners for further submissions made in respect to these proceedings. The Petitioners shall also submit a set of notices along with the copies of original newspapers.



2.6.4. Further, the Commission raised several deficiencies subsequent to the issuance of admittance order to which replies have been received from the Petitioners which has also been taken into consideration.

## 2.7. PUBLICITY OF THE LICENSEES FILINGS

2.7.1. The Public Notice detailing the salient features of the Filings were published by the Licensees in daily newspapers as detailed below, inviting objections from the public at large and all stakeholders. This information appeared in daily newspapers as detailed below, inviting objections from the public at large and all stakeholders:

DISCOMS	ENGLISH NEWSPAPER	HINDI NEWSPAPER
DVVNL	Times of India – Lucknow Kanpur	Dainik Jagran – Agra, Aligarh
	Hindustan Times – New Delhi, Agra	Amar Ujala – Jhansi, Kanpur
MVVNL	The Pioneer	Dainik Jagaran
	Times of India	Hindustan Times Amar Ujala
PVVNL	Times of India	Dainik Jagaran
	Hindustan Times	Amar Ujala
PuVVNL	Times of India	Dainik Jagran
	The Pioneer	Amar Ujala
KESCO	Indian Express - Lucknow,	Dainik Jagran –Lucknow
	Hindustan Times - Lucknow	Amar Ujala - Lucknow

Source: As per data submitted by the Licensee

## 2.8. STATE ADVISORY COMMITTEE

The State Advisory Committee was also conducted on 21<sup>st</sup> June, 2021 wherein the views and suggestions of the members of the SAC were sought. The same have also been taken into consideration while finalising and determining the Tariff.



## 2.9. DIRECTIONS OF HON'BLE HIGH COURT

2.9.1. The Hon'ble High Court in Writ Petition No. 12895 of 2021 vide order dated 23.06.2021 has given the following directions: -

*Quote*

.....

*Till the next date of listing, no final decision shall be taken by the Commission in the matter of fixation of tariff with regard to which public hearing was allegedly conducted on 19.05.2021 pursuant to the notice under challenge*

.....

*Unquote*

2.9.2. Subsequently in the hearing held on 13.07.2021 the Hon'ble High Court issued the following direction vide order dated 13.7.2021:

*Quote*

.....

*Since the public hearing process is stated to have been completed, we deem it appropriate that the present petitioners, who had raised their objections/suggestions within time, be allowed to file their objections/suggestions, in writing, in six sets before respondent no.2 within a period of two weeks from today. Such objections/suggestions may be submitted in writing through official e-mail ID of the Commission which has been disclosed as [secretary@uperc.org](mailto:secretary@uperc.org).*

*In view of the prevailing circumstances, the petitioners are exempted from filing affidavits in support of their objections/suggestions. However, they may support such objections/suggestions with such written material as they wish to append.*

*Once the objections/suggestions have thus been filed, the respondents may proceed in accordance with law, by dealing with the specific objections of the present petitioners.*

*The interim order granted by this Court dated 23.06.2021 is vacated.*

*With the above observation, the present writ petition is **disposed of**.*

*Unquote*



2.9.3. The Hon`ble High Court had directed to take into consideration, the submissions of the Petitioners namely:

1. Shri Arvind Agarwal, S/o Shri Virendra Kumar Agarwal, R/o 33 Chaitham Lines, Near Prayagraj.
2. Shri Sanskar Gupta, S/o Shri Brij Mohan Gupta, R/o 64, Balramur House, Mumfordganj, Post Colonelganj, Prayagraj.
3. Shri Vishal Mohan, S/o Late Shri Man Mohan Gupta, R/o 19/9 Auckland Road, Prayagraj.

2.9.4. However, the objections/suggestions from the above Petitioners have not been received within the time stipulated by the Hon`ble High Court. As any delay in tariff determination process, not only impairs the financial viability of the Discoms but it also burdens the consumers by way of carrying costs. Thus, any delay in the tariff determination process should be avoided, a spirit, which has also been captured by Hon`ble High Court in its following observation in its Order dated 13.7.2021:

Quote

.....

*At the same time, the tariff fixation process could not have been delayed completely as that may potentially affect adversely the economies of cost of the power generation and distribution companies. Unless tariff fixation exercise is completed well within time, it may lead to completely undesirable consequences that would ultimately be borne by the consumers*

.....

Unquote

2.9.5. Accordingly, the Commission taking into consideration the above and the objections/suggestions received from all the stakeholders, public at large within the stipulated time and the views of the State Advisory Committee, the Commission has finalized the Tariff Order for FY 2021-22.



### 3. PUBLIC HEARING PROCESS

#### 3.1. PUBLIC HEARING

3.1.1. To provide an opportunity to all sections of the population in the State to express their views and to also obtain feedback from them, virtual public hearings through Video Conference were held by the Commission. The public hearings were conducted as per below details:

S. No	Date	Hearing in the matter of
1	17.05.2021	PVVNL, DVVNL, KESCo
2	19.05.2021	MVVNL, PuVVNL

3.1.2. Consumer representatives, industry associations as well as several individual consumers participated actively in the public hearing process.

3.1.3. The State Advisory Committee meeting was held on June 21, 2021 in which Tariff related issues were discussed and inputs were sought from the members of the Committee. The same have also been taken into consideration while finalising and determining the Tariff.

3.1.4. The views / suggestions / comments / objections / representations on the True-up / APR / ARR / Tariff submissions received from the public were forwarded to the Licensees for their comments / response. The Commission considers these submissions of the consumers and the response of the Licensees before it embarks upon the exercise of determining the final True-up / APR / ARR / Tariff.

3.1.5. Besides this, the Commission, while disposing the True-up / APR / ARR / Tariff Petition filed by the State Discoms, has also taken into consideration the oral and written views / comments / suggestions / objections / representations received from various stakeholders during the public hearings or through post or by e-mail.

3.1.6. The Commission has taken note of the views and suggestions submitted by the various stakeholders who provided useful feedback on various issues and the Commission appreciates their participation in the entire process.

#### 3.2. VIEWS / COMMENTS / SUGGESTIONS / OBJECTIONS / REPRESENTATIONS ON TRUE-UP, APR AND ARR / TARIFF FILINGS

3.2.1. The Commission has taken note of the various views/ comments / suggestions / objections / representations made by the stakeholders. The same often refer to all



the 5 Discoms combined / individually, UPPCL, NPCL, UPPTCL etc. in their submissions while discussing various matters. The objection/comments/suggestions received from the stakeholder after June 05, 2021 have not been taken into consideration.

- 3.2.2. The Commission has attempted to capture the summary of comments / suggestions / observations in this section. It may be that a few names of stakeholders / public on the attendance list do not appear in this section, however all the issues / matters raised by them relevant to these proceedings have been discussed. In case any comment / suggestion / observation is not specifically elaborated, it does not mean that the same has not been considered. The Commission has considered all the issues raised by the stakeholders and Licensees response on such issues while carrying out the detailed analysis/discussion of the True Up for FY 2019-20, APR for FY 2020-21 and ARR/Tariff for FY 2021-22. The list of the consumers, who have submitted their views / comments / suggestions / objections / representations, is appended to this Order. The major issues raised therein, the replies given by the Licensees and the views of the Commission have been summarised as detailed below:

### **3.3. TARIFF**

#### **A. Comments/ Suggestions of the Public**

- 3.3.1. Shri Sanjay V Kute, Delhi Metro Rail Corporation submitted that the Tariff for DMRC may be fixed/determined taking into account the agreement entered between DMRC & Ghaziabad Development Authority (GDA) as well as with DMRC & NOIDA Authority. He submitted that the agreement of DMRC with GDA & Noida Authority is the guiding principle at which Tariff for DMRC shall be fixed. Hence, the Tariff to DMRC should be fixed on no profit and no loss basis. Also, it is submitted that since DMRC system is uniquely designed to fulfil the requirements of Electricity Act, 2003, it becomes entitled to be treated as a separate category for fixing of Tariff. Keeping in view of agreements with Ghaziabad Development Authority (GDA) as well as with NOIDA to provide electricity at no profit/no loss and on cost price respectively and the provisions of Section 61 of the Indian Electricity Act, 2003, DMRC shall be treated as a separate category with fixation of Tariff on cost price from Transco.
- 3.3.2. He also added that DMRC is paying higher cost for purchase of electricity in UP as compared to electricity cost in Haryana and Delhi. He submitted that even after maintaining unity power factor, high load factor, absorption of all the losses &



maintenance costs in DMRC's network/system and Provision existing in the Agreement with GDA for supplying electricity to DMRC at no profit, no loss basis, the Tariff for DMRC is being fixed much higher than the power procurement cost of PVVNL from 2015-16 to 2020-21, cost price for DISCOM has been increased by only 18.27 % but Average price to DMRC has been increased by 86.23 % for the same period. Further, he submitted that it is evident that the increase in cost price is very low but percentage increase in average price to DMRC is substantially high. Hence, it is submitted that DMRC's electricity Tariff is on much higher side and need to be determined taking into account the power purchase cost.

- 3.3.3. He also submitted that in order to provide commuters of Delhi & NCR, an environment friendly and comfortable facility, Delhi metro is expanding its operation in UP and providing world class facility at very low price. In order to make the operation of Metro sustainable in UP, the Tariff in UP may be fixed accordingly. However, Tariff of DMRC in UP is being hiked every year, and it is highest as compared to Delhi and Haryana for DMRC. Therefore, it is mentioned that the DMRC's tariff needs to be fixed keeping in view the power purchase cost to PVVNL, and also taking into account the public utility objective, which is sought to be achieved by DMRC, in the Public Transport Sector.
- 3.3.4. Shri Yogesh Agarwal, Rimjhim Ispat Limited submitted that the Commission is requested to not increase the Tariff or any other charges for FY 2021-22 due to COVID-19 pandemic. The industries are already running at 50% capacity and further increase in the Tariff or any other charges such as Cross subsidy surcharge, Open Access charges will hurt the industrial consumers and may also lead them to close their operations. He also submits that existing industrial tariffs are higher than other States. He also submitted that for Rimjhim Ispat Limited UPPCL is not scheduling the power in proper manner, due to which the consumers have to feel the burden by paying high Tariff.
- 3.3.5. Prayas (Energy Group), Pune submitted that as per the admittance order issued by the Commission on 8th April, 2021, DISCOMs have not proposed new Tariffs. Further, it can be seen that while the ACoS has been projected to increase by more than 6% between FY 2020-21 and FY 2021-22, the average Tariff barely increases, increasing the ACoS-ABR gap to Rs. 2.23/kWh in FY 2021-22. This entails having a revenue gap of about Rs. 11,000 Crore.

It is further submitted that upholding the APTEL Order O.P. 1 of 2011, Ministry of Power has recently issued a directive to states to revise Tariffs on time and to



prevent accumulation of revenue gap, which attract carrying cost and have to be borne by consumers in the future. Under the MoU signed as part of the UDAY scheme, DISCOMs are supposed to carry out timely filing of tariff petitions, so that there is timely issuance of Tariff Orders. In this regard, without delay, Commission should revise Tariffs. If government subsidy commitment is not communicated in time, then the Commission can come up with a revised Tariff schedule without considering subsidy. Once there is more clarity on exact subsidy amount, same can be implemented, while billing concerned beneficiaries.

- 3.3.6. Shri Shivakant Tripathi, Uttar Pradesh Jan Kalyan Samiti, Lucknow submitted that instead of proposing increase in Tariff, the Discoms should control their expenses.
- 3.3.7. Shri Vishnu Bhagwan Agarwal, Chairman, Associated Chambers of Commerce & Industries of UP and Shri Manish Aggarwal, President, National Chamber of Industries & Commerce of UP submitted that Industry and businessess are in a critical condition due to complete lockdown since last year due to second wave of Covid. Therefore, it is requested to reduce the electricity rate instead of increasing it. If it is not possible to reduce it, then there should be no change in the prevailing rates, otherwise the industries will not be able to survive.

#### **B. Licensees response**

- 3.3.8. As regards to DMRC objection the Licensees submitted that there was no increase in Tariff for FY 2020-21. The Licensee has not submitted any Tariff proposal for FY 2021-22.
- 3.3.9. As regards to the objections of Shri Yogesh Agarwal, Rimjhim Ispat Limited, the Licensee has not submitted any reply.
- 3.3.10. As regards to objection of Prayas group the Licensees have submitted detailed and compelling reason for deviation from norms which are also based on the impact of Covid-19 pandemic and have requested Commission to consider this reason and approve the revenue gap as submitted by the Licensees.
- 3.3.11. As regards to the objection of Shri Shivakant Tripathi, and Shri Vishnu Bhagwan Aggarwal, the Licensees did not submit any reply.

#### **C. Commission's view**

- 3.3.12. The Commission has taken note of the objections / suggestions made by the stakeholders in this regard. The applicable Tariffs for all the consumer categories have been designed in accordance with the Electricity Act, 2003 and the MYT Tariff



Regulations 2019. The details of all the aspects related to approval of ARR and Tariff design have been covered in subsequent chapters of this Order.

### **3.4. POSTPONMENT OF HEARING**

#### **A. Comments/ Suggestions of the Public**

- 3.4.1. Shri Avadhesh Kumar Verma, Chairman, UP Rajya Vidyut Upbhokta Parishad, submitted that the Commission may provide a time of 1 month for filing of Comments and public hearing due to outbreak of COVID-19.
- 3.4.2. Vinay Tandon, President, Eastern U.P. Chamber of Commerce and Industry, Allahabad, Shri Arvind Agarwal, President and Cold Storage Association Uttar Pradesh requested the Commission to postpone the date for filling objection against UPERC (Tariff) 2021-22 till the pandemic subsides, it is further submitted that in view of wide ranging calamities during current pandemic the members are not in the state of mind to file their objection.
- 3.4.3. Dr G S Darbari Former President and Partner Darbari Industries, Allahabad on behalf of Eastern U. P. Chamber of Commerce and Industry, Allahabad, also requested the Commission to kindly postpone the proposed virtual public hearing till June 30, 2021. It was further submitted that any approval of the demand by the UP-Electricity Distribution companies in haste will slam yet another blow on the public at large and industry in particular which is already paying heavy electricity charges including fixed charges etc. Since March 2020, the industry and trade have been paying other legislative dues with no or minimal production and selling of products. Their financial situation has already pushed them to the verge of bankruptcy and any hasty acceptance of DISCOMS' tariff demands would add fuel to the fire in these difficult times due to the pandemic. It was further submitted that the public is given very little time to research the demand of electricity distribution companies and to respond or make representations on the proposed public hearing dates.
- 3.4.4. Shri Ashok Kumar Agarwal Managing Director of Vidya Ply & Board Pvt Ltd submitted that video conferencing dated 19th March 2021 at 11.00 AM for proposed fixation of Tariff for year 2021-22 may be postponed due to lockdown. It was further submitted that public hearing is ill-timed and purposely designed to exclude the Applicant and other similarly situated persons, in as much as due to restrictions in operations of industries and businesses, conducive and appropriate data with regard to the electricity tariff would not be available. Further, any public hearing without the full and complete participation of all the stakeholders and



subsequent increase in tariff rates would also not conform to the mandate contained in the Article 14 and 19(i)(g) of the Constitution of India as the Applicant's Fundamental Right to practice its profession/trade in a free and fair manner would be adversely affected.

He further requested the Commission to kindly consider postponing the aforementioned video conferencing in the interest of businesses and common public at large as the stakeholder was himself ill and had no knowledge of the last date of submission of suggestions and objections due to non-availability of newspaper and other resources due to on-going curfew/lockdown imposed due to COVID pandemic and thus failed to submit their objections and suggestions in time due to non-availability of resources.

#### **B. Licensees response**

3.4.5. As regard to queries raised regarding time extension Licensee submitted that Commission has already extended the conduct of Public Hearing by 1 month and has therefore provided sufficient time to invite stakeholder's comments.

#### **C. Commission's view**

3.4.6. The Commission has taken note of the objections / suggestions made by the stakeholders in this regard. As per legal framework determination and finalization of ARR/ Tariff is already delayed and sufficient opportunities have been given to the stakeholders and public at large to submit their objection / suggestions.

### **3.5. TARIFF RATIONALIZATION**

#### **A. Comments/ Suggestions of the Public**

3.5.1. Sri Avadhesh Kumar Verma, Chairman, UP Rajya Vidyut Upbhokta Parishad, submitted that the electricity companies are hiding the facts and he raised some of the issues pertaining to Tariff Rationalisation. Shri Ajay Kumar Lallu, Uttar Pradesh Congress Committee also submitted the objections regarding the same issue which are as follows:

- Benefit of Rs. 19,535 Crore including Uday True-Up till date has not been passed on to the consumers.
- Distribution companies have shown gap of Rs. 11,063 Crore and has not submitted any Tariff Proposal that means no Tariff hike.



- Electricity companies wrote letter to Commission that without Business Plan approval how they can file ARR? And now they are misguiding the Commission.
- When it comes to giving relief to the consumers, the Companies says that the matter related to UDAY is in APTEL and Commission is silent on this issue.
- The slab change proposal was rejected last year by the Commission, now again Distribution companies are trying to impose the same.
- Slab change proposal without any proposed rate is like changing the electricity rate through back door.

3.5.2. Further, Sri Avadhesh Kumar Verma submitted that the Commission should reduce tariff by 25% or should give regulatory benefit of 8% to all consumers for next three years. After this demand by UP Rajya Vidyut Upbhokta Parishad, the Electricity Companies have submitted a letter where they are giving reference of some old letter of GoUP and asking to impose regulatory surcharge, which in a means to hike the tariff by back door. Further, vide another letter Sri Avadhesh Kumar Verma submitted that the distribution companies claimed Rs. 49,827 Crore on account of gap from year 2000 till date. The Companies demanded to amend the Tariff order of September 03, 2019 and grant the Regulatory Surcharge, which is in violation of Regulation and Electricity Act, 2003. He then submitted that benefit of Rs. 19537 Crore including Uday True-Up and surplus of Rs. 800 Crore of FY 2020-21 has not been passed on to the consumer till date. Henceforth, he submitted that the slab change and ARR petition should be rejected.

3.5.3. Prayas (Energy Group), Pune submitted that the DISCOMs have resubmitted their plan for rationalisation of tariff sub-categories in FY 2021-22. It is a good move to see that simplification of slabs has been proposed, especially for domestic consumers, both rural and urban. Five tariff slabs for metered domestic consumers under LMV-1 have been reduced to three categories-namely up to 100kWh/month, 101-300 kWh/month and above 300kWh/month. This is a welcome move as this reduces incentive for meter tampering and splitting.

It further submitted that with rationalisation of sub-categories, for both urban and rural consumers, it is important to remove such differentiation in tariff for these consumers as well. If tariffs for rural consumers are brought at par with urban consumers, DISCOMs will have the same incentive to provide quality supply in rural areas. The tariff design already accounts for lifeline consumption in both rural and urban areas, which can be availed by low-income households. Thus, while protecting such consumers, identical tariff categorisation and rates for other



domestic consumers both in rural and urban areas will push DISCOMs to provide better quality supply and in turn, instil trust in rural consumers and boost bill realisation for DISCOMs from such rural consumers.

- 3.5.4. Shri Prateek Aggarwal of CEEW submitted that to improve affordability and collection efficiency, the Commission must recalibrate the Tariff for ultra-low consuming consumers (up to 50 units) and not on a criterion of owning a BPL card. Also, the differentiation of urban or rural settings should be removed, and the Tariffs for low-consuming consumers can be designed so that it is 50% of the cost of supply.

He further submitted that the tariff for commercial use is higher than that of HV industrial, making the power unaffordable for small commercial consumers and promoting unauthorized electricity use. Therefore, the Commission must work towards rationalisation of Tariffs for commercial consumers.

- 3.5.5. Shri Satish Maheshwari, Uttar Pradesh Industry Trade Representative Board submitted that this is not the right time to increase the regulatory surcharge or to raise the tariff rate, as due to Covid many consumers are facing difficulties. He also submits that compared to other states Uttar Pradesh has high rate of electricity and Commission needs to review this thoroughly. He further submitted that electricity rates should also be simplified as can be seen in other states where keeping the unit charge fix has made it easier for the consumer to check the bill.

- 3.5.6. Shri Kaushal Kishore Mishra, Grameen Vidyut Upbhokta Kalyan Parishad submitted that they are not against the tariff hike or tariff slabs change but instead of hiking the tariff if collection efficiency can be made 100 percent and line losses can be reduced then annual ARR can be easily fulfilled as lower collection efficiency burdens the consumers.

## **B. Licensees response**

- 3.5.7. As regards to objections of Shri Awadhesh Kumar Verma and Ajay Kumar Lallu pertaining to Tariff Rationalization / Tariff Hike below mentioned response is submitted by the Licensee;

- 3.5.8. As per the UDAY Scheme, total 75% of the total loans as on 30.09.2015 i.e., Rs.39,133.76 Crore was taken over by State Govt. and the fund to Discoms were infused in the form of equity and grant as per the breakup presented here.



Particulars	Amount (Rs. Cr.)
Loan amount to be taken over by GOUP as per UDAY Agreement	39,133.76
Equity Contribution from State Govt.	9,783.44
Grant provided by State Govt.	29,350.32

3.5.9. Commission in its Order dated 03.09.2019, adjusted the above loans taken over by the State Govt., against the value of Regulatory Assets approved by UPERC in previous True-up Orders.

3.5.10. However, as per GOUP Order dated 5th March, 2021, the 100% grant paid by GOUP has been reduced to Nil and adjusted against the dues payable by State Govt. towards electricity bills due from State Govt. departments and additional subsidy payable by GOUP as determined by UPERC in its various Tariff /True-up Order. Further UP Govt. has committed to pay Rs. 14,661.54 crores to UP Discoms in next 10 years starting from FY 2021- 22, against the total additional subsidy determined by UPERC up to FY 2018-19.

Therefore, the loans taken over by State Govt. cannot be adjusted against the Regulatory Assets approved by UPERC. The Regulatory Asset computation in UPERC TO order dated 03.09.2019 has to be revised accordingly. Licensees have submitted the value of revised cumulative gap in their submissions to additional submission to Commission and same is available on the website of Licensee. Licensees have requested to consider GOUP Letter and approve appropriate adjustment vide letter dated 139/RAU/Subsidy dated 01.04.2021.

3.5.11. The Licensee also submitted that applicable Tariffs for all the consumer categories have been designed in accordance with the Electricity Act, 2003 and the Distribution MYT Tariff Regulations 2019. Licensee submits that the treatment of revenue gap is to be done as per the provisions of UPERC Regulations and Tariff Policy. The Licensee has submitted related reply in the Data gap and replies of MOM dated 01.04.2021 to Commission and also uploaded these replies on Licensees website.

3.5.12. Further, the Licensee submitted that it has already submitted the compelling reasons for deviating from approved Business Plan data in the response to TVS session held on 01-Apr-2021. The same response is also uploaded on the website of each DISCOM. Licensees have also submitted their stand in the review petition before UPERC and appeal before APTEL.

3.5.13. As regard to proposed slab change, Licensees submitted below mentioned reasons:



- Existing Tariff Schedule is very complex to understand by consumers and complicated to implement by the Licensees.
- Proper implementation of Government Subsidy is also difficult due to large number of slabs.
- The difference in slabs of rural and urban consumers necessitates rationalization.
- Category rationalization will help IT system, commercial & finance wings to implement UPERC Tariff orders effectively.
- It will be easier to cross subsidize consumer categories as per Tariff Policy.
- Tariff rationalization exercise has been carried out under the reforms suggested by Ministry of Power, Govt. of India.

3.5.14. With regard to the Shri Awadhesh Kumar Verma's point on rejection of proposed tariff rationalization by Commission in Tariff Order dated 11.11.2020, licensees clarified that the proposed tariff rationalisation for Consumer category / sub-category / slab simplification was never rejected by Commission and the reason for not considering it in the Tariff Order dated 11.11.2020 was mentioned as below:

*"8.1.11. The State owned Discoms vide letter No. 427/RAU/ARR 2020-21 dated September 01, 2020 has submitted a tariff rationalisation for Consumer category / sub-category / slab simplification under uniform tariff for Discoms. However, after consideration of views / comments of various stakeholders, SAC Committee members and the Licensees, the Commission has decided to not approve the tariff category rationalisation as the said proposal was filed at very later stage of Tariff proceedings."*

3.5.15. The Licensee has submitted this proposal along with ARR petition and there is no delay in the submission as observed by Commission in above Tariff Order.

3.5.16. The Licensee submitted that the tariff rationalization proposal submitted to UPERC has not been prepared to increase tariff and gain additional revenue. Any tariff determined by Hon'ble Commission as per existing structure of consumer category or on the basis of rationalized consumer categories will be to meet approved revenue gap of ARR / True-Up and thus there will be no additional gain of revenue to the licensee from the change in tariff categories / respective tariff. Licensee have also tried to remove unmetered sub categories as far as possible and introduce a new slab for low-income consumers of LMV-2 category consuming up to 100 units considering the difficulties being faced due to Covid-19 pandemic. It should also be noticed that the units of LMV-6 have been changed to meet the future requirements



of voltage wise tariff determination which will ultimately benefit the industrial consumers. The rationalization of government consumer categories has been proposed which will not make any adverse impact on non- domestic / non - commercial consumers.

- 3.5.17. The necessity of consumer category rationalization can be understood with the status of other states number of categories / sub-categories mentioned in following table. Accordingly, the Licensee has proposed 53 Tariff categories as against 80 existing categories as mentioned below.
- 3.5.18. As regard to the objection of Shri Kaushal Kishore Mishra, Grameen Vidhut Upbhokta Kalyan Parishad, the petitioner welcomes the stakeholder's comment that they are not against the tariff rationalization and is also not against of appropriate tariff hike. Licensee wish to inform about the misconception of the stakeholder that the lower collection efficiency burdens the consumers. It is to inform the stakeholder that Commission approves the Retail Tariff considering 100% collection efficiency.
- 3.5.19. As regard to objection of CEEW, the Licensee submitted that UPERC has not mandated any holding of BPL card for consumers to qualify as Lifeline consumer. To ensure that the benefit of lower tariff is passed on to a large scale of low-income consumers the consumption norm has been fixed at 100 units per month and connected load of 1 kW. It further submitted that the existing tariff of life line consumers is 47.70% of ACoS (Tariff Order dated 11.11.2020) as against the suggested tariff of 50% of ACoS.
- 3.5.20. The Petitioner also submitted that it has not proposed any tariff for FY 2021-22 and has requested Commission to determine the tariff as per tariff rationalization / slab-simplification proposal.
- 3.5.21. As regard to objection of Prayas group, the Licensee submitted that it welcomes the appreciation of stakeholder in the matter of tariff rationalization. Further, the Licensee submitted that the stakeholder's suggestion removing the division between rural and urban consumers, the tariff rationalization proposal submitted by the Licensees is the first step to rationalize the consumer categories considering the recommendation of GOI and paying capacity of consumers.



### C. Commission's view

3.5.22. The Commission has taken note of the objections made by the stakeholders and comment of the Licensee. The Commission has dealt the issue in relevant Chapter of this Order.

### TARIFF WITH AND WITHOUT SUBSIDY

#### A. Comments/ Suggestions of the Public

3.5.23. Shri Avadhesh Kumar Verma, Chairman, UP Rajya Vidyut Upbhokta Parishad, submitted that the Petitioner should submit Tariff with and without Subsidy and similarly it should reflect in the Rate Schedule also.

#### B. Licensees response

3.5.24. As regard to stakeholder's observation that declaration of tariff rates with govt subsidy and without subsidy is the work of Licensees, it is to be submitted that following reason have been informed to Hon'ble Commission for non-submission of tariff proposal.

- Licensee have informed to Hon'ble Commission in the reply of first data gap that approved road map for reduction of cross-subsidies is required for preparation of Tariff without subsidy. This roadmap is to be approved by Hon'ble Commission as per Tariff Policy. The billing determinants for various slabs as per existing Tariff structure are also not available in the Tariff Order dated 11.11.2020, which forms the base data for computing slab wise revenue assessment. Hon'ble Commission is requested to provide these details.
- UPERC has mentioned in the Licensee petition admittance order that the State-owned Distribution Licensee should have taken the existing rates and the GoUP subsidy approved per unit for the subsidized categories and should have submitted the Rate Schedule accordingly. It is to be submitted that as existing rates are not without Government Subsidy, these cannot be entered in Rate Schedule. Further the units and GoUP subsidy approved per unit rates for the subsidized categories are not mentioned in Tariff Order dated 11.11.2020. Licensee does not have the authority to restructure subcategories of the slabs on the basis of rates of other sub-categories of the slabs.
- The revenue model also requires Break-up of 'Fixed Charge' and 'Energy Charge'. The component of Total Fixed Costs is about 65% and Variable Cost is about 35% of ARR for FY 2021-22. The recovery as per existing 'Fixed Charge'



tariff is about 20% only on existing tariff. UPERC approved methodology for the recovery of remaining component of Fixed Cost through 'Energy Charge' Tariff is not available in the existing UPERC Tariff order. As proposed tariff should also ensure recovery of total approved Fixed costs of ARR, the details of UPERC mechanism are required for revenue model.

**C. Commission's view**

3.5.25. The Commission has taken note of the objections made by the stakeholders and comment of the Licensee.

**FILING OF APPEAL BEFORE APTEL & REVIEW PETITION BEFORE UPERC**

**A. Comments/ Suggestions of the Public**

3.5.26. Shri Avadhesh Kumar Verma, Chairman, UP Rajya Viduyut Upphokta Parishad pointed out that the Petitioner has filed review petition against the order of FY 2019-20 and FY 2020-21 issued by the Commission. Along with the same the Petitioner has also challenged the order of the Commission in APTEL. The Petitioner in the ARR petition of FY 2021-22 has considered the parameters which was disallowed by the Commission in previous Tariff Orders, which should be disallowed completely.

**B. Licensees response**

3.5.27. As regard to Avadesh Kumar Verma, objection about challenging True-Up Orders, the Licensee submitted that it is not challenging the True-Up Orders published by Commission, but Licensee has claimed for the re-computation of Regulatory Assets, since the grant adjusted by Hon'ble Commission against the Regulatory Assets is also adjusted by GoUP against the additional subsidy to be received by the Licensees. This has resulted in double loss; on one side the regulatory assets were abolished and on other side the additional subsidy to be received by the Licensee got deducted from ARR. Commission has adjusted the grant of GoUP against the UDAY agreement as actually received by the Licensee. Now, in reference to GoUP letter No. 445/24-1-21/731(budget)/2020 dated 05.03.2021, this grant is no more available with Licensee. Therefore, the matter is related to actual receipt of this Loan/grant to Licensee not with the provisions of the UDAY agreement.

**C. Commission's view**

3.5.28. The Commission has taken note of the objections made by the stakeholders and comment of the Licensee. The Commission has dealt the issue in relevant Chapter of this Order.



### 3.6. CROSS SUBSIDY SURCHARGE

#### A. Comments/ Suggestions of the Public

3.6.1. Shri Jogendra Behera, Vice President, Indian Energy Exchange Limited (IEX) submitted that the Discoms have made some inadvertent errors as listed below:

- Error in working out the ABR based on category wise revenue & sales
- Error in considering the category wise value for D- Aggregate of transmission, distribution & wheeling charge
- Error in computing CSS as per the NTP 2016 formula

3.6.2. He further submitted a comparison between the claim of the Discoms and the CSS as per the Commission's approach in the past Order and further requested the Commission to consider the CSS computations as shown below.

Category	ABR (Rs./kw h)	Wt Avg PP Cost	ISTS Charges	laSTS	Distribution Charge	Wh. Charge	Aggregate 'D'	PGCIL (%)	STU (%)	Wheeling (%)	Carrying Cost	CSS (A)	20%* ABR (B)	Min (A,B)
<b>AS PER UPPCL CLAIM</b>														
HT-1: 11 kV	9.79	4.60	0.56	0.24	0.48	1.06	2.33	2.94%	3.33%	8.00%	0.00	3.24	1.96	1.96
HT-1: >11 kV	12.97	4.60	0.56	0.24	0.48	0.66	1.94	2.94%	3.33%	2.10%	0.00	6.55	2.59	2.59
HT-2: 11 kV	8.10	4.60	0.56	0.24	0.48	1.06	2.33	2.94%	3.33%	8.00%	0.00	1.55	1.62	1.55
HT-2: <66 kV	7.63	4.60	0.56	0.24	0.48	0.66	1.94	2.94%	3.33%	2.10%	0.00	1.21	1.53	1.21
HT-2: <132 kV	7.36	4.60	0.56	0.24	0.48	0.66	1.94	2.94%	3.33%	0.00%	0.00	0.84	1.47	0.84
HT-2: >132 kV	7.36	4.60	0.56	0.24	0.48	0.66	1.94	2.94%	3.33%	0.00%	0.00	0.84	1.47	0.84



*Approval of ARR and Tariff for State Discoms for FY 2021-22, APR of FY 2020-21 and True-up of FY 2019-20*

Category	ABR (Rs./kwh)	Wt Avg PP Cost	ISTS Charges	laSTS	Distribution Charge	Wh. Charge	Aggregate 'D'	PGCIL (%)	STU (%)	Wheeling (%)	Carrying Cost	CSS (A)	20%* ABR (B)	Min (A,B)
<b>AS PER UPERC APPROACH (IEX Submission)</b>														
HT-1: 11 kV	9.79	4.60	0.56	0.24	0.48	1.06	2.33	2.94%	3.33%	8.00%	0.00	2.13	1.96	<b>1.96</b>
HT-1: >11 kV	12.97	4.60	0.56	0.24	0.48	0.66	1.94	2.94%	3.33%	2.10%	0.00	6.03	2.59	<b>2.59</b>
HT-2: 11 kV	8.10	4.60	0.56	0.24	0.48	1.06	2.33	2.94%	3.33%	8.00%	0.00	0.44	1.62	<b>0.44</b>
HT-2: <66 kV	7.63	4.60	0.56	0.24	0.48	0.66	1.94	2.94%	3.33%	2.10%	0.00	0.69	1.53	<b>0.69</b>
HT-2: <132 kV	7.46	4.60	0.56	0.24	0.48	0.66	1.94	2.94%	3.33%	0.00%	0.00	0.62	1.49	<b>0.62</b>
HT-2: >132 kV	6.57	4.60	0.56	0.24	0.00	0.00	0.80	2.94%	3.33%	0.00%	0.00	0.87	1.31	<b>0.87</b>

3.6.3. He further submitted that UP Discoms have proposed levy of significantly high CSS. He submitted that due to lockdown, the industrial sales are expected to be low, therefore the Commission is requested to consider a lower ABR while computing CSS as a disproportionately high ABR has a direct bearing on the CSS. He also submitted that ABR proposed by Discoms is all the more unreasonable considering that fact that these are not the Business-as-Usual circumstances either for Discoms or for the industries. Further, it is submitted that an increase in CSS will have severe repercussions on the operations of industries which optimize power purchase costs through open access when the economics for the same prevail. Therefore, it is submitted that in order to give thrust to the industries in these times of distress, it is imperative that the Commission extends waivers in OA charges and maintains the status - quo on CSS similar to the manner other SERCs have done in past. Also, it is added that Commission may work out differential CSS for the Discoms based on the BST values submitted by them as this would result in aligning the charges with the performance of Discoms and avoid cross subsidisation of one Discom with another.

3.6.4. The above observations were also made by M/s Bansal High Carbons (P) Ltd., M/s Bansal Wire Industries Limited, M/s Ved Cellulose Ltd., M/s Shamli Steels Pvt. Ltd, M/s Sarvottam Rolling Mills (P) Ltd.



Further, they have also given suggestions for calculation of rebate & penalty stating that in monthly electricity bills the consumer either gets rebate for payment before due date or they are penalised for late payment even if payment is late by a single day. Hence, there should be a process in which consumer gets 4-5 days for normal billing payment. They further submitted that for the calculation of maximum demand, the maximum demand should be considered after deduction of open access energy at particular given slot of 15 minutes. Further, they suggested that there should be leverage on penalty applicability if consumer exceeds its maximum demand by 10% of contract demand. The consumer should be penalised only if it has crossed its contract demand second time for consecutive months. They further submitted that the consumers should get allotment of open access quantum equal to its contracted demand with the Discoms

- 3.6.5. Shri Ankit Kumar, IERS submitted that the Discom in their Petition for determination of Tariff for current financial year have proposed the increased rates of cross subsidy surcharges for the Open Access consumers which were zero till financial year 2019. He submitted that any increase in CSS will hamper the growth of industries and will not create any prospects for creating employment. During the current pandemic condition, many industries have to face shutdown due to lockdown, these organizations will face crisis/crunch if CSS is increased. This lockdown has affected the industries and commercial consumers consecutively for two years that is 2020 and 2021 and it is very important that such industrial and commercial consumers must be provided with relaxation in the amount of cross subsidy surcharges imposed on them so that they can nourish the economic health of their industries and commercial occupancies and contribute into nations growth. Moreover, this large database of industrial consumers also includes various iron and steel industries of UP which have contributed in enhancing the oxygen fulfilment of the state and whole country which in turn helped the country's efforts in fighting the pandemic Therefore, any decrement in amount of cross subsidy surcharge will help to recognize the efforts of the industrial consumers in fighting the pandemic.
- 3.6.6. Further, he submitted that it is also mentioned in point 8.3.2 of National Tariff Policy, 2016 read with point 5.5.3 of National Electricity Policy, 2005, that appropriate Commission would notify roadmap such that tariffs are brought within 20% of the average cost of supply. Such road map must be based on the approach of gradual reduction in cross subsidy. Hence, he requested the Commission that present proposition of DISCOMs to increase the CSS shall not be accepted as it is against the very aim of the above-mentioned policies and will lay heavy financial



burden on the industrial consumers as well as cause great amount of hindrance to the industrial consumers opting for open access. Moreover, it is kindly suggested that Commission shall not change the rates of cross subsidy surcharge as per present proposition of the DISCOMs so that the aim of National Tariff Policy 2016 and National Electricity Policy 2005 can be secured and no hindrance is caused to the industrial consumers opting for open access.

- 3.6.7. Shri P.K Maskara, Chairman, The Mahabir Jute Mills submitted that in the ARR of Discom, under the cross-subsidy formula, 'L' Commercial loss is also considered and T for tariff payable figure is incorrect. He submitted that it shall be only tariff rate as mentioned in the Tariff Order. He further submitted that ABR proposed by the DISCOM has no base and is totally wrong, on the ground that when tariff as approved by the Commission is same, then how it changes. ABR is use for the calculation of CSS. The formula is provided for calculation where ABR is denoted by "T", explained as the Tariff Rate payable by the relevant category of consumers. He further submitted that the Tariff Rate is clearly provided by Commission in the Tariff Order, and has not changed in last few years. He further submitted that they are paying fixed charges, which is Demand charge separately in full as per Tariff Order. So, it is duplicate addition, which is not justified. Hence, The Commission is requested to insert the correct figure of T in the table as it has full effect in the calculation of CSS.
- 3.6.8. He further submitted that a proposal of Cross Subsidy [CSS] on Open Access user at the rate of 1.56, is not justified when compared at par with previously NIL charges. The sudden increase from NIL to 1.56 is in direct contradiction to Commission's long-term objective to keep minimal CSS. Such action creates uncertainty in minds of potential investor leading to failure to state objective of positive industrialization. Thus, it is requested to reconsider and maintained CSS as previous year. He further submitted that the format of Enclosure ST-II NEW, on the portal of UPSLDC is different, to the format Enclosure ST-II approved by the Commission. SLDC has created online portal, and modified the Enclosure ST-II, instead of 8 queries they have made 20 queries designed by themselves. Thus, it is requested from the Commission to give them an opportunity to explain the difficulties in this, before Commission allow them to modify it. This will cause harassment to the consumer as to get all papers renewed in every 3-month is impractical.
- 3.6.9. Shri Yogesh Agarwal, Rimjhim Ispat Limited submitted that the Commission is aware that the Tariff in the State of Uttar Pradesh is already on the higher side and further increase in the Tariff will put the industries into a standstill position. There are



already very few industries in the State and further hike in the Tariff or any other charges such Cross Subsidy surcharge will result in fully closure of operation of the Industries in the State. The Government of India is running different incentives schemes to promote the industries. Also, since electricity is like a raw material to the Steel company it will be very difficult to operate if there will be further increase in the Tariff for FY 2021-22.

3.6.10. He submitted that the CSS should be made to zero because due to the second wave of Covid as the industry has been severely affected. It is pertinent to note that the revenue gained from CSS by DVVNL is only Rs.6 Crores whereas the total revenue is Rs. 15,000 Crores. So, it can be seen that making it to zero will have almost no impact on the Discom at all (For 5 consolidated the CSS collected is Rs.8.5 Crores whereas the total revenue is Rs 55,000 Crores). He further submitted that if, however the CSS has to be retained due to compulsion, then the ABR calculation may be taken without the fixed charges. He further submitted that a petition on the same matter is already pending with Commission wherein the details have already been submitted before the Commission.

3.6.11. Shri Amarjit Singh, Shree Cements Ltd. submitted that the Licensee has proposed a cross subsidy surcharge of Rs 1.56/ kWh for HV-2 (Supply above 66 KV & above 132 KV) consumers. It is submitted that the State of Uttar Pradesh is in a process of opening up the Electricity sector and has only recently opened up the Open Access facility to the consumers to make them available with uninterrupted power at a reasonable price. He further submitted that this sudden action of PVVNL to introduce Cross Subsidy Surcharge would have detrimental effect on open access facility and deprive open access consumers to purchase cheap and reliable power. Furthermore, it is submitted that no data has been furnished by the Licensee for exact amount of cross-subsidy that would actually be utilized for subsidized category. He further submitted that subsidy must be recovered or allowed from the subsidizing consumers which is to be passed on to the deprived section of society. Moreover, no data has been furnished by PVVNL with respect to the subsidy that would be passed on to the deprived section. Further, he submitted that sudden imposing of such a heavy surcharge will discourage the open access in the state of Uttar Pradesh. Further, he submitted that if Commission feels the need to impose such surcharge, then it shall be in an incremental/ graduated manner so that consumer would not lose interest in availing power through open access.

3.6.12. Shri K L Aggarwal, UP Industrial Vidyut Upbhokta Parishad (UPIVUP) submitted that since CSS @ Rs, 1.56 /Kwh, as decided by Commission for the existing tariff F.Y.



2020-21 has been challenged, and stands pending vide petition No. 1668 of 2021 & 1674 of 2021 before Commission & vide order dt 06.05.2021 in both said petitions, Commission has held applicability of CSS in abeyance to both the petitioners till further order of the Commission. In such situation and in the interest of fairness of justice, it shall be more appropriate to keep fixation of any amount of CSS pending in the proposed Tariff for F.Y.2021-22 by the Commission till the final order is issued in above pending petition No. 1668 & 1674 of 2021. Commission is requested to take necessary notice in regard to the matter.

## **B. Licensees response**

- 3.6.13. As regards to the objection of IEX, the Licensee submitted that the Stakeholder is not legally authorized to decide on the interpretation of the provisions of Tariff Policy / Regulations. The tariff is approved to meet the revenue gap. Any change in the tariff of any particular category/sub-category/slab will impact the tariff of other consumer category/sub-category/slab to meet the revenue gap. The methodology adopted in UPERC Tariff Order in FY 2020-21 was as per Tariff policy issued by the Central Government. Further Cross-Subsidy Surcharge (CSS) and wheeling charges for Open Access consumers is in accordance with- the methodology specified in Clause 49 of the UPERC MYT (Transmission and Distribution) Regulations, 2019.
- 3.6.14. As regards to the objection of Shri Ankit Kumar, IERS, Shri Yogesh Agarwal, Rimjhim Ispat Limited, and Shri K L Aggarwal, the Petitioner submitted that the applicability of Cross subsidy surcharge is in accordance with the Regulation 49 of the UPERC (Multi Year Tariff for Distribution and Transmission) Regulations, 2019 which states as under:

### *“49. Cross-Subsidy Surcharge*

*49.1 A consumer situated within the area of supply of a Distribution Licensee availing Open Access as per the provisions of UPERC Open Access Regulations, as amended from time to time, shall be liable to pay Cross-Subsidy Surcharge as determined by the Commission. Such Cross-Subsidy Surcharge will be determined based on the provisions of Tariff Policy 2016, issued by the Government of India and its subsequent notified revisions<sup>1</sup> amendments<sup>1</sup> addendums.”*

The above Regulation make it explicit for an Open Access consumer to pay CSS as determined by the Commission which shall be as per the relevant provisions of the National Tariff Policy 2016.



The Petitioner further submitted that its claim of CSS is in accordance with the UPERC Open Access Regulations 2019 (and subsequent amendments if any) and UPERC (Multi Year Tariff for Distribution and Transmission) Regulations, 2019. Further, the necessity of levying CSS to the Open Access consumers is contained in the Clause 8.5 of the National Tariff Policy 2016 which is stated as below.

*“.....A consumer who is permitted open access will have to make payment to the generator, the transmission licensee whose transmission systems are used, distribution utility for the wheeling charges and, in addition, the cross-subsidy surcharge.....”*

3.6.15. As regards to the objections of P K Maskara, The Mahabir Jute Mills, the Petitioner submitted that value T is computed as per the Clause 8.5.1 of the National Tariff Policy 2016 which states as follows:

$$S = T - [C/(1-L/100) + D + R]$$

Where,

S is the surcharge

T is the tariff payable by the relevant category of consumers, including reflecting the Renewable Purchase Obligation

C is the per unit weighted average cost of power purchase by the Licensee, including meeting the Renewable Purchase Obligation

D is the aggregate of transmission, distribution and wheeling charge applicable to the relevant voltage level

L is the aggregate of transmission, distribution and commercial losses, expressed as a percentage applicable to the relevant voltage level; AND

R is the per unit cost of carrying regulatory assets.”

As per the highlighted section of the above quoted para, it is clear that since the Tariff approved by the Commission comprises Fixed as well as Energy Charges, the Licensee has computed the value of T as per applicability of FC and EC pertaining to that category of consumer. This methodology is consistent with other State Commissions as well. The stakeholder’s contention is untrue in this regard.

As regards to the objection related to format ST-11, the Licensee submitted that it has been referred to UP-SLDC for examinations and further actions and stakeholder may directly approach to SLDC.



3.6.16. As regards to the objections of Shree Cement Limited the Licensee submitted that the CSS proposed to be levied on the consumers is in line with the National Tariff Policy, 2016. The levy of Cross Subsidy Surcharge is in accordance with the provisions of Section 42 of the Electricity Act, 2003 and Tariff policy issued by the Central Government. Further CSS for Open Access consumers is in accordance with the methodology specified in Clause 49 of the UPERC Multi Year Tariff Distribution and Transmission Regulations, 2019. The revenue earned from CSS meets the revenue gap of the Licensee.

### C. Commission's view

3.6.17. The Commission has taken note of the objections/suggestions made by the stakeholders and comment of the Licensee. The Commission has analysed the same in relevant chapters of the Order.

## 3.7. OPERATION AND MAINTENANCE COST

### A. Comments/ Suggestions of the Public

3.7.1. Shri Prateek Aggarwal of CEEW submitted that comparing the approved and trued-up figures of O&M expenses across years highlights quite a divergence for all the discoms in below table. During FY 2020-21, the variation has been more than 60% for some of the discoms. Though the Commission took cognisance of the variation in the Tariff Orders for FY 2019-20 and FY 2020-21 and asked for an explanation from the licensees, no description has been given in the current filing. It is requested that the Commission ask the discoms to furnish reasons for these variations.

### Considerable variation in the approved and actual O&M expenses of the discoms

Approved and Trued-up/Claimed/Revised estimates figures are in Rs. Crore

Financial year	MVVNL			PVVNL			PuVVNL			DVVNL			KESCO		
	Approved in tariff order	Trued-up/ Claimed/ Revised estimates	Variation (in %)	Approved in tariff order	Trued-up/ Claimed/ Revised estimates	Variation (in %)	Approved in tariff order	Trued-up/ Claimed/ Revised estimates	Variation (in %)	Approved in tariff order	Trued-up/ Claimed/ Revised estimates	Variation (in %)	Approved in tariff order	Trued-up/ Claimed/ Revised estimates	Variation (in %)
2017-18	1886	1160	38	1480	1022	31	1880	1280	32	1307	947	28	272	185	32
2018-19	2693	1372	49	2086	1097	47	2731	1574	42	1619	1109	31	282	211	25
2019-20	2766	1777	36	1987	1814	9	2776	2081	25	1837	1608	12	315	350	-11
2020-21 (APR)	1186	1951	-65	1061	2145	-102	1424	2473	-74	995	1742	-75	238	388	-63

3.7.2. He further submitted that under A&G expense, the discoms have claimed a much higher expenditure in the petitions filed than approved under the A&G category. For PuVVNL, DVVNL, and KESCO, the variation is nearly 3-4 times. A year-on-year



comparison given tables shows that A&G expenses exponentially grew for licensees in the range of 100-519% between FY 2018-19 and FY 2019-20. However, the licensees have not furnished factors responsible for the same. It is submitted that the Commission seek clarification from the discoms for such increase in the A&G expenditure in FY 2019-20 and FY 2020-21.

3.7.3. Further he submitted that in the absence of valid explanations by the licensees on the variation between trued-up and actual figures on O&M expenditure and its components, the Commission is requested to lower the normative and the actual expense. Also, the Commission is requested to disallow sharing of gains from O&M expenses as efficiency improvement against the claim made by the discoms for FY 2019-20. This will also be in line with the practice adopted by the Commission in the previous tariff orders.

3.7.4. Shri Yogesh Agarwal, Rimjhim Ispat Limited submitted that the Commission is aware that DVVNL operating cost is already very high due its inefficiencies in its operations and such inefficiencies cannot be passed on to consumers.

#### **B. Licensees response**

3.7.5. The Licensee did not submit any reply.

#### **C. Commission's view**

3.7.6. The Commission has taken note of the objections/suggestions made by the stakeholders. The Commission has dealt the issue in relevant chapters of this Order.

### **3.8. EMPLOYEE EXPENSE**

#### **A. Comments/ Suggestions of the Public**

3.8.1. Shri Rama Shanker Awasthi submitted that it needs to be brought to the attention of this Commission that PVVNL has considered even distribution transformers as substation to avail additional employee expenses. The norms are considered as Rs. 40,000/- per substation. It appears that PVVNL has employed this method to increase number of distribution transformers in village electrification which is generally 25kVA to 100 kVA. It is incumbent on this Commission to arrest the Discom, i.e., PVVNL's from resorting to such methods and tactics and any excess employee expenses be disallowed.

He further submitted that the Discom has provided all the works of capitalisation on turn-key basis and has also included the cost of project management



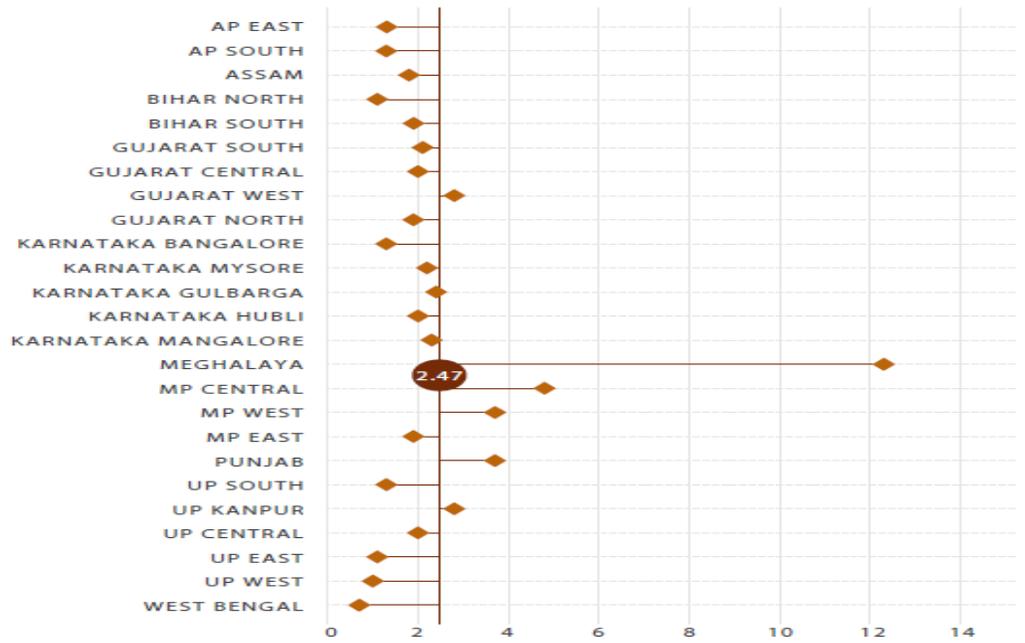
consultancy. Therefore, there is no reason that almost 9% of employee cost can be capitalised. The Discom should explain the employee wise details and their number of hours used for capitalisation as is explained by NPCL in its petition. The discom should also provide a lucrative VRS scheme to employees who have completed their 20 years if such employee desire to pursue other career options. It is essential because lots of activity are going to be automatic with IT and SCADA implementation. Further, UPPCL / PVVNL are carrying out many activities on Opex Mode where some of the employees must have become surplus.

## **B. Licensees response**

- 3.8.2. As regard to Rama Shanker Awasthi's objection, the Licensee submitted that the norms referred by the stakeholder are approved norms by UPERC and based on the computation in the MYT Order dated 30.11.2017 and Tariff order for FY 2019-20 dated 03.09.2019 issued under MYT Regulation, 2014. The norm will change in case the parameters of this computation is modified. However, this will not make any impact on the overall evaluation of the Employee Expenses.

As regard to objection on Employee Expense, the Licensee submitted that the Employee expenses capitalisation is claimed based on normative basis. Further the Licensee would like to refer the report "Benchmarking Distribution Utilities" dated October 2020 published by Niti Aayog wherein the national average of employees per 1000 consumers engaged in distribution utilities comes out to be 2.47. Whereas for the Licensees of Uttar Pradesh, this ratio is less than 1 for PVVNL and PuVVNL, approx. 1 for DVVNL, and around 2 for KESCO as represented below. This suggest that employees available with UPPCL and its Discom are less than the national average. To overcome this, UPPCL and Discom are adopting Scada / IT systems which will further require additional skilled manpower to operate such systems.

Figure 4-8: Number of employees per 1,000 customers, by distribution utility



### C. Commission's view

3.8.3. The Commission has taken note of the objections/ suggestions made by the stakeholders and the submissions made by the Licensee in this regard. The Commission has analysed the employee expenses in relevant chapters of the Order.

## 3.9. DISTRIBUTION LOSS

### A. Comments/ Suggestions of the Public

3.9.1. Shri Rama Shanker Awasthi submitted that the Commission is requested to allow only normative distribution losses of 11.80%. The sales are required to be recomputed for unmetered consumers. For LMV-5 consumers, load per consumer is increased illegally which is to be allowed as per load approved by the Commission in earlier orders. He further submitted that the Hon'ble UERC is reviewing monthly movement of IDF / RDF / ADF cases of consumers which has helped UPCL to reduce its distribution losses. However, PVVNL or any other discom of Uttar Pradesh has not provided the details of monthly movement of IDF/RDF/ADF cases, energy mix statement of every month. The Discoms should also provide monthly details on each division basis number of consumers along with their addresses who cannot be traced. Further, he submitted that the consumer number and their corresponding arrears if not paid for more than 3 years continuously should also be provided to



Consumers on monthly basis as these consumers are to be considered for bad debt and write-off.

- 3.9.2. Shri Avadhesh Kumar Verma, Chairman, UP Rajya Vidyut Upbhokta Parishad submitted that that in the Business Plan, the Commission had approved 11.08% distribution losses for the year 2021-22, then on what basis the Discoms have proposed 16.64% distribution losses in the annual revenue requirement (ARR)?
- 3.9.3. Shri Yogesh Agarwal, Rimjhim Ispat Limited submitted that DVVNL distribution losses are increasing on the account of pilferage and DVVNL failed to achieve the targets set by Commission. It is requested to the Commission to direct DVVNL to improve performance with stringent targets. He further submitted that the distribution losses claimed for FY 2021-22 by the licensees are bogus and should be taken as approved by the Commission in its Business Plan Order.
- 3.9.4. Shri Vishnu Bhagwan Agarwal, Chairman, Associated Chambers of Commerce & Industries of UP and Shri Manish Aggarwal, President, National Chamber of Industries & Commerce of UP submitted that computation of the line losses should be done separately for urban and rural category.
- 3.9.5. Shri Satish Maheshwari, Uttar Pradesh Udyog Vyapar Pratinidhi Mandal submitted that even when the line loss have reduced, consumers have not received any benefit from it.
- 3.9.6. Shri Shivakant Tripathi, Uttar Pradesh Jan Kalyan Samiti, Lucknow submitted the licensee should reduce their line losses as the claimed losses are on the higher side.
- 3.9.7. Shri Arun Mishra submitted that the licensee admitted that there is line loss of 18% against the approved line loss of 11.36%. The main reason of this line loss is enumerated as Pilferage of electricity. He further submitted that all pilferage of electricity is committed at the patronage of the Licensee. Further to substantiate his argument, he submitted that Kalyandevi Division can be taken as a sample test. Further, he submitted that it is very common practice of Licensee that in such situation, they issue notice after lapse of 10-15 days and during this period they try to settle the situation unethically. Further, he submitted that in situations where the Licensee and the accused of the theft could not collude, documents (postal receipt) are forged and then settle the issue. In view of the above, he further submitted that no line losses should be allowed to be appropriated other than the approved 11.36%.



## **B. Licensees response**

- 3.9.8. As regard to the objection of Rama Shanker Awasthi's, the Licensee submitted that the distribution loss considered for FY 2019-20 is as per the norms approved by Commission. The information desired by petitioner is not as per the UPERC provisions.
- 3.9.9. As regards to the objection on considering different distribution losses from the losses as approved in Business plan, it is submitted that due to change in scenario of Covid-19 pandemic the assumptions and period considered for Business Plan data have to be changed for future projections. Accordingly, APR data has been submitted considering the data up to December 2020 so that impact of Covid pandemic is visible in the data. It is essential that APR data is also considered in the projections of ARR data. The data for subsequent years may again change based on the situation of Covid pandemic and it will not be feasible to use the data of FY 2019-20 for tariff determination of FY 2024-25. Further, the variations in yearly data of consumer number, load and sales should be accounted for adopting realistic data for tariff determination as Fuel charge computation is also to be submitted to Commission quarterly in each year and the actual data submitted in Fuel charge computation cannot be ignored in the ARR submissions of subsequent years. Licensee has submitted IT schemes for approval of Hon'ble Commission which will change the scenario and approved Business Plan data. Therefore, it is essential to adopt the updated data of respective years.
- 3.9.10. Further the Licensee submitted that due to implementation of Saubhagya scheme, there has been a significant increase in connections to rural consumers, which resulted in inversed LT: HT ratio for the Discoms thereby restricting the Discoms in reducing their distribution losses to the targeted level. Provided that more than 85% of the consumers of the Licensees are domestic and further new connections are added in rural areas under Saubhagya Scheme where distribution losses are significantly higher as compared to urban areas, hence achievement of approved distribution loss trajectory won't be possible for the Discoms in given timeline.
- 3.9.11. The Licensee further submitted that the primary objective of UDAY scheme was to reduce AT&C losses which includes distribution loss as well as collection efficiency. While reduction in AT&C losses may not be possible to the extent mentioned in UDAY scheme due to factors like improvement in collection efficiency, reduction in distribution losses is not feasible to that extent. It is also submitted that while the Commission has approved the Distribution losses in accordance with the trajectory



as per the UDAY MoU, the Commission has not adopted the collection efficiency as per the UDAY agreement and has been issuing Tariff Orders on 100% collection efficiency, thereby partially adopting the UDAY agreement. In view of the above, the approved trajectory of distribution losses in Business Plan order dated 27.10.2020 is neither achievable nor based on the adoption of UDAY agreement in totality. The financial impact of the difference of collection efficiency (88.5% to 96.7%) of UDAY agreement and 100% collection efficiency as approved by Commission in Tariff Order is approximately Rs. 13,800 Cr. for the period of FY 2015-16 to FY 2019-20. The difference on account of actual collection efficiency and targeted collection efficiency under UDAY agreement is much more than this amount. Even the MYT Regulations, 2014 provision related to sharing of difference of AT&C loss, was also not allowed by Commission in the True-Up Orders despite Licensee request. This amount was admissible to Licensees as per the UPERC MYT Regulations but deprived due to the methodology adopted by Commission in the true up Orders which was different from its own regulations. Therefore, considering only selected parameters of UDAY scheme has caused huge financial loss to Discom. Therefore, Commission was also requested to delink the distribution losses for new control period from the normative losses approved for previous control period. This request of Licensee is supported by the fact that MYT Regulations of Commission are also changed at the start of new control period on the change of facts and circumstances experienced during the previous control period. Many provisions related to financial impact have been changed by Commission in MYT Regulation 2019 as compared to previous MYT Regulation. Accordingly, the changed facts and circumstances related to distribution loss trajectory should be considered. While the Licensee has been putting up all concerted efforts to reduce the Distribution losses and commercial losses, the targets are impossible to achieve due to reasons highlighted above. In this regard, non-achievement of loss levels as targeted in the UDAY Scheme has been acknowledged by MoP, GoI and hence has sought revised action plan from the States. Further, there are also instances where relaxed distribution loss levels have been approved as against UDAY targets like in case of Assam, wherein the Assam State Commission has approved the targets in contravention to the UDAY MoU.

- 3.9.12. As regard to the objection of Shri Vishnu Bhagwan Agarwal, Chairman, Associated Chambers of Commerce & Industries of UP and Shri Manish Aggarwal, President, National Chamber of Industries & Commerce of UP with respect to separate line losses consideration for rural and urban category is concerned, the Licensees



submitted that there are provisions for cross-subsidy in Tariff Policy and Commission finalizes the revenue gap of the Licensees on the basis of overall distribution loss of the Licensee.

### **C. Commission's view**

3.9.13. The Commission has taken note of the objections/suggestions made by the stakeholders and the Licensee. The Commission has dealt the issue in relevant chapters of this Order.

## **3.10. POWER PURCHASE COST AND PROCUREMENT**

### **A. Comments/ Suggestions of the Public**

3.10.1. Shri Avadhesh Kumar Verma, Chairman, UP Rajya Vidyut Upbhokta Parishad submitted that many states are taking measures to provide power to their consumers at low rates and for that they are reviewing their power purchase contract and surrendering their expensive power but unlike Punjab, Haryana, Meghalaya Madhya Pradesh, Delhi and many more, Uttar Pradesh has not been able to surrender the expensive electricity even today, which is a matter of concern. He submits that after a study it was found that Power Corporation can surrender around 1600 MW electricity out of which 800 MW is of NTPC and rest 800 MW is of Captive power plants and after surrendering this power it can be procured from power exchanges and other means, which will benefit the public and departments of the state. He further submitted that Government should take a decision on this in the public interest.

3.10.2. Shri Jogendra Behera, Vice President, Indian Energy Exchange Limited (IEX) submitted that the Discoms have envisaged the need to procure short term power during FY 2021-22 only during period of shortfalls, and it is suggested that they shall not miss upon the opportunity to replace their costly power and optimise their costs considering the excessively high liquidity and much lower rates being discovered in the Power Exchanges. It is then submitted that several Discoms have already taken advantage of conducive market conditions and have been successful in reducing their power purchase costs during the lockdown period by a judicious mix of procurement through Power Exchanges Market. Therefore, he submitted that the Commission may consider evolving appropriate framework by which the STOA/Power Exchange rates can be considered as a part of the merit order of Discom. This will not cause any loss to the Discoms since the bids are cleared on the Power Exchange only when the prices are less than quoted price and in case if bids



are not cleared at the desired rates, they can always call upon the despatches from their tied-up stations under long term PPA. This will be a win-win situation for the Discom as well as the consumers of the state.

He further submitted that the CERC on 27.08.2020 approved the Green-Term Ahead Market (GTAM) wherein Solar and Non-Solar RE is being transacted in four contracts namely intra-day, Day Ahead contingency, Daily and Weekly. Introduction of GTAM has opened avenues for the development of organized renewable energy market to provide an alternate market-based route to the RE generators to sell their green power and to the buyers to fulfil their RPO at competitive price with flexibility of entry and exit in the market. It is a market-based mechanism where RE surplus and RE deficit states trade RE power and balance their RPO targets. Therefore, The Commission is requested to kindly consider their views expressed in the above paragraphs while finalizing the present Petitions of UP Discoms.

- 3.10.3. Shri Prateek Aggarwal of CEEW submitted that the Commission should ask UPPCL to elaborate on the inclusion of the Late Payment Surcharge in the power purchase expenditure as no such amount has been specified in the true-up for FY 2019-20; this is different from the previous year. Also, such costs must be disallowed. He submitted that while estimating the power purchase quantum for FY 2021-22 and the fixed cost component, a realistic view of the potential growth in retail sales must be taken, considering the impact of the second wave of the Covid-19. He also submitted that an increase of Rs. 0.12/kWh in the Average Power Purchase Cost projected for FY 2021-22 is due to payments to stranded capacity. Therefore, the Commission must seek details from the Discoms on plants declared as stranded assets and carefully monitor the utilisation of the existing fleet before approving further capacity addition. Further, he submitted that the DBST mechanism promotes high cross-subsidisation among Discoms and disincentivises improvements in operational performance. In the medium term, the Commission should move towards actual allocation of power purchase agreements among Discoms and allow the power purchase cost for each Discom to reflect the expenses incurred by them.
- 3.10.4. Shri K.L. Aggarwal, Chairman, Industrial Development Forum, Muzaffarnagar, submitted that against an ACoS of Rs. 7.24 in true up F.Y. 2019-20, the Licensee has manipulated the same to as Rs. 8.32 & 8.62 for F.Y. 2020-21 & 2021-22 i.e., increase by Rs. 1.08 & 1.38 respectively are inflated & as such indigestible.



- 3.10.5. Shri Rama Shanker Awasthi submitted that the Discom / UPPCL should be allowed to sell power at exchange rates to NPCL and consumers which will save PGCIL transmission charges. Presently, UPPCL / Discom are selling power to energy exchange at many times, similarly, NPCL / Consumers purchasing power, probably in same durations. The Commission should direct both PVVNL / UPPCL and NPCL to carry out power transactions at exchange rates. For this they should be allowed to carry bilateral transactions but on power exchange rates.
- 3.10.6. He then submitted that the UPPCL / PVVNL is in surplus of power contracts whereas NPCL is short of power. It is suggested that in the interest of all consumers of the State, Power from UPPCL/ PVVNL is provided to NPCL. The Commission had the practice of determine of power purchase cost for NPCL on the basis of Revenue – Expenses (except Power Purchase Cost). The same methodology should be adopted for power supply by UPPCL / PVVNL till August 2023.
- 3.10.7. Further, he submitted about the dues of Rs. 19.64 Cr of NPCL against additional Power Supply. He submitted that it appears from the records of the previous different ARR filings before the Commission, that are a matter of public record, that NPCL is benefitting from the orders of this Commission which have come about to be passed on the basis of claims of NPCL that the said amount of Rs. 19.64 Crores was paid in excess to PVVNL / UPPCL in FY 2008-09. NPCL has stated that it was to be refunded by PVVNL/ UPPCL and that dispute is pending before the Supreme Court of India. He submitted that it is important to delve into this issue in greater detail by this Commission, which has been done in the succeeding paragraphs. He submitted that the Commission, vide its Order dated 01.09.2008 in Petition no 451 of 2007 & 497 of 2007 for FY 2007-08 & 2008-09 for True up of FY 2006-07, held as follows:

*“3.16.4 The surplus of Rs. 19.64 Crores available after truing up the expenses for FY 2006-07 is proposed to be carried forward to the next year.”*

- 3.10.8. He submitted that it appears from the orders of the Commission that the major portion of surplus of Rs. 19.64 Cr is due to the difference in power purchase expenses between actual / audited and trued up figures for FY 2006-07, which are Rs.117.21 Cr and Rs. 98.83 Cr respectively i.e., Rs. 18.38 Cr. The issue of this difference of claimed power purchase expenses and true up of power purchase expense is associated with the supply of 45 MW of power by UPPCL / PVVNL for many years at the rate determined by the Commission and then an additional 10 MW power supply in FY 2006-07 at marginal cost as agreed between NPCL &



UPPCL/PVVNL. The Commission had been determining the tariff to be payable for 45 MW power by NPCL to UPPCL/PVVNL. He submitted that NPCL procured power of 10 MW between 10.05.2006 and 31.01.2007 from UPPCL/PVVNL amounting to 36.54 MU. NPCL had stated to have received such power at the rate of Rs. 2.8714/ kWh from UPPCL, which brought the total cost of the said power to be Rs. 10.49 Crores. Notably, this (Rs. 2.8714 / kWh) was not the rate of power that was decided by the Commission. In fact, the provisional BST rate decided by the Commission was Rs. 2.7042/ kWh vide its order dated 26.06.2007. Taking Rs. 2.7042 /kWh as the rate, the total cost of the 10 MW power comes out be around Rs. 10 Crores, which has admittedly been paid by NPCL to UPPCL/PVVNL. However, the tariff for the supply of said power was considered to be Rs. 2.41/ kWh by the Commission vide its True-up for FY 2006-07 order dated 01.09.2008, which was equivalent to the Bulk Supply Tariff at the time and, as such, the total cost of power in respect of 10 MW supply from UPPCL/PVVNL came down to Rs. 8.81 Crores. Therefore, the dispute arose between UPPCL/PVVNL and NPCL with respect of the difference between Rs. 8.81 Crores, as allowed by the Commission, and Rs. 10.49 Crores, as provisioned by NPCL. Subsequently, UPPCL/PVVNL approached the Hon'ble High Court of Judicature at Allahabad, Lucknow Bench, to seek higher power supply price for supply of 10 MW power. The High Court directed NPCL to pay a lumpsum of Rs. 10 Crores in respect of the 10 MW power procured from UPPCL/PVVNL. Further, the Commission acknowledged the fact that NPCL had paid Rs. 10 Cr as lumpsum amount for additional 10 MW power in compliance to the orders of High Court, Allahabad. Pending settlement of dispute on 10 MW power, the Commission kept the rates for 10 MW at provisional rates.

3.10.9. Accordingly, it is submitted that the Commission, vide its Order dated 01.09.2008 in Petition Nos. 451 of 2007 and 497 of 2007, directed that the surplus in the net revenue gap of NPCL, amounting to Rs. 19.64 Crores, which was arrived at after the True-up for FY 2006-07 be carried forward to the next FY, which was subsequently approved by the Hon'ble APTEL as well vide its judgment dated 15.12.2010. Thereafter, the Commission vide its order dated 14.10.2010 in Petition No. 590 of 2008 directed that:

*"3.5 SUMMARY OF TRUE-UP OF FY 2006-07:*

*3.5.1 As discussed in the preceding paragraphs; the Commission doesn't find any merit in truing up FY 2006-07 again and has decided to retain its decision of the Tariff Order for FY 2007-08 & FY 2008-09. Thus, Surplus of Rs.19.64 cr is carried forward in the true-up of FY 2007-08."*



3.10.10. As is evident from the orders referred to herein above, while NPCL continues to claim that the amount is not available with them, it appears from the record that NPCL had paid only Rs. 10 Cr as lumpsum amount towards 10 MW additional supply, which otherwise as per Tariff Order of the Commission at Rs 2.41 / kWh becomes Rs. 8.806 Cr, which has to further be reduced to Rs. 8.46 Crores in terms of the rate of Rs. 2.315/kWh. It is to be mentioned that in any case, if NPCL had paid Rs 10 Cr, it is only an excess amount of Rs. 1.194 Cr paid to UPPCL/PVVNL. However, this Commission has never cross verified this claim of payments with UPPCL / PVVNL. Notably, NPCL preferred an appeal against the said order dated 14.10.2010, being Appeal No. 4 of 2011. The Hon'ble APTEL, vide its judgment dated 15.12.2011 directed that the Commission may reconsider this issue of surplus amount of Rs. 19.64 Crores. The relevant paras of the order have been quoted below:

*"12.17. In view of the averment of the State Commission on the above issue we direct the State Commission to reconsider the true up of ARR for the FY 2007-08 in respect of surplus of Rs.19.64 crore for the FY 2006-07 shown in the ARR."*

3.10.11. He submitted that it is clear from the above that there were no directions imposing a restriction or injunction or any other such orders by the Hon'ble APTEL, to restrain the Commission from considering Rs. 19.64 Cr in the ARR of the NPCL. The limited direction of the Hon'ble APTEL was to merely consider. However, the subsequent treatment meted out in respect of this amount by this Commission was completely contrary to the correct methodology of determining tariff.

3.10.12. He submitted that the facts so far lay it bare that the Commission never checked with the UPPCL/ PVVNL that whether NPCL had paid this amount to them or not. The Commission has also completely ignored the inquiry into the question of why PVVNL recovered amounts from NPCL at the rate of purchase of power that was higher than/ in excess of the BST rates approved by the Commission. Further, he submitted that it is incumbent upon the Commission that prior to choosing to not consider or excluding the amount of Rs. 19.64 Cr while computing the carrying cost of NPCL, to check the facts with relevant parties viz UPPCL / PVVNL, which the Commission has completely failed to do. Notably, subsequently, the Commission has stopped accounting for these figures as vide its order dated 19.10.2012, the Commission decided to not carry forward this amount and only decide on it upon the determination of 10 MVA issue that is allegedly pending before the Hon'ble Supreme Court. It is important to highlight at this stage that, at best, this was a commercial dispute between NPCL and its Power Supplier, i.e., UPPCL/ PVVNL. As such, any amount in dispute between the seller and buyer of power cannot be



allowed to be excluded while determining ARR. The tariff methodology that is to be adopted by this Commission, or for that matter any regulatory commission that is tasked with the responsibility of determining the tariff, can never provide for considering/ not considering any amounts that are stuck or disputed between any two entities. It is for this reason, that the Hon'ble APTEL never passed any specific orders with respect to the treatment of this amount. It is a matter of record that the only direction of the Hon'ble APTEL was to merely consider. However, the subsequent treatment meted out in respect of this amount by this Commission was completely contrary to the correct methodology of determining tariff. Notably, there is no subsequent order on this issue either by the Hon'ble APTEL or by the Hon'ble Supreme Court of India, where, the Objector understands, the appeals of NPCL are pending adjudication. It also appears that no steps are being taken by either PVVNL or NPCL to get the matter adjudicated and disposed of finally. It is also appurtenant to note that while the accounting of this outstanding amount is being kept in abeyance by the Commission for NPCL, including in its latest orders, there is a complete absence of the arrears payable to UPPCL/PVVNL by NPCL up until 2005-06, which amount to around Rs. 736 crores, in terms of the latest Tariff orders of this Commission for UPPCL/PVVNL.

3.10.13. Further, he submitted that if any amounts that are stuck or disputed in a bilateral dispute between any two distribution licensees/ power suppliers, then the same cannot be either allowed or disallowed without verifying that amount from both parties, which would otherwise allow both parties to benefit from such allowance/ disallowance. Further, if any dispute relates to any particular amount between two such licensees/ generators, then such an amount cannot be excluded from the consideration of the Commission while determining tariff. If NPCL's claim is that this amount is with UPPCL, then the correct approach would have been to first enquire about the same from UPPCL. However, it is a matter of record that this Commission has never enquired from UPPCL about the veracity of such a claim.

3.10.14. Further, he submitted that any adjustment in tariff on account of an amount that is a matter of commercial dispute between the parties means that the liability of the said amount is being passed on to the consumers of that licensee. In the instant case, the amount of Rs. 19.64 Crores is excluded from being accounted from NPCL's ARR, thereby passing on the liability of that amount to the consumers of NPCL. That is completely illegal. It is submitted that if there is an amount, that is a matter of a commercial dispute between two parties, its impact needs to be restricted equally to both the parties until the dispute is finally decided. However, instead of doing



that, the Commission has passed on the liability of this amount to the consumers of NPCL by excluding it from the ARR. Thereby, instead of this being limited to be a commercial dispute issue between NPCL and UPPCL/PVVNL, this has been made a tariff issue as the liability of NPCL has been shifted on to its consumers, without any conclusion of that liability by any order of any Court. What is also of immense importance for this Commission to observe that a Discom's losses and arrears are never a part of the ARR.? If that is the methodology not being followed, then what is the basis for making Rs. 19.64 crores to be made a part of ARR if this is also a part of the amount that is outstanding?

3.10.15. In light of the above, he submitted that PVVNL should be directed by the Commission to clarify whether it has to refund any dues of Rs. 19.64 Cr on account of power purchase and /or PVVNL should also inform how much amount it has to recover from the NPCL. If the amount of Rs. 19.64 Cr is a commercial dispute, it should be informed by PVVNL as in case it is a commercial dispute and it is lying with PVVNL then it makes the part of PVVNL revenue and accordingly PVVNL's ARR should be revised from FY 2008-09. Further, PVVNL should place on records before the Commission if it has to recover any dues from NPCL. If it has to recover from NPCL, then it makes revenue of PVVNL and expense of NPCL. It is further mentioned that there must be many disputes and legal proceedings between PVVNL / UPPCL and NPCL, however, the Commission cannot provide benefit of such dispute to any licensee unless the matter is adjudicated by the competent court. It bears mention that the Objector has been constrained to raise the instant issue, pertaining to the discrepancy with respect to the said amount of Rs. 19.64 Crores, vide its Review Petition seeking review of the order dated 04.12.2020 passed by the Commission in Petition no. 1541/ 2019, which is pending adjudication before this Commission. It is submitted that on one hand, there is no scrutiny by this Commission as to who has this amount, which in turn is causing prejudice to the consumers in the state of Uttar Pradesh.

3.10.16. Shri Rama Shanker Awasthi submitted that the power purchase cost ought to be disallowed not at bulk power purchase rates but in accordance with the Merit Order Dispatch. The rate should be applicable for highest rate of power purchased.

3.10.17. Shri Pradeep Kumar Singhal, submitted that Power Purchase exchange rules are applicable for 1 MW and above. It is requested to make this limit to 0.5MW and above.



3.10.18. Shri Shivakant Tripathi, Uttar Pradesh Jan Kalyan Samiti, Lucknow submitted that power purchase from cheap sources should be included.

#### **B. Licensees response**

3.10.19. As regard to the objection of Shri Avadesh Kumar Verma, the Licensee submitted that against the past requests submitted by them for surrendering of share in high cost CGS power stations it was informed by NTPC/NHPC that surrendering of shares cannot be entertained on stand-alone basis and if UP state wishes to exit from the high cost CGS PPAs it has to exit from the overall bucket of CGS PPAs which also includes low cost PPAs. Considering that surrendering shares in low cost PPA would have instead led to increase in power purchase cost, UP Discoms did not pursue it further. In respect to high-cost PPP projects it is hereby submitted that there is no clause as per the PPA wherein Discoms have an option to exit from the PPA. However, Discoms tried to exit from Bajaj Energy Pvt. Ltd. (BEPL) PPA (450 MW) in past against which the generator filed an appeal which was finally disposed of in the favour of the generator and Discoms were compelled to continue taking power supply from BEPL plants.

3.10.20. Further the Licensee submitted that they have deployed best practices to ensure rationalization of power purchase cost. To reduce the burden of stranded / Fixed capacity charges UP Discoms are selling power on exchange during the Off-peak hours which therefore results in part recovery of fixed cost paid to the generators. Further, since no specific details have been provided by the stakeholder in its submission against the fixed cost burden for FY 2023-24, the licensees are unable to submit any comments on the same. Further, the Licensee submitted that Power Purchase data is duly approved by Commission after detailed prudence check. Further, the licensee schedules its power purchase as per merit order. The licensee also considers the cost of power from power exchange along with other costs, accordingly schedule its power requirement in order to minimize the power purchase cost.

3.10.21. As regard to the objection of IEX with respect to Power Purchase Cost optimization, the Licensee submitted that UPPCL has been efficiently managing its power purchase portfolio. It is actively participating in Energy exchanges across all the available products to optimize its power purchase cost. Further, to reduce the power purchase cost UPPCL has been selling surplus power in Off-peak hours through exchanges.



3.10.22. As regard to objection of CEEW, the Licensee submitted that the Commission treats the Late Payment Surcharge recovered from the consumer as an income of Licensee and deducts it from the ARR. The delay in the payment of electricity bills by the consumers causes delay in the payment of the generators. This results in shortfall of working capital requirements and causes delay of payment to generators. Due to this, the Petitioner has to pay late payment surcharges to the generators. So, since the late payment surcharge received from consumer is allowed as an income similarly LPS paid to the generator shall be allowed as an expense. The Petitioner further submitted that the sales projection for ARR of FY 2021-22 is dependent on the FY 2020-21 sales. However, considering that the FY 2020-21 has been an extraordinary year on account of Covid pandemic, the category wise sales for FY 2020-21 are expected to be on lower Side compared to the category wise sales approved in the Business plan. Therefore, the sales projection for FY 2021-22 has been revised thereby deviating from the Business Plan. Further the sales estimated during FY 2021-22 is expected to follow the projections made by the Licensee. Accordingly, the Power Purchase Cost is estimated by the UPPCL based upon the expected distribution loss for the FY 2021-22.

As regards to the objected related to stranded capacity, the Petitioner submitted that all the plant wise details with MW capacity and breakup of fixed charges and variables charges have already been submitted to Commission in the ARR petition and Other subsequent submissions. As regards to the objected related to DBST mechanism, the Petitioner further submitted that considering the GoUP objective to have uniform Tariff across the state Discoms, the Commission has approved the DBST methodology for allocation of power purchase cost amongst Discoms. (Ref UPERC Order dated 13.12.2018).

3.10.23. As regards to the objection of Shri K L Aggarwal, the Licensee submitted that the Average Cost to Service (ACoS) is projected based upon the projections made for different ARR items in accordance with the UPERC (Multi Year Tariff for Distribution and Transmission) Regulations, 2019. The Petitioner shall submit the actual expenses for FY 2021-22 during True-ups.

3.10.24. As regard to the objection of Shri Rama Shanker Awasthi, the Licensee submitted that the NPCL is the distribution Licensee according to Section 14 of the Electricity Act 2003. It is up to the discretion of the distribution licensee to sign power purchase agreements in accordance with its requirement and future projections. UPPCL procures power on behalf of five Discoms in accordance with its current requirement and future projections. NPCL being a distribution Licensee is free to



procure power from any source meeting the requirements of applicable Act / Regulations.

3.10.25. As regard to the objection of Shri Rama Shanker Awasthi pertaining to the dues of NPCL, the Licensee submitted that the UPERC Tariff Order dated 01.09.2008, regarding NPCL, states that –

3.15.3.3 *Further Licensee in the audited accounts has mentioned that though the bulk supply tariff payable by licensee as determined by Commission was Rs 2.7042/kwh, the same has been booked/paid @ Rs 2.8714/kwh as a measure of prudence (after considering the different credit impact of Rs 75.88 Lacs arising on account of final power purchase price determined by Commission at Rs2.9602 per unit and Rs 2.9101 per unit for FY 2004-05 and FY 2005-06 respectively) based on the past practices and certain assumptions.*

3.15.3.15 *The Commission would like to reiterate once again that the treatment of the power purchase from UPPCL to the extent of the disputed supply against 10MVA is a provisional treatment and the necessary adjustments to the same on resolution of the dispute would be addressed suitably in the subsequent ARR period.*

3.10.26. In the above statements, NPCL has stated the reason for paying higher tariff and Commission has reiterated its position of treating the power purchase from UPPCL to the extent of the disputed supply against 10MVA as provisional and has also said to suitably address in subsequent ARR upon resolution

In the UPERC tariff Order dated 19.10.2012, regarding NPCL, Commission has stated that

4.10.4 *In light of Appellate's judgement & NPCL submissions, the surplus amount of Rs 19.64 Crores for FY 2006-07 is being considered. Accordingly, the non-availability of surplus fund is adjusted in FY 2007-08. Further, the amount is not carried forward to the true-up of FY 2007-08.*

3.10.27. The Commission has revised its calculation cumulatively in the Tariff Order dated 19.10.2012. The issue pertaining to additional supply of 10 MW from UPPCL to NPCL is still pending with Supreme Court of India. Moreover, Commission determines the tariff by considering 100% collection efficiency. Hence issues related to dues will not affect the ARR for FY 2021-22. Hence this issue shall be dealt separately.



3.10.28. As regards to objection of Rama Shanker Awasthi with reference to disallowing the power purchase expense at highest rate of power purchased in accordance with the Merit Order Despatch. The Licensee submitted that power purchase expense claimed by the Licensee is based on the actual expense incurred by the Licensee for True-up years subject to the normative losses as in line with the methodology by Commission in its previous True-Ups Orders.

3.10.29. As regards to the objection of Shri Shivakant Tripathi and Shri Pradeep Kumar Singhal, the Licensee did not submit any reply.

### **C. Commission's view**

3.10.30. The Commission has taken note of the objections/suggestions made by the stakeholders and comment of the Licensee. The Commission has dealt the issue in relevant chapters of this Order.

## **3.11. FIXED CHARGES**

### **A. Comments/ Suggestions of the Public**

3.11.1. Shri Ankit Kumar, IERS submitted that the Commission should issue guidelines to curtail the fixed charges in respect of unutilized capacity for industrial consumers as most of the Industrial consumers were not able to fully utilize their sanctioned load during the pandemic. Hence, it is requested that the fixed charges in respect of unutilized capacity must be curtailed at least up to 50% and should be adjusted in subsequent billing cycles for industrial consumers so that Industrial consumers shall not face any financial hardship and Government sponsored Atma Nirbhar Yojna can be fulfilled.

3.11.2. Shri Arun Mishra submitted the incompetency of Licensee may not be compensated by allowing it to charge Fixed charges, Minimum charge, which accordingly may be disallowed.

3.11.3. Shri Shivakant Tripathi, Uttar Pradesh Jan Kalyan Samiti, Lucknow submitted that unnecessary methods used in imposing fixed charges on the consumers should be removed instead a proper method has to be used while imposing the same.

3.11.4. Shri Vishnu Bhagwan Agarwal, Chairman, Associated Chambers of Commerce & Industries of UP and Shri Manish Aggarwal, President, National Chamber of Industries & Commerce of UP submitted that the fixed charges shall be abolished in line with other progressive states and consumer shall be charged only for the power consumed. It is also submitted that consumers should be allowed to make more or



less connections. It is also submitted that the proposed regulatory surcharge was abolished on being found to be unethical as it is illegal to recover the old date and old profit loss from the consumer while the losses are directly due to others.

- 3.11.5. Satish Maheshwari, Uttar Pradesh Udyog Vyapar Pratinidhi Mandal submitted that when the consumer consumes more load than the sanction load then he has to pay extra fixed charge, he further submits that due to lockdown consumer is not able to use electricity then in this case the fixed charge should also be reduced equally especially in LMV2 and LMV 6 category.
- 3.11.6. Shri Pradeep Kumar Singhal, submitted that Fixed charge should be abolished for MSME and HV-2 consumers. He further submitted that electricity consumers having 11 KVA metering should not be charged twice the demand charge in form of penalty, in case the demand is exceeding the sanctioned load. For Electricity consumers having metering at 440V, then according to the rules, the Licensee has the right to take twice the demand charge in case of excess load. Therefore, the Commission is requested that on the 11 KVA metering consumers continue to pay normal Excess Demand Charge.
- 3.11.7. Shri Avadhesh Kumar Verma, Chairman, UP Rajya Vidyut Upbhokta Parishad, submitted that the fixed charge of domestic consumers should be completely abolished and the minimum charge on LMV-2 consumers should also be completely abolished. He also submitted that previously unmetered farmers have to pay Rs 170 / per BHP per month and it should be kept at Rs 100 / - per BHP per month. He also submitted that Consumers' Council farmers of the state who have meters installed have very high electricity rates and hence their electricity rate should be reduced by 50%. Also, in view of the Corona crisis recovery should be made on the basis of fixed charge and the domestic rural fixed rates should be reduced by 50 percent. He further submitted that demand charge be reduced by 10 percent. He also submits 7 percent subsidized benefits be given to all consumers and only then amount of 19537 crores coming from consumers be called settled.
- 3.11.8. Shri Sanjay V Kute, Delhi Metro Rail Corporation submitted that DMRC may be exempted of payment of Fixed Contract Demand Charges and Minimum Consumption Guarantee Charges during the Force Majeure Event as it is a Public Utility Service provider and also may be allowed to bill on the basis of actual demand & Consumption.



## B. Licensees response

3.11.9. With regards to the objections of Indian Energy Regulatory Services, Shri Arun Mishra, Shri Shivakant Tripathi, Uttar Pradesh Jan Kalyan Samiti, Shri Vishnu Bhagwan Agarwal, Chairman, Associated Chambers of Commerce & Industries of UP, Shri Manish Aggarwal, President, National Chamber of Industries & Commerce of UP, Shri Satish Maheshwari, Uttar Pradesh Udyog Vyapar Pratinidhi Mandal, and Shri Pradeep Kumar Singhal, the Licensee submitted that in Consolidated ARR for FY 2021-22, the share of fixed cost component and variable cost component is approx. 65% and 35% respectively as per following table:

Expenditure	Fixed	Variable
Cost of Power Procurement	40.72%	35%
Transmission Charges	3.33%	-
Total O&M Expense	11.08%	-
Interest and Finance Charges	2.89%	-
Depreciation	2.26%	-
Bad and Doubtful debts	1.72%	-
Return on Equity	3.11%	-
Non-Tariff Income including LPS	-0.14%	-
<b>Annual Revenue Requirement</b>	<b>65%</b>	<b>35%</b>

3.11.10. On the other hand, the consolidated revenue recovery from fixed/demand charge and energy charges are approx. 20% and 80% respectively based on the existing tariff. There is a huge mismatch in the proportion of fixed cost and fixed revenue, resulting in uncertainty of revenue faced by the Licensee. Therefore, the Licensees have to pay the fixed charge component of Power Purchase as approved by Commission Orders. Therefore, the recovery of fixed charge may be linked with these Commission approved fixed charges and these should not be abolished.

3.11.11. Further, the Licensee submitted that it computes the Fixed Charges in line with the UPERC (Multi Year Tariff for Distribution and Transmission) Regulations, 2019. There would be deficit of around 45% in fixed charges, which Licensee will recover from energy charges, however it should be recovered from fixed charges rather than energy charges in line with Tariff Policy. It is further submitted that fixed charges are levied to cover the fixed cost obligations of the Licensee. Fixed charges cannot be based on the variable component of Tariff, i.e., energy charges which will result into inadequate recovery of the cost. Further, Ministry of Power in its consultation paper dated 24th August 2017, has proposed that State Regulatory Commissions should develop a phased implementation plan over a three to five-year horizon to



progressively bring fixed charges in retail Tariff to 75% to 100% of the fixed cost liability of Distribution Licensees. Hence, in the regards to fixed charges and minimum charges, it is submitted that Commission shall not abolish the same as it would crucially impact the Licensees.

3.11.12.As regards to DMRC objection, the Licensee submitted that Licensee is aware of the current pandemic situation and making all efforts for the convenience of stakeholders but Licensee is bound to follow the orders issued by GoUP and Commission. Further, the Licensee is providing all the benefits/relaxations as per the orders issued by GoUP and the Commission. Further, it is submitted that the Licensee has the obligation to pay fixed charges to generating and transmission companies irrespective of the power being scheduled or not.

3.11.13.It is further submitted that in Consolidated ARR for FY 2021-22, the share of fixed cost component and variable cost component is approx. 65% and 35% respectively. On the other hand, the consolidated revenue recovery from fixed/demand charge and energy charges are approx. 20% and 80% respectively based on the existing tariff. There is a huge mismatch in the proportion of fixed cost and fixed revenue, resulting in uncertainty of revenue faced by the Licensee. Hence, the recovery of fixed cost is linked with the fixed charges components of ARR and therefore cannot be billed on actual demand. Billing the consumer based on actual fixed demand would lead to financial crunch to the Licensee and is therefore not acceptable.

3.11.14.As regard to the objections of Shri Avadesh Kumar Verma, the Licensee submitted that the cost coverage for rural domestic (unmetered) and rural PTW (unmetered) category for FY 2020-21 as approved by the Commission is 49.43% and 17.24% respectively, which is below 50% of the ACoS. The provision of the tariff policy is  $\pm$  20% of ACoS.

### **C. Commission's view**

3.11.15.The Commission has taken note of the objections/suggestions made by the stakeholders and submission of the Licensee.

## **REGULATORY SURCHARGE AND SURPLUS**

### **A. Comments/ Suggestions of the Public**

3.11.16.Shri Avadhesh Verma, Chairman, UP Rajya Vidyut Upbhokta Parishad, submitted that benefit of Rs. 19537 (till date) Crore including Uday True-Up and surplus of Rs. 800 Crore of FY 2021-22 has not been passed on to the consumer till date. If the



companies are not able to give benefit due bad financial health, they can pass it on in next three years by reducing rates by 10% each year.

3.11.17. Shri Arun Mishra submitted that Regulatory surcharge may not be allowed.

3.11.18. Shri Yogesh Agarwal, Rimjhim Ispat Limited submitted that the demand for Regulatory Surcharge is illegal, as the Commission has already tried up the same and hence cannot be revisited / reopened.

3.11.19. Shri Pradeep Singhal submitted that in the time of Corona, Regulatory surcharge should not be implied on consumers and hence be abolished for MSME Consumers.

3.11.20. Shri Yameen Ansari, Akhil Bharatiya Upbhokta Parishad submitted that it is necessary for UP Power Corporation to cancel the receipt of Rs 49,827 crore against Regulatory Surcharge from all power consumers along with its interest till 15.05.2021 because in the past also the amount owed against defaulter consumer were recovered from honest electricity consumers as well, and now showing the arrears again on honest consumers is not justified. Further, it is necessary to disclose the details of the amount owed by the license holder for each category of consumers till 31.03.2021.

3.11.21. Shri Vishnu Bhagwan Agarwal, Associated Chambers of Commerce submitted that the proposed Regulatory Surcharge is unethical and it was disallowed previously. Collection of the previous gains/losses arising out of the same should not be passed on to the consumers.

## **B. Licensees response**

3.11.22. As regard to the objections of Shri Avadesh Kumar Verma, the Licensee submitted that the query is related to UPERC Tariff Order FY 2020-21. The Licensee submitted that the tariff is designed to meet the revenue gap. Any change in the tariff of any particular consumer category/sub-category/slab will impact the tariff of other consumer category/sub-category/slab to meet the revenue gap. It is further submitted that the actual data related to additional subsidy and adjustment against UDAY Scheme have been communicated to the Commission by GoUP, vide letter no. 445/24-1-21/731 (budget)/ 2020 dated: 05.03.2021 and Licensees have requested Commission to consider the letter and approve appropriate adjustments against earlier disallowances while approving the Licensees True-UP for FY 2019-20 and ARR for FY 2021-22. The financial impact as per this letter of GoUP have been communicated to Commission. The Commission is requested to pass appropriate order in this regard.



3.11.23. For other Stakeholder's objections, the Licensee submitted that the details regarding Regulatory Surcharge have already been uploaded on Licensee's website.

**C. Commission's view**

3.11.24. The Commission has taken note of the objections/suggestions made by the stakeholders and comment of the Licensee. The Commission has dealt the issue in relevant chapter of this Order.

**3.12. CONTRACT DEMAND**

**A. Comments/ Suggestions of the Public**

3.12.1. Shri Ankit Kumar, IERS submitted that seasonal industries are obligated to pay the fixed charges on their full contract demand and these consumers have to pay extra during the off season because electricity is not utilized to their full capacity. Therefore, he requested the Commission to introduce a guideline or provisions which allows the seasonal industries consumers to reduce their contract demand. Also, he added that the Tariff rates during the off-season period shall not be same as that of the normal period. Further, he added that the seasonal industries consumers shall not be allowed to pay fixed charges on their full contract demand and shall be reduced.

**B. Licensees response**

3.12.2. As regards to the objection of Shri Ankit Kumar, the Licensee submits that the Power purchase expenses comprises of Fixed charges as well as Energy Charges. The Petitioner submits that the percentage contribution of Fixed charges in the Total Expenses is 65%. In ideal circumstances, the Fixed part of the expenses ought to be recovered by way of Revenue from Fixed part of the Tariff and the variable part of the expenses by way of revenue from Energy charges. In this regard, while the Petitioner is bound to pay the fixed charges as per the PPA with the generator, any reduction in the revenue from fixed part of the Tariff (as per the stakeholder's request for seasonal tariff) would lead to more imbalance in the above structure of revenue realization and would cause financial imbalance to the Licensee. Therefore, the suggestion of the stakeholder is not feasible.

**C. Commission's view**

3.12.3. The Commission has taken note of the objections/suggestions made by the stakeholders and comment of the Licensee.



### 3.13. WHEELING CHARGES

#### A. Comments/ Suggestions of the Public

- 3.13.1. Shri Jogendra Behera, Vice President, Indian Energy Exchange Limited (IEX) submitted that the allocation matrix used by the Petitioner for segregating wheeling and supply ARR appears to result in higher wheeling ARR, with excessive allocation of interest and finance costs on the wheeling charges. Further, since the wheeling losses are being recovered, it is requested that the wheeling charges to be worked out on the 'input energy' quantum instead of energy sales.
- 3.13.2. Shri Ankit Kumar, IERS submitted that for FY 2020-21 the Commission determined the voltage wise wheeling charges for consumers connected at 11 KV and above 11KV as 0.547 Rs/kWh and 0.342 Rs/kWh respectively but for FY 2021-22 the DISCOMs have proposed the exorbitant rates for wheeling charges as 1.055 Rs/Kwh and 0.659 Rs/Kwh for open access consumers connected at 11KV and at above 11KV respectively which is almost double of previously proposed wheeling charges for FY 2020-21 and not in the line with the National Tariff Policy 2016. He also submitted that if such proposal of Discoms would be accepted then it would eliminate the viability of Open Access for the Industrial and Commercial consumers in the state.
- 3.13.3. Shri P.K Maskara, Director, The Mahabir Jute Mills submitted that DISCOM has published in Table 9-1 where wheeling charge is shown and proposed only in FY 2021-22 and all previous years are left blank does this implies that there was no wheeling charge in 2019-20 & 2020-21. Wheeling Charge for OA was Rs 0.35 per kWh in 2020-21 & 0.65 per kWh in 2019-20 and now it has been proposed Rs 1.32 per kWh which is more than 4 times and has been raised without any justification. He also submits that OA consumer are also getting supply through independent feeder, where they will be liable for the wheeling charge. And hence there is a need for clear guidance regarding the last paragraph of wheeling charge in DISCOM Tariff Order whether it is also for the DISCOM consumer specially those who are directly on the network of transmission, also there is no binding of voltage level given.
- 3.13.4. Further, he submitted that Time based usage is not considered to be the correct energy quantity for calculating wheeling charges. He also submits that as discussed in public hearing, Commission has given the rate and has also explained that wheeling means that it will be the energy wheeled by the DISCOM to the consumer. So, it is requested that Commission make sure that in the final bill, Time Based Usage should be calculated on the energy given to the consumer by the DISCOM.



3.13.5. Shri K.L Aggarwal, Chairman, Industrial Development Forum, Muzaffarnagar, submitted that the Petitioner did not provide any data related to wheeling charge for F.Y. 2019-20 & F.Y. 2020-21, and has arrived at a wheeling charge of Rs. 1.32 for F.Y. 2021-22. This seems like a misguided exercise & hence deserves no consideration. He requested the Commission to kindly take notice of the above objections / observation while deciding tariff for FY 2021-22.

#### **B. Licensees response**

3.13.6. As regards to the objection of IEX, the Licensee submitted that the Stakeholder is not legally authorized to decide on the interpretation of the provisions of Tariff Policy / Regulations. The tariff is approved to meet the revenue gap. Any change in the tariff of any particular category/sub-category/slab will impact the tariff of other consumer category/sub-category/slab to meet the revenue gap. The methodology adopted in UPERC Tariff Order in FY 2020-21 was as per Tariff policy issued by the Central Government. Further Cross-Subsidy Surcharge (CSS) and wheeling charges for Open Access consumers is in accordance with- the methodology specified in Clause 49 of the UPERC MYT (Transmission and Distribution) Regulations, 2019.

3.13.7. As regard to the objections of Shri Ankit Kumar, IERS, Shri K.L Aggarwal, Chairman, Industrial Development Forum, and Shri P K Maskara regarding wheeling charge, the Petitioner submitted that it has computed the Wheeling charges on consolidated basis as per the UPERC (Multi Year Tariff for Distribution and Transmission) Regulations, 2019. The relevant extracts of the same is shown here under:

#### *“51. Wheeling Charges*

*51.1 The fixed costs related to network assets would be recovered through wheeling charges. Based on the allocation Table, Wheeling ARR will be determined. Wheeling charges (per unit) will be determined by dividing the wheeling ARR by the total units available for sale.*

*51.2 The Distribution Licensee shall be allowed to recover, in kind, the Wheeling Losses arising from the operation of the Distribution System by any Open Access Customer.*

*Provided that embedded Open Access Customer who are already paying Demand Charges need not to pay the wheeling charges to the Distribution Licensee.”*



3.13.8. The Petitioner further submitted that it has submitted the segregation of wheeling and supply in ARR as per the methodology approved by the Commission vide Order dated 11.11.2020. The Petitioner also submitted that wheeling charges and losses applicable to open access consumers are levied over and above CSS, depending upon the voltage level on which the Open Access Consumer is connected.

3.13.9. As regards to the objection of P.K Maskara regarding to direct connection to 132/33 KV transmission substation, the Petitioner submitted that this issue does not fall under the purview of instant Tariff proceedings, the matter falls under UPERC Open Access Regulations 2019.

### **C. Commission's view**

3.13.10. The Commission has taken note of the objections/suggestions made by the stakeholders and comment of the Licensee. The Commission has dealt the issue in relevant chapter of this Order.

## **3.14. OPEN ACCESS**

### **A. Comments/ Suggestions of the Public**

3.14.1. Shri Rama Shanker Awasthi submitted that the Discom deploys all kind of tactics for denying or delaying of open access to consumers in spite of fact that it is recovering wheeling charges, wheeling losses and cross subsidy charges. The process adopted by the Discom is so lengthy and multiple approvals from Executive engineers of Discom and UPPTCL and UPSLDC to their MD and Chairman. It gives rise to frustration and loss of industry productivity and much more chances of corruption. He requested the Commission to make a standard process and rules through tariff order so that when a consumer completes this standard process, the approval must be provided within 2 days irrespective of fact that Discom, UPPTCL and UPSLDC takes 100 signatures on file but same need to be completed in 2 days.

3.14.2. He also submitted that when a connected consumer is granted open access, a corrupt practice is adopted by Discom, UPPTCL and UPSLDC to seek form ST-11 every three month. When a consumer / generator is provided Open Access from a system, they should not be asked ST-11 every three month for revival of open access. When Discom, UPPTCL and UPSLDC are stating adequate capacity, the decade old practice must be avoided. He also submitted that there are only 2 brands of ABT meters that are available and only 5-6 companies providing CT / PT for ABT metering. As per process, consumer / generator has to make at least 10 rounds to



offices to take approval of meter, CT / PT procurement. The Commission is requested to direct that these brands and specifications and manufacturers be displayed on website of UPPCL / Discom / UPPTCL and UPSLDC so that this kind of undesired process, which give rise for corrupt practices, be eliminated.

3.14.3. The Commission has to appreciate that not every consumer can take legal route out of fear of Discoms revengeful actions and therefore process need to be made fool-proof to look after such issues. The applicability of Wheeling losses and wheeling charges should be properly explained for each type of consumer i.e., dedicated feeder and mixed feeder. It is requested that processes and applicability of tariff be explained in simple English as discom / UPSLDC officials have ability to interpret it in different manners. These should also be explained with examples which may take 2-3 pages of order but it will prevent corrupt practices at Discom / UPPTCL / UPSLDC level. Further he submitted that the Discom / UPPCL should discontinue power procurement from all such sources which have completed 25 years and are costlier than exchange rates. There should not be any approval of new Long-term Power as it will lead to applicability of Additional Charges.

3.14.4. He further submitted that the Objector is in the process of accumulating further data and reserves its right to file additional submissions in order to raise other issues in response to the Petitioner's claims, at the appropriate time. It is submitted that the aforementioned issues that have been raised by the Objector herein, need to be taken into account by the Commission while determining the ARR of PVVNL and consider the interest of the consumers in the State of Uttar Pradesh while passing its orders in the captioned petition.

3.14.5. Shri P.K Maskara, Director, The Mahabir Jute Mills submitted that OA users are paying the cost of power in advance to the IEX and its unit is daily uploaded to the portal of SLDC. He submitted that SLDC shall give energy data to the DISCOM weekly. Further, he submitted that all OA users shall be provided MRI load survey and TOD data in xls or pdf format. He also submitted an extract from the previous order and is as follows:

*7.3.9 The wheeling charges determined above shall not be payable if the Open Access customer is availing supply directly from the state transmission network*

3.14.6. He submitted that a consumer is independent feeder of 33 kV line from transmission s/s and its main meter is also at transmission, whose MRI is sent to SLDC, the Wheeling charges should not be imposed. This requires the direction to SLDC, who is mentioning in their permission letter. Further, he submitted that the STOA is given

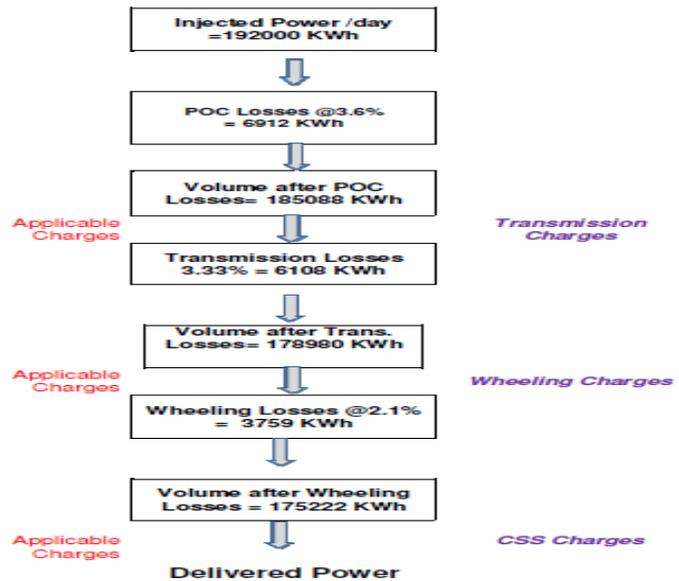


to consumer for 3 months and should be extended. Also, he submitted that the total contracted load is 14,800 MW, out of which only 220 kW is presently OA consumers and is not a major contributor to revenue loss. He also submitted that the R & M expense and Bad Debts has drastically increased, and 90 % of OA consumers are affected whereas OA consumer line does not practically require so much of expenses on R & M.

- 3.14.7. Shri Ankit Kumar, IERS submitted that some of the consumers are moving their consumption towards Open Access Power Procurement and requests the Commission to allow temporary surrender of Contract Demand for the same consumers. He submitted that this is in line with other states who are allowing flexibility to the consumers and is also helpful for the states for releasing the transmission congestion and creating additional capacity for catering Open Access quantum where consumers are opting their existing load and by shifting it to Open Access mode.
- 3.14.8. Shri Yogesh Agarwal, Rimjhim Ispat Limited requested the Commission is to provide the voltage rebate to Open Access units.
- 3.14.9. Shri J V Singh, Vice President of Ginni Filaments Limited submitted that as per ARR, O&M Charges are very much on higher side, also debit 90% to Open Access Consumers and only 10% on other consumers which is not justified. He also submitted that Cross Subsidy Charges increased in Tariff Order FY2019-20 from ZERO to Rs. 1.56/ unit which should be waived off with immediate effect. Further, Cross Subsidy Charges are being charged on Delivered Power but other Charges like Wheeling Charges & Transmission Charges are being charged on Injected Power. Wheeling Losses as per Tariff Order 2019-20 given 1.1% of DVVNL and Avg. of all Discom Average is 2.1% but DVVNL consumers are being charged at the rate of 2.1% which is not justified. Transmission Charges are being charged on Injected Units by Generator but in their view, it should be on Units after POC Losses i.e., on Units Injected in Regional periphery after POC losses. He further submitted that the Wheeling Charges are being charged on Injected Units by Generator but again in their view it should be on Units after POC and Transmission Losses. Further he submitted the explanation of following methodologies and an illustration.
- (a) POC Charges: -It is a transmission charge pricing methodology introduced sharing of Inter-state Transmission Systems (ISTS) and loss among the Designated ISTS Customers (DIC's) depending on their location and sensitivity

to their distance from load centres (customers) and generation (generators) and the direction of the node in the grid.

- (b) Transmission or STU Charges: - Transmission charges are those charges which are paid to transmission licensee for the use of transmission system and associated facilities by consumer for the conveyance of electricity.
- (c) Wheeling or Distribution Charges: - Distribution charges are those charges which are paid to distribution licensee for the use of distribution system and associated facilities by consumer for the conveyance of electricity.



3.14.10. Shri Vishnu Bhagwan Agarwal, Associated Chambers of Commerce & Industry, National Chamber of Commerce, Industries and Industrial Development Forum submitted that direct power purchase scheme, which is under 1000 KW, should be made for 100 KW because the consumer of the distribution company cannot bear the loss.

## B. Licensees response

3.14.11. As regard to the objection of Shri Rama Shanker Awasthi, Licensee submitted that the process of approval for Open Access to any consumer is as per UPERC Open Access Regulation 2019, dated 10.12.2019. The procedure for long term and medium-term open access is provided in Provision 12 of the said regulations, whereas the procedure for short term open access is provided in Provision 13 of the same regulations. It is also available on the website of UPSLDC. With regards to Rama Shanker Awasthi objection on displaying the approved make, specifications



and manufacturer for ABT Meters compatible for Open Access transaction on the website UPPCL/Discom/UPPTCL/UPSLDC, it is submitted that the state of Uttar Pradesh follows the standard specifications as approved by CEA and same are easily available on the website of UPSLDC. It is further clarified that the process of Grant of Open Access is made online by UPSLDC and it is very seamless. Every granular detail requisite for applying Open Access is available on the website of UPSLDC. UPSLDC have also uploaded the video of how to surf the website of UPSLDC in order to provide seamless experience to the consumers willing to opt Open Access.

3.14.12. With regards to Rama Shanker Awasthi objection about clarifying applicable charges and losses to specific consumers opting Open Access by giving few examples in the tariff order Licensee submits that it is up to the discretion of Commission.

3.14.13. With regard to objections of Shri P K Maskara and Shri Yogesh Agarwal, the Licensee submitted that the Cross-subsidy formula as per the National Tariff Policy, 2016 takes Voltage level at which Open Access consumer is connected into consideration. The Hon'ble Commission approves the Cross Subsidy Surcharge based upon the formula prescribed in the NTP 2016. ( $S = T - [C / (1 - L/100) + D + R]$ ). It is mentioned that such formula takes into account the distribution losses based on the voltage level of Open Access consumers, approved by Commission as follows:

- Above 132KV: 0.00%
- Above 33 KV and up to 132 KV: 0.18%
- At 33KV: 2.10%
- At 11 KV: 8.00%

Thereby the voltage rebate for open access consumers is already factored in the formula for Cross Subsidy Surcharge.

3.14.14. As regards to the objection of Shri Ankit Kumar, IERS, the Licensee submitted that the planning of Power Purchase is done on long term basis. Therefore, the Discoms enters into PPA with a multitude of generating companies. This mechanism makes Discoms liable to pay Fixed charges to generating companies. In this regard, any sudden migration made by consumer to Open Access (LT/ MT/ ST) would render Discom additional liability in the nature of Fixed charges. The Licensee submits that foregoing the levy of Fixed charges would instead lead to higher Revenue gap and would be financially detrimental to Discoms financial health.

3.14.15. As regards to the Shri J V Singh, Vice President, Ginni Filaments Limited objection that 90% of O&M Expenses are borne by Open Access consumers is misleading, the



Licensee has submitted that it has claimed O&M Expenses in accordance with the provisions of the UPERC Tariff Regulations. Further, the Licensee submitted that the wheeling charge has been computed on consolidated basis in line with the Commission's Tariff Orders and clause 51 of the UPERC (Multi Year Tariff for Distribution and Transmission) Regulations, 2019.

3.14.16. As regards to the objections of Shri P K Maskara regarding the extension of period for STOA which is currently 3 months. The Licensee submits that the instant matter is governed by UPERC Open Access Regulations 2019 and is not under the purview of instant Tariff proceedings.

3.14.17. As regards to the objection of Shri. Vishnu Bhagwan Agarwal from Associated Chambers of Commerce & Industry, National Chamber of Commerce, Industries and Industrial Development Forum, the Licensee submitted that such suggestion of the stakeholder is not in line with Section 42 of the Electricity Act 2003 (5<sup>th</sup> Proviso) and against the Open Access Regulations 2019 of this Commission.

### **C. Commission's view**

3.14.18. The Commission has taken note of the objections/suggestions made by the stakeholders and comment of the Licensee.

## **3.15. STANDARD OF PERFORMANCE**

### **A. Comments/ Suggestions of the Public**

3.15.1. Shri Avadhesh Kumar Verma, Chairman, UP Rajya Vidyut Upbhokta Parishad, submitted that the new Standard of Performance Regulations, 2019 has been released by the Uttar Pradesh Electricity Regulatory Commission for electricity consumers. Problems of power consumers such as break down, cable fault, transformer, new connection, meter reading, increasing load incidence and other matters for which a new time is fixed in the new law. Despite this, services are not provided to the power users within the stipulated time nor compensation.

3.15.2. Prayas (Energy Group), Pune submitted that going forward, standards of performance regulations need to be revised to incorporate standards for smart meters over and above the provision that exists for prepaid meters in Regulation 16.11.1. It further submitted that some suggested parameters listed below be included. Other than this, there is a need for clarity about payment processes and disconnection criteria. Such criteria should be included in Commission regulations.



**SOME CHANGES THAT ARE REQUIRED IN UPERC'S SOP REGULATIONS**

Parameter	Description
Consumer fuse-off	Currently mention that a fuse-off complaint has to be addressed within 4 hours in urban areas and 6 hours in rural areas. With installation of smart meters, it will be easier for DISCOMs to detect fuse-off issues and thus response time should be reduced in SoP regulations. Compensation amounts for failure to maintain the time standard should have upward revision.
Meter related complaints	Since smart meters will play an important role in temporary disconnection, it is important that any meter related complaint be resolved at the earliest, especially for meter replacement. Stricter standards need to be in place, especially for smart meters operating in prepaid mode.
Reporting of reliability indices	Reliability indices are now reported at the feeder level. With smart metering of consumers, it will be possible for DISCOMs to report outage information and reliability indices such as SAIFI, SAIDI, etc., at consumer level. UPERC can mandate DISCOMs to host real-time outage information on their websites.

3.15.3. It further submitted that consumer smart meters can enable payment of compensation to consumers, automatically, for not adhering to standards of performance stated by SERCs in SoP regulations. This is because smart meters can be programmed to record and communicate real time data, and hence they can be used to record power interruptions. In fact, the recently notified Electricity (Rights of Consumers) Rules, 2020, by the Ministry of Power, states that automatic compensation can be paid to consumers in case of (i) no supply to a consumer beyond a particular duration, (ii) number of interruptions in supply beyond the limits specified by the SERC. Even the Maharashtra SERC's Supply Code regulations of 2021 mention that automatic compensation is payable for restoration of supply, wherever smart meters are installed. As technology evolves, such payments will become even more viable, overcoming the present transaction costs that a consumer has to bear to claim compensation.

**B. Licensees response**

3.15.4. As regard to the objection of Shri Avadesh Kumar Verma, the Licensee submitted that for the first time in past 3 years, the MOP ratings of all the UP Discoms have improved in the 7th Integrated Rating of State Distribution Companies published by Ministry of Power. This has been made possible due to various initiatives taken by UPPCL management including distribution capacity enhancement, better quality of supply, reduction in AT&C Losses, timely completion and audit of financial accounts of UP Discoms. It would also be imperative to highlight that for the first time in two decades, Statutory Audit of Financial Accounts of UP Discoms for FY 2017-18 and FY 2018-19, has been completed within the stipulated timelines, against 2 to 3 years' delay in past. Timely completion of financial accounts holds a very important weightage in MOP Discom ratings. Apart from the above, UPPCL management ensured collection of all the requisite data within given timelines which helped in



improvement of PFC Ratings of Discoms in the 7th Integrated Rating of State Distribution Companies published by MOP, as depicted in the table below:

Name of Discom	FY 2016	FY 2017	FY 2018
Report No.	5 <sup>th</sup>	6 <sup>th</sup>	7 <sup>th</sup>
DVVNL	C	C	C+
MVVNL	C	C	C+
PVVNL	C+	C	B
PuVVNL	C	C	C+
KESCO	C+	B	B+

3.15.5. Further the with respect to the points related to complaints are not part of tariff proceedings. Commission has directed to provide quarterly reports of complaints separately. Moreover, the stakeholder has not mentioned any specific complaints to reply.

3.15.6. As regard to objection of Prayas group, the Licensee submitted that the suggested changes in SOP Regulations are not directly related with ARR proceedings.

#### C. Commission's view

3.15.7. The Commission has taken note of the objections/suggestions made by the stakeholder and comment of the Licensee.

### 3.16. ELECTRICITY DUTY

#### A. Comments/ Suggestions of the Public

3.16.1. Shri Vishnu Bhagwan Agarwal, Chairman, Associated Chambers of Commerce & Industries of UP and Shri Manish Aggarwal, President, National Chamber of Industries & Commerce of UP submitted that there is no justification for imposing electricity duty. He also submitted that if GST is levied then why the consumers has to pay the electricity duty. Further, he requested the Commission to waive electricity duty when GST has come into force

3.16.2. Satish Maheshwari, Uttar Pradesh Udyog Vyapar Pratinidhi Mandal submitted that Electricity Duty should be ended and consumers should not be burdened due to Discom inefficiency.



## **B. Licensees response**

3.16.3. The Licensee submitted that the Electricity duty is levied by the Government of Uttar Pradesh (GoUP) as per the notification issued by Energy Department (GoUP) from time to time. The Licensee just collects the same on behalf of GoUP and has no authority to change it. Further, for matters related to GST on Electrical power, the stakeholder may approach GoUP.

## **C. Commission's view**

3.16.4. The Commission has taken note of the objections/suggestions made by the stakeholders and comment of the Licensee.

## **3.17. MIGRATION TO OTHER CATEGORIES**

### **A. Comments/ Suggestions of the Public**

3.17.1. Prayas (Energy Group), Pune submitted that energy charges of HV commercial and industrial consumers are substantially high. The average tariff for HV 1 consumers is Rs. 10.26/kWh, whereas the tariff for HV 2 consumers is Rs. 7.94/kWh. Even with proposed cross-subsidy surcharge and wheeling charges, these consumers might be nudged to procure power through open access or set up captive power plants. Captive consumption in UP has been significant at 17%-21% of total consumer sales between 2011-2018 as per 'CEA All India Electricity Statistics, General Review'. So, in order to disincentivize sales migration, DISCOMs could increase the fixed charge component to make open access less lucrative. However, it will have unintended consequence of making captive consumption more worthwhile. For a typical 1 MW consumer belonging to HV-1 or HV-2 category, annual fixed cost payments to the DISCOM are close to ₹50 Lakhs. If these consumers were to set up 1 MW solar captive power plants, they could recover 9-13% of their costs in a year.

3.17.2. Further submitted, given the non-competitiveness of DISCOM Tariffs, it is imperative that high paying HV consumers will prefer to reduce dependence on DISCOMs. To understand such migration and for sustainability of DISCOMs' businesses, it is important to track sales erosion and revenue generated from open access and captive consumption during the control period. Further, it is requested to the Commission to fix surcharges in such a manner so as to provide certainty for long term migration of industrial and commercial consumers while imposing penalties for short term open access as such actions make power procurement



planning difficult for DISCOMs. It would be beneficial to fix cross subsidy surcharge and wheeling charges for the next 5 years.

3.17.3. It is also submitted that the Commission should direct DISCOMs to conduct a study to quantify the impact of sales migration on its revenues and impact on tariff for other consumers and also how such a sales migration trend can be smoothened. This can't be neglected as Indian Railways has also shifted towards availing open access and DISCOMs have suggested a tariff rationalisation for overcome this situation. Apart from this, Commission can issue directives to DISCOMs to report quarterly and annually on number of migrating consumers from and to DISCOM network, along with the load and type of consumer (STOA/ MTOA/ LTOA/ Captive consumers). This is very useful while preparing power procurement strategy of the DISCOMs.

#### **B. Licensees response**

3.17.4. As regard to objection of Prayas group, the Licensee submitted that as regard to the total fixed charge component at existing tariff considered in the tariff for FY 2021-22, the fixed cost component was only 20% against the overall fixed charge component of 65%. The mechanism for recovery of remaining component of fixed charge from energy charge is not mentioned in the tariff order of Commission to ensure that the fixed charge component has been fully recoverable in approved tariff. The Petitioner submits that any change in the tariff of a category will influence all the consumers whether they opt for open access or not. Therefore, increasing the fix charges to the extent to disincentives migration to open access will also over burden the consumers who do not migrate to open access at the same time. Therefore, increasing the fix charges to the extent to disincentives sales migration to Open Access may not be in the larger interest of the consumers. The paying capacity of rural consumers and rural/urban consumer mix are also major components while proposing/ deciding the tariff of various categories.

3.17.5. Further, the fixation of CSS/ Wheeling charges is not plausible solution as the ARR requirement and Tariff determination of the Discoms is a yearly exercise. Any impact of fixation of CSS/ Wheeling charges on Revenue assessment would get transferred to the consumers of the Discom which would be unfair to them.

#### **C. Commission's view**

3.17.6. The Commission has taken note of the objections/suggestions made by the stakeholder and comment of the Licensee.



### 3.18. DISCOM FILLING OF DATA FORMATS

#### A. Comments/ Suggestions of the Public

3.18.1. Prayas (Energy Group), Pune submitted that Commission has taken a welcoming step in issuing directives, and mentioning in the admittance order for this year's tariff process that DISCOMs must upload their filings in searchable PDF formats on their websites, along with excel sheets. All DISCOMs have hosted text searchable PDFs, which is a good step. However, even though DVVNL and PVVNL have uploaded spreadsheet versions of their data formats, MVVNL and PuVVNL have done so only in PDF formats, and KESCO's are missing. The absence of such files and inconsistencies in hosting them on the website makes it difficult to extract information for effective analysis and public participation. It is also submitted that the DISCOMs uploaded their petitions and formats at different times on their websites, which made data aggregation tedious. Previously, UPPCL used to host all DISCOMs' petitions in one place on its website. To enable effective participation, Commission should either direct UPPCL to continue with such practice, or host all relevant petition files and formats on its website. Further, it submitted that the Commission shall adopt the practise of the SERCs in Andhra Pradesh, Delhi, Telangana, Delhi and Madhya Pradesh regarding archiving and hosting all tariff related filings, petitions and orders in their own website to enable participation. Further, the following recommendations are provided to make the tariff process data more accessible:

- The Commission or UPPCL to host and archive all filings and petition related documents of all licensees on its website
- All data formats to be uploaded as spreadsheet format (.xlsx or .csv)
- Reply to data gaps to be uploaded by all DISCOMs in the same format that are easily text searchable

#### B. Licensees response

3.18.2. As regard to objection of Prayas group the Licensee submits that Discoms have filed independent ARR petitions as Licensee and have uploaded petitions and related data on the Petitioner's website as per regulatory provisions.

#### C. Commission's view

3.18.3. The Commission has taken note of the objections/suggestions made by the stakeholders and comment of the Licensee.



### 3.19. SALES AND REVENUE ESTIMATION

#### A. Comments/ Suggestions of the Public

- 3.19.1. Shri Avadhesh Kumar Verma, Chairman, UP Rajya Vidyut Upbhokta Parishad, submitted that the per capita energy consumption in UP is not increasing. In FY 2017-18, it was 628 units which got reduced to 608 units in FY 2018-19 and in FY 2019-20 it again reached to 629 units which seems as a serious condition and GoUP should think over it.
- 3.19.2. Prayas (Energy Group), Pune submitted that the DISCOMs in their tariff petitions have claimed that they have revised sales projections for FY22 (previously provided in their business plans), based on the current situation with respect to the COVID-19 pandemic. While this is the most reasonable thing to do, it seems that there are still high projections being made compared to revised sales estimates for FY21. Sales growth projections are between FY21 and FY22 is in the range of 13%-33% for non-domestic consumption and for HV sales, as highlighted in below table. With new waves of the pandemic hitting the country, necessitating lockdowns and mobility restrictions, it is doubtful if such high sales figures can be achieved. Further, it is requested to the Commission to take into consideration the past growth trends and current realities before approving final sales so as to ensure that the projections are realistic and not overestimated, as such a situation affects revenue gaps subsequently.

*Sales projections by UP DISCOMs for FY22*

Consumer Category	FY20	FY21	FY22	Percentage increase from FY20 to FY21	Percentage increase from FY21 to FY22
LMV-1: Domestic Light, Fan & Power	42,374	42,716	45,070	1%	6%
LMV-2: Non-Domestic Light, Fan & Power	6,448	5,962	6,719	-8%	13%
LMV-3: Public Lamps	741	695	730	-6%	5%
LMV-4: Light, fan & Power for Institutions	1,072	981	1,111	-9%	13%
LMV-5: Private Tube Wells/ Pumping Sets	13,597	14,837	13,999	9%	-6%
LMV 6: Small and Medium Power upto 100 HP	3,323	2,909	3,425	-12%	18%
LMV-7 Public Water Works	1,736	1,653	1,797	-5%	9%
LMV-8 State Tube Wells and Pump Canals	2,944	3,110	2,862	6%	-8%
LMV-9: Temporary Supply	207	157	210	-24%	33%
LMV-10: Departmental Employees	621	603	639	-3%	6%
LMV-11: Electrical Vehicles	-	-	-	-	-
HV-1: Non-Industrial Bulk Loads	3,584	2,825	3,750	-21%	33%
HV-2: Large and Heavy Power above 100 BHP	11,937	10,064	12,353	-16%	23%
HV-3: Railway Traction	123	126	152	2%	20%
HV-4: Lift Irrigation & P. Canals above 100 BHP	696	661	707	-5%	7%
Bulk Supply	2,059	1,911	2,082	-7%	0%



Extra State Consumer	29	24	3	-87%	9%
Grand Total	91,486	89,213	95,608	-2%	7%

3.19.3. Further, the Prayas (Energy Group), Pune submitted that as per current approved tariff design, for non-domestic consumption under LMV-2, up to 4 kW, the monthly fixed charge is Rs. 390 and the energy charge is Rs. 7.50/kWh for the first 300 kWh. Compared to that, domestic rates are much lower at Rs. 110/month for fixed charge and Rs. 5.50/kWh for the first 150 kWh for energy charge. Categorisation based on type of use (e.g. - industrial, commercial) subjects' small enterprises which run out of homes to harassment and makes them liable for unauthorised use as defined in Section 126 (6) (b) (iv) of the Electricity Act. It is further submitted that in order to ensure affordable power for small consumers while ensuring revenue neutrality, the Commission can charge similar fixed and variable charges for domestic and non-domestic consumers for the first 100 kWh. Similarly, the fixed charge can be reduced to match domestic rates. For consumption above 100 units, tariff can vary for domestic and commercial categories separately in a telescopic manner. This would ensure certain level of intra-category cross subsidisation and provide price signals for efficient use of power.

## B. Licensees response

3.19.4. As regard to the objection of Shri Avadesh Kumar Verma pertaining to lower per capita consumption of electricity, the Licensee submitted that the following table shows that the tariff increase during past five years is not abnormal. The per capita consumption of electricity was 471.89 units in FY 2013-14 which increased to 628.73 units in FY 2019-20. The component of rural consumers in UP state is about 63% of total consumers and their tariff is already highly subsidized. This also indicates that there is no direct relationship in the per capita consumption of electricity with tariff increase.

FY	Per Capita Consumption of Electricity	% Growth	% Tariff Hike
2013-14	471.89		
2014-15	501.60	6%	4.37%
2015-16	524.43	5%	4.15%
2016-17	584.87	12%	3.13%
2017-18	627.58	7%	4.24%
2018-19	605.74	-3%	NIL
2019-20	628.73	4%	7.41%*
2020-21			NIL

\* After adjusting Regulatory Surcharge @4.28%



3.19.5. As regard to objection of Prayas group the Licensee submits that the sales projection for ARR of FY 2021-22 is dependent on the FY 2020-21 sales. However, considering that the FY 2020-21 has been an extraordinary year on account of Covid pandemic, the category wise sales for FY 2020-21 are expected to be on lower side compared to the category wise sales approved in the Business plan. In view thereof, the sales projection for FY 2021-22 has been revised thereby deviating from the Business Plan. Further, the sales estimated during the FY 2021-22 is expected to follow the projections made by the Licensee. Accordingly, the Power Purchase Cost is estimated by the UPPCL based upon the expected distribution loss for the FY 2021-22. Further, the Licensee submit that the stakeholder's submission indirectly suggests to levelized the tariff of Domestic and Non-domestic consumers thereby increasing tariff of domestic consumer. As regard the fixed charge component at existing tariff considered in the tariff for FY 2021-22, the fixed cost component for domestic consumer was only 1896 against the overall fixed charge component of 65% and fixed charge component for non-domestic was 28% only. The mechanism for recovery of remaining component of fixed charge from energy charge is not mentioned in the tariff order of Commission to ensure that the fixed charge component has been fully recoverable in approved tariff.

#### **C. Commission's view**

3.19.6. The Commission has taken note of the objections/suggestions made by the stakeholders and comment of the Licensee. The Commission has dealt the issue in relevant chapters of this Order.

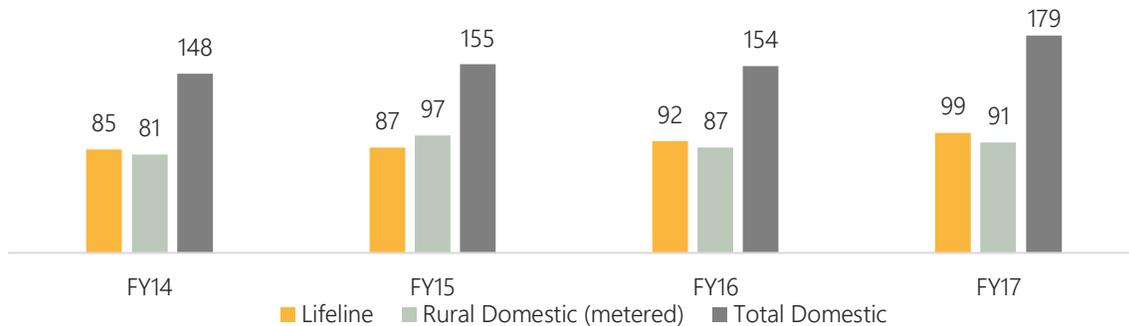
### **3.20. INCONSISTENT CONSUMPTION DATA**

#### **Lifeline consumption reporting**

##### **A. Comments/ Suggestions of the Public**

3.20.1. Prayas (Energy Group), Pune submitted that disaggregated sub-category-wise consumption or revenue data is not reported consistently across years in regulatory tariff petitions or orders. Upon scrutiny of the information that is available, lifeline consumption seems substantially high in UP. This is illustrated in Figure 1, where it can be seen that between FY14 and FY17, lifeline consumption was about 90 units per month, and comparable to consumption by other rural metered domestic consumers. Surprisingly, the average monthly consumption by domestic consumers on an aggregate also seems to be significantly high at about 160 units per month.

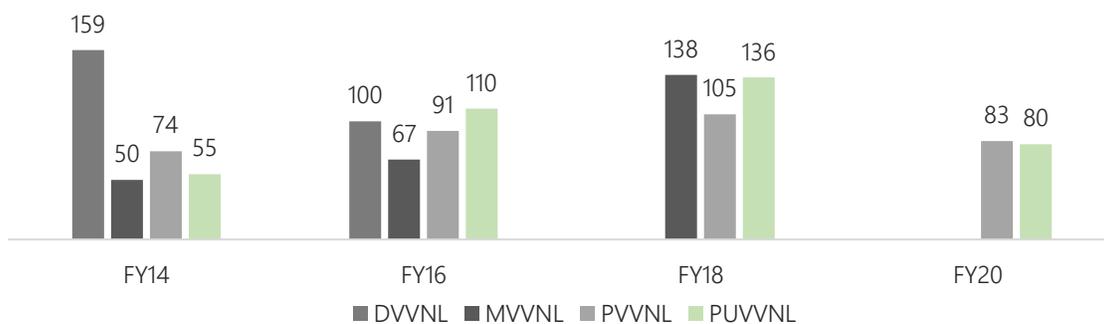
**FIGURE 1: AVERAGE MONTHLY ELECTRICITY CONSUMPTION ACROSS DOMESTIC CONSUMER CATEGORIES IN UP (KWH)**



**SOURCE: COMPILED BY PRAYAS (ENERGY GROUP) FROM BUSINESS PLAN PETITIONS FILED BY UP DISCOMS IN FY17**

3.20.2. Further he submitted that the average monthly lifeline consumption across DISCOMs vary significantly as well, as can be seen in Figure 2. In FY14, it was as high as 159 units in DVVNL’s service area. PuVVNL’s consumers seem to consume the least in the state, but over the years, this consumption has fluctuated. This fluctuation of consumption across years raises questions regarding appliance usage patterns, change in hours of supply, and demand response to tariff changes. It is unclear how any of these factors might have changed in DVVNL in two years, between FY14 and FY16, to bring down the average monthly consumption by 60 units. Similarly, one can wonder as to what kind of changes happened in MVVNL between FY16 and FY18 to increase the average consumption from 67 units to 138 units. Added to this, when UP faces much more interruptions than most states, it is hard to imagine such high consumption.

**FIGURE 2: AVERAGE MONTHLY LIFELINE CONSUMPTION ACROSS DISCOMS IN UP (KWH)**



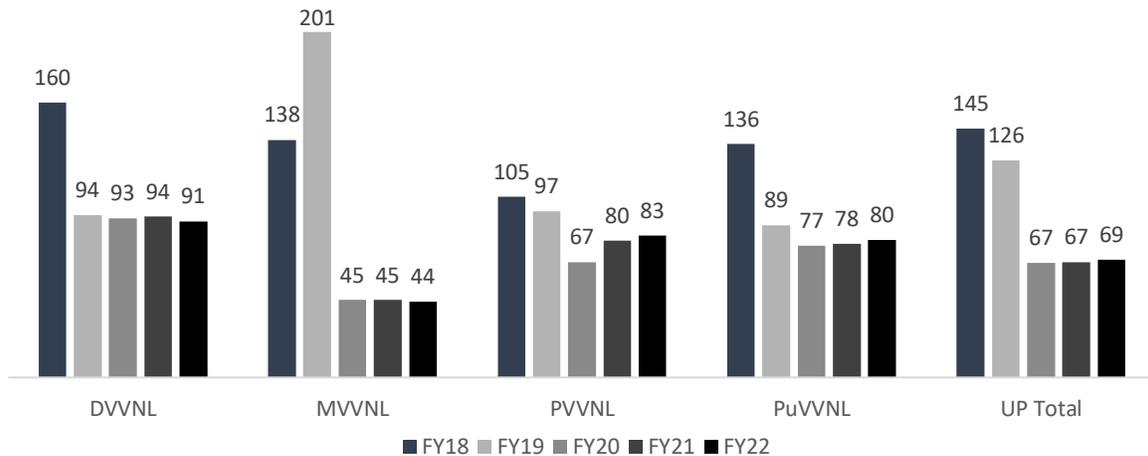
**SOURCE: COMPILED BY PRAYAS (ENERGY GROUP) FROM BUSINESS PLAN PETITIONS FILED BY UP DISCOMS IN FY17 AND TARIFF PETITIONS FILED IN FY21.**

3.20.3. Further it was submitted that similar peculiarities can be found in more recent data submitted by the DISCOMs as part of their ARR petitions for FY22, as has been captured in Figure 3. Trued-up data for FY19 shows very high monthly average consumption for lifeline category, at 126 units. This is about 60% greater than the consumption recorded for rural domestic consumers, whose consumption was relatively the same, as seen in Figure 1. The petitioned consumption figures for FY20-FY22 are half of what was recorded in FY19, at about 67-69 units per month. DISCOM-wise lifeline average monthly consumption is illustrated in Fig 4.

**FIGURE 3: AVERAGE MONTHLY LIFELINE AND RURAL DOMESTIC CONSUMPTION (KWH) IN UP BETWEEN FY19-FY22**



**FIGURE 4: DISCOM-WISE MONTHLY AVERAGE CONSUMPTION BY UP DISCOMS FY18-FY22**



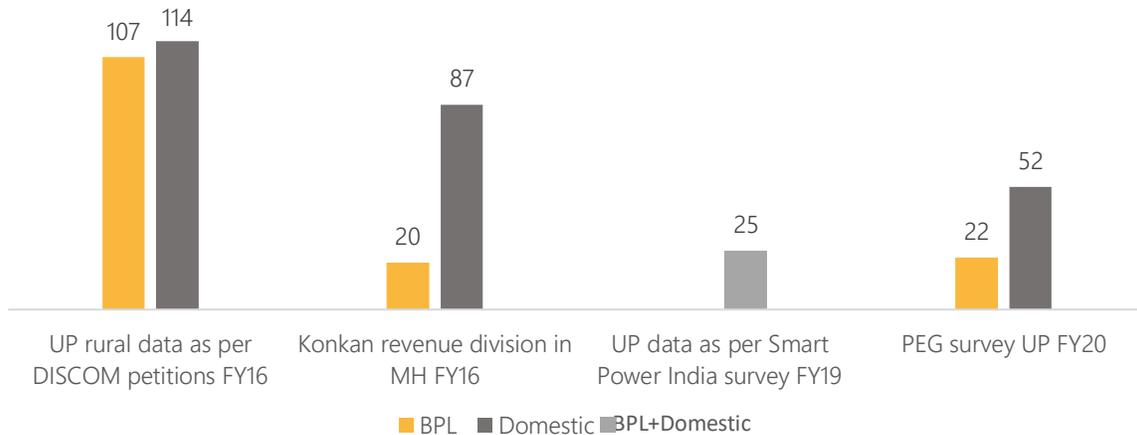
**SOURCE: COMPILED BY PRAYAS (ENERGY GROUP) FROM TRUE-UP, ANNUAL PERFORMANCE REVIEW (APR), AND AGGREGATE REVENUE REQUIREMENT (ARR) PETITIONS FILED BY UP DISCOMS IN FY22**

3.20.4. Further, upon comparing these average monthly consumption numbers with other sources, there seems to be a stark difference same been illustrated in Figure 4, where monthly average consumption of BPL and domestic consumers is captured.

The first comparison can be drawn between rural domestic consumption in UP in FY16 (as per DISCOMs’ regulatory submissions) and domestic consumption in the Konkan revenue division in Maharashtra – a region where household income levels are higher than most rural areas in the country. It can be seen that not only were the BPL consumption numbers starkly lesser in the Konkan area in FY16, but overall domestic consumption also seemed to be much lesser.

3.20.5. The second comparison can be done with independent surveys that have been conducted in UP. In case of the survey conducted by Smart Power India in FY19, the average monthly household consumption was found to be as low as 25 units per month – almost 90 units lesser than what was reported to be the consumption of domestic consumers by UP DISCOMs three years ago in FY16. Further, according to a survey conducted by Prayas (Energy Group) in FY20, average consumption by domestic consumers was 52 units, which is half of what was reported by the DISCOMS in FY16.

**FIGURE 5: MONTHLY AVERAGE CONSUMPTION LEVELS (KWH) OF BPL AND DOMESTIC CONSUMERS ACROSS VARIOUS SOURCES**



**SOURCE: COMPILED BY PRAYAS (ENERGY GROUP) FROM VARIOUS SOURCES**

## B. Licensees response

3.20.6. As regard to objection of Prayas group the Licensee submits that any changes in Supply Code provisions are considered and decided by Supply Code Review Committee and is not a part of present ARR petition. Further it is submitted by the Licensee that to improve the process of meter reading, Licensee is focusing on trust billing and downloaded meter reading to eliminate the manual intervention thereby reducing the meter reading errors.



### C. Commission's view

3.20.7. The Commission has taken note of the objections/suggestions made by the stakeholders and comment of the Licensee.

### 3.21. RENEWABLE ENERGY PROMOTION

#### A. Comments/ Suggestions of the Public

3.21.1. Prayas (Energy Group), Pune submitted that with solar and wind sources becoming cheaper in the country and (even though not directly comparable) available at lower costs than thermal power, the state DISCOMs should focus on increasing renewable energy procurement. The additional power procurement planned by DISCOMs in the state for FY 2021-22 has been tabled below:

**SOURCE-WISE PPA ADDITION IN FY 2021-22**

Source	Generation from	Capacity (MW)
NHPC	PARBATI-II	155
	SUBANSIRI LOWER	182
	PAKALDUL	200
IPP Hydro	Rajghat Hydro	18
	Hydro (Competitive Bidding)	400
IPP Thermal	Ghatampur	1683
RE	Wind and biomass	380
	Solar	397
Total		3415

3.21.2. Further it submitted that of the capacity in the pipeline, 777 MW of the newly added sources are renewable sources (excluding large hydro), which contribute about 22% of the total addition. Considering the latest reduction in tariff for solar and wind projects, DISCOMs could focus on renewable energy. Also, it is suggested that any new PPA signing should be based on a state-wide modelling, which identifies the power shortage, the time of power requirement, the source best suited to supply power and also consider the carbon footprint of such power supply along with the economics associated with the same. It is also suggested that the DISCOMs should provide information on the impact of these PPAs (source-wise) on tariff for the financial year for each source.

3.21.3. Prayas (Energy Group), Pune further submitted about promoting projects under PM-KUSUM scheme. It submitted that GoI has already come up with PM-KUSUM scheme which aims to provide day-time supply to agricultural consumers in the country. Under the Component A and C of the scheme, some large projects with



size ranging from 0.5 MW to 2 MW are allowed in the rural areas where substation capacities are being under-utilised. Under the component C, DISCOMs are eligible to get 30% CFA for the project development. Similarly, under Component A, DISCOMs are eligible to get performance linked incentives of Rs. 0.40 per unit purchased or Rs. 6.6 lakh per MW of capacity installed, whichever is less, for a period of five years from the COD. Apart from this, the benefit of cheaper solar power at daytime for agricultural consumer is itself an incentive for the DISCOMs with saving of more than Rs. 50 crores annually. MNRE has already sanctioned 225 MW capacity target for the state of UP under Component A. Hence, it is suggested that Commission should direct DISCOMs to speed up the process of tendering the projects under PM-KUSUM scheme (for both Component A & C).

- 3.21.4. Further, Prayas (Energy Group), Pune submitted that there is 257 MW solar rooftop capacity installed in the state as on 28th Feb, 2021 (MNRE), out of which 110 MW has been added in the last financial year (i.e., from March 2020 till Feb 2021). While the recent addition is noteworthy, the discoms need to promote solar rooftop projects in a big way, including awareness creation programme for consumers across the state. Further, it submitted that the delay in bill payments by public institutions like government offices, govt. hospitals, panchayat buildings, etc. is prominent in the state. As these all come under essential services in one way or another, the disconnection due to delay in bill payment is not done, rightly so. So, DISCOMs have to find out ways to reduce the delays in bill payment from such institutions. One of the ways to do so is introducing virtual and group net metering in the state.
- 3.21.5. It is proposed that Commission may allow virtual net metering in the state and state government (along with UPNEDA) can install large solar projects (say 100 to 500 MW) in the state which can be used to supply power to such institutions and only any excess consumption is billed from them. This will reduce the dependence of such institutions on DISCOMs for power supply, reduce extent of pending dues and improve collection efficiency. Commission should direct DISCOMs to explore such options with the state government to address the issue of revenue collection from public bodies.
- 3.21.6. Shri Yogesh Agarwal, Rimjhim Ispat Limited submitted that UPPCL should explore sources for procurement of power through non-conventional energy resources such as solar, small hydro or bagasse etc which will reduce the overall power purchase and further reduce the Tariff of the State. He further submitted that Uttar Pradesh Solar Energy Policy 2017 calls for concessional Tariff for industries in Bundelkhand



to promote generation of Solar Energy. The Commission is requested to consider the same and offer concessional Tariff for Bundelkhand, in spirit of Uttar Pradesh Solar Energy Policy 2017, to further promote industrialization and development of the region.

- 3.21.7. Shri Satish Maheshwari, Uttar Pradesh Udyog Vyapar Pratinidhi Mandal submitted that Commission should advise the power companies to formulate a policy that promotes solar energy and net metering should be allowed for all LMV 1 to LMV 6 category without any discrimination.
- 3.21.8. Shri Ankit Kumar, IERS submitted that as per solar policy 2017 for the consumers procuring solar power based open access have to pay only 50% of transmission and wheeling charges but no such relaxation is provided to consumers who wanted to avail open access power from any other renewable source. Therefore, it is required that Commission must take such steps that such relaxation must also be provided for other renewable sources so that whole growth can be provided to all the renewable sources of power along with solar.
- 3.21.9. He further submitted that in state Chhattisgarh (as per Tariff Order for FY20-21), Bihar (as per Renewable Energy Policy published on date 7.12.2018), Delhi (as per DERC order dated 24.12.2013) in addition to solar, if consumer procures power from other renewable sources such as wind, hydro, biogas, bagasse etc via open access, it is provided with relaxations on open access charges such as wheeling, cross subsidy and transmission charges. But in state of Uttar Pradesh the renewable energy policy only provides relaxations of 50% in transmission and wheeling charges in solar energy whereas power procurement from other renewable sources does not consist of any such relaxations.
- 3.21.10. He further requested that similarly to solar, relaxation of 50% of wheeling and transmission charges must be provided in case of power procurement from other renewable sources in the state of Uttar Pradesh because all these states mentioned above have same demographics as state of UP. This extension of relaxation in open access charges will help in increasing the per capita power consumption of consumers as well as it will help the states to increase the procurement of power from renewable power.

## **B. Licensees response**

- 3.21.11. As regard to objection of Prayas group the Licensee submits that Solar power is available during day hours when the power demand is lowest in the state thus any



additional tie up of solar power would result in increase of stranded capacity charges of Discom. Further, the Discoms are in process of tying up of power from other RE sources taking in to consideration the cost implication for RE power.

3.21.12.As regard to objection of Prayas group regarding Kusum Scheme, the Licensee submitted that the matter is under active consideration.

3.21.13.Further, the Licensee submitted that it would be prudent to mention that the impact of lower collection efficiency does not affect the ARR requirement of the Petitioner. Guidelines regarding Net Metering and Gross Metering are being followed as per RSPV Regulations, 2019.

3.21.14.As regards to the objections of Shri Yogesh Agarwal, Rimjhim Ispat Limited and Shri Satish Maheshwari, Uttar Pradesh Udyog Vyapar Pratinidhi Mandal, the Licensee did not submit any reply.

3.21.15.As regards to the objection of Shri Ankit Kumar, IERS suggested waiver of 50% transmission and wheeling charges on Procuring power from non-Solar sources through OA. The Licensee submits that there is no basis of the suggestion made by the stakeholder. Moreover, the National Tariff Policy 2016 allows the Distribution Licensee to recover the wheeling charges from an Open Access consumer. Any reduction in waiver on Transmission or wheeling charges would result into lower recovery of charges and would cause undue burden to the consumers of the Distribution licensee.

### **C. Commission's view**

3.21.16.The Commission has taken note of the objections/suggestions made by the stakeholders and comment of the Licensee.

## **3.22. MANDATORY PROVISIONS TO INCORPORATE FIX ACCOUNTABILITY**

### **A. Comments/ Suggestions of the Public**

3.22.1. UP Industrial Vidyut Upbhokta Parishad (UPIVUP) submitted that at present, there being no such mandatory provisions to fix accountability of employee / official for doing wrong work, for not doing right work as provided under rules, kept work pending and leading to delay and causes harassment, finance losses, purposely for financial exploitations, the con carved consumers become daily victims of such system without fear of there being no action for any such misdeeds against the concerned.



3.22.2. Hence, in the interest & fairness of justice, it is the need of hour that Commission must kindly take note & take the required steps to make such provisions against such employees / official, as the same shall provide long needed deserve relief to the consumers in general.

**B. Licensees response**

3.22.3. The Licensee has not submitted any reply.

**C. Commission's view**

3.22.4. The Commission has taken note of the objections/suggestions made by the stakeholders.

**3.23. UNFAIR/UNJUST PRACTICES OF DISCOMS**

**A. Comments/ Suggestions of the Public**

3.23.1. Shri Pradeep Kumar Singhal, raised an issue that Distribution Licensees are spending extravagantly on issues like double metering system when the meter is installed on poles and on gates on consumers. Like double metering, the meters which were installed on the poles, today double metering system is being installed at the consumers' gates as well. He further requested the Commission to order installation of only one meter at the establishments of the consumers instead of double metering system. So that wasteful expenditure can be curbed. He further requested that Commission should take action against departmental officers involved in theft of electricity and give orders to confiscate the property.

3.23.2. UP Industrial Vidyut Upbhokta Parishad (UPIVUP) submitted that it is a well known fact that DISCOMS without caring for ethics of any law, even against Principal of National Justice & Constitution of India has fearlessly enforced on its own un-fair, unjust practice to forcefully compelled the consumers to withdraw all their pending court cases before any court of law & before Forum in case of eventuality to demand in increase in load, NOC required for Open Access or in another on any such occasions. It is also submitted that the said practice being followed & enforced is totally un-lawful & illegal, being against Principal of National Justice & as such Constitution of India. Further, in the interest of justice & to adopt fair practice, a mandatory provision be incorporated to desist DISCOMS to enforce such unfair & illegal practice, as consumers in a very compelling circumstances approach the



courts & Forum only & only in the situation when the grievances of the consumers are not addressed despite several requests made to the concerned officials. Under no circumstances none of the any authority, can enforce or stipulated any certain such pre-conditions which compel the consumers to make withdraw their own suits / writs / petitions filed & pending before any Forum & or Court of law. They requested the Commission to kindly take note to incorporate required provisions in the Tariff itself which forthwith stop discontinue such unfair practice, which does not stand to test, before any law of the land.

3.23.3. Shri D. C. Sharma, Federation of All India Vyapar Mandal submitted that construction work is being done on the vacant departmental land which is contrary to the terms of the contract, being a private company, even the maps have not been approved from the concerned departments. This illegal construction should be demolished in order to save department property. He also submitted that all the houses made for accommodation of the departmental employee's should be vacated immediately. He also submitted that torrent power, Agra is harassing consumers by collecting money against supply code 2005. He submits that related to the transformer installation and drawing pass from the Directorate of Electricity by the trade organization the executing organization is responsible but M/s Torrent Power Ltd., Agra has not obtain the no-objection certificate from the directorate for electrical safety from consumers after line construction and transformer installation due to which for a long time the connections of consumers are not getting energized and the consumers are facing economic, social damage. Thus, there is a need for strict compliance of orders by the licensee.

#### **B. Licensees response**

3.23.4. As regards to the objection of Shri Pradeep Kumar Singhal, the Licensee submitted that the suggested changes are not directly related with ARR proceedings.

3.23.5. As regards to the objection of UP Industrial Vidyut Upbhokta Parishad (UPIVUP), Shri D. C. Sharma, Federation of All India Vyapar Mandal, the Licensee did not submit any reply.

#### **C. Commission's view**

3.23.6. The Commission has taken note of the objections/suggestions made by the stakeholders and the submissions of the Licensee.



### 3.24. NON- TARIFF INCOME

#### A. Comments/ Suggestions of the Public

3.24.1. Shri Rama Shanker Awasthi submitted that as per the applicable principles of accounting, the Commission is required to deduct the income received by the licensee from non-tariff sources from the working capital of the licensee while computing the interest on working capital. It is because the income from other sources, that is the non-tariff income are funds that are in the hand of the licensee. It is submitted that the Commission has, in violation of the aforementioned principle, not been considering and deducting the non-tariff income from the working capital, while computing the interest on working capital, in the previous tariff orders of PVVNL. Notably, this incorrect approach has always been resorted to by this Commission. Admittedly, while the Commission's regulations are silent on this aspect, such a methodology of computation is contrary to the established regulatory principle of computing the interest on working capital as well as the standard principle of accounting, that finds adequate grounding in the various judgments and orders passed by the APTEL and the various tariff orders, and ought to be followed. He submitted that it is incumbent upon this Commission to not only adopt the correct approach in the forthcoming orders to be passed by the Commission but to also actually set the record right and correct the illegality that has been perpetrated in the previous financial years for PVVNL and other discoms and give its impact in the current FY by reviewing the earlier Orders.

3.24.2. Shri Prateek Aggarwal of CEEW submitted that the non-tariff income, including delayed payment surcharge (DPS), was reduced by 65.3% in FY20 from FY19. Given that the discoms would be facing immense challenges in recovering their tariff revenues, the commission must push the discoms to look for other non-tariff income opportunities. Some of the innovative measures that the discom could consider to improve their non-tariff incomes could be:

- Utilising poles owned by UPPCL to put up private sector advertisements, security cameras, air pollution monitoring sensors
- Leasing out the extra spaces at the local substation offices for private advertisements

3.24.3. Shri Arun Mishra submitted that other income is shown as Rs. 12.57 Crore. He submitted that the Licensee has given their properties at throw away price and are allowing Reliance Infocom, Airtel & other telecom companies for sharing their poles



for the purpose of fastening their optic fibre cable at throw price of Rs 11 per pole per year in gross contradiction to Clause 5.1(b) of UP Electricity Regulatory Commission (General Conditions of Distribution Licence) Regulations No. 4361/2004 which speaks:

(a) Assign the Licensee or transfer his utility by sale lease, exchange or otherwise. Clause 5.2 restrict any agreement relating to any transaction specified in sub-clause (b) or (c) of clause 5.1.

Further Clause 5.11 clearly speaks thus:

'Except as provided in clause 5.8 above the Distribution Licensee shall not transfer or assign the License or any of the functions under the License to any other person without the prior approval of the Commission '.

3.24.4. He also submitted that the Petitioner further allowed Allahabad Development Authority, Allahabad without insisting for Supervision charges @15%, Contingency charges @3% and T&P charges @1.5 on various work carried out by Allahabad Development Authority, Allahabad in Kumbh 2019 which actually relates to Petitioner. The similar attitude is shown in case of Smart City Project and if they had been charged then income would have grown up.

#### **B. Licensees response**

3.24.5. As regard to Rama Shanker Awasthi objection the Licensee hereby submitted that the Interest on Working Capital is calculated as per clause 25.2 of UPERC (Multi Year Tariff for Distribution and Transmission) Regulations, 2019.

3.24.6. As regards to the objections of Arun Mishra, the Licensee has not submitted any reply.

3.24.7. As regards to the objections of CEEW, the Licensee submitted did not submit any reply.

#### **C. Commission's view**

3.24.8. The Commission has taken note of the objections/suggestions made by the stakeholders and comment of the Licensee. The Commission has dealt the issue in relevant chapters of this Order.



### 3.25. BAD AND DOUBTFUL DEBT

#### A. Comments/ Suggestions of the Public

- 3.25.1. Shri K.L. Aggarwal, Chairman, Industrial Development Forum, Muzaffarnagar, submitted that for PVVNL under said head of Bad and Doubtful Debt against Rs. 40.89 Crore as shown in true up F.Y. 2019-20, Rs. 403.30 Crore & Rs. 440.25 crores have been shown as projected figures for FY 2020-21, 2021-22. It is submitted that the said projected figures being 10-11 times of true up figures appears not to be actual but manipulated & inflated since non- believable & considerable.
- 3.25.2. Shri Prateek Aggarwal of CEEW submitted that Discoms have claimed massive increases under 'bad and doubtful debt' (B&D) for FY 2020-21 and FY 2021-22. For example, PVVNL has claimed an 886% increase in B&D in FY 2020-21 compared with FY 2019-20 and another 977% increase in FY 2021-22 over FY 2020-21. While the B&D claim is within the limit of 2% of revenue allowed as per Regulation 46 of the Multi-Year Tariff (MYT) Regulations, the actual revenue accrued in FY 2020-21 has increased by 7% over the approved revenue in the Tariff Order dated November 11, 2020, but B&D has risen by 240%. No explanation has been provided for this. It is requested that the Commission allow the B&D component of discoms in ranges similar to previous years' increases, as disproportionate write-offs are likely to impact discom financial health adversely.

#### B. Licensees response

- 3.25.3. As regards to the objection of Shri K.L. Aggarwal, Chairman, Industrial Development Forum, the Licensee submitted that the Discoms have claimed the expenditure towards Bad and doubtful debts provisioning in accordance with the applicable UPERC (Multi Year Tariff for Distribution and Transmission) Regulations, 2019.
- 3.25.4. Further, the Discoms have claimed R&M expenses based upon the norms prescribed under the applicable UPERC Multi Year Tariff (Transmission and Distribution) Regulations 2019 along with UPPCL O&M Expenses. The Petitioner has also considered the Gain/ Loss sharing, as O&M Expenses is a controllable factor under the UPERC Distribution Tariff Regulations 2014.
- 3.25.5. As regards to the objection of CEEW, the Licensee did not submit any reply.



### **C. Commission's view**

3.25.6. The Commission has taken note of the objections/suggestions made by the stakeholders and comment of the Licensee. The Commission has dealt the issue in relevant chapters of this Order.

## **3.26. REVENUE DIFFERENCE**

### **A. Comments/ Suggestions of the Public**

3.26.1. Shri K.L Aggarwal, Chairman, Industrial Development Forum, Muzaffarnagar, submitted regarding revenue, that against true up figures of Rs. 1244.16 for F.Y. 2019-20, projected figures Rs. 3388.15 & Rs. 3220.65 for F.Y. 2020-21, 2021-22, appears imaginable & unbelievable being inflated by 2.5 times for PVVNL.

### **B. Licensees response**

3.26.2. As regard to objection regarding Revenue, ABR and ACoS it is submitted that the Petitioner has estimated the sales for FY 2021-22 based on actual data of FY 2019-20. The Revenue and ABR is projected based upon the Sales and Existing Tariff as approved by the Commission. Further, the Average Cost to Serve (ACoS) is projected based upon the projections made for different ARR items in accordance with the UPERC (Multi Year Tariff for Distribution and Transmission) Regulations, 2019. The Petitioner shall submit the actual expenses for FY 2021-22 during True-Ups.

### **C. Commission's view**

3.26.3. The Commission has taken note of the objections/suggestions made by the stakeholders and comment of the Licensee.

## **3.27. AVERAGE BILLING REVENUE**

### **A. Comments/ Suggestions of the Public**

3.27.1. Shri K.L Aggarwal, Chairman, Industrial Development Forum, Muzaffarnagar, submitted that in F.Y. 2019-20, ABR in true up is Rs. 5.86 / unit whereas it has been projected to Rs. 6.39 / unit & Rs 6.52/ unit for FY 2020-21 and FY 2021-22 thus increase by Rs. 0.53 /unit & Rs. 0.66 / unit for F.Y. 2020-21 and 2021-22 is without any logic & stand unjustified.



## **B. Licensees response**

3.27.2. As regard to objection regarding ABR, it is submitted that the Licensee has estimated the sales for FY 2021-22 based on actual data of FY 2019-20. The Revenue and ABR is projected based upon the Sales and Existing Tariff as approved by the Commission.

## **C. Commission's view**

3.27.3. The Commission has taken note of the objections/suggestions made by the stakeholders and comment of the Licensee. The Commission has dealt the issue in relevant chapter of this Order.

## **3.28. REVENUE SUBSIDY**

### **A. Comments/ Suggestions of the Public**

3.28.1. Prayas (Energy Group), Pune submitted that while better targeting of subsidy through direct transfers has been discussed in policy documents and recently as part of the draft Electricity Act amendment of 2020, DISCOMs need to conduct pilot projects for the same before going ahead with large scale roll outs to avoid unintended outcomes that might severely disadvantage consumers. It submitted that it is unclear in the DISCOMs' petitions whether subsidy will be directly transferred to individual consumers' bank accounts or the consumer's account with the DISCOM. There will not be much of a change in modality if the latter is taken up and the issue of delay in subsidy payments will not be addressed. However, if the state government is considering implementing subsidy disbursement through DBT by depositing the subsidy quantum in the consumers' bank accounts as has been done for LPG subsidy programs, then pilot projects need to be conducted.

3.28.2. Further, the Prayas Energy Group submitted the uncertainties associated with DBT to consumer bank accounts as follows:

- If the model of subsidy payment requires consumers to pay unsubsidised bills upfront first and on basis of such payment, the government credits the subsidy amount through DBT to the consumer's bank account, it might lead to cash flow issues for poor and agricultural consumers. To circumvent this issue, in the first month, an advance amount of subsidy could be credited to the consumer's bank account based on average bills of past months. In subsequent months, subsidy can be credited based on actual consumption of the previous month and can be adjusted going forward.



- If there is a delay in transferring subsidies to consumers then it might mean substantial high bill payments for rural domestic and agricultural consumers. This tariff shock might lead to default and encouragement of a non-payment culture. With so many newly electrified consumers in the state belonging to the subsidised categories, this might not be a desirable outcome.
- In case of tenancy, it is unclear whose bank account the DBT will be credited to- the owner of house in whose name the connection is, or the tenant who actually pays the electricity bill. In case of agriculture, farming practices and ownership is much more complicated where tenancy farming is practised on fragmented pieces of land.

3.28.3. Therefore, it submitted that even before DBT pilots are conducted, it is suggested that Commission come up with a white paper on subsidy disbursement process through DBT (covering challenges, reporting, grievance redressal and infrastructure required to support DBT) for a wider public consultation. It also submitted that the Commission follows a good practice of reporting in the annual tariff orders the category wise amount of subsidy promised and paid by the government of UP and will be good to continue with such practices even with change in modalities of subsidy payments. Additionally, it is a good practice to arrive at two separate tariff schedules- one with incidence of subsidy and one without subsidy.

#### **B. Licensees response**

3.28.4. As regard to objection of Prayas group the Licensee proposed to mention the amount of subsidy in the monthly electricity bills of the subsidised consumers and adjust this amount from the bills prepared on the basis full cost tariff approved by Commission. Accordingly, only net amount will be payable by the subsidised category of the consumer, which is also in line with the discussions held with Ministry of Power, Gol.

#### **C. Commission's view**

3.28.5. The Commission has taken note of the objections/suggestions made by the stakeholders and comment of the Licensee.

### **SUBSIDY DATA PROVISION**

#### **A. Comments/ Suggestions of the Public**

3.28.6. Prayas (Energy Group), Pune submitted that the Annual reporting of subsidy takes place in tariff petitions and orders for domestic and agricultural consumers, but it is



not clear if the entire quantum is reported and if other categories (such as power loom) are in receipt of subsidy. Additionally, it submitted that there is no information on delay of subsidy payments or its impact on working capital borrowings. Further, it is submitted that in the tariff and true-up orders and petitions, the Punjab SERC and Punjab State Power Corporation Limited (PSPCL) respectively have been reporting category-wise information on subsidies, delays in subsidy payment and interest cost due to the same. The PSPCL, based on the Punjab SERC directions, is also providing information on subsidy payments on a fortnightly basis. The TNERC releases a subsidy order every year which provides details on category-wise subsidies and revision in subsidy amounts due to variation in sales. Considering such good practices and the extent of reliance on subsidy for their revenue requirements by the UP DISCOMs, we propose that the Commission can direct the DISCOMs to submit the following information on a quarterly and annual basis:

- Subsidy promised and paid during the concerned period and change in subsidy claimed due to revision of sales, if any.
- Schedule of payment of subsidies and deviation from the same on a monthly basis.
- Delays in subsidy payments in days along with short-term loans and accumulating interest payments incurred due to delays.
- Detailed break up of payments which include budgetary payments, subsidy adjustments with electricity duties collected and adjustments in loan repayments, if any.
- Break up of revenue subsidy paid to each consumer category or class of beneficiaries in the period. This should provide details on tariff subsidy as well as subsidy in lieu of rebates, if any.
- Break up of subsidy provided to each category to compensate for pending dues or arrears.
- Break up of subsidised sales on a category-wise basis along with subsidised and unsubsidised tariff.

3.28.7. Shri Rama Shanker Awasthi submitted that the Government of Uttar Pradesh should provide subsidy to Discom on Monthly basis. UPPCL has announced One Time Settlement scheme to increase its revenue collection by waiver of interest from time to time. Such a scheme is not approved by the Commission and therefore no records is also provided by the PVVNL. It should be informed by PVVNL that how much interest is waived off during such One Time Settlement Scheme and how



much revenue is collected. He further submits that the loss of the discom towards waiver of interest is the deemed revenue at the hands of the PVVNL which cannot be passed on to the honest consumers in the tariff determination process. The loss accrued to the PVVNL on account of waiver of interest is the lost revenue of the PVVNL which it has decided in its own business wisdom to forego and it is required to be set off from its RoE. PVVNL cannot be allowed to be compensated for the adverse impact of its own commercial decision.

3.28.8. Shri Prateek Aggarwal of CEEW submitted that the Commission must direct the Discoms to periodically furnish details on the consumer category-wise information on subsidies, delays in subsidy payment, and interest cost due to this delay. Such reports must be vetted by the Commission and made available on its website. Further, he submitted that the Discoms have not submitted a roadmap for the Direct Benefit Transfer of subsidy payments in the ARR for FY 2021-22, despite directions from the Commission. The Discoms must review the DBT models being practiced across states and plan pilot projects following different models.

#### **B. Licensees response**

3.28.9. As regard to objection of CEEW and Prayas group the Licensee submitted that Commission has not mentioned the subsidy per unit rate against each consumer category in Tariff Order FY 2020-21. Licensee has requested Commission to determine the full cost Tariff without subsidy and mention per unit subsidy rate for the subsidised consumer's categories / sub-categories/ slab in Tariff order FY 2021-22 as communicated by GoUP to Commission.

3.28.10. The Licensee further proposed to mention the amount of subsidy in the monthly electricity bills of the subsidised consumers and adjust this amount from the bills prepared on the basis full cost Tariff approved by the Commission. Accordingly, only net amount will be payable by the subsidised category of the consumer which is also in line with the discussions held with Ministry of Power, GoI.

3.28.11. As regard to Rama Shanker Awasthi objection the Licensee hereby submitted that as per the current accounting policy the late payment surcharge billed to consumers is accounted as income in the books of accounts only when the same is collected by Discoms. Considering the OTS scheme, it was introduced for the consumers who had not been paying their bills for a long period. Therefore, the LPS billed to them was otherwise unrecoverable and cannot be adjusted in the ARR.



### C. Commission's view

3.28.12. The Commission has taken note of the objections/suggestions made by the stakeholders and comment of the Licensee.

### 3.29. SMART METER

#### A. Comments/ Suggestions of the Public

3.29.1. Shri Shivakant Tripathi, Uttar Pradesh Jan Kalyan Samiti, Lucknow submitted that smart meter should be rolled out in consumer premises having faulty meters.

3.29.2. Prayas (Energy Group), Pune submitted that UPPCL has claimed that 40 lakh smart meters will be installed as per the smart meter roll out plan. It submitted that UPPCL has stated that 10.31 lakh smart meters have been installed in Uttar Pradesh as on 30th June 2020. However, in FY22 tariff petitions, it is recorded those 19 lakh meters were installed in FY20. It is unclear why there is a difference. The DISCOMs were able to install 4,73,619 meters in FY21, while they plan to install 13,05,877 meters in FY22 but given that the pandemic continues to affect the country in 2021 as well, it is unclear how the DISCOMs plan to install 9 lakhs more meters than it could in FY21, under similar circumstances. Further, it is submitted that the DISCOMs shall submit the AMISP's annual installation plan of all 40 lakh smart meter installations in this phase to the Commission and all future roll-out plans must be approved by the Commission before selection of the AMISP.

3.29.3. Prayas (Energy Group), Pune also submitted that installing smart meters for all 27 million domestic consumers of UP DISCOMs would mean significant per year costs which is comparable to about 40% of the current O&M of DISCOMs. Given the potential impact on consumers, reporting of progress and expenses should be improved and such information should be provided publicly. The Commission had prescribed formats for quarterly submission of information with respect to smart metering progress in its November 2018 order as Annexure-A. This format, along with information on net gains should be published on DISCOM's and Commission websites for transparency. It is further submitted that below table suggests information that must be publicly available.

#### **INFORMATION THAT UPERC CAN DIRECT DISCOMS TO MAKE PUBLICLY AVAILABLE**

Parameter	DISCOM 1	DISCOM 2	...DISCOM n
<b>About meter replacement program:</b>			
Name of area for scheme implementation			
Consumer categories covered in meter replacement scheme			



No. of consumer meters per consumer category			
Target no. of days for replacement			
Replacement start date			
Replacement end date			
Reason for replacement (high loss area/ DSM measure, etc.)			
Financial benefit estimation per meter:			
Savings in power purchase cost due to loss reduction			
Savings in cost due to O&M cost reduction			
Savings due to increase in collection efficiency			
Savings due to any other reason			
Lessons from cost benefit analysis			
Implementation agency(s)			
Responsibilities of implementation agency(s)			
Payment option in smart meter (prepaid/post-paid)			
Technology used in smart meter (GPRS/RF, etc.)			
Cost of implementation (in ₹)			
Cost borne by DISCOM (in ₹)			
Cost borne by implementation agency (in ₹)			
Cost shared with consumers (in ₹)			
Mechanism of cost sharing with consumers (charged for meter/ cost recovered through tariff, etc) number of years			
Plan for rollout provided? (Y/N)			
<b>Lessons from pilot project:</b>			
Duration of pilot project			
Meters installed			
Technology used			
Payment option in smart meter (prepaid/post-paid)			
Cost incurred (in ₹)			
Benefits incurred for each category (in ₹)			
Major concerns			
No. of complains related to metering issues			

3.29.4. Shri Prateek Aggarwal of CEEW submitted that the Commission should issue directions to the Discoms to track the progress of all smart meter consumers and assess how they were being billed and making payments before they received smart meters vis-a-vis after. It is submitted to consider factors such as reduction in distribution losses, increase in collection efficiency, reduction in employee and A&G expenses in the assessment. He further submitted that, before the mass rollout of smart metering following aspects need to be considered:

- Smart metering infrastructure should be deployed with a systemic approach, focusing on high-loss feeders and building capacity of utility staff and constituting a strong regulatory framework to guide responsible data storage and sharing practices, protect consumer privacy, and secure the system against ever-evolving cyber-attacks.
- SERCs should incentivise discoms to carry out pilot studies at scale to ascertain the benefits and suitability of prepaid metering under different contexts.



- To ascertain the benefits of smart metering in bringing down the commercial losses (especially theft cases), a bottom-up approach should be deployed wherein energy audit of consumption from consumer-level up until substation level is conducted.
- While smart meters can be operated in both prepaid and post-paid mode, consumers should be given a choice to opt for prepaid or post-paid to suit their specific contexts.

3.29.5. Shri Rama Shanker Awasthi submitted that the Discom cannot be allowed SMART meter Opex as meter reading, bill distribution and bill collection activity is already a part of O&M expenses of the Discom and there is no reduction on this count in the accounts of the discom, i.e., PVVNL.

3.29.6. Further he submits that PVVNL should provide the benefits of smart meters in terms of reduction of AT&C, which should be more than the cost. Else there was no reason to replace healthy meters.

3.29.7. Shri Avadhesh Kumar Verma, Chairman, UP Rajya Vidyut Upbhokta Parishad submitted that regarding smart meter all enquires that was done was never made public and from last 5 months, installation of smart meter has not been done which put a doubtful question on smart meter Project. Another question raised is that how without the user acceptance test smart meter has been installed in user premises when whole project is based on OPEX model and for every meter for every month Electricity department has to pay Rs.86 to EESL. He also submits that all the Smart Meter consumers (approx. 11.47 Lakhs) will have to pay fees of Check Meter required for testing due to fast running of these meters

## **B. Licensees response**

3.29.8. As regard to objection of CEEW, the Licensee submitted that only 11 Lakh Smart Meters has been installed as against of 2.89 Cr. consumers which covers only around 3.8% of consumer base. Further the reduction in losses is already accounted in the projections made by Petitioner. Secondly, the Commission allows the A&G expense as per normative, while Licensee has requested the Commission to allow it on the actual expenditure basis. Further, with regard to Stakeholder's objection on collection efficiency, it is submitted that Commission determines the Tariff by considering 100% collection efficiency.

3.29.9. As regard to objection of Shri Shivakant Tripathi, Uttar Pradesh Jan Kalyan Samiti the Licensee submitted that UPPCL on behalf of the Licensees has submitted the



smart meter roll out plan for the State Discoms under “Opex Model”. Under “Opex Model”, State Discoms pay monthly fee, which has been arrived at through competitive bidding process conducted by EESL for each meter reading Smart Meter to EESL. The Commission had approved smart meter roll out plan vide Order dated 15.11.2018.

3.29.10. As regard to objection of Prayas group the Licensee submits that they had already submitted the rollout for the installation of the smart meters on 6th August 2018 and the same was approved by the Commission vide order dated 15th November 2018. Further, pertaining to Quarterly reports, the Licensee submitted that as per the direction of the Commission in order dated 15th November 2018 the smart-meters installation progress is submitted to UPERC quarterly.

3.29.11. As regard to objection of Rama Shanker Awasthi, the Licensee submitted that on 16.05.2018, Commission directed UPPCL to submit the detailed roll out plan of installation of smart meters by UP Discoms for approval. UPPCL submitted the smart meter roll out plan under OPEX Model to Commission on 06.08.2018. In terms of the rollout plan Energy Efficiency Services Limited (EESL) will make the upfront capital investment during the built-up phase and will recover its investment out of gains of the project on OPEX basis. Accordingly, UP Discoms are required to pay monthly fee on OPEX basis as O&M expenditure to EESL on per meter per month basis. The per meter per month cost is calculated as total project cost spread over the actual recovery period, post integration of meters on per meter basis. On 15.11.2018, UPERC by its Order approved the Smart Meter rollout plan for State Discoms of Uttar Pradesh: - *“DISCOM will pay EESL on OPEX basis as O&M expenditure. The assets will be in the books of EESL till the transfer of assets at the end of project at zero value.”*

*“Since installation of Smart Meters is a national programme and has produced very encouraging financial returns in private Discoms, the Commission approves the proposed roll out plan of UPPCL and Discoms submitted before the Commission .... ”*

3.29.12. Further, it is submitted that in terms of the National Tariff Policy 2016 (which has the force of law), MoP letter dated 08.09.2016 and Commission’s direction in Order dated 15.11.2018, UP Discoms are mandated to implement the Smart Meter rollout plan in the state of Uttar Pradesh.

3.29.13. The additional O&M component against this plan was computed on the basis of per meter per month rate mentioned in the above referred order of the Commission. The amount sought as 'Additional O&M Expenses under smart metering' is payable



to EESL to cover cost towards smart meter and box installation, AMI software cost, consumer indexing, training, integration and commissioning of AMI solution. It may be noted that this cost has been proposed to be recovered under Opex model based on per meter per month basis and there is no additional burden of depreciation, interest and return on equity on the consumer. Such expenditure qualifies as statutory expenses. In the regulatory framework it is a settled position that statutory expenses are uncontrollable factors and are to be allowed as pass through in distribution tariff. As a result, thereof UP Discoms have incurred and will continue to incur substantial additional expenditure as quoted above. It is further added that this type of expenses was not envisaged during projection of MYT O&M norms for FY 2017-18 to FY 2019-20. Further, O&M Norms approved by the Commission were based on five-year Audited Accounts, which didn't have any O&M expenses towards smart metering. The amount of this additional O&M has been entered as rent in the replies of comments on roll out plan submitted to Hon'ble Commission vide MD, UPPCL letter no. 352/CE(Com-II)/Smart Meter/18 dt. 25.09.2018. In view of the above it is submitted that Commission completely being aware of the cost implication qua implementation of Smart Metering Rollout Plan has approved/allowed the same by its Order dated 15.11.2018.

3.29.14. Further, the approach of compensating the Opex cost with likely savings in billing and collection efficiency is conceptually erroneous. Presently, the tariff is already being determined based on 100% collection efficiency, despite the actual percentage being substantially lower. Therefore, even if billing and collection efficiency increases by installation of smart meters, the same will not have any impact on the tariff of the Discoms.

3.29.15. Moreover, the Commission in its Order dated 15.11.2018 has itself noted that the UP Discoms would incur substantial Opex cost (to be paid to EESL) towards implementation of Smart Metering Rollout Plans. Hence, there is no reason to now disallow the said cost, which is a statutory expense and has to be mandatorily incurred by the Licensee.

3.29.16. It is pertinent to highlight that the Smart Meter rollout plan on Opex model was submitted to Hon'ble Commission well before its implementation. Further, Hon'ble Commission while approving the roll-out plan has not stated that the cost envisaged under the Opex model would not be allowed to be passed on in the ARR. Moreover, Hon'ble Commission in its Tariff Order dated 03.09.2019 stated that it will carry out detailed analysis of the additional O&M expenses (on account of implementation of smart meter roll out plan) for FY 2018-19 at the time of true-up. Accordingly,



license has a legitimate expectation that after approval of the smart meter roll out plan (Opex model) the cost to be incurred by the licensees would be allowed to be recovered in tariff. Hence, such disallowance at this belated stage would be contrary to the principle of regulatory certainty, which is embedded in the Electricity Act and policies framed thereunder. Therefore, this expense shall be considered under the head of A&G expenses as additional expenses.

3.29.17. As regard to the objection of Shri Avadhesh Kumar Verma, the Licensee submitted that above statement does not appear correct in light of Discom wise details provided in the table below. The total complaints received are only 0.28% of the total installed Smart Meters and fault observed were only 0.01% which is negligible.

Sr.No.	DISCOM	Complaint Received	Complaint Addressed	Fault Observed	Meter Ok
1	MVVNL	1502	1482	56	1421
2	DVVNL	683	683	17	666
3	PuVVNL	416	407	11	396
4	PVVNL	614	614	31	583
5	KESCO	39	39	1	38
	Total	3254	3225	116	3104

### C. Commission's view

3.29.18. The Commission has taken note of the objections/suggestions made by the stakeholders and comment of the Licensee.

## ANY ADDITIONAL COSTS FROM INSTALLATION OF SMART METERS SHOULD NOT BE PASSED ON TO CONSUMERS

### A. Comments/ Suggestions of the Public

3.29.19. Prayas (Energy Group), Pune submitted that the DISCOMs had communicated to the Commission that "The existing consumers will not have to pay any additional charge for existing meter replacement with smart meters", which is recorded in the Commission's suo moto order from November 2018. Overall OPEX for 40 lakh smart meters was stated as ₹ 3,211 Crore in the same order. The net gain was assessed to be Rs. 4,056 Crores in 8 years. Along with the petition for FY 2020-21, DISCOMs had submitted with data proof as part of the letter (Letter NO. 280/NOSMP/UPPPCL/RAU/20) that there was decrease in T&D losses, along with increase in units sold and billing efficiency. However, in the current tariff petition, DISCOMs are claiming now that "future probable reduction in O&M expenses may or may not happen" (section 2.5.20 in DVVNL's petition). Further, that "The approach of



compensating the Opex cost with likely savings in billing and collection efficiency is conceptually erroneous.” This is exactly in contradiction to what the DISCOMs had claimed and are recorded in the Commission smart meter rollout plan order from November 2018.

3.29.20. It is further submitted that the idea of smart metering was introduced with the understanding that it would generate savings. Thus, no costs incurred due to smart metering should be passed onto consumers. However, if there are net gains, they should be factored in while revising tariffs in subsequent years. Regulation 45 of UPERC (Multi Year Tariff for Distribution and Transmission Regulations), 2019 clearly mentions what constitutes operation and maintenance expenses and no cost other than those mentioned should be passed on to consumers for true-up of FY 2019-20.

3.29.21. It is imperative that the Commission designs an evaluation framework for smart meter roll outs before the true up processes for FY 2019-20 to FY 2021-22. The evaluation framework should be based on factors such as reduction in distribution losses, increase in collection efficiency, reduction in employee and A&G expenses etc. Further, if net gains are not observed, then losses incurred by the DISCOMs should be disallowed to be passed through to consumers. This is because the rationale for introducing smart meters has been to reduce losses and observe a net gain from such an exercise. Below table highlights data that the Commission can ask the DISCOMs to submit for understanding the efficacy of the program. If benefits are not realised, the further rollouts should not be approved.

*Suggested format for tracking benefits of smart metering programs*

DT identifier	Before installation				After installation			
	Input energy (MU)	Billed energy (MU)	Revenue billed (Net of arrears and subsidy) (₹ Cr)	Revenue recovered (Net of arrears and subsidy) (₹ Cr)	Input energy (MU)	Billed energy (MU)	Revenue billed (Net of arrears and subsidy) (₹ Cr)	Revenue recovered (Net of arrears and subsidy) (₹ Cr)

3.29.22. Commission had not allowed for the pass through of smart metering costs in FY20 and FY21. The same treatment should be adopted for the new control period as well. Apart from this, DISCOMs should be directed to submit an impact report on smart metering installation in the state by September 2021 to Commission and



further installations should be based on such reports, after being audited by an independent 3<sup>rd</sup> party.

#### **B. Licensees response**

3.29.23. As regard to objection of Prayas group, the Licensee submitted that as per the direction of Commission in order dated 15th November 2018 the smart-meters installation progress is submitted to Commission quarterly. As Commission is determining the tariff based on 100% collection efficiency any improvement in revenue collection due to Smart Meters roll out plans cannot be a part of self-sustaining model.

3.29.24. The Licensee further submits that suggested changes in SOP Regulations are not directly related with ARR proceedings.

#### **C. Commission's view**

3.29.25. The Commission has taken note of the objections/suggestions made by the stakeholders and comment of the Licensee.

### **3.30. INSTALLATION OF ABT METERS ON MIXED FEEDER**

#### **A. Comments/ Suggestions of the Public**

3.30.1. Shri K.L Aggarwal, Chairman, Industrial Development Forum, Muzaffarnagar, submitted that despite there being no such provision to install ABT meters at mixed feeder in UPERC Open Access Regulation-2019 & in absence thereof, Chief Engineer (C&S) SLDC, Lucknow vide their letter No. 396 dt 08.02.21 at his own have issued instructions to all OA Consumers of Mixed feeders to install ABT Meters.

3.30.2. It is further submitted that the said instructions are invalid for the reasons mentioned below:

- i.* There being no such provisions in UPERC OA Regulation-2019.
- ii.* That such administrative order is without any authority & jurisdiction.
- iii.* Those said instructions have not made any distinction between such Mixed feeders owned & maintained by DISCOM itself on which more than one OAC have been provided facility.
- iv.* That other such Mixed Feeders are solely owned & allotted to in the name of individual consumers.
- v.* That said instructions issued are without certain other clarities in regard to specifications etc & including also about the cost of installation of such



additional ABT Meter to be borne, in case of Mixed Feeders owned & maintained by DISCOM itself, where more than one OA Consumers have been given supply under Open Access.

- 3.30.3. Further he submitted that the said instructions as issued by CE (C&S) SLDC, Lucknow being without any authority & not backed by UPERC OA Regulation-2019, hence deserve to be treated as withdrawn, cancelled & be kept in abeyance. The Commission is requested to take prompt action on priority to put an end to undue harassment & exploitation to the OAC.

**B. Licensees response**

- 3.30.4. The Licensee did not submit any reply.

**C. Commission's view**

- 3.30.5. The Commission has taken note of the objections/suggestions made by the stakeholders.

**3.31. TIME OF DAY TARIFF**

**A. Comments/ Suggestions of the Public**

- 3.31.1. Prayas (Energy Group), Pune submitted that given the increase in off-peak surplus, proliferation of captive and open access use from renewable energy technologies, future shift of agricultural demand to day time with the implementation of KUSUM and the importance of managing evening peaks with increased electrification recalibration and widening the scope of ToD tariffs is crucial. In fact, given the recent advances and significant cost reduction in metering technologies. Further it is suggested that all consumers with a connected load greater than 10 kW should be subject to ToD tariffs within a five-year time-frame. This is crucial as many LT consumers can also be incentivised to shift their loads to off-peak times. Given the significant renewable energy capacity in the state, the DISCOMs face peak shortages in some months and surplus power in others. Introducing seasonal ToD tariffs could also help shift load based on availability of generation. To operationalise this methodology, block-wise load and generation data from the DISCOM should be analysed for 3-4 years to identify stress periods during the day and off-peak periods. Similar analysis should be done on a seasonal basis using load duration curves. Given the significant addition of RE the stress and off-peak periods could also track RE availability. Few suggestions are also submitted to account for RE changes:



- Neither an incentive nor penalty is levied for day-time consumption from 0900 Hrs-1700 Hrs (solar hours)
- The dis-incentive for consumption in the evening peak (shoulder periods/ stress hours) should be higher than the night time incentive
- During stress months, the disincentive for the shoulder periods should be increased
- During high wind months, the incentive for off-peak and evening peak periods can be increased.

3.31.2. Considering this, it is further submitted the ToD proposal which varies seasonally is shown in below table. The example is for illustrative purposes and should be recalibrated based on state load profiles and generation availability.

**ILLUSTRATIVE TOD SLOTS AND RATES FOR VARIOUS SEASONS**

Seasons	Rs/kWh incentive (-) and disincentive (+) for each time slot			
	22:00-6:00	06:00-9:00	09:00-17:00	17:00 -22:00
Normal months	-1.08	0.5	0	1.5
Stress months	-1.08	1.0	0	2.0
Monsoon months	-1.30	0.75	0	1.2

**B. Licensees response**

3.31.3. As regard to objection of Prayas group the Licensee submits that the Time of Day (TOD) tariff structures have been adopted for industrial and commercial consumers, as a Demand Side Management (DSM) measure and is used as a means of incentivizing consumers to shift a portion of their loads from peak times to off-peak times, thereby improving the system load factor by reducing the demand on the system during peak and flatten the load curve.

**C. Commission's view**

3.31.4. The Commission has taken note of the objections/suggestions made by the stakeholders and comment of the Licensee.

**3.32. PREPAID METERS**

**A. Comments/ Suggestions of the Public**

3.32.1. Shri K.L Aggarwal, Chairman, Industrial Development Forum, Muzaffarnagar, submitted that presently, three phase prepaid meters have not so far been being provided / made available by DISCOM to the Industries.



3.32.2. He further requests the Commission to make provisions in the proposed tariff 2021-22, to ensure availability of Three Phase prepaid meters to the industries, as the same shall provide great relief to all Industries.

**B. Licensees response**

3.32.3. The Licensee did not submit any reply.

**C. Commission's view**

3.32.4. The Commission has taken note of the objections/suggestions made by the stakeholders.

**3.33. SECURITY DEPOSIT**

**A. Comments/ Suggestions of the Public**

3.33.1. Shri Prateek Aggarwal of CEEW submitted that the claimed interest on the security deposit is less than 42% (for MVVNL) of the approved amount in the tariff order for FY 2019-20. The basis for such a high difference in the interest payments to consumers is not clear when the actual number of consumers has increased over and above the approved figure. It is requested to the Commission that clear scrutiny shall be made in this regard.

3.33.2. Shri P.K Maskara, Director, The Mahabir Jute Mills submitted that Interest on security deposit is still not given to many consumers.

3.33.3. Shri Arun Mishra submitted that the interest charged by the Petitioner on the delayed payment from the consumer is 1.5% per month, which turned to 2% for further carry forward of this amount, but the Licensee pays interest at 6% on the consumer security deposit to the consumer, this irrationality and inconsistency has to be rectified and may be disallowed.

3.33.4. Shri Satish Maheshwari, Uttar Pradesh Industry Trade Representative Board submits that if interest on security deposit is not received in time, then there should be a provision for penal interest.

3.33.5. Shri Pradeep Kumar Singhal, submitted that as per UP. Electricity Supply Code 2005 under the para (h) (i) of System of Supply and Clarification of Consumer 4.20 (Security Deposit) Bank interest on the security deposit was to be given to the consumers in the months of April and May of the last financial year, but the interest paid by the licensee on the security deposit was adjusted in the electricity bills in January 2021. Even today, the calculation of interest on the security deposit for the



financial year 2020-21 on the bills of the consumers were not given till April/May 2021. The Commission is requested to ensure that penalty be imposed on Licensee as well they pay the interest at 2% compounded over the period of time to the consumers.

- 3.33.6. Shri Avadhesh Kumar Verma, Chairman, UP Rajya Vidyut Upbhokta Parishad submitted that Interest on security deposit is still not given to many consumers and as per the provisions of the Electricity Act 2003, consumers have the right to get interest on their accumulated security every year. He also submitted that if the interest which the power companies have earned for 5 years is computed, then in five years it will be above 100 crores and the benefits are not passed on to the consumers. It is requested from Commission to take penal action against those who are responsible for such act.

#### **B. Licensees response**

- 3.33.7. With regards to the objections of CEEW, the Licensee did not submit any reply.
- 3.33.8. With regard to other Stakeholder's objection on interest on security deposit to consumers, the Licensee submitted that the issue covers the period prior to migration of the data on the IT billing software and the Licensees are making their best efforts in updating the same on the billing software in order to provide relief to consumers at the earliest.

#### **C. Commission's view**

- 3.33.9. The Commission has taken note of the objections/suggestions made by the stakeholders and comment of the Licensee.

### **3.34. COLLECTION & REVENUE RECOVERY**

#### **A. Comments/ Suggestions of the Public**

- 3.34.1. Shri Prateek Aggarwal of CEEW submitted that the Commission must ask the Discoms about the detailed breakup of billed units provided in the true-up submissions, including assessing billed units on a provisional basis and meter reading basis. It is essential that monitoring, evaluation, and accountability mechanism may be defined under the Standards of Performance Regulations. He further submitted that UPPCL has been announcing the One Time Settlement (OTS) Scheme time and again, despite directions from the Commission for not doing so. Therefore, the Commission must ask the Discoms to furnish the details of revenue recovered and payments collected through OTS in FY 20. Also, the Discoms must be



nudged by the Commission to improve mechanisms to collect timely payments from consumers rather than announcing OTS every year.

- 3.34.2. Shri Shivakant Tripathi, Uttar Pradesh Jan Kalyan Samiti, Lucknow submitted that even department employees should have meter installed in their homes.
- 3.34.3. Shri Kaushal Kishore Mishra, Grameen Vidyut Upbhokta Kalyan Parishad submitted that that there is dire need for timely submission of long pending outstanding bills as it has kept on piling up from previous year and now goes up to crores of rupees. He also submits that main medium of these losses is the LMV-10 electricity departmental employee who are given facilities but they are misusing it. He also submits that all present as well retired employees of the electricity department do not have meter installed in their homes hence Commission should ensure that meter are installed their and as per LMV-10 rules and monthly bills are recovered from them.
- 3.34.4. Shri Yogesh Agarwal, Rimjhim Ispat Limited submitted that the Petitioner has not considered the normative trajectory for collection efficiency and considered the actual collection efficiency while determining the revenue from sale of power which unjustified.
- 3.34.5. Shri Yameen Ansari, Akhil Bharatiya Upbhokta Parishad requested the Commission to cancel the application of Uttar Pradesh Power Corporation Limited, Lucknow regarding the Regulatory Surcharge without delay.

## **B. Licensees response**

- 3.34.6. As regard to objection of CEEW, licensee submitted that sub-category wise breakup of billed units is already submitted to Commission.
- 3.34.7. As regard to Shri Kaushal Kishore Mishra, Grameen Vidyut Upbhokta Kalyan Parishad query the licensee submitted that it is making all effort for collection of bills from government departments. However, any shortfall in this collection does not impact the tariff of the consumer as Commission approves the tariff based on 100% collection efficiency.
- 3.34.8. As regard to the objection of Grameen Vidyut Upbhokta Kalyan Parishad and Jan Kalyan Samiti regarding Departmental Employees, the Licensee submits that the stakeholder's observation falls in the category of complaint. However, stakeholder has not mentioned any specific complaint to check with. Further, directions of Commission related to revenue are being followed. The replies to other related queries are already available in the documents uploaded by Licensee on their



website. The Licensee further submitted that Commission approves the ARR considering 100% collection efficiency and revenue collection from OTS scheme has made no impact on the Tariff determination of the consumers. It is the exercise to collect long pending dues from the consumers without affecting the components of ARR. Licensee has already submitted the revenue based on the balance sheet for the True-Up year. Further to promote timely payment from consumers Commission has already approved 5% rebate to rural PTW consumers and 1% rebate to other consumers which is not considered when consumers pay under the OTS Scheme.

3.34.9. As regard to objection of Shri Yameen Ansari, the Licensee submitted that it is making all efforts to recover the dues/ arrears from the consumers. The Licensee further submitted that the Commission considers the Revenue by considering 100% Collection Efficiency i.e., Revenue is considered on Billed basis instead of Realized basis. As such, the timely paying consumers are not burdened due to under recovery of dues. Further, the Licensee submitted that the details regarding Regulatory surcharge have already been uploaded on Licensee's website.

#### **C. Commission's view**

3.34.10. The Commission has taken note of the objections/suggestions made by the stakeholders and comment of the Licensee.

### **3.35. CONSUMER CONTRIBUTION**

#### **A. Comments/ Suggestions of the Public**

3.35.1. Shri Rama Shanker Awasthi has submitted that NPCL, vide its tariff filings before this Commission, including the recent Petition No. 1541 of 2019 which was decided by the Commission vide its order dated 04.12.2020, has been consistently claiming that PVVNL / UPPCL is holding Rs. 11.28 Cr of its consumers which was paid by them as security deposit. Further it was observed that as per agreement between NPCL and UPPCL for the supply of power, NPCL was required to provide a security deposit to UPSEB / PVVNL / UPPCL to obtain electricity supply up to 45 MW.

3.35.2. It is submitted that vide the order dated 14.10.2010 in Petition No. 451 of 2007 and 497 of 2007 this Commission allowed an amount of Rs. 20.88 Cr as the quantum of security deposit recovered from the consumers of NPCL, in terms of Section 47(1)(b) of the Act. The order dated 14.10.2010 is quoted hereinbelow for convenient perusal:



“4.7.2.4 The Commission has worked out the working capital and interest on working for FY 2007-08 as given in Table below:

3.35.3. It is also submitted that NPCL, vide its appeal (Appeal no 04 of 2011) before the

Particulars		FY 2007-08 (Rs.Cr)	
		Audited	True-up Allowed
One month's O & M Expenses	a	0.89	0.87
One-twelfth of the sum of the book value of	b	6.31	6.31
Receivables equivalent to 60 days average billing on consumers	c	28.44	27.67
Gross Total	d=a+b+c	35.63	34.85
Less: Total Security Deposits by the Consumers reduced by Security Deposits under section 47(1)(b) of the Electricity Act 2003	e	15.63	20.88
Net Working Capital	f=d-e	20.00	13.96
Add: Average Regulatory Assets	g	9.19	-
Total Working Capital required	h=f+g	29.19	13.96
Rate of Interest for Working Capital	i	13.50%	12.68%
Interest on Total working capital	j=h x i	3.94	1.77
Actual Interest on Working Capital paid by NPCL	k	1.76	
Net Efficiency Gains	l=j-k	2.18	
50% allowable to Distribution Licensee	m=l x 50%	1.09	
50% adjusted against Regulatory Asset	n=l x 50%	1.09	

Hon'ble APTEL against the Commission's order dated 14.10.2010 raised an issue regarding interest on working capital for FYs 2007-08, 2008-09 and 2009-10 wherein it was stated that NPCL had paid Rs 11.28 Cr to UPPCL/PVVNL as security deposit and therefore the Commission should deduct Rs 11.28 Cr for computing interest on working capital. The Hon'ble APTEL vide its order dated 15.12.2011 had decided the issue against NPCL and stated that they do not find any reason to interfere with the impugned order on this issue.

3.35.4. He further submitted that subsequently, vide its order dated 19.10.2012 in Petition Nos. 640/ 2009, 709/2010,776/2011, 794/2012, the Commission has taken a complete U-turn in its methodology and, despite there being no directions from the Hon'ble APTEL to the contrary, the Commission has directed as follows:

“4.6.2.4 NPCL in its supplementary submission has substantiated that it was required to transfer the entire amount of security deposit received from consumers to UPPCL against the supply of electricity amounting to Rs. 11.28 Crores as per Section 47-A of the Electricity (Supply) Act, 1948 reproduced below:



*“47-A. Security -Notwithstanding anything in this Act, and notwithstanding that no arrangements have been mutually agreed under Sec. 47 or that no regulations have been made in that behalf:*

*(a) The Board shall not be bound to comply with any requisition to supply electricity to a licensee unless the licensee within fourteen days after the service on him by the Board of a notice in writing in that behalf, tenders to the Board security in such amount as is equivalent to the average charges for two months supply of electricity during the preceding financial year to the licensee (hereinafter referred to as the average charges), and where an amount in excess of the average charges is demanded by the Board as security, the Board shall determine the same after giving an opportunity of hearing to the licensee;*

*(b) The Board shall be entitled to discontinue such supply if the licensee has not already given security, or if any security given by him has become invalid or insufficient, and such licensee fails to furnish security or to make up the security to a sufficient amount, as the case may be, within seven days after the service upon him of notice from the Board requiring him so to do.”*

*4.6.2.5 Till FY 2005-06, UPPCL was the sole supplier of power to the Company. However, from F Y 2006 - 07, UPPCL refused to supply additional power in accordance with the rising demand of the Company and therefore, the Company was forced to buy power through Open Access. Accordingly, the Company stopped transferring Security Deposit received from its consumers from April 2006 onwards.*

*4.6.2.6 Accordingly, the aforesaid security deposit amount of Rs. 11.28 Crores, passed on to UPPCL, is not available with the Company for meeting its working capital requirement and therefore, the Commission in its revised true-up for FY 2007 - 08 has considered the impact of the amount not available with the Company.*

*4.6.2.7 Interest on working capital is trued-up as below:*

*Table 4-4: INTEREST ON WORKING CAPITAL FOR FY 2007 - 08 (Rs. Crores)*

	<i>As per Tariff Order dt. 14.10.10</i>	<i>Revised Petition</i>	<i>Revised True-up</i>
<i>One Month's O&amp;M Expenses</i>	<i>0.87</i>	<i>0.88</i>	<i>0.87</i>
<i>One-twelfth of the sum of the book value of materials in stores at the end of each month of such financial year.</i>	<i>6.31</i>	<i>6.31</i>	<i>6.31</i>
<i>Receivables equivalent to 60 days average billing on consumers</i>	<i>27.67</i>	<i>27.74</i>	<i>27.67</i>



Gross Total	34.85	34.93	34.85
Total Security Deposits by the Consumers reduced by Security Deposits under section 47(1)(b) of the Electricity Act 2003			
Opening Balance	14.86	14.86	14.86
Received during the year	12.05	12.05	12.05
Closing Balance	26.91	26.91	26.91
Less: Security Deposit with UPPCL	0.00	11.28	11.28
Net Security Deposits by the Consumers reduced by Security Deposits under section 47(1)(b) of the Electricity Act 2003	20.88	9.60	9.60
Net Working Capital	13.96	25.33	25.24
Rate of Interest for Working Capital	12.68%	12.68%	12.68%
Interest on Total Working Capital	1.77	3.21	3.20

3.35.5. He further submitted that it is the mandate of the extant regulatory regime, that the licensee is authorised to recover security deposit from any person who is desirous of availing supply of electricity from that particular licensee. In this regard, the relevant provisions of the Act, and the regulations of this Commission promulgated therein are quoted herein below for convenient perusal:

*“Section 47. (Power to require security): --- (1) Subject to the provisions of this section, a distribution licensee may require any person, who requires a supply of electricity in pursuance of section 43, to give him reasonable security, as may be determined by regulations, for the payment to him of all monies which may become due to him –*

*(a) in respect of the electricity supplied to such persons; or*

*(b) where any electric line or electrical plant or electric meter is to be provided for supplying electricity to person, in respect of the provision of such line or plant or meter,*

*and if that person fails to give such security, the distribution licensee may, if he thinks fit, refuse to give the supply of electricity or to provide the line or plant or meter for the period during which the failure continues.”*

3.35.6. It is necessary at this stage to clarify that there is a difference between “Security” as provided for in Section 47-A of the Electricity Supply Act, 1948 and the “security deposit” provided for in Section 47 of the Electricity Act, 2003. In terms of Section 47-A of the Electricity Supply Act, 1948, the licensee operating in the business of distribution of electricity in any state of region, was required to purchase power from the State Electricity Boards as the generation of electricity was governed by



the said Boards. Accordingly, in order to secure the interest of the Boards, Section 47-A provided for the provision of “Security amount” which was to act as payment security mechanism for the power supplied by the Board to the said Licensee. NPCL, having been formed in 1993, was operating its business of distribution in the State of UP by purchasing power from the Uttar Pradesh State Electricity Board (“UPSEB”). NPCL must have been required to provide “security” against the power being procured from UPSEB, which could be either in the form of a letter of credit, or a BG or in any other format required at the time.

- 3.35.7. However, Section 47 of the Act pertains to the Security deposit that is provided to the licensee by the persons who are desirous of becoming consumers of the said licensee. This security deposit is required to be deposited with the licensee for any fresh connection or load enhancement etc. He further submitted that it is this amount that is available with the licensee that has been received from the consumers as Security deposit that is mandatorily required to be considered while computing the working capital, as prescribed by the Commission’s own regulations. In this regard, the applicable regulations at the time are quoted below:

“U.P. Electricity Regulatory Commission (Terms and Conditions for Determination of Distribution Tariff) Regulation-2006

*4.8.2. Interest on working capital*

*(a) Working capital shall be worked out to cover*

*(i) Operation and Maintenance expenses, which includes Employee costs, R&M expenses and A&G expenses, for one month;*

*(ii) One-twelfth of the sum of the book value of stores, materials and supplies at the end of each month of such financial year.*

*(iii) Receivables equivalent to 60 days average billing of consumers less security deposits by the consumers minus amount, if any, held as security deposits under clause (b) of sub-section (1) of Section 47 of the Act from consumers and Distribution System Users.*

*(b) Rate of interest on working capital shall be the Bank Rate as specified by Reserve Bank of India for the relevant year plus a margin as decided by the Commission.”*

- 3.35.8. The same provision is present in each of this Commission’s Regulations pertaining to determination of distribution tariff that have been notified subsequently.



However, vide its true-up order dated 19.10.2012 for FY 2007-08, and in each tariff, order passed by the Commission thereafter for NPCL, the Commission has erroneously, and to the prejudice of the consumers, deducted the amount of Rs. 11.28 Crore, that was payable by NPCL as “security” to UPSEB in terms of Section 47-A of the Electricity Supply Act, 1948, while quoting that to be the deduction under Section 47(1)(b) of the Act. The amount of 11.28 crores is wrongly depicted to be the “security deposit amount” when it is actually the amount paid/ or payable by NPCL as “security”, as payment security mechanism, to UPSEB for power procurement. It is submitted that because of this erroneous computation, NPCL has wrongly benefitted from such deduction.

3.35.9. In fact, it is for this reason that this Commission has neither asked UPPCL/PVVNL to verify this amount with them nor have they ever deducted this amount from UPPCL/PVVNL’s tariff. It is noteworthy to state that the tariff for the base year, i.e., 2007-08 has been determined in accordance with the 2006 Distribution Tariff Regulations of this Commission that has been enacted in terms of the Act of 2003 and, accordingly, the Electricity Supply Act, 1948, specifically Section 47A, does not find any applicability or relevance.

3.35.10. It is submitted that such an illegal disallowance by the Commission has been continuing up until FY 2018-19 and has rendered the Impugned Order liable to be reviewed. It is also submitted that if there is any dispute between NPCL and UPPCL with respect to the amount of “security” that has been paid under section 47-A of the Electricity Supply Act, 1948, the same is a bilateral dispute in respect of payment security mechanism for power dispute. The existence of such a dispute cannot be a reason or basis for this Commission to deduct that amount in place of the “consumer deposit amount” that is recoverable under Section 47(1)(b) of the Act and consequently deductible in terms of the Commission’s own regulations.

3.35.11. It is submitted that revised calculations for interest on working capital be carried out after FY 2006-07 till FY 2018-19 and reduction of Rs. 11.28 Cr be disallowed in each year. The corresponding impact on decreased regulatory asset & carrying cost be also computed in each year’s tariff, which needs to be passed on to the consumers. PVVNL must explain whether the said Rs. 11.28 Cr is held as security deposit of consumers of NPCL or it was deposited by the NPCL as Power Security Mechanism (“PSM”) to get power supply. It is necessary that each generator / trader seek PSM from buyer to continue supply to mitigate their own commercial risk. If this amount is actually the security amounts deposited by consumers of NPCL, then



there is no basis for PVVNL to recover interest on it to pay to the consumers as NPCL is also getting interest on the said amounts from the Commission in its Tariff Orders.

3.35.12. However, if this amount was deposited by NPCL as payment security against the supply of power received from UPSEB/UPPCL/PVVNL, then it is important to note that since PVVNL has stopped power supply to NPCL, it should refund that security amount to NPCL, subject to their account clearance by NPCL. If there is any pending amount to be paid by NPCL, the same should be informed before the Commission as this has become part of revenue of PVVNL/ UPPCL. If there are arrears against power supply on NPCL, it should provide details of such arrears which should form part of revenue of PVVNL. It should also inform what efforts had been taken to recover this balance amount from NPCL. There is no information as to whether any notice is served upon NPCL or any RC is issued against NPCL. It is also submitted that if there is any dispute between NPCL and UPPCL/PVVNL with respect to the amount of “security” that has been paid under section 47-A of the Electricity Supply Act, 1948, the same is a bilateral dispute in respect of payment security mechanism for power dispute. Such a bilateral dispute is purely commercial in nature and cannot be the basis for allowing any adjustments or allowances in tariff for NPCL or PVVNL.

3.35.13. Pertinently, it is submitted that this Commission has neither asked UPPCL to verify this amount with them nor have they ever deducted this amount from UPPCL’s tariff. The Commission is also requested that the Interest on Security Deposit be allowed on Rs 11.28 Cr to only NPCL and not to PVVNL. It bears mention that the Objector has been constrained to raise the instant issue, pertaining to the discrepancy with respect to the said amount of Rs. 11.28 Crores, vide its Review Petition seeking review of the order dated 04.12.2020 passed by the Commission in Petition no. 1541/ 2019, which is pending adjudication before this Commission. It is submitted that on one hand, there is no clarity as to who has this amount, it appears that both NPCL and PVVNL are benefitting from the lack of any proper investigation into this issue by the Commission.

#### **B. Licensees response**

3.35.14. As regard to Rama Shanker Awasthi objection the Licensee hereby submitted that the NPCL & UPSEB signed an agreement on 15th November, 1993 for Supply of Electrical Energy. Section 47-A of Electricity (Supply) Act, 1948, empowers the Board to have an arrangement of security against power supply with a licensee. Point 15 of the aforementioned agreement states that –



*“The Company will deposit with the Board as security for Electric Supply. This amount shall be equivalent to the amount of security of consumers’ lying deposited with the board. As such the amount of consumers’ security available with the board shall be treated as security deposited by the Company.*

*In addition to the above, the security deposited by the consumers after the transfer of area shall be transferred by the company to the Board every month along with the details thereof after adjusting the refund of security to the consumer, if any.*

*In the light of above, the security of the consumer, shall be deemed to have been transferred to the company and the liability of the Board for the security with the consumers of the area will cease from the date of commencement of supply. The Company will be liable for all the refunds/liabilities accrued with the consumers of the area.”*

3.35.15. The Petitioner further submitted that by referring above, it is evident that the said amount of Rs 11.28 Cr is held as a Security for Electric Supply and is not considered as a Consumer Security Deposit with PVVNL. In this regard, PVVNL vide its letter dated 21.12.2016, has submitted to NPCL that it needs to clear its outstanding amount of Rs 210.77 Cr towards PVVNL, so that refund of security amount of Rs 11.28 Cr could be processed thereafter.

### **C. Commission’s view**

3.35.16. The Commission has taken note of the objections/suggestions made by the stakeholders and comment of the Licensee.

## **3.36. TERMINATION OF NPCL LICENSE**

### **A. Comments/ Suggestions of the Public**

3.36.1. Shri Rama Shanker Awasthi submitted that the Commission in its Orders on approval of Business Plans and Tariff Order of NPCL, the license life of NPCL is getting terminated on 23.08.2023 which is almost 27 months ahead, it becomes necessary to conduct an inquiry into fixed assets of NPCL and its expenditures so that consumer’s interest as well as State Government’s Interest can be protected.

3.36.2. He submitted that since NPCL license is State Government awarded and GNIDA is shareholder in NPCL, as per clauses of NPCL License, State Government may choose to acquire it back on completion of 30 years, State Government may initiate the process of checking into assets and conduct of business. Further, as per clause 10 of the Electricity License 1993, as mentioned below, the State Government has to



exercise its Option to purchase the undertaking on completion of its term of 30 years, it has to serve a notice of 15 months as mentioned in “The Indian Electricity Act, 1910 u/s 6 & 7. The following are the terms of license on completion of 30 years:

Purchase of Undertaking	10.	The option of purchase given by subsection (1) of section 6 of the Act shall be exercisable on the expiry of a period of 30 years from the date of the notification of this licence or on the expiry of every subsequent period of 20 years, as the case may be. The terms of such purchase shall be the percentage of the value to be determined in accordance with the provisions of Section 6, 7 and 7sA of Indian Electricity Act, 1910 as amended from time to time, in its application to Uttar Pradesh together with solatium on such value on account of compulsory purchase as shall be determined by the State Government.
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3.36.3. It is to be mentioned that NPCL has not applied for new license under Electricity Act -2003 and having License issued by State Government, it is operating as deemed licensee u/s 14 of the Electricity Act 2003. He submitted that since, Date of Issue of Notice is computed as 31.05.2022, it is necessary for the Commission to commence the process of validation of assets created by NPCL in the Greater Noida area, at least 2 years in advance. It is necessary to check the fixed asset as on date created by NPCL, the right value of such assessment is necessary to be known. Further, many of the assets are provided by Greater Noida Industrial Development Authority, which would also require to be assessed. Certain Suggestions were also submitted:

- The Energy Department, Government of Uttar Pradesh has to initiate the exercise to evaluate valuation of the NPCL’s assets and the amount which is to be recovered from NPCL.
- The Commission is also requested to provide a methodology for selection of new promotor of NPCL so that consumers are provided tariff at par in state discoms and state government is able to get premium for the development of power sector of Uttar Pradesh while settling amount due to NPCL’s promotors as per Regulatory provisions.
- The Commission is requested to direct Energy Department, Government of Uttar Pradesh to submit Standard Bidding Document to be floated to invite competitive bids, as per directions of Ministry of Power, Government of India, to award License of NPCL for a period of 25 years.



- The PVVNL / UPPCL / Energy Department (GoUP) should also provide the plans for competitive bidding of Greater Noida area.

## B. Licensees response

3.36.4. As regard to Rama Shanker Awasthi objection the Licensee hereby submitted that this matter falls under the purview of Energy Department, GoUP and UPERC as per the provisions of Electricity Act, 2003.

## C. Commission's view

3.36.5. The Commission has taken note of the objections/suggestions made by the stakeholders and comment of the Licensee.

## 3.37. AGRICULTURAL SALES

### A. Comments/ Suggestions of the Public

3.37.1. Shri Rama Shanker Awasthi submitted that the Commission approved at 161.21 Units / kW/ Month but PVVNL has claimed at 154.07 units / kW/Month. This need to be approved as per the norms of the Commission, which are summarized herein below:

Category	Approved			Claimed		
	Consumers (No.)	Load (kW)	Sales (MU)	Consumers (No.)	Load (kW)	Sales (MU)
LMV-5 Private tube well/pumping sets	455,485	2,689,596	5,203	451,299	3,297,890	6,097.45

3.37.2. He also submitted that PVVNL should explain how number of consumers have decreased by 4186 nos. but load in kW is increased by 608294 kW. It translates into increase of load per consumer from 5.9 kW to 7.3 kW i.e., 24% average load increase of each consumer. Since, LMV-5 consumers are not billed consumers, this is an attempt to overbook sales in LMV-5 category and reduce the distribution losses. The Commission is requested to approve load of LMV-5 unmetered consumers at the same 5.9kW average for 451299 consumers i.e., 26,64,878 kW.

3.37.3. Shri Prateek Aggarwal of CEEW submitted that the normative consumption norms for the unmetered agriculture category have not been revised for many years. Therefore, the Commission and the discoms must conduct a comprehensive study to account for the impact of rainfall, water use, and cropping patterns on energy



consumption using feeder meter data to revise the methodology for estimation of demand, especially for the 2nd control period. He submitted that the unmetered agricultural consumption has been booked at more than the approved norm for FY 2019-20, resulting in the excess booking of 700 MUs (at consolidated level). The Commission must scrutinise and disallow any excess booking beyond the norms.

- 3.37.4. Further, the unmetered sales have doubled in FY 2020-21 and FY2021-22 as compared with FY2019-20. Therefore, the Commission must conduct detailed scrutiny of the situation and seek an explanation from the Discoms towards their sales estimation and actual supply hours to agricultural consumers and revise the methodology of determination of sales of unmetered consumers. Further, he requested that the Commission note the discrepancy in the demand estimation and factor in for the determination of ARR FY 2021-22. Further he also submitted that as per estimation if 50% of agricultural consumers (starting from 10% in FY22 to 50% in FY26) receive power from solarised feeders by 2026 that will accumulate savings of at least Rs. 4,500 crore by 2026. Therefore, the Commission is requested to direct the Discoms to leverage feeder solarisation actively and include them as part of their power procurement strategy.

## B. Licensees response

- 3.37.5. As regard to Rama Shanker Awasthi objection the Licensee submitted that the billing determinants approved by the Commission in the ARR of FY 2019-20 is on the basis of projections submitted by Licensee /approved by UPERC at the time of issuance of Tariff Order. However, the actual trend should be compared with the previous year actual numbers as shown in table below.

Category (LMV-5 Private tube well/ pumping sets)	FY 2018-19 (True-Up)	FY 2019-20 (True-Up)
Number of Consumer	4,34,389	4,51,299
Connected Load (kW)	31,64,183	32,97,890
Sales (MU)	5,531.96	6,097.45

- 3.37.6. As evident from the above table the number of consumers has increased by 16910 and connected load per consumer for FY 2018-19 was 7.28 kW per consumer which has merely increased to 7.31 kW per consumers. Sales booked per consumer is not directly related with the consumer number mentioned in the True-Up as this number is for the month of March 2020 while sale is for the whole year.
- 3.37.7. As regard to objection of CEEW the Licensee submitted that as per the directive of Commission the Licensee is converting unmetered PTW connections into metered



connections. Accordingly, a study for revisions in norms will be time consuming and is not required at this stage.

3.37.8. The Licensee further submitted that the energy sales for FY 2019-20 for PTW consumers (rural unmetered) approved norms for unmetered agricultural consumption are as per UPERC Order dated 09.12.2016 whereas the actual sales claimed for FY 2019-20 for LMV 5 category is less than the approved norms.

### C. Commission's view

3.37.9. The Commission has taken note of the objections/suggestions made by the stakeholder and comment of the Licensee.

## 3.38. VOLTAGE WISE ENERGY LOSS

### A. Comments/ Suggestions of the Public

3.38.1. Shri Rama Shanker Awasthi submitted the following:

Losses at 132kV: There is no loss of energy at 132kV to PVVNL, however, seems to be metering error of 0.0017% as reported by it. It was also informed by PVVNL in FY 2018-19 of zero losses, however, despite that the Commission had generously approved losses to 132kV Consumers in Open Access at 0.18%, which is the gross error. The Commission is requested to not repeat such an error in the proposed tariff Order.

Losses at 33kV: The PVVNL has reported losses at 33kV level as 1.45% which is appreciated by the Objector but an advice is that it can be reduced to 1.2% -1.3% with suitable technical and metering solutions. Some of the suggested measures are as follows:

- PVVNL should be directed to complete interface metering at T-D points at the earliest and provide the current status.
- Separation of 33kV Consumers from Substation feeders.
- Monthly energy audit report for each 33kV feeder
- Capital investment plan to reduce length of 33kV feeders and loading on 33kV feeders to create N-1 facilities.
- Metering of 33kV incoming feeders at substation ends.

Losses at 11kV: PVVNL has wrongly summated sales and losses at 11kV and LT levels which is against the regulations. As per Form 4A approx. 6000 MU are stated as sales at 11kV level. Due to non-availability of meters at DT level, the technical losses of



11kV levels can be fixed by the Commission at approx. 2.5-3.0% and the balance should be passed on to LT levels.

Losses at LT Level, as computed by the Objector: On the basis of above assumption, following is the computation for the reference of the Commission:

<b>Losses At 11 KV</b>		
1	Energy received into the system	31,814.18
2	Energy sold at this voltage level (assumed)	6,000.00
3	Energy transmitted to the next (lower) voltage level	24,938.67
4	Energy Lost	875.51
<b>5</b>	<b>Total Loss in the system (4/1) *100%</b>	<b>2.75%</b>
<b>LT System Losses</b>		
1	Energy received into the system	24,938.67
2	Energy sold at this voltage level (assumed)	20,938.67
3	Energy Lost	4,000.00
<b>4</b>	<b>Total Loss in the system (3/1) *100%</b>	<b>16.04%</b>
<b>Overall Losses</b>		
1	Energy In (o1)	34,432.42
2	Energy Out (A2+B2+C2)	29,065.91
3	Total T&D Loss ((1-2)/1) *100%	15.59%

3.38.2. The Commission is kindly requested to direct PVVNL / UPPCL to provide on monthly basis strategy to provide voltage wise distribution losses to the Commission. It is also required as per Cost Audit and to compute Wheeling Charges and Wheeling Losses at each voltage. The Discom should also provide feeder-wise technical losses with best-in-class technical standards to compute voltage wise losses till the DT metering is completed. The Discom should also provide wheeling losses division wise so that consumers in open access are subject to right quantum of losses. He also submits that it has been observed that when same losses are provided to NPCL, distribution licensee located within the PVVNL area at District Gautam Budh Nagar, at each voltage level, though PVVNL has overloaded system compared to NPCL and more rural network due to which its technical losses should be higher, *the distribution losses of NPCL becomes only 6.01%. However, if PVVNL is provided same voltage-wise losses as being provided to NPCL, then losses of PVVNL becomes 17.2%*. The Commission is kindly requested to adopt scientific model for allowing distribution losses to both NPCL and PVVNL and there should not be different yardstick for the same/ similar/ adjacent regions so that consumers are not adversely affected by any Discom.



## **B. Licensees response**

3.38.3. As regard to Rama Shanker Awasthi objection the Licensee hereby submitted that the required data has been provided to Commission.

## **C. Commission's view**

3.38.4. The Commission has taken note of the objections/suggestions made by the stakeholders and comment of the Licensee.

## **3.39. CAPITAL INVESTMENT**

### **A. Comments/ Suggestions of the Public**

3.39.1. Shri Rama Shanker Awasthi submitted that PVVNL has shown Rs. 3021 Cr of capital investment, however, there is nothing on record to show that PVVNL had taken prior approval from the Commission as per Regulations. It is incumbent on the Discom to place such approval on record before the Commission, in the absence of which such quantum of capital investment cannot be allowed. The Commission is requested, in the alternative, to disallow at least 25% of capital investment till Discom is able to successfully demonstrate cost benefit of the capital investment to the Commission including with public hearings.

### **B. Licensees response**

3.39.2. As regard to Rama Shanker Awasthi objection the Licensee hereby submitted that the Commission has provided the formats for prior approval of Capex Scheme in the proceedings of ARR petition for FY 2020-21. No such formats were made available by Commission earlier. The details of Capex schemes were submitted in the ARR petitions which was approved by Commission in tariff orders. Licensee is making all effort for preparing required formats for prior approval of Commission as per the formats of UPERC. Further, Licensee has communicated to the commission that the approval of various schemes of central and state government are taking time due to impact of Covid Pandemic. Further, amount of capex schemes mentioned in True-Up for FY 2019-20 are based on data of balance sheet of Licensee. As the format of balance sheet does not provide specific details for each scheme, names of these schemes are not available in the balance sheet. It is not possible to provide executed scheme wise details of balance sheet unless the format of balance sheet is changed. Balance sheet is prepared on the basis of Company Act and opinion is being taken on the possibilities of change in format. It is submitted that many schemes were started before the true-up year and hence the preparation of prior approval case is



not possible for executed schemes. Hence prior approval should not be applicable. Considering these facts any disallowance for True-Up period should not be made.

3.39.3. The Commission is requested to allow the Capex as claimed by the Licensee in True-UP petition. It is submitted that Discoms are reeling under severe financial distress and any disallowance in the actual capital expenditure incurred by the petitioner would further deteriorate the financial condition of the Licensee.

#### **C. Commission's view**

3.39.4. The Commission has taken note of the objections/suggestions made by the stakeholders and comment of the Licensee. The Commission has dealt the issue in relevant chapters of this Order.

### **3.40. FINANCING AND LONG-TERM INTEREST LOAN**

#### **A. Comments/ Suggestions of the Public**

3.40.1. Shri Rama Shanker Awasthi submitted that Discom has not mentioned about the Grant of funds for various schemes of Government of India for Capital Investment. The Discom should provide the details and accordingly it needs to be deducted. He submits that in case any Grant is converted into loan due to poor performance or due to non-acceptance of terms and conditions of the GoI. The interest capitalisation is done at 60% rate which is very high compared to any standards. The Discom should provide logic and reason for making capitalisation of salary at 60%. The interest rate is considered at 8.40% which is appreciated by the Objector. The Commission is allowing these interest rates on normative basis. The Commission is requested that if any other discom is seeking interest on the basis of normative loans, higher interest rates should not be allowed. Such discom that seeks higher interest rates should be asked to obtain actual loans on the competitive basis, which can be as low as rates availed by PVVNL.

#### **B. Licensees response**

3.40.2. As regard to Rama Shanker Awasthi objection the Licensee hereby submitted that the details of Grants provided under various Central Schemes are already submitted in the ARR filings. The same can be referred from Table 2-17: Schemes for FY 2019-20, in the matter petition number 1687 of 2021. Further in line with the Commission's previous Tariff and True-Up orders had considered a normative tariff approach with a debt equity ratio of 70:30. Considering this approach, 70% of the capital expenditure undertaken (after deducting consumer contributions, capital



subsidies and grants in any year was financed through loan and balance 30% has been financed through equity contributions. The portion of capital expenditure financed through consumer contributions, capital subsidies and grants are separated and the depreciation, interest and return on equity thereon was not charged to the consumers. The amounts received as consumer contributions, capital subsidies and grants were traced from the Audited accounts. Subsequently, the financing of the capital investment was worked out based on the debt equity ratio of 70:30 and allowable depreciation was considered as normative loan repayment. The Licensee has worked-out the interest on long term loan based on the same philosophy.

### C. Commission's view

3.40.3. The Commission has taken note of the objections/suggestions made by the stakeholders and comment of the Licensee.

## UDAY SCHEME

### A. Comments/ Suggestions of the Public

3.40.4. Shri Ajay Kumar Lallu, Uttar Pradesh Congress Committee submitted that the Uday scheme amount has not been adjusted correctly.

### B. Licensees response

As per the UDAY Scheme, total 75% of the total loans as on 30.09.2015 i.e., Rs.39,133.76 Crore was taken over by State Govt. and the fund to Discoms were infused in the form of equity and grant as per the breakup presented here.

Particulars	Amount (Rs. Cr.)
Loan amount to be taken over by GOUP as per UDAY Agreement	39,133.76
Equity Contribution from State Govt.	9,783.44
Grant provided by State Govt.	29,350.32

- Commission in its Order dated 03.09.2019, adjusted the above loans taken over by the State Govt., against the value of Regulatory Assets approved by UPERC in previous True-up Orders.
- However, as per GOUP Order dated 5th March, 2021, the 100% grant paid by GOUP has been reduced to Nil and adjusted against the dues payable by State Govt. towards electricity bills due from State Govt. departments and additional subsidy payable by GOUP as determined by UPERC in its various Tariff /True-up



Order. Further UP Govt. has committed to pay Rs. 14,661.54 crores to UP Discoms in next 10 years starting from FY 2021- 22, against the total additional subsidy determined by UPERC up to FY 2018-19.

- Therefore, the loans taken over by State Govt. cannot be adjusted against the Regulatory Assets approved by UPERC. The Regulatory Asset computation in UPERC TO order dated 03.09.2019 has to be revised accordingly. Licensees have submitted the value of revised cumulative gap in their submissions to additional submission to Commission and same is available on the website of Licensee. Licensees have requested to consider GOUP Letter and approve appropriate adjustment vide letter dated 139/RAU/Subsidy dated 01.04.2021.

### C. Commission's view

3.40.5. The Commission has taken note of the objections/suggestions made by the stakeholders and comment of the Licensee. The Commission has dealt the issue in relevant chapter of this Order.

## 3.41. INTEREST ON WORKING CAPITAL

### A. Comments/ Suggestions of the Public

3.41.1. Shri Rama Shanker Awasthi submitted that it appears from the information available on record that the consumers are being burdened for same kind of expenses multiple times. The annual revenue for a discom is summation of power purchase cost including transmission charges, normative distribution losses, bad debt, O&M expenses, Capital Investment, Depreciation, RoE and Taxes. Now monthly billing is done for the consumers which means there is holding time of one month for recovery of revenue. The power purchase bill is paid at the end of 37th day with 1% rebate or on 60th day without rebate. The O&M expenses covers, one hundred percent of maintenance spares for R&M expenses, which means at the rate of 40%, it covers for 2.5 months. Accordingly, Power purchase expense of one month is also required to be deducted from requirement of IoWC.

3.41.2. The methodology as adopted by the Bihar Electricity Regulatory Commission is provided here-in-below for the reference of the UPERC for consideration as in the name of Regulations, consumers cannot be put on to losses for years:

Sl. No.	Particulars	Approved for FY 2019-20	Projected for FY 2019-20 (RE)
1	Two months equivalent expected revenue	1621.67	1669.18



Sl. No.	Particulars	Approved for FY 2019-20	Projected for FY 2019-20 (RE)
2	Maintenance spares @40% of R&M expenses for one month	7.09	6.11
3	Sub-total (1+2+3)	1628.76	1675.29
4 Less:			
(i)	Power purchase cost, transmission charges and load dispatch charges of one month	662.79	738.21
(ii)	Depreciation, return on equity and contribution to contingency reserve	126.92	71.35
(iii)	Grant received from the State Govt. for power purchase and other O&M expenses	NIL	NIL
(iv)	Security Deposit from consumers	702.46	621.06
5	Sub-total (5(i)+5(ii)+5(iii)+5(iv))	1492.17	1430.61
6	Net working capital requirement (4-6)	136.59	244.68
7	Rate of interest %	10.00%	9.55%
8	Interest on working capital (7*8)	13.66	23.37

3.41.3. With the above methodology, it may be observed that PVVNL, when power purchase cost & transmission charges, depreciation and RoE for a month is deducted, does not require any working capital. The Commission is kindly requested to review the matter in terms of logics for requirement of working capital and accordingly approve the IoWC for PVVNL, DVVNL, MVVNL, PuVVNL, KESCO and NPCL.

#### B. Licensees response

3.41.4. As regard to Rama Shanker Awasthi objection the Licensee hereby submitted that the calculation of Interest of Working Capital is calculated as per clause 25.2 of UPERC (Multi Year Tariff for Distribution and Transmission) Regulations, 2019. Further, the consumer does not pay the bill timely. Due to this Licensee has to pay LPS to Generators. Although, the LPS received from consumer is considered as income, whereas Commission is not allowing LPS paid to generators. Hence, it is requested to Commission to allow LPS paid to generator as an expense, which is beyond the control of the Licensee.

#### C. Commission's view

3.41.5. The Commission has taken note of the objections/suggestions made by the stakeholders and comment of the Licensee.



### 3.42. SUBSTATION CAPACITY

#### A. Comments/ Suggestions of the Public

3.42.1. Shri Rama Shanker Awasthi submitted that in the Excel sheet depicting PVVNL sales, it has been computed that at 11kV and LT, total load is increased by 841 MW in FY 2019-20 compared to FY 2018-19. On cumulative basis, it amounts to approx. 500 MW in Co-incident Load Demand as now Discom is supplying power to most of consumer tariff at some point of time or other. In form P3, it is informed that 33/11kV Power Transformer capacity is increased by only 317 MVA. Considering 85% load factor and 70% loading factor, its works to be only 188 MW.

3.42.2. The Discom must be in problems of funding due to which capital investment in system as required may not be done. The Discom has appointed several consultants who are conducting various studies and preparing the DPR etc and carrying out PMC activities and Discoms should be directed to obtain from such Consultants a study of entire system at 33kV, 11kV and LT and corresponding demand forecast based, network strengthening schemes must be prepared. Such consultant should also provide cost estimates so that entire plans can be approved by Commission on scientific basis. It is necessary so that voltage profile can be maintained, supply can be made tripping free, technical losses can be reduced and equipment failure rate be reduced. The Commission is also requested to provide some kind of technical standards for discoms so that Capital Investment approval be made easy. Some of the technical standards are suggested, subject to expert committee scrutiny:

Sl. No.	Equipment	Area	Suggested Standard
1	33kV Feeder	Urban	<ul style="list-style-type: none"><li>• Underground, if possible</li><li>• Maximum length - 10 km</li><li>• Maximum loading – 10 MVA (180 Amp.)</li><li>• Separate for substation and consumers</li><li>• It is important to note that for a consumer or a generator availing a dedicated feeder the supply can be allowed up to 20 MW per feeder (360 Amp.) as in such case only one beneficiary is affected who has chosen the capacity construction at its own cost and risk</li><li>• However, for substation, thousands of consumers are affected and therefore for the purpose of N-1 reliability, average feeder loading has to be kept lower</li></ul>



Approval of ARR and Tariff for State Discoms for FY 2021-22, APR of FY 2020-21 and True-up of FY 2019-20

Sl. No.	Equipment	Area	Suggested Standard
2	33 kV Feeder	Rural	<ul style="list-style-type: none"><li>• Overhead, along the road as much as possible</li><li>• Maximum length - 20 km</li><li>• Maximum loading – 12 MVA (215 Amp)</li><li>• Separate for substation and consumers</li></ul>
3	33/11kV Substation	Urban	<ul style="list-style-type: none"><li>• 3 x 10 MVA transformers (max.)</li><li>• Maximum loading – 20 MVA/ 350 Amp. At 33kV</li><li>• Connected to 2 dedicated feeders (must)</li><li>• Connected to a common feeder for emergency (option)</li></ul>
4	33/11kV Substation	Rural	<ul style="list-style-type: none"><li>• 2x 10 MVA or 3 x 8 MVA transformers (max.)</li><li>• Maximum loading – 15 MVA/ 260 Amp. At 33kV</li><li>• Connected to 1 dedicated feeder (must)</li><li>• Connected to a common feeder for emergency (option)</li></ul>
5	11kV feeder	Urban	<ul style="list-style-type: none"><li>• Underground, if possible</li><li>• Maximum length - 6 km</li><li>• Maximum loading – 2 MVA (110 Amp.)</li><li>• Separate for public light and public water works</li><li>• Separate for HT consumers</li><li>• Separate for Industrial consumers</li><li>• Wherever possible separate for hospitals</li><li>• Ring Main to be necessary</li><li>• For dedicated feeder of generator / consumer, loading can be allowed up to 4 MW (200 Amp.)</li></ul>



Sl. No.	Equipment	Area	Suggested Standard
5	11kV feeder	Rural	<ul style="list-style-type: none"><li>• Overhead, if possible, along roads</li><li>• Maximum length - 12 km</li><li>• Maximum loading – 3 MVA (160 Amp.)</li><li>• Separate for Agriculture</li><li>• Separate for HT consumers</li><li>• Separate for Industrial consumers</li><li>• Wherever possible separate for hospitals</li><li>• Connectivity to other feeder at 2-3 locations to feed during emergency</li><li>• For dedicated feeder of generator / consumer, loading can be allowed up to 4 MW (200 Amp.)</li></ul>
6	Distribution Transformer	Urban / Rural	<ul style="list-style-type: none"><li>• DT capacity should be 1.5 times of Connected load on DT so that loading is not more than 70%</li><li>• At one location, only one DT be installed as much as possible</li><li>• LT feeder should not be more than 2 km</li></ul>

3.42.3. The setting of standards will improve customer services and it will also guide discoms on capital investment. As in PVVNL case, the Commission can order to increase capital investment plan looking at network conditions and overloading conditions.

#### **B. Licensees response**

3.42.4. As regard to Rama Shanker Awasthi objection the Licensee hereby submitted that they are considering the load requirement of the area increase capacity of the substation, line to provide the supply as per the standards to the consumers.

#### **C. Commission's view**

3.42.5. The Commission has taken note of the objections/suggestions made by the stakeholders and comment of the Licensee.



### **3.43. ACCIDENTS**

#### **A. Comments/ Suggestions of the Public**

3.43.1. Shri Rama Shanker Awasthi submitted that a total of 143 people has died due to electrical accidents in FY 2019-20, almost 18% higher than FY 2018-19 of 121 people. It seems there is absolutely no value to human life for PVVNL. He submitted that this issue was raised earlier also. The Commission has to take responsibilities of such killings by the discoms in the state and set the business of discoms in safe functioning, by setting suitable regulations.

#### **B. Licensees response**

3.43.2. As regard to Rama Shanker Awasthi objection the Licensee hereby submitted that they will takes all efforts to minimise the electrical accidents.

#### **C. Commission's view**

3.43.3. The Commission has noted the same. The matter concerns the Electrical Safety Inspector and accordingly may be taken up there.

### **3.44. POWER SYSTEM FAILURE**

#### **A. Comments/ Suggestions of the Public**

3.44.1. Shri Rama Shanker Awasthi submitted that the Discom has reported failure of power transformers as 5% and Distribution transformers as 11% which represent poor quality of transformer procurement. In the private sector power transformer failure is less than 0.1% and Distribution transformer failure is less than 1%. The Commission is requested to set a target of 3 years to reduce transformer failure rate to 0.2% for power transformer and distribution transformers to 2%. Any expenses on R&M of transformer failure of target fixed by the Commission be disallowed. He submitted that PVVNL ought to be directed by this Commission to furnish a study of the existing transformer failure & its causes and prepare the strategy to reduce the transformer failure rate to target set by the Commission in 3 years. He also requests the Commission to obtain details of transformer failure for each division and also direct the PVVNL to submit transformer failure report for each manufacturer and also for each Transformer work shop.

3.44.2. He further submits that Discoms in Punjab, BSES Delhi and many other states have handed over their transformer workshops to private contractors on the Service Level Agreement basis which has reduced transformer failure rate, and reduced the



transformer R&M cost. They have also installed software's to track performance of each manufacturer and transformer workshop. The theft of material and oil is also considerably reduced with using CCTVs.

3.44.3. Shri Pradeep Kumar Singhal, submitted that Licensee are giving very poor services to the consumer due to which cable box malfunctioning, jumper wires breakage, electric cable on poles breaking down are very frequent. Thus, Commission is requested to look into this and ask electricity licensee to reimburse consumers for electricity shutdown in the advance electricity bills of the consumers.

#### **B. Licensees response**

3.44.4. As regards to Pradeep Kumar Singhal objection it is hereby submitted by the Licensee that the suggested changes are not directly related with ARR proceedings.

3.44.5. As regard to Rama Shanker Awasthi objection the Licensee hereby submitted that R&M expenses are not allowed on actual basis due to which required maintenance is not carried out which sometimes result in failure of Distribution Transformer. Commission is requested to allow actual O&M expenses so that proper maintenance can be carried out to minimize the failure rate.

#### **C. Commission's view**

3.44.6. The Commission has taken note of the objections/suggestions made by the stakeholders and comment of the Licensee.

### **3.45. FIXED ASSETS OF PVVNL AT 132KV & ABOVE**

#### **A. Comments/ Suggestions of the Public**

3.45.1. Shri Rama Shanker Awasthi submitted that it is surprising how PVVNL can have assets at 132kV and above when the Commission has not allowed it to NPCL. The Commission need to provide a reasoned order in the matter of possession of 132kV and above assets by PVVNL. The 132kV losses are part of Intra-state transmission charges and therefore it should not be allowed to discoms. In FY 2018-19, PVVNL had not asked for it, however, generously approved, by using simple arithmetic means, at 0.18% to all discoms.

#### **B. Licensees response**

3.45.2. As regard to Rama Shanker Awasthi objection the Licensee hereby submitted that FAR for FY 2019-20 has already been submitted to Commission. Further, voltage wise line losses have also been submitted in reply of TVS session.



**C. Commission's view**

3.45.3. The Commission has taken note of the objections/suggestions made by the stakeholders and comment of the Licensee.

**3.46. DISCOM'S LOAD DISPATCH CENTRE**

**A. Comments/ Suggestions of the Public**

3.46.1. Shri Rama Shanker Awasthi submitted that PVVNL should be directed to set up Load Dispatch Centre for power scheduling operations in discom area.

**B. Licensees response**

3.46.2. As regard to Rama Shanker Awasthi objection the Licensee hereby submitted that the licensee carries out its activities in accordance with Electricity Act 2003.

**C. Commission's view**

3.46.3. The Commission has taken note of the objections/suggestions made by the stakeholders and comment of the Licensee.

**3.47. MRI UNITS**

**A. Comments/ Suggestions of the Public**

3.47.1. Shri P.K Maskara, Director, The Mahabir Jute Mills submitted that MRI data takes about 30 min on each meter of industries, so sufficient portable data dumping unit or laptop should be provided by the DISCOM to the field officers. Also, he added that the MRI Data so taken shall be made available to the consumers in PDF or XLS form for their information. He then stated that the file shall not be in. MRD or similar files as consumers does not have the software of each type of meters.

**B. Licensees response**

3.47.2. As regards to the objection pertaining to MRI load survey and TOD data in Excel and PDF format, the Licensee submits that this information is not directly related to ARR proceedings. Further, the reply on the matter shall be submitted separately along with consumer complaints.

**C. Commission's view**

3.47.3. The Commission has taken note of the objections/suggestions made by the stakeholders and comment of the Licensee.



### 3.48. INCONSISTENCY OF COST DATA & CLAIMED TRANSMISSION LOSSES

#### A. Comments/ Suggestions of the Public

3.48.1. Shri Prateek Aggarwal of CEEW submitted that there are considerable discrepancies in plant-wise variable cost (VC) data reported by discoms in their tariff petitions and uploaded on the MERIT portal. For example, table below shows that these variations can go up to 80% for some plants. Therefore, it is requested that the Commission request discoms to explain the variation in VC disclosed in the public domain and used in their petitions, i.e., are the reported VCs ex-bus, or at the state periphery, etc.

Deviations in VC as reported on MERIT deviate considerably from the petitions

Station name	VC (Rs./kWh)		Deviation on MERIT portal
	Tariff petitions true-up for FY20	FY20 average as on MERIT portal	
PANKI	1.73	3.12	80%
PARICHA EXT. STAGE-II	1.70	2.82	66%
AURAIYA GPS	4.79	7.24	51%
DADRI GPS	5.77	6.92	20%
Tanda II	2.20	2.45	11%
Meja Thermal Power Plant	3.08	3.37	10%
HARDUAGANJ	3.54	3.31	-7%
ANPARA-A	1.81	1.69	-7%
OBRA-B	2.11	1.90	-10%
HARDUAGANJ EXT.	3.35	2.84	-15%
ANPARA-B	1.73	1.43	-17%
PARICHA EXT.	3.34	2.57	-23%

3.48.2. Overall, it is evident that UP's discoms are burdened with excess power generation capacity, which is leading to an increased burden on consumers from fixed costs and stranded capacity. This is especially true as demand reduced in FY21 due to the Covid19 pandemic and may also happen in FY22 as the second wave rages. Thus, the discoms must explore ways to increase demand and plant utilisation. Measures to do this could include:

- Signing power supply agreements (PSAs) with large industrial consumers and industrial parks incentivising incremental power consumption. For example, in FY21, the Maharashtra Electricity Regulatory Commission (MERC) approved Rs.0.75/kVAh to HT consumers on incremental consumption over the past three years' average monthly consumption (discussed in detail tariff rationalisation section).
- Discoms must also explore banking agreements with neighbouring states.



Further, he submitted that the True-up petitions claim an incremental power purchase quantum at the state periphery due to a cited increase in inter-state transmission losses. However, as per the Bulk Supply Tariff (BST) calculation table (reproduced in table below), these increases in transmission losses are not reflected. Therefore, the basis of the claimed increase in transmission losses is unclear. Consequently, it is requested that the Commission solicit clarification from the discoms on this matter. BST estimation provided by discoms does not reflect claimed increase in transmission losses for FY 20

Particulars	Approved	Claimed
Power Purchase cost including inter-state charges (Rs. Crore)	51,438.30	54,896.62
Power Input (MU)	1,13,747.99	1,18,140.93
Inter-State Trans Losses (%) (% Computed on Total Input Energy)	2.13%	1.63%
Inter State Loss (MU)	2,428.31	1,929.97
Input at Transco End (MU)	1,11,319.68	1,16,210.96
Intra-State Trans Losses (%)	3.56%	3.43%
Input at Discom End (MU)	1,07,356.70	1,12,224.92
<b>BST at Discom Periphery (Rs./kWh)</b>	<b>4.79</b>	<b>4.89</b>

#### B. Licensees response

3.48.3. The Licensee did not submit any reply.

#### C. Commission's view

3.48.4. The Commission has taken note of the objections/suggestions made by the stakeholders.

### 3.49. SUBMISSION OF ENERGY AUDIT REPORTS

#### A. Comments/ Suggestions of the Public

3.49.1. Shri Prateek Aggarwal of CEEW submitted that the discoms have not submitted the energy audit report for FY 20 and FY 21, stating that feeder & DT metering work is in process. Therefore, it is requested that the Commission should direct the discoms to submit the energy audit report for the areas where the metering has been completed on a rolling basis.

3.49.2. Shri Yogesh Agarwal, Rimjhim Ispat Limited submitted that DVVNL has not submitted the electricity consumption of department employees, Hence the Commission should take strict view for the same.



## **B. Licensees response**

3.49.3. As regard to Rimjhim Ispat Limited objection the Licensee submits that the billing determinants of LMV-10: Departmental employees has already been submitted in the petition filed by DVVNL.

## **C. Commission's view**

3.49.4. The Commission has taken note of the objections/suggestions made by the stakeholders and comment of the Licensee.

## **3.50. COVID RELATED RELIEF**

### **A. Comments/ Suggestions of the Public**

3.50.1. Shri Prateek Aggarwal of CEEW submitted that the in May 2020, GoI announced Rs. 90,000 crore (loans sanctioned to the tune of Rs. 1,35,000 crore liquidity infusion scheme for discoms to clear the outstanding dues owed to power producers. Discoms have evinced interest to avail the facility of liquidity infusion scheme. UPPCL has requested the loans to the tune of Rs. 27,000 crore to meet their obligations, and nearly Rs. 10,000 crore has been disbursed. However, the discoms in their current submissions have not provided any working/details on such arrangement. It will be essential to understand how the interest amount for such loans is being treated in the current and the ensuing years ARRs and whether the interest can be passed on to the consumers. He submitted that the Commission is aware of the discount being offered by CPSU; National Thermal Power Corporation (NTPC) provided to the tune of Rs. 1363 crore to all discoms in the country. It is not clear how much rebate would be offered to UPPCL. He also submitted that the Commission is aware that the GoUP announces various billing-related rebates/waivers to various categories of consumers under the ambit of Covid19 relief. It is not clear how such announcements are factored in the APR for FY21. Further he requested the Commission to direct discoms to clarify the adjustments of such rebates/loans in the APR for FY21 and ARR for FY22 and also for the ensuing years.

3.50.2. Shri Avadhesh Kumar Verma, Chairman, UP Rajya Vidyut Upbhokta Parishad submitted that if the Electricity Regulatory Commission is facing no difficulty in reducing the electricity rates of all categories of consumers by 25 percent or 8 percent continuously for 3 years, then at present, when the mass public consumer is upset due to Covid in such a situation, the Stakeholder, after consulting with a lot



of consumers in the state, has proposed a Covid Relief Tariff Proposal only for the domestic rural and urban consumers farmers, who is suffering from the worst corona crisis named as the Covid Relief tariff.

**B. Licensees response**

3.50.3. As regard to the objections of Avadhesh Kumar Verma, the Licensee submitted that the stakeholder's request to reduce tariff by 25% on account of surplus of Rs. 13,337 Cr. declared in tariff order for FY 2019-20 has already been addressed before. The tariff is determined to meet the approved revenue gap and stakeholder's submission is lacking related details. Licensee has submitted all the data required for ARR submission and replies of subsequent queries of Commission. Licensee has prayed Commission to determine tariff as per proposed tariff rationalisation consumer category submission.

**C. Commission's view**

3.50.4. The Commission has taken note of the objections/suggestions made by the stakeholders and comment of the Licensee.

**3.51. GUIDELINES TO LINEMAN**

**A. Comments/ Suggestions of the Public**

3.51.1. Shri Ankit Kumar, IERS submitted that the lineman charges extra from consumers while providing their service. He submitted that the linemen are sitting in a parallel system and not doing the duty diligently. Therefore, he requested the Commission to issue strict guidelines to the lineman to do their duty with sheer diligence and not harass the consumers.

**B. Licensees response**

3.51.2. The Licensee did not submit any reply.

**C. Commission's view**

3.51.3. The Commission has taken note of the objections/suggestions made by the stakeholders.



### **3.52. WHITE PAPER ON SECTOR ISSUES & CHALLENGES**

#### **A. Comments/ Suggestions of the Public**

3.52.1. Shri Prateek Aggarwal of CEEW submitted that the Commission should develop a White Paper to assess strategies needed for the next 3-5 years by the sector, which includes:

- Assessment of demand based on macroeconomic indicators such as the progress of government development programs, environmental/resource factors, historical trends of sales, the elasticity of sales to tariffs, historical trends of migration of consumers to open access and renewable options, change in appliance usage, and load patterns.
- Assessment of least-cost supply options catering to this demand considering the impact of increased uptake of renewable energy technologies.
- Assessment of impacts of various tariff design and business models to ensure revenue recovery for the discoms while encouraging broadening and deepening competitive markets in the sector.

#### **B. Licensees response**

3.52.2. The Licensee did not submit any reply.

#### **C. Commission's view**

3.52.3. The Commission has taken note of the objections/suggestions made by the stakeholders.

### **3.53. TERMINOLOGY/ABBREVIATIONS**

#### **A. Comments/ Suggestions of the Public**

3.53.1. Shri Arun Mishra submitted that the Petitioner, PUVVNL for erroneous reason termed the 'admittance' as 'allowed' which are two distinct and different legal terminology. He also submitted that no abbreviation has been defined in the publication whereas objections has been invited from general public who is unaware of the critical term used in the publication and hence made the entire exercise of publication and invitation of objection as formal and & futile.

#### **B. Licensees response**

3.53.2. The Licensee did not submit any reply



### **C. Commission's view**

3.53.3. The Commission has taken note of the objections/suggestions made by the stakeholder.

### **3.54. ELECTRICITY THEFT**

#### **A. Comments/ Suggestions of the Public**

3.54.1. Shri Prateek Aggarwal of CEEW submitted that the discoms have not reported any realisation on account of theft for FY 20. It is requested that the Commission should inquire from the discoms whether any assessments toward theft have been made or not.

3.54.2. Shri D C Sharma, Federation of All India Vyapar Mandal submitted that power theft report is not been done in the concerned police station within 24 hours and Illegal money is being recovered from the consumers. He submits that the consumers should be given relief from the fixation of money and illegally charged revenue thus proper investigation be done and be made public.

3.54.3. Shri Shivakant Tripathi, Uttar Pradesh Jan Kalyan Samiti, Lucknow submitted that the Licensee should control the electricity theft. He further submitted that all dues shall be recovered with strict compliance.

3.54.4. Satish Maheshwari, Uttar Pradesh Industry Trade Representative Board submitted that Power Companies official are still not working sincerely in stopping power theft, they try to unethically settle down the matter with the culprits.

#### **B. Licensees response**

3.54.5. The Licensee did not submit any reply.

#### **C. Commission's view**

3.54.6. The Commission has taken note of the objections/suggestions made by the stakeholders.

### **ELECTRIFICATION EXPENSE**

#### **A. Comments/ Suggestions of the Public**

3.54.7. Shri Vishnu Bhagwan Agarwal, Chairman, Associated Chambers of Commerce & Industries of UP and Shri Manish Aggarwal, President, National Chamber of Industries & Commerce of UP submitted that the proposed electricity rates are



higher than the full year average prevailing on the power exchange and it would be suicidal to put the entire burden of the line loss on the industry. It is also submitted that in case of installation of high-capacity transformer, no building should be subjected to electrification charge as it is very high and there is no justification provided. Also, it is unjust to charge the price of electrification and different transformer on a domestic connection on a plot of 500 square meters only, while the application is less than 20 kW. The electrification should be done by the Discom itself and not by the small consumer.

#### **B. Licensees response**

3.54.8. The stakeholder comments w.r.t. Electrification expenses is not within the contention of this instant petition and it is related to cost data book. Further, the stakeholder has not submitted any specific complaints.

#### **C. Commission's view**

3.54.9. The Commission has taken note of the objections/ suggestions made by the stakeholders and the submissions made by the Licensee in this regard.

### **3.55. MISCELLANEOUS**

#### **A. Comments/ Suggestions of the Public**

3.55.1. Shri Sanjay V. Kute, Delhi Metro Rail Corporation submitted that till the finalization of the arrangements for accounting of electricity supplied by DMRC for commercial purposes, no coercive action may be taken against the DMRC and its officials on the issue.

3.55.2. Shri Vishnu Bhagwan Agarwal, Chairman, Associated Chambers of Commerce & Industries of UP and Shri Manish Aggarwal, President, National Chamber of Industries & Commerce of UP submitted that a country will overcome cost inequality at an electricity rate and the industry will be able to produce the right cost and unhealthy industries will find their own option. He also submitted that power should be sold on pure business basis, no one should be given electricity without meter or free without taking proper profit on the cost and there should be no exception to this. Further it was submitted that while giving a new connection, the equipment / meter "takes the entire cost of the transformer from the discom consumer and takes away any compensation on disconnection, which is wrong." As per Section 6.28 of Discom Supply Code, only the owner is the deemed owner and not the actual owner and therefore the consumer has full rights over the



equipment. Also, the consumer should have the right to take compensation from the discom or to withdraw the equipment's.

3.55.3. Further they submitted that Electricity Consumer Prevention Forum should have the right to hear violations of all kinds of rules. In many cases where there is no theft, the consumer should not be denied judicial process by committing theft. The penalty of overload is very high and annoying. If the consumer uses more load, then the load should be increased by giving 1 month notice and there is no provision for penalty.

3.55.4. Shri Yogesh Agarwal, Rimjhim Ispat Limited submitted that Load factor rebate may be reintroduced in the State to promote industry.

3.55.5. Shri Chakresh Jain submitted that there is a mass scale violation of Tariff Orders and total non-compliance of CGRF Orders and requested the Commission to visit the Tariff Orders since FY 2014-15 till FY 2019-20. He submitted that the monthly statement of electricity collection under 4 heads been not given to residents and audits being not done by any builder or any association in Noida or Greater Noida resulting in not refunding of excess collected amount due to high tariffs. He also submitted that there is laundering of money as well. He further submitted that energy and fixed charge needs to be rationalised on actual basis. Further, he submitted that there is excess collection due to high declared tariff of Rs. 7 and Rs. 110 and it should be reduced based on actuals of Rs. 6.62 and Rs. 26.5. Also, he submitted that this is due to consideration of wrong Power Factor of 0.9 instead of actual Power Factor of 0.98.

- Energy rate = supply rate+5%duty (say 6.30+5%=6.62.)
- Grid fixed charge = actual billed by PVVNL divided by total load in society (approx. 26.50.)
- Common area Electricity = shortfall in collection from 1&2 above to be divided by no. of flats. (Varies between 250 to 550).
- DG fixed charge is only depreciation fund amount hence must be put in bank FD every month positively. (If collected and not put in FD shall attract criminal proceedings against builder/AOA.)

3.55.6. He further submitted that by the above mentioned way, there will be no excess collection, no money laundering by builder or association, no mixing with maintenance and no need to go to courts. Therefore, the Commission must reduce Tariff as suggested above at the earliest before it becomes a riotous situation. Further, he submitted that the Tariff Orders since 2014-15 till today state that every



franchisee under LMV-I, single point supply, shall submit monthly billing cycle details of collections to every consumer, as well as to licensee, all details under each heads (energy charge, grid fixed charge, DG energy charge, DG fixed charge) of electricity under which collected through prepaid meter every month and also conduct audit every 6 months and provide report of Chartered Accountant to each consumer and the licensee but nothing of sort has been done by any franchisee. Several cases have also been filed in Hon'ble CGRF Meerut which are also not being complied with by the franchisee. And thus, more power needs to be given to CGRF to get the orders executed with a strong hand.

- 3.55.7. He also submitted that there is also provision of imposing penalty, for non-compliance of the orders under section 142 and 146 of Electricity Act 2003, one lakh rupees plus 6000 per day of non-compliance. All the franchisee in Noida UP have deliberately never complied with the orders of UPERC Tariff despite several consumers demanding the details every month, thus inviting invocation of penalty clauses of Electricity Act-2003 and stringent action needs to be taken by the Commission to bring the franchisee and the Licensee to make them follow the law in letter and spirit.
- 3.55.8. Shri Pradeep Kumar Singhal, submitted that in the calculation of new electricity connection, unnecessary inclusion of poles has been done by the electricity licensee. He requested the Commission not to burden consumers with the expense of these new poles. The Licensee should not burden HV-2 and MSME consumers with agricultural tube wells money, line losses and other losses and he also requested the Commission to encourage solarisation of agricultural pumps. Disconnection charges and Reconnection fees should not be more than Rs. 200. Consumers should be charged between Rs. 500 to Rs. 1000 for permanent disconnection. The honest consumers should be counted for load factor rebate. Further, the Commission is requested to continue giving discount on Load Factor rebate.
- 3.55.9. Spring Greens residents submitted that their builder has taken a single point connection with a single account and same connection without any bifurcation is being utilised by all apartment owners, a shopping Complex and Club with restaurant in that building. The Residents have to pay Electricity and Maintenance through the same meter which is grossly against the Electricity Tariff Order rule with a punishable offence. As per rule they should get an audited balance sheet of all the expenses collected and made through the single point connection, which they are not provided by the builder. And having approached the CGRF for the same and got



a judgement whereas CGRF has ordered the builder to comply but he has approached the ombudsman against the judgement which will further delay and cause more problem. It is further submitted that due to few corrupt officials of MVVNL, in spite of them wanting to convert to multipoint connection, MVVNL is not cooperating at all and is minting money along with the builder. It is also submitted that as per calculations builder is making profit of more than 4.5 lakh per month from the single point and neither paying the department the full amount which should have been the case. Against the CGRF judgement builder claims that the Connection is handed over to the society RWA which is a fraud and don't have any legitimate existence, moreover as can be seen had it been handed over to RWA the connection too should have been transferred to the RWA which is not, and still the connection is in the name of Builder.

3.55.10. Shri D C Sharma, Federation of All India Vyapar Mandal submitted that Commission should pass an order to issue electricity connection estimate at 15 percent supervision charge.

3.55.11. UP Gau Seva Aayog submitted that for all the gaushalas of the state the consumption of electricity should be made available at the lowest rates like agricultural works instead of commercial rates.

3.55.12. Shri Vinod Shankar Dwivedi, Vidhyut Upphokta Sarakshan Parishad submitted that as per 100 percent interest waiver scheme has been announced by Power Corporation to the consumers related to LMV-2, LMV-4(B) and LMV-6 categories. He submitted that the Billing of rural LMV-1, LMV-2, LMV-5 is being billed as per urban tariff. But after tireless efforts LMV-5 billing is being moved from LMV-5 urban to rural billing but till date LMV-5 urban tariff are shown as dues in the bills. He also submitted that for Division Meja, LMV-1 billing is been done on LMV-10(A) and 10(B) as well LMV-2 billing is been done at LMV-20 which is an urban tariff billing, LMV-17 Metered and LMV-13 unmetered are the rural tariff and even today, there is a high rate of amount in the bills (arrears) being collected for years. He further submitted that power supply announced by the State Government is being given for 24, 30 and 18 hours to the city, town area and tehsil and villagers but town area and tehsils are under IPDS category and been given 20 hours supply daily. But Power Corporation is applying city rates on these IPDS categories. He also submits that all feeders of supply to Town Area and Tehsil are 'Rural Feeders' yet Urban Tariff at LMV-1, LMV-2, LMV-5 bills are being generated and taken.



3.55.13. Satish Maheshwari, Uttar Pradesh Udyog Vyapar Pratinidhi Mandal submitted that some concessions should be given to promote bill payments through Net Banking. He also submits that if a consumer wants to make an advance payment, then the electricity company should have a clear policy as to how much interest will be given as benefit to the consumer and at least 1% per month should be given. He further submits that measures should be taken to encourage consumers paying on time, it is suggested that the rebate should be increased from 1% to 2%.

3.55.14. Shri Dinesh Chand Sharma, submitted that UPPCL and Discoms have started implementing ERP and various data required for ARR and will be prepared as per ERP formats. The formats of the Commission related to ARR are being included in ERP. Therefore, he requested that any modification/improvement required in these formats for future filing of Petitions may kindly be informed to Licensees so that these can be incorporated at the time of development of ERP Software.

#### **B. Licensees response**

3.55.15. As regards to DMRC objection the Licensee hereby submitted that it is a separate issue and not related with this instant petition.

3.55.16. As regards to Pradeep Kumar Singhal objection it is hereby submitted by the Licensee that the suggested changes are not directly related with ARR proceedings and with regard to solarisation of agricultural pumps, it is submitted that the matter is under active consideration. The Licensee further submitted that with respect to the electrification expenses it is not within the contention of this instant petition and it is related to cost data book. Further, the stakeholder has not submitted any specific complaints.

3.55.17. As regard to objection of Satish Maheshwari, Uttar Pradesh Industry Trade Representative Board the licensee submits that the Commission vide tariff Order dated 11.11.2020 has define Scheme for Advance Deposit for future monthly energy bills. The relevant section of the Order is as follows:

*“On such advance deposit the consumers shall be paid interest, at the interest rate applicable on security deposit, for the period during which advance exists for each month on reducing balance method and amount so accrued shall be adjusted in the electricity bills which shall be shown separately in the bill of each month.”*

3.55.18. With regards to the objection of Shri Vishnu Bhagwan Agarwal, Chairman, Associated Chambers of Commerce & Industries of UP and Shri Manish Aggarwal, President, National Chamber of Industries & Commerce of UP, Shri Satish



Maheshwari, Uttar Pradesh Udyog Vyapar Pratinidhi Mandal, Shri D C Sharma, Federation of All India Vyapar Mandal, the Licensee did not submit any reply.

3.55.19.As regards to the objection of Shri Dinesh Chand Sharma, Shri Vinod Shankar Dwivedi, Shri Chakresh Jain, Spring Greens, Uttar Pradesh Gau- Seva Aayog, the Licensee submitted that the objection is in the nature of consumer complaints. The Licensee further submitted that the aforementioned queries are not directly related with ARR. Further, the Petitioner submitted that these queries are being dealt separately in the quarterly reports submitted in the first week of each quarter indicating the progress against the consumer complaint as per the directions of the Commission.

**C. Commission's view**

3.55.20.The Commission has taken note of the objections/suggestions made by the stakeholders and comment of the Licensee.



#### **4. TRUING UP OF AGGREGATE REVENUE REQUIREMENT FOR FY 2019-20**

##### **4.1. INTRODUCTION**

4.1.1. The State Discoms namely DVVNL, MVVNL, PVVNL, PuVVNL & KESCo have sought the final truing up of expenditure and revenue for FY 2019-20 based on actual expenditure and revenue as per audited accounts. In this section, the Commission has analysed all the elements of actual revenue and expenses for FY 2019-20 based on prudence check of the data made available by the Licensees.

##### **4.2. CONSUMPTION PARAMETERS: CONSUMER NUMBERS, CONNECTED LOAD AND SALES**

4.2.1. The State Discoms have submitted that there is deviation in sales approved in Tariff Order dated 03.09.2019 and actual sales for FY 2019-20. The details are provided below:

- DVVNL submitted that there is a major reduction noticed in LMV-1 category.
- MVVNL submitted that there is a major reduction noticed in LMV-1, LMV-2 and HV-2 categories.
- PVVNL submitted that there is a major reduction noticed in LMV-4, LMV-5 and LMV-9 categories.
- PuVVNL submitted that there is a major reduction noticed in LMV-1, LMV-2, LMV-6, HV-2 and HV-3 categories.
- KESCO submitted that there is a major reduction noticed in LMV-1, LMV- 4, LMV-7 and HV-2 categories.

Further, the Licensees submitted that sales are derivative of demand which is uncontrollable in nature.

4.2.2. The comparison of Sales as approved by the Commission vide Tariff Order dated September 03, 2019 and as claimed by the State Discoms for FY 2019-20 is shown in the table below:



**TABLE 4-1: BILLING DETERMINANTS OF DVVNL FOR FY 2019-20**

Category	Approved in TO dt. 03.09.2019			Actual/ Claimed in True Up		
	Consumers (No.)	Load (kW)	Sales (MU)	Consumers (No.)	Load (kW)	Sales (MU)
LMV-1 Domestic light fan & power	49,27,214	67,32,995	8,034.00	45,83,085	58,90,311	7,029.87
LMV-2-Non domestic light fan & power	2,41,885	6,10,931	1,052.00	2,28,103	5,71,020	985.65
LMV-3 Public lamps	1,471	31,445	110.00	613	11,566	39.62
LMV-4 Light, fan & power for public/private institution	25,042	1,07,877	327.00	22,145	95,233	282.83
LMV-5 Private tube well/pumping sets	2,70,127	19,98,276	3,005.00	2,67,068	19,77,387	3,474.31
LMV-6 Small & medium power upto 100 hp/75kw	38,593	3,46,636	723.00	37,176	3,34,770	714.52
LMV-7 Public water works	8,265	81,462	310.00	8,926	90,932	347.01
LMV-8 State tube wells & pumps canal upto 100 hp	7,157	1,55,085	695.00	7,278	1,47,454	678.87
LMV-9 Temporary supply	982	1,926	3.00	1,916	3,650	5.72
LMV- 10 Departmental employees	18,337	86,948	145.00	17,329	82,168	133.79
LMV-11 Electric Vehicles	-	-	-	-	-	-
HV-1 Non industrial bulk load	466	1,11,464	262.00	519	1,21,285	285.88
HV-2 Large & heavy power above 100 bhp (75 kw)	2,323	7,06,462	3,059.00	2,965	10,12,695	3,284.96
HV-3 Railway traction	-	-	-	-	-	0.00
HV-4 Lift irrigation & p. canal above 100 bhp (75kw)	47	36,104	119.00	54	39,286	134.44
Bulk supply	1	11,20,183	2,017.00	1	11,53,729	2,058.67
Extra State Consumers	-	-	-	-	-	-
<b>Total</b>	<b>55,41,910</b>	<b>1,21,27,795</b>	<b>19,861.00</b>	<b>51,77,178</b>	<b>1,15,31,486</b>	<b>19,456.14</b>

**TABLE 4-2: BILLING DETERMINANTS OF MVVNL FOR FY 2019-20**

Category	Approved in TO dt. 03.09.2019			Actual/ Claimed in True Up		
	Consumers (No.)	Load (kW)	Sales (MU)	Consumers (No.)	Load (kW)	Sales (MU)
LMV-1 Domestic light fan & power	70,76,938	89,36,010	10,187.53	71,29,533	94,46,823	9,909.50
LMV-2-Non domestic light fan & power	3,77,264	10,77,121	1,705.54	3,63,266	10,39,486	1,466.36
LMV-3 Public lamps	2,450	97,505	368.52	1,403	98,794	360.35



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Category	Approved in TO dt. 03.09.2019			Actual/ Claimed in True Up		
	Consumers (No.)	Load (kW)	Sales (MU)	Consumers (No.)	Load (kW)	Sales (MU)
LMV-4 Light, fan & power for public/private institution	21,921	1,18,693	255.53	22,668	1,36,129	259.66
LMV-5 Private tube well/pumping sets	2,22,342	9,75,898	1,257.52	2,26,154	9,93,245	1,878.96
LMV-6 Small & medium power upto 100 hp/75kw	18,812	2,49,512	416.52	21,469	2,68,073	569.30
LMV-7 Public water works	3,434	1,01,399	445.52	3,589	1,09,154	474.15
LMV-8 State tube wells & pumps canal upto 100 hp	9,587	1,53,148	997.52	9,965	1,69,072	902.52
LMV-9 Temporary supply	76	552	11.53	5,348	18,647	96.78
LMV- 10 Departmental employees	27,557	88,006	158.52	26,628	84,038	163.18
LMV-11 Electric Vehicles	-	-	-	-	-	-
HV-1 Non industrial bulk load	1,363	4,36,268	850.53	1,158	4,02,144	733.99
HV-2 Large & heavy power above 100 bhp (75 kw)	1,792	6,40,442	2,084.52	2,009	8,30,072	1,464.76
HV-3 Railway traction	10	1,69,513	41.52	2	11,400	43.82
HV-4 Lift irrigation & p. canal above 100 bhp (75kw)	43	30,942	84.52	10	7,196	79.14
Bulk supply	-	-	-	-	-	-
Extra State Consumer	1	5,000	28.53	1	5,000	23.77
<b>Total</b>	<b>77,63,591</b>	<b>1,30,80,009</b>	<b>18,893.87</b>	<b>78,13,203</b>	<b>1,36,19,273</b>	<b>18,426.23</b>

TABLE 4-3: BILLING DETERMINANTS OF PVVNL FOR FY 2019-20

Category	Approved in TO dt. 03.09.2019			Actual/ Claimed in True Up		
	Consumers (No.)	Load (kW)	Sales (MU)	Consumers (No.)	Load (kW)	Sales (MU)
LMV-1 Domestic light fan & power	54,62,375	1,17,91,090	12,064.00	56,38,903	1,11,75,020	11,217.94
LMV-2-Non domestic light fan & power	4,33,908	12,74,115	1,878.00	4,41,975	13,21,090	1,671.46
LMV-3 Public lamps	1,975	66,684	234.00	1,213	54,540	203.13
LMV-4 Light, fan & power for public/private institution	16,236	96,327	191.00	17,403	1,16,030	221.70
LMV-5 Private tube well/pumping sets	4,55,485	26,89,596	5,203.00	4,51,299	32,97,890	6,097.45



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Category	Approved in TO dt. 03.09.2019			Actual/ Claimed in True Up		
	Consumers (No.)	Load (kW)	Sales (MU)	Consumers (No.)	Load (kW)	Sales (MU)
LMV-6 Small & medium power upto 100 hp/75kw	57,458	8,44,483	1,372.00	58,486	8,57,742	1,179.81
LMV-7 Public water works	3,399	1,25,106	484.00	3,750	1,27,778	472.30
LMV-8 State tube wells & pumps canal upto 100 hp	5,109	82,131	428.00	4,812	75,171	356.10
LMV-9 Temporary supply	542	1,702	1.00	4,487	51,294	100.81
LMV- 10 Departmental employees	20,450	1,24,039	181.00	19,723	1,32,158	173.33
LMV-11 Electric Vehicles				-	-	-
HV-1 Non industrial bulk load	2,114	10,04,079	1,796.00	2,206	12,11,681	1,850.11
HV-2 Large & heavy power above 100 bhp (75 kw)	5,692	20,59,513	5,994.00	5,468	20,26,445	5,441.39
HV-3 Railway traction	-	-	-	5	52,800	79.62
HV-4 Lift irrigation & p. canal above 100 bhp (75kw)	2	311	-	2	311	0.77
Bulk supply	-	-	-	-	-	-
Extra state consumers	-	-	-	-	-	-
<b>Total</b>	<b>64,64,745</b>	<b>2,01,59,176</b>	<b>29,826.00</b>	<b>66,49,732</b>	<b>2,04,99,950</b>	<b>29,065.91</b>

TABLE 4-4: BILLING DETERMINANTS OF PUVVNL FOR FY 2019-20

Category	Approved in TO dt. 03.09.2019			Actual/ Claimed in True Up		
	Consumers (No.)	Load (kW)	Sales (MU)	Consumers (No.)	Load (kW)	Sales (MU)
LMV-1 Domestic light fan & power	80,79,127	1,07,37,258	12,830	75,26,727	1,06,57,823	12,657
LMV-2-Non domestic light fan & power	4,18,077	11,28,765	2,418	4,17,437	12,83,108	2,001
LMV-3 Public lamps	273	40,516	150	348	42,321	100
LMV-4 Light, fan & power for public/private institution	19,140	1,02,021	211	22,038	1,27,400	190
LMV-5 Private tube well/pumping sets	3,17,852	11,93,142	1,967	3,05,833	13,08,655	2,146
LMV-6 Small & medium power upto 100 hp/75kw	31,873	2,93,850	996	30,172	3,37,496	547
LMV-7 Public water works	6,089	2,34,980	387	3,352	1,10,117	332
LMV-8 State tube wells & pumps canal upto 100 hp	11,480	1,97,491	1,052	11,596	2,04,709	1,007
LMV-9 Temporary supply	114	242	-	282	3,628	1
LMV- 10 Departmental employees	26,037	94,915	90	29,407	97,646	113



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Category	Approved in TO dt. 03.09.2019			Actual/ Claimed in True Up		
	Consumers (No.)	Load (kW)	Sales (MU)	Consumers (No.)	Load (kW)	Sales (MU)
LMV-11: Electrical Vehicles	-	-	-	-	-	-
HV-1 Non industrial bulk load	803	2,26,730	464	843	2,55,540	505
HV-2 Large & heavy power above 100 bhp (75 kw)	1,220	3,76,357	1,447	1,148	2,52,994	1,155
HV-3 Railway traction	3	8,139	125	-	-	-
HV-4 Lift irrigation & p. canal above 100 bhp (75kw)	154	2,71,748	510	32	1,39,246	482
Bulk supply	-	-	-	-	-	-
Extra state consumers	-	-	-	-	-	-
<b>Total</b>	<b>89,12,241</b>	<b>1,49,06,153</b>	<b>22,647.60</b>	<b>83,49,215</b>	<b>1,48,20,683</b>	<b>21,237.26</b>

TABLE 4-5: BILLING DETERMINANTS OF KESCO FOR FY 2019-20

Category	Approved in TO dt. 03.09.2019			Actual/ Claimed in True Up		
	Consumers (No.)	Load (kW)	Sales (MU)	Consumers (No.)	Load (kW)	Sales (MU)
LMV-1 Domestic light fan & power	5,62,665	14,07,165	1,682.49	5,24,269	12,67,210	1,560.24
LMV-2-Non domestic light fan & power	81,606	2,42,897	339.49	80,170	2,37,060	323.28
LMV-3 Public lamps	20	11,122	41.00	20	10,278	37.97
LMV-4 Light, fan & power for public/private institution	1,143	22,134	46.00	1,538	27,150	117.72
LMV-5 Private tube well/pumping sets	-	-	-	14	-	0.08
LMV-6 Small & medium power up to 100 hp/75kw	12,824	83,195	299.00	13,124	98,545	311.70
LMV-7 Public water works	1,131	41,177	95.00	1,113	42,730	110.63
LMV-8 State tube wells & pumps canal up to 100 hp	-	-	-	-	-	-
LMV-9 Temporary supply	-	-	-	106	447	2.10
LMV- 10 Departmental employees	5,729	18,265	30.00	5,131	19,903	38.17
LMV-11: Electrical Vehicles	-	-	-	-	-	-
HV-1 Non industrial bulk load	270	86,056	215.00	276	84,231	208.63
HV-2 Large & heavy power above 100 bhp (75 kw)	630	2,45,924	542.00	612	2,37,142	590.00
HV-3 Railway traction	-	-	-	-	-	-
HV-4 Lift irrigation & p. canal above 100 bhp (75kw)	-	-	-	-	-	-



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Category	Approved in TO dt. 03.09.2019			Actual/ Claimed in True Up		
	Consumers (No.)	Load (kW)	Sales (MU)	Consumers (No.)	Load (kW)	Sales (MU)
Bulk supply	-	-	-	-	-	-
Extra state consumers	-	-	-	-	-	-
<b>Total</b>	<b>6,66,018</b>	<b>21,57,935</b>	<b>3,289.98</b>	<b>6,26,373</b>	<b>20,24,696</b>	<b>3,300.50</b>

**TABLE 4-6: CONSOLIDATED BILLING DETERMINANTS FOR FY 2019-20 AS SUBMITTED BY THE PETITIONER**

Category	Approved in TO dt. 03.09.2019			Actual/ Claimed in True Up		
	Consumers (No.)	Load (kW)	Sales (MU)	Consumers (No.)	Load (kW)	Sales (MU)
LMV-1 Domestic light fan & power	26108319	39604519	44798	2,54,02,517	3,84,37,187	42,374
LMV-2-Non domestic light fan & power	1552740	4333829	7393	15,30,951	44,51,764	6,448
LMV-3 Public lamps	6189	247272	905	3,597	2,17,499	741
LMV-4 Light, fan & power for public/private institution	83482	447052	1030	85,792	5,01,942	1,072
LMV-5 Private tube well/pumping sets	1265806	6856912	11434	12,50,368	75,77,177	13,597
LMV-6 Small & medium power up to 100 hp/75kw	159560	1817676	3807	1,60,427	18,96,626	3,323
LMV-7 Public water works	22318	584124	1722	20,730	4,80,711	1,736
LMV-8 State tube wells & pumps canal up to 100 hp	33334	587856	3173	33,651	5,96,406	2,944
LMV-9 Temporary supply	1714	4422	6	12,139	77,666	207
LMV- 10 Departmental employees	98110	412172	605	98,218	4,15,913	621
LMV-11: Electrical Vehicles	-	-	-	-	-	-
HV-1 Non industrial bulk load	5016	1864597	3589	5,002	20,74,881	3,584
HV-2 Large & heavy power above 100 bhp (75 kw)	11658	4028698	13127	12,202	43,59,348	11,937
HV-3 Railway traction	13	177652	167	7	64,200	123
HV-4 Lift irrigation & p. canal above 100 bhp (75kw)	246	339105	714	98	1,86,039	696
Bulk supply				1	11,53,729	2,059
Extra state consumers	2	1125183	2046	1	5,000	24
<b>Total</b>	<b>29348504</b>	<b>62431068</b>	<b>94517</b>	<b>2,86,15,701</b>	<b>6,24,96,088</b>	<b>91,486</b>



4.2.3. The Commission has observed that the Petitioners have overbooked Sales in the unmetered categories with respect to the norms of sales approved by the Commission for the unmetered categories vide order dated 09th December, 2016 in suo-moto proceedings in the matter of revision of consumption norms for unmetered category of consumers. Further, for LMV-5 category, the Commission in its Tariff Order for FY 2019-20 dated 03.09.2019, had approved a consumption norm of 140 kWh per kW per month consumers assuming a supply of 14 hours for 120 days. The same norm for LMV-5 has been considered. The Commission has computed the excess sales booked by Petitioners as under:

**TABLE 4-7: NORMS OF DVVNL FOR SALES FOR FY 2019-20**

Category	DVVNL	No. of consumers	Connected load/contracted demand (kW)	Total Energy Sales (MU)	kWh Per kW per month consumers	Norm kWh Per kW per month consumers (approved vide order dated 9.12.16)	Sales as per Norms approved	Excess Sales booked/Sales under booked
LMV 1	Dom: Rural Schedule (unmetered)	9795.00	13095.03	19.97	127.07	144	22.63	0.00
LMV 2	Non Dom: Rural Schedule (unmetered)	63.00	98.73	0.25	211.02	144	0.17	0.08
LMV 5	PTW: Rural Schedule (unmetered)	254145.00	1886928.32	3348.78	147.89	140.00	3170.04	178.74
LMV 8	Unmetered: STW/Panch. Raj/WB/ID/P. Canals/LI upto 100 BHP	5930.00	109520.01	515.73	7247.42	7124.71	506.99	8.73
	Unmetered: Laghu Dal Nahar above 100 BHP	8.00	1074.29	6.65	69314.49	7124.71	0.68	5.97
<b>Total</b>								<b>193.52</b>

**TABLE 4-8: NORMS OF MVVNL FOR SALES FOR FY 2019-20**

Category	MVVNL	No. of consumers	Connected load/contracted demand (kW)	Total Energy Sales (MU)	kWh Per kW per month consumers	Norm kWh Per kW per month consumers (approved vide order dated 9.12.16)	Sales as per Norms approved	Excess Sales booked/Sales under booked
LMV 1	Dom: Rural Schedule (unmetered)	451025.00	537226.00	1332.29	206.66	144	928.33	403.96



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Category	MVVNL	No. of consumers	Connected load/contracted demand (kW)	Total Energy Sales (MU)	kWh Per kW per month consumers	Norm kWh Per kW per month consumers (approved vide order dated 9.12.16)	Sales as per Norms approved	Excess Sales booked/Sales under booked
LMV 2	Non Dom: Rural Schedule (unmetered)	10370.00	15161.00	28.28	155.43	144	26.20	2.08
LMV 5	PTW: Rural Schedule (unmetered)	212975.00	929245.65	1741.92	156.21	140.00	1561.13	180.79
LMV 8	Unmetered: STW/Panch. Raj/WB/ID/P. Canals/LI upto 100 BHP	9218.00	159218.00	851.18	7694.88	7124.71	788.11	63.07
	Unmetered: Laghu Dal Nahar above 100 BHP	0.00	0.00	0.00	0.00	7124.71	0.00	0.00
<b>Total</b>								<b>649.90</b>

**TABLE 4-9: NORMS OF PVVNL FOR SALES FOR FY 2019-20**

Category	PVVNL	No. of consumers	Connected load/contracted demand (kW)	Total Energy Sales (MU)	kWh Per kW per month consumers	Norm kWh Per kW per month consumers (approved vide order dated 9.12.16)	Sales as per Norms approved	Excess Sales booked/Sales under booked
LMV 1	Dom: Rural Schedule (unmetered)	144937.00	285423.36	691.87	202.00	144	493.21	198.65
LMV 2	Non Dom: Rural Schedule (unmetered)	4792.00	10295.90	17.32	140.21	144	17.79	0.00
LMV 5	PTW: Rural Schedule (unmetered)	447333.00	3270624.00	6062.95	154.48	140.00	5494.65	568.30
LMV 8	Unmetered: STW/Panch. Raj/WB/ID/P. Canals/LI upto 100 BHP	4059.00	63107.00	335.42	6886.24	7124.71	347.03	0.00
	Unmetered: Laghu Dal Nahar above 100 BHP	0.00	0.00	0.13		7124.71	0.00	0.13
<b>Total</b>								<b>767.08</b>



**TABLE 4-10: NORMS OF PUVVNL FOR SALES FOR FY 2019-20**

Category	PuVVNL	No. of consumers	Connected load/contracted demand (kW)	Total Energy Sales (MU)	kWh Per kW per month consumers	Norm kWh Per kW per month consumers (approved vide order dated 9.12.16)	Sales as per Norms approved	Excess Sales booked/Sales under booked
LMV 1	Dom: Rural Schedule (unmetered)	1240956.00	2232349.00	2523.00	94.18	144	3857.50	0.00
LMV 2	Non Dom: Rural Schedule (unmetered)	26539.00	76743.00	44.20	48.00	144	132.61	0.00
LMV 5	PTW: Rural Schedule (unmetered)	281151.00	1240106.00	1992.12	133.87	140.00	2083.38	0.00
LMV 8	Unmetered: STW/Panch. Raj/WB/ID/P. Canals/LI upto 100 BHP	11090.00	190122.00	947.30	7118.29	7124.71	948.16	0.00
	Unmetered: Laghu Dal Nahar above 100 BHP	33.00	7676.00	40.08	101204.10	7124.71	2.82	37.26
<b>Total</b>								<b>37.26</b>

**TABLE 4-11: CONSOLIDATED NORMS OF STATE DISCOMS (DVVNL, MVVNL, PVVNL & PUVVNL) FOR SALES FOR FY 2019-20**

Category	Consolidated	Excess Sales booked/Sales under booked (MU)
LMV 1	Dom: Rural Schedule (unmetered)	602.62
LMV 2	Non-Dom: Rural Schedule (unmetered)	2.16
LMV 5	PTW: Rural Schedule (unmetered)	927.83
LMV 8	Unmetered: STW/Panch. Raj/WB/ID/P. Canals/LI upto 100 BHP	71.80
	Unmetered: Laghu Dal Nahar above 100 BHP	43.35
<b>Total</b>		<b>1647.76</b>

4.2.4. The Commission, while Truing Up for FY 2018-19 had disallowed the excess sales booked & corresponding Power purchase cost. However, this year, as a special case, considering the adverse conditions created due to Covid-19 pandemic continuing, and the financial impact of the same on Discoms conditions, the same has not been disallowed as a one-time relief. However, the Commission shall take strict view about the excess sales being booked under unmetered category and directs the Petitioner to correct the same in future and stern action will be taken by the Commission in subsequent Tariff Orders. Accordingly, the Commission has approved the actual Sales of 91,486 MUs and billing determinants i.e. No. of consumers and connected load (kW) as actuals, for FY 2019-20.

#### 4.3. DISTRIBUTION LOSSES

4.3.1. The actual losses of FY 2019-20 as submitted by the Petitioners are as under:

Name of Discoms	Energy at Discom Periphery	Sales	Actual Distribution Loss	Distribution Losses as Approved in Tariff Order dt.03.09.2019	Distribution Losses Claimed
	(MU)	(MU)	(%)	(%)	(%)
DVVNL	24,710.98	19,456.14	21.27%	12.10%	12.10%
MVVNL	22,851.68	18,426.23	19.37%	11.80%	11.80%
PVVNL	34,432.42	29,065.91	15.59%	11.80%	11.80%
PuVVNL	26,651.59	21,237.26	20.32%	12.20%	12.20%
KESCO	3,578.25	3,300.50	7.76%	11.80%	7.76%
<b>Consolidated (5 Discoms)</b>	<b>1,12,224.92</b>	<b>91,486.05</b>	<b>18.48%</b>	<b>11.96%</b>	<b>11.82%</b>

4.3.2. As discussed, in previous section, it is observed that by increasing the sales of Unmetered categories (LMV-1, LMV-5, LMV-8 etc.), the Licensees has, not only claimed excess power purchase cost, but also, suppressed the actual distribution losses for the year. Taking into consideration the same, the loss computation comes out to be as follows:

Particulars	Energy at Discom Periphery (MU)	Sales (MU) approved after reducing excess sales booked under unmetered categories	Actual Distribution Loss computed (%)
DVVNL	24,710.98	19,235.98	22.16%
MVVNL	22,851.68	17,689.38	22.59%
PVVNL	34,432.42	28,196.20	18.11%
PuVVNL	26,651.59	21,194.83	20.47%
KESCO	3,578.25	3,300.50	7.76%
<b>Consolidated (Actual)</b>	<b>1,12,224.92</b>	<b>89,616.89</b>	<b>20.15%</b>

4.3.3. From the above, it has been observed that the Petitioners have suppressed the actual distribution losses for the year FY 2019-20 by 1.67%.



#### 4.4. POWER PURCHASE EXPENSES

4.4.1. The Commission in the Tariff Order for FY 2019-20 had approved the power purchase quantum of 1,13,747.99 MU and total power purchase expenses of Rs. 45,426.46 Crore at UPPCL level. The State Discoms have submitted the details of actual power purchase expenses for FY 2019-20 as under:

**TABLE 4-12: BULK SUPPLY TARIFF AS CLAIMED BY THE STATE DISCOMS FOR FY 2019-20**

Particulars	Units	DVVNL	MVVNL	PVVNL	PuVVNL	KESCo	Consolidated
Retail Sales (MU)	MU	19,456.14	18,426.23	29,065.91	21,237.26	3,300.50	91,486.05
Distribution Losses (%)	%	12.10%	11.80%	11.80%	12.20%	7.76%	11.82%
Energy at DISCOM Periphery for Retail Sales (MU)	MU	22,134.40	20,891.42	32,954.55	24,188.23	3,578.25	1,03,746.85
Intra-State Transmission Losses %	%	3.43%	3.43%	3.43%	3.43%	3.43%	3.43%
Energy Available at State periphery for Transmission (MU)	MU	22,920.58	21,633.45	34,125.04	25,047.35	3,705.35	1,07,431.76
Inter State Transmission Losses (MU)	MU	424.96	359.28	592.15	458.34	61.54	1896.26
Inter-State Transmission Losses % (% has been computed on total energy)	%	1.82%	1.63%	1.71%	1.80%	1.63%	1.73%
Purchases Required & Billed Energy (MU)	MU	23,345.54	21,992.72	34,717.18	25,505.69	3,766.88	1,09,328.02
Bulk Supply Tariff claimed	Rs. /kWh	4.89	4.89	4.89	4.89	4.89	4.89

4.4.2. It is observed that the State Discoms have adopted the following philosophy for computing the allowable power purchase cost.

- The Petitioners have calculated the allowable energy available at the State periphery by grossing up the actual energy received at the Discom end by the actual intra-state transmission losses.
- Thereafter to work out the allowable power input, the above derived energy available for transmission at the State periphery has been grossed up by actual Inter-State Transmission Losses (PGCIL Losses).
- Revised bulk supply Tariff has been calculated by dividing the total actual Power Purchase cost (including inter-state transmission charges).
- The allowable power purchase input has been multiplied by the revised bulk supply Tariff to derive the allowable power purchase cost for trueing up.



4.4.3. The State Discoms have submitted the Generation Station wise breakup of quantum and power purchase cost for FY 2019-20, as shown in the Table below:

**TABLE 4-13: ACTUAL POWER PURCHASE COST AS CLAIMED BY THE STATE DISCOMS FOR FY 2019-20**

Generating Stations	Units (MU)	Fixed Charges		Energy Charges		Other Charges		Late Payment Surcharge		Total Power Purchase Cost	
		Rs.Crore	Rs. /kWh	Rs.Crore	Rs. /kWh	Rs.Crore	Rs. /kWh	Rs.Crore	Rs. /kWh	Total Cost (Rs. Crore)	Per Unit Total Cost (Rs. /kWh)
<b>From State Generating Stations Thermal</b>											
ANPARA-A	3,914.45	303.77	0.78	709.93	1.81	0.48	0.00	-	-	1,014.18	2.59
ANPARA-B	6,470.88	298.89	0.46	1,117.95	1.73	13.09	0.02	-	-	1,429.93	2.21
ANPARA-D	5,164.05	822.99	1.59	876.17	1.70	4.27	0.01	-	-	1,703.43	3.30
PANKI	-	-	-	-	-	-	-	-	-	-	-
PARICHHA	200.56	45.82	2.28	72.30	3.61	13.29	0.66	-	-	131.42	6.55
PARICHHA EXT.	1,927.82	333.66	1.73	644.69	3.34	2.59	0.01	-	-	980.94	5.09
OBRA-A	-	-	-	-	-	-	-	-	-	-	-
OBRA-B	3,324.45	249.93	0.75	702.51	2.11	7.20	0.02	-	-	959.64	2.89
HARDUAGANJ	158.52	78.98	4.98	56.17	3.54	2.67	0.17	-	-	137.81	8.69
HARDUAGANJ EXT.	2,850.79	532.38	1.87	956.02	3.35	2.84	0.01	-	-	1,491.24	5.23
PARICHHA EXT. STAGE-II	1,305.98	332.74	2.55	437.66	3.35	1.62	0.01	-	-	772.02	5.91
UPRVUNL Consolidated	-	-	-	-	-	-40.06	-	-	-	-40.06	-
<b>Sub-Total</b>	<b>25,317.52</b>	<b>2,999.16</b>	<b>1.18</b>	<b>5,573.40</b>	<b>2.20</b>	<b>8.00</b>	<b>0.00</b>	<b>-</b>	<b>-</b>	<b>8,580.56</b>	<b>3.39</b>
<b>From State Generating Stations Hydro</b>											
RIHAND	365.88	15.08	0.41	21.00	0.57	-0.00	-0.00	-	-	36.08	0.99
OBRA ( H )	187.20	10.99	0.59	7.81	0.42	-0.00	-0.00	-	-	18.80	1.00
MATATILA	47.71	1.94	0.41	1.54	0.32	-0.00	-0.00	-	-	3.48	0.73
KHARA	313.83	11.64	0.37	11.61	0.37	-0.00	-0.00	-	-	23.25	0.74
UGC	20.08	-	-	5.68	2.83	-	-	-	-	5.68	2.83
SHEETLA	1.96	-	-	0.30	1.54	-	-	-	-	0.30	1.54
<b>Sub-Total</b>	<b>936.66</b>	<b>39.66</b>	<b>0.42</b>	<b>47.94</b>	<b>0.51</b>	<b>-0.01</b>	<b>-0.00</b>	<b>-</b>	<b>-</b>	<b>87.59</b>	<b>0.94</b>
<b>From Central Sector Generating Stations</b>											
ANTA GPS	160.12	57.77	3.61	114.29	7.14	0.49	0.03	-	-	172.55	10.78
AURAIYA GPS	172.73	113.41	6.57	82.69	4.79	5.38	0.31	-	-	201.48	11.66
DADRI GPS	784.83	120.79	1.54	452.57	5.77	18.76	0.24	-	-	592.13	7.54
FGUTPS-1	971.68	186.59	1.92	330.27	3.40	13.59	0.14	-	-	530.45	5.46
FGUTPS-2	535.05	93.73	1.75	184.29	3.44	7.57	0.14	-	-	285.59	5.34
FGUTPS-3	299.24	61.69	2.06	102.08	3.41	4.12	0.14	-	-	167.89	5.61
FGUTPS-4	1,013.38	251.03	2.48	325.78	3.21	13.72	0.14	-	-	590.52	5.83
FSTPS	191.25	19.22	1.00	46.56	2.43	0.84	0.04	-	-	66.62	3.48
KHTPS-1	369.78	54.92	1.49	83.32	2.25	-	-	-	-	138.24	3.74
KHTPS-2	1,320.87	192.22	1.46	281.97	2.13	-	-	-	-	474.18	3.59



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Generating Stations	Units (MU)	Fixed Charges		Energy Charges		Other Charges		Late Payment Surcharge		Total Power Purchase Cost	
		Rs.Crore	Rs./kWh	Rs.Crore	Rs./kWh	Rs.Crore	Rs./kWh	Rs.Crore	Rs./kWh	Total Cost (Rs. Crore)	Per Unit Total Cost (Rs./kWh)
KOLDAM HPS	730.73	191.78	2.62	174.87	2.39	1.81	0.02	-	-	368.45	5.04
NCTPS-1	301.41	56.15	1.86	124.52	4.13	1.70	0.06	-	-	182.38	6.05
NCTPS-2	607.39	117.60	1.94	145.31	2.39	5.18	0.09	-	-	268.09	4.41
RIHAND-1	2,206.96	199.98	0.91	303.60	1.38	-5.60	-0.03	-	-	497.97	2.26
RIHAND-2	2,091.09	155.50	0.74	283.72	1.36	-	-	-	-	439.23	2.10
RIHAND-3	2,653.35	345.39	1.30	363.14	1.37	5.54	0.02	-	-	714.07	2.69
SINGRAULI	5,100.45	357.68	0.70	708.92	1.39	-	-	-	-	1,066.59	2.09
TANDA TPS	1,827.85	368.18	2.01	557.59	3.05	19.85	0.11	-	-	945.62	5.17
SINGRAULI SHPS	4.90	-	-	3.10	6.34	-	-	-	-	3.10	6.34
JHANOR GPS	2.17	0.25	1.16	1.09	5.04	-0.00	-0.00	-	-	1.34	6.20
KORBA-I STPS	24.10	1.66	0.69	3.25	1.35	0.00	0.00	-	-	4.90	2.03
KORBA-III STPS	21.76	1.34	0.62	1.25	0.57	0.00	0.00	-	-	2.59	1.19
KAWAS GPS	9.13	0.69	0.75	3.07	3.36	-	-	-	-	3.75	4.11
MAUDA-I STPS	37.64	8.37	2.22	12.10	3.21	0.17	0.04	-	-	20.64	5.48
MAUDA-II STPS	41.90	8.75	2.09	13.52	3.23	0.13	0.03	-	-	22.41	5.35
SOLAPUR TPS	1.13	4.32	38.32	0.40	3.57	0.02	0.20	-	-	4.74	42.09
SIPAT-I	38.55	4.99	1.29	4.90	1.27	0.00	0.00	-	-	9.89	2.57
SIPAT-II STPS	15.03	1.96	1.31	2.17	1.44	-0.00	-0.00	-	-	4.14	2.75
VINDHYACHAL-I STPS	32.44	2.95	0.91	5.70	1.76	-	-	-	-	8.65	2.67
VINDHYACHAL-II STPS	16.85	1.35	0.80	2.82	1.67	-	-	-	-	4.17	2.47
VINDHYACHAL-III STPS	23.62	2.44	1.03	3.96	1.67	-0.00	-0.00	-	-	6.39	2.71
VINDHYACHAL-IV STPS	19.25	3.35	1.74	3.14	1.63	0.00	0.00	-	-	6.49	3.37
VINDHYACHAL-V STPS	14.22	2.33	1.64	2.40	1.69	0.02	0.01	-	-	4.75	3.34
GADARWARA STPS-I	1.92	2.49	12.96	0.67	3.50	0.03	0.15	-	-	3.19	16.61
LARA STPS-I	4.52	1.46	3.23	1.11	2.45	-	-	-	-	2.57	5.68
KHARGONE STPS	1.49	0.42	2.82	0.44	2.93	-	-	-	-	0.86	5.75
NTPC CONSOLIDATED	-	-	-	-	-	-181.25	-	250.57	-	69.32	-
<b>Sub-Total</b>	<b>21,648.79</b>	<b>2,992.76</b>	<b>1.38</b>	<b>4,730.59</b>	<b>2.19</b>	<b>-87.93</b>	<b>-0.04</b>	<b>250.57</b>	<b>0.12</b>	<b>7,885.98</b>	<b>3.64</b>
<b>NPICL</b>											
NAPP	1,229.14	-	-	391.71	3.19	-155.60	-1.27	92.45	0.75	328.56	2.67
RAPP-3 & 4	519.36	-	-	181.07	3.49	1.78	0.03	-	-	182.84	3.52
RAPP-5 & 6	889.26	-	-	360.56	4.05	-226.06	-2.54	-	-	134.51	1.51
TAPP-3 & 4	21.33	-	-	6.74	3.16	1.31	0.61	-	-	8.05	3.77
KAPS	6.73	-	-	1.71	2.54	-0.22	-0.33	-	-	1.49	2.21
<b>Sub-Total</b>	<b>2,665.82</b>	<b>-</b>	<b>-</b>	<b>941.80</b>	<b>3.53</b>	<b>-378.80</b>	<b>-1.42</b>	<b>92.45</b>	<b>0.35</b>	<b>655.45</b>	<b>2.46</b>
<b>Hydro (NHPC)</b>											
SALAL	265.15	19.88	0.75	16.33	0.62	9.84	0.37	-	-	46.05	1.74
TANAKPUR	102.67	20.31	1.98	16.37	1.59	15.34	1.49	-	-	52.02	5.07
CHAMERA-I	532.76	40.23	0.76	60.79	1.14	-1.32	-0.02	-	-	99.70	1.87
URI	664.14	53.33	0.80	54.59	0.82	4.77	0.07	-	-	112.69	1.70
CHAMERA-II	338.92	24.04	0.71	34.06	1.01	-0.92	-0.03	-	-	57.18	1.69



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Generating Stations	Units (MU)	Fixed Charges		Energy Charges		Other Charges		Late Payment Surcharge		Total Power Purchase Cost	
		Rs.Crore	Rs./kWh	Rs.Crore	Rs./kWh	Rs.Crore	Rs./kWh	Rs.Crore	Rs./kWh	Total Cost (Rs. Crore)	Per Unit Total Cost (Rs./kWh)
DHAULIGANGA	334.88	42.95	1.28	40.63	1.21	-0.98	-0.03	-	-	82.60	2.47
DULHASTI	556.47	122.34	2.20	146.82	2.64	2.46	0.04	-	-	271.63	4.88
SEWA-II	173.34	44.62	2.57	41.80	2.41	0.44	0.03	-	-	86.86	5.01
CHAMERA-III	274.49	57.72	2.10	54.07	1.97	2.85	0.10	-	-	114.64	4.18
URI-II	435.41	83.26	1.91	78.38	1.80	6.37	0.15	-	-	168.01	3.86
PARBATI-III	180.47	74.62	4.13	27.77	1.54	-0.82	-0.05	-	-	101.58	5.63
NHPC CONSOLIDATED	-	-	-	-	-	96.92	-	136.09	-	233.00	-
KISAN GANGA	398.90	77.61	1.95	69.75	1.75	46.37	1.16	-	-	193.73	4.86
<b>Sub Total</b>	<b>4,257.62</b>	<b>660.91</b>	<b>1.55</b>	<b>641.37</b>	<b>1.51</b>	<b>181.32</b>	<b>0.43</b>	<b>136.09</b>	<b>0.32</b>	<b>1,619.68</b>	<b>3.80</b>
<b>HYDRO</b>											
TEHRI	1,229.28	280.46	2.28	277.18	2.25	60.97	0.50	175.87	1.43	794.48	6.46
KOTESHWAR	500.49	124.70	2.49	113.77	2.27	0.24	0.00	-	-	238.71	4.77
DHUKWAN	2.72	-	-	0.66	2.44	-	-	-	-	0.66	2.44
<b>Sub-Total</b>	<b>1,732.49</b>	<b>405.17</b>	<b>2.34</b>	<b>391.61</b>	<b>2.26</b>	<b>61.21</b>	<b>0.35</b>	<b>175.87</b>	<b>1.02</b>	<b>1,033.86</b>	<b>5.97</b>
<b>SJVN</b>											
RAMPUR	356.84	72.40	2.03	71.79	2.01	2.11	0.06	-	-	146.31	4.10
NATHPA JHAKRI	1,374.11	154.05	1.12	169.13	1.23	-8.93	-0.07	37.62	0.27	351.87	2.56
<b>Sub-Total</b>	<b>1,730.95</b>	<b>226.46</b>	<b>1.31</b>	<b>240.92</b>	<b>1.39</b>	<b>-6.82</b>	<b>-0.04</b>	<b>37.62</b>	<b>0.22</b>	<b>498.18</b>	<b>2.88</b>
<b>IPP</b>											
LANCO	6,725.85	637.11	0.95	1,356.15	2.02	117.17	0.17	22.32	0.03	2,132.75	3.17
APCPL	196.74	42.11	2.14	89.82	4.57	0.20	0.01	20.07	1.02	152.20	7.74
BEPL BARKHERA	82.96	92.42	11.14	30.70	3.70	-12.22	-1.47	-	-	110.91	13.37
BEPL KHAMBHAKHERA	73.16	89.64	12.25	26.96	3.69	0.65	0.09	-	-	117.26	16.03
BEPL KUNDRAKHI	116.26	89.36	7.69	37.89	3.26	0.87	0.07	-	-	128.12	11.02
BEPL MAQSOODAPUR	93.89	85.71	9.13	35.04	3.73	0.84	0.09	-	-	121.59	12.95
BEPL UTRALA	109.72	89.94	8.20	37.54	3.42	0.89	0.08	70.05	6.38	198.42	18.08
KSK MAHANADI	4,772.38	1,219.31	2.55	1,331.69	2.79	20.01	0.04	35.92	0.08	2,606.94	5.46
LALITPUR	6,916.87	2,858.00	4.13	2,044.09	2.96	268.10	0.39	280.65	0.41	5,450.85	7.88
M.B.POWER	2,273.46	669.32	2.94	435.51	1.92	191.21	0.84	55.17	0.24	1,351.20	5.94
PRAYAGRAJ POWER	8,472.86	1,247.90	1.47	2,068.15	2.44	-18.17	-0.02	177.89	0.21	3,475.77	4.10
R.K.M.POWER	2,074.84	547.47	2.64	389.43	1.88	-81.80	-0.39	24.17	0.12	879.27	4.24
ROSA	5,632.62	1,269.43	2.25	1,729.06	3.07	142.92	0.25	-	-	3,141.41	5.58
SASAN	3,778.25	55.68	0.15	434.43	1.15	21.48	0.06	-	-	511.59	1.35
SRI NAGAR HEP	1,351.33	387.98	2.87	313.11	2.32	-	-	-	-	701.09	5.19
TRN ENERGY	1,599.77	292.24	1.83	264.81	1.66	-35.04	-0.22	18.73	0.12	540.74	3.38
VISHNU PRAYAG	1,731.42	24.28	0.14	226.02	1.31	28.69	0.17	-	-	278.98	1.61
KARCHAM	917.72	152.04	1.66	154.29	1.68	99.87	1.09	9.35	0.10	415.55	4.53
<b>Sub Total</b>	<b>46,920.11</b>	<b>9,849.95</b>	<b>2.10</b>	<b>11,004.71</b>	<b>2.35</b>	<b>745.66</b>	<b>0.16</b>	<b>714.32</b>	<b>0.15</b>	<b>22,314.64</b>	<b>4.76</b>
<b>Cogen/ Captive</b>	<b>3,717.72</b>	-	-	<b>1,399.94</b>	<b>3.77</b>	<b>-204.38</b>	<b>-0.55</b>	-	-	<b>1,195.56</b>	<b>3.22</b>
<b>Solar</b>	<b>2,217.21</b>	-	-	<b>1,013.33</b>	<b>4.57</b>	<b>27.49</b>	<b>0.12</b>	-	-	<b>1,040.82</b>	<b>4.69</b>
<b>Non-Solar (Renewable) WIND</b>	<b>950.88</b>	-	-	<b>326.21</b>	<b>3.43</b>	-	-	-	-	<b>326.21</b>	<b>3.43</b>



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Generating Stations	Units (MU)	Fixed Charges		Energy Charges		Other Charges		Late Payment Surcharge		Total Power Purchase Cost	
		Rs.Crore	Rs./kWh	Rs.Crore	Rs./kWh	Rs.Crore	Rs./kWh	Rs.Crore	Rs./kWh	Total Cost (Rs. Crore)	Per Unit Total Cost (Rs./kWh)
TALA	118.90	-	-	25.68	2.16	-	-	-	-	25.68	2.16
TEESTA-III	897.63	239.62	2.67	222.19	2.48	47.26	0.53	4.71	0.05	513.78	5.72
<b>NVVN/NTPC NSM-II</b>											
NVVN	677.59	-	-	310.99	4.59	21.16	0.31	2.95	0.04	335.10	4.95
NTPC NSM II	492.03	-	-	180.74	3.67	1.60	0.03	8.28	0.17	190.62	3.87
<b>Sub Total</b>	<b>1,169.62</b>	<b>-</b>	<b>-</b>	<b>491.72</b>	<b>4.20</b>	<b>22.76</b>	<b>0.19</b>	<b>11.23</b>	<b>0.10</b>	<b>525.71</b>	<b>4.49</b>
<b>MICRO HYDEL</b>											
BELKA	1.54	-	-	0.33	2.12	-	-	-	-	0.33	2.12
BABAIL	-0.03	-	-	-0.01	2.95	-	-	-	-	-0.01	2.95
<b>Sub Total</b>	<b>1.51</b>	<b>-</b>	<b>-</b>	<b>0.32</b>	<b>2.11</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>0.32</b>	<b>2.11</b>
<b>OTHER SOURCES</b>											
UI Charges	-169.93	-	-	191.40	-11.26	-	-	1.44	-0.08	192.84	-11.35
Reactive Energy Charges	-	-	-	-	-	7.09	-	-	-	7.09	-
OA	1,717.56	-	-	917.48	5.34	13.77	0.08	-	-	931.25	5.42
Fwd/Rev Banking	-	-	-	-	-	51.89	-	0.01	-	51.90	-
IEX Purchase	1,140.29	-	-	498.95	4.38	0.04	0.00	-	-	498.99	4.38
IEX sale	1,097.37	-	-	292.76	2.67	-	-	-	-	292.76	2.67
<b>Sub Total</b>	<b>1,590.54</b>	<b>-</b>	<b>-</b>	<b>1,315.07</b>	<b>8.27</b>	<b>72.78</b>	<b>0.46</b>	<b>1.45</b>	<b>0.01</b>	<b>1,389.31</b>	<b>8.73</b>
<b>Transmission Charges</b>											
PGCIL Charges	-	-	-	-	-	3,477.54	-	-	-	3,477.54	-
POSOCO Charges	-	-	-	-	-	4.35	-	0.01	-	4.36	-
Case-I Transmission Charges	-	-	-	-	-	727.61	-	-	-	727.61	-
WUPPTCL Charges	-	-	-	-	-	881.29	-	-	-	881.29	-
SEUPPTCL Charges	-	-	-	-	-	300.03	-	-	-	300.03	-
Ksk Mahanadi	-	-	-	-	-	316.74	-	-	-	316.74	-
MB Power	-	-	-	-	-	126.32	-	-	-	126.32	-
TRN	-	-	-	-	-	121.72	-	-	-	121.72	-
RKM Power	-	-	-	-	-	162.83	-	-	-	162.83	-
<b>Sub Total</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>5,390.83</b>	<b>-</b>	<b>0.01</b>	<b>-</b>	<b>5,390.84</b>	<b>-</b>
<b>MEJA POWER</b>	<b>847.10</b>	<b>247.02</b>	<b>2.92</b>	<b>260.61</b>	<b>3.08</b>	<b>-7.76</b>	<b>-0.09</b>	<b>22.76</b>	<b>0.27</b>	<b>522.63</b>	<b>6.17</b>
<b>NABINAGAR POWER PROJECT</b>	<b>235.18</b>	<b>76.33</b>	<b>3.25</b>	<b>48.66</b>	<b>2.07</b>	<b>-1.14</b>	<b>-0.05</b>	<b>-</b>	<b>-</b>	<b>123.84</b>	<b>5.27</b>
<b>TANDA STAGE-II</b>	<b>1,184.70</b>	<b>216.12</b>	<b>1.82</b>	<b>260.65</b>	<b>2.20</b>	<b>10.06</b>	<b>0.08</b>	<b>-</b>	<b>-</b>	<b>486.84</b>	<b>4.11</b>
<b>Total Power Purchase inclusive of Transmission Charges</b>	<b>1,18,140.93</b>	<b>17,953.14</b>	<b>1.52</b>	<b>28,936.73</b>	<b>2.45</b>	<b>5,880.54</b>	<b>0.50</b>	<b>1,447.06</b>	<b>0.12</b>	<b>54,217.47</b>	<b>4.59</b>
PTC Unverified Power Purchase	-	-	-	-	-	116.21	-	-	-	116.21	-



Generating Stations	Units (MU)	Fixed Charges		Energy Charges		Other Charges		Late Payment Surcharge		Total Power Purchase Cost	
		Rs.Crore	Rs. /kWh	Rs.Crore	Rs. /kWh	Rs.Crore	Rs. /kWh	Rs.Crore	Rs. /kWh	Total Cost (Rs. Crore)	Per Unit Total Cost (Rs. /kWh)
Total Power Purchase inclusive of Transmission Charges	1,18,140.93	17,953.14	1.52	28,936.73	2.45	5,996.75	0.51	1,447.06	0.12	54,333.68	4.60
Other prior Adjustments										562.94	
<b>Grand Total</b>	<b>1,18,140.93</b>	<b>17,953.14</b>	<b>1.52</b>	<b>28,936.73</b>	<b>2.45</b>	<b>5,996.75</b>	<b>0.51</b>	<b>1,447.06</b>	<b>0.12</b>	<b>54,896.64</b>	<b>4.60</b>

4.4.4. In this regard, the State Discoms have further requested the Commission to kindly approve the additional power purchase quantum due to increase in Inter-State transmission losses, as the same is beyond the control of the Petitioner while approving the revised Bulk Supply Tariff. Further, they submitted that the BST is computed in line with the approach adopted by the Commission in the previous Tariff Orders.

**TABLE 4-14: BULK SUPPLY TARIFF FOR FY 2019-20 (5 DISCOMS)**

Particulars	Approved in Tariff Order dated September 03, 2019	Actual
Power Purchase cost including inter-state charges (Rs Crore)	51,438.30	54,896.64
Power Input (MU)	1,13,747.99	1,18,140.93
Inter-State Trans Losses (%) (%Computed on Total Input Energy)	2.13%	1.63%
Inter State Loss (MU)	2,428.31	1,929.97
Input at Transco End (MU)	111,319.68	1,16,210.96
Intra-State Trans Losses (%)	3.56%	3.43%
Input as Discom End (MU)	107,356.70	112,224.92
<b>BST at Discom Periphery (Rs/Kwh)</b>	<b>4.79</b>	<b>4.89</b>

4.4.5. The State Discoms have claimed the Power Purchase cost based on the actual BST for FY 2019-20 and considering the losses as approved by the Commission in the Tariff Order for FY 2019-20. Further, PVVNL has also claimed an additional power purchase cost of Rs 0.37 Crore on account of power purchased from Uttar Haryana Bijli Vitran Nigam Ltd and PuVVNL has claimed an additional power purchase cost of Rs. 8.57 Crore on account of power purchased from South Bihar Power Distribution Company Limited. The Petitioner requests the Commission to allow the Power Purchase cost for FY 2019-20 as claimed in the table below:



**TABLE 4-15: POWER PURCHASE COST OF DVVNL FOR FY 2019-20**

Particulars	Approved in Tariff Order dated September 03, 2019	As per Audited Balance Sheet	Normative
Allowable Power Purchase at Discom Periphery (MU)	22,595.39	24,706.50	22,134.40
BST Rate (Rs. /kWh)	4.79	4.26	4.89
<b>Power Procurement Cost from UPPCL (Rs. Crore)</b>	<b>10,826.23</b>	<b>10,515.36</b>	<b>10,827.40</b>

**TABLE 4-16: POWER PURCHASE COST OF MVVNL FOR FY 2019-20**

Particulars	Approved in Tariff Order dated September 03, 2019	As per Audited Balance Sheet	Normative
Allowable Power Purchase at Discom Periphery (MU)	21,420.90	22,851.68	20,891.42
BST Rate (Rs. /kWh)	4.79	5.13	4.89
<b>Power Procurement Cost from UPPCL (Rs. Crore)</b>	<b>10,263.49</b>	<b>11,725.14</b>	<b>10,219.37</b>

**TABLE 4-17: POWER PURCHASE COST OF PVVNL FOR FY 2019-20**

Particulars	Approved in Tariff Order dated September 03, 2019	As per Audited Balance	Normative
Allowable Power Purchase at Discom Periphery (MU)	33,815.85	32,954.55	34,432.42
BST Rate (Rs. /kWh)	4.79	4.89	4.68
Power Procurement Cost from UPPCL (Rs. Crore)	16,202.34	16,120.25	16,120.61
Direct Power Procurement Cost by PVVNL (Rs. Crore)		<b>0.37</b>	
<b>Total Procurement Cost (Rs. Crore)</b>		<b>16,120.61</b>	

**TABLE 4-18: POWER PURCHASE COST OF PUVVNL FOR FY 2019-20**

Particulars	Approved in Tariff Order dated September 03, 2019	As per Balance Sheet	Normative
Allowable Power Purchase at Discom Periphery (MU)	25,794.88	26.651.59	24,188.23



Particulars	Approved in Tariff Order dated September 03, 2019	As per Balance Sheet	Normative
BST Rate (Rs. /kWh)	4.79	4.85	4.89
Power Procurement Cost from UPPCL (Rs. Crore)	12,359.22	12,919.19	11,832.06
Direct Purchase by PuVVNL from SBPDCL (Rs. Crore)			8.57
<b>Total Power Procurement Cost for PuVVNL (Rs. Crore)</b>			<b>11,840.63</b>

**TABLE 4-19: POWER PURCHASE COST OF KESCO FOR FY 2019-20**

Particulars	Approved in Tariff Order dated September 03, 2019	As per Balance Sheet	Normative
Allowable Power Purchase at Discom Periphery (MU)	3,729.68	3,578.25	3,742.07
BST Rate (Rs. /kWh)	4.79	6.19	4.89
<b>Power Procurement Cost from UPPCL (Rs. Crore)</b>	<b>1,787.02</b>	<b>2,213.92</b>	<b>1,750.36</b>

**TABLE 4-20: TOTAL POWER PURCHASE COST CLAIMED FOR FY 2019-20 (5 DISCOMS)**

Total Power Purchase Cost Claimed for FY 2019-20 (Rs Crore)		
Particulars	Approved in Tariff Order dated September 03, 2019	Claimed
<b>Power Purchase Cost (including inter-state Transmission charges)</b>	51,438.30	50,758.38

4.4.6. The State Discoms have requested the Commission to allow the Power Purchase cost for FY 2019-20 as claimed.

### Commission`s Analysis

4.4.7. It is observed that in the actual power purchase details provided for FY 2019-20, for computation of BST, the Licensee has claimed total power purchase cost of Rs. 54,896.63 Crs, the break-up of the same is as under:



**TABLE 4-21: TOTAL POWER PROCUREMENT COST APPROVED BY THE COMMISSION FOR FY 2019-20**

Particulars	Claimed
Power Purchase Cost (Rs. Crore)	49,505.81
<i>Fixed Charges</i>	<i>17,953.14</i>
<i>Energy Charges</i>	<i>28,936.73</i>
<i>Other Charges</i>	<i>1,168.88</i>
<i>Late payment Charges</i>	<i>1,447.06</i>
Total Inter-State Transmission Charges (Rs. Crore)	5390.83
<i>PGCIL Inter-State transmission &amp; Reactive charges (Rs. Crore)</i>	<i>3,481.89</i>
<i>Case-I Inter-State Transmission Charges</i>	<i>727.61</i>
<i>SEUPPTCL</i>	<i>300.03</i>
<i>WUPPTCL</i>	<i>881.29</i>
<b>Total Power Procurement Cost (Rs. Crore)</b>	<b>54,896.64</b>

- 4.4.8. From above, it is observed that the Petitioners have claimed Rs. 1,447.06 Crs of Late Payment charges as part of Power purchase cost for computation of BST, the same cannot be allowed.
- 4.4.9. Further, the Petitioners have claimed amount of Rs. 116.21 Crs of M/s PTC as 'PTC Unverified' Power Purchase related expenses, for which the Petitioners submitted that the bills to the tune of Rs. 116.21 Crore raised by M/s PTC remained unverified till the time of finalisation of balance sheet for FY 2019-20. However, as per the applicable accounting principles, any power purchase bill pertaining to FY 2019-20, if raised before finalisation of accounts, has to be considered in the power purchase cost for FY 2019-20, irrespective of the fact, whether the same has been verified or not. However, any revision in the bill amount at the time of verification will be adjusted in the power purchase cost for FY 2020-21. The Commission has considered these expenses to be part of power purchase cost of FY 2019-20, hence, the Commission directs the Licensees to submit details of the PTC expenses at the time of Truing up of FY 2020-21, clearly mention the revision if any. Further, if there are no revisions, the same should be deducted (not claimed) in the Power purchase cost of FY 2020-21.
- 4.4.10. Further, it has been noted that PVVNL has claimed an additional power purchase cost of Rs 0.37 Crore on account of power purchased from Uttar Haryana Bijli Vitran Nigam Ltd and PuVVNL has claimed additional direct Purchase from Generators of Rs. 8.57 Crore from South Bihar Power Distribution Company Limited. The Commission observes that the above power purchase has not been approved by the Commission and on enquiry, the Petitioners confirmed the same, stating that the sub-division of the Discoms did the Purchase directly. The Commission is of the view



that such power purchase cannot be approved without prior approval and hence the same has been disallowed.

4.4.11. Accordingly, the Commission has computed the BST based on the same philosophy as adopted in previous Tariff Orders. The Commission has been considering Distribution losses as controllable parameter and there-upon the power purchase cost consequent to under-achievement of Distribution loss is disallowed. Further, for truing up of ARR for FY 2019-20, the allowable power purchase quantum has been computed by grossing up the actual energy sales by the approved distribution loss or actual loss level whichever is lower, and then the actual inter-state transmission loss of 1.63% for all licensees. The Commission has recomputed the BST by reducing the quantum of excess power sold and reducing the corresponding power purchased from sources with highest variable cost (based on MOD principles) except for short term power purchased from traders and exchange for peak requirements, renewable purchase for meeting RPO, in addition, also disallowing the late payment charges of Rs. 1447.06 Crs. BST recomputed is as under:

**TABLE 4-22: APPROVED BULK TARIFF FOR FY 2019-20**

Particulars	Derivation	FY 2019-20			
		Approved in FY 2019-20 T.O. dt. 03.09.2019)	Claimed in True-Up	Actual/Audited Balance Sheet	Approved
Power Purchase Required & Billed Energy (MU) (ex-Bus)	A	113747.9922	1,09,328.02	1,18,140.93	1,09,215.93
Interstate Transmission Loss (%)	B	2.13%	1.73%	1.63%	1.63%
Energy Available at State periphery for Transmission (MU)	C=A* (1-B)	111319.6819	1,07,431.76	1,16,210.96	1,07,431.76
Intra -State Transmission losses %	D	3.56%	3.43%	3.43%	3.43%
Energy Input at Discoms end i.e. Transmission-Distribution Interface for Retail Sales (MU)	E=C* (1-D)	107356.70	1,03,746.85	112224.92	1,03,746.85
Power Purchase Cost (Rs. Crore)	F	45426.46	45,358.61	49,505.80	45,038.12
Total transmission charges excluding UPPTCL charges (Rs. Crore) (G=G1+G2+G3+G4+G5)	G	6011.83	5,390.84	5,390.84	5,128.12
PGCIL Charges (G1)				3,477.54	3214.83
POSOCO Charges (G2)				4.36	4.36
Case-I Transmission Charges (G3)				727.61	727.61
WUPPTCL Charges (G4)				881.29	881.29
SEUPPTCL Charges (G5)				300.03	300.03



Approval of ARR and Tariff for State Discoms for FY 2021-22, APR of FY 2020-21 and True-up of FY 2019-20

Particulars	Derivation	FY 2019-20			
		Approved in FY 2019-20 T.O. dt. 03.09.2019)	Claimed in True-Up	Actual/Audited Balance Sheet	Approved
Total Power Procurement Cost (Rs. Crore)	H=F+G	51438.30	50,749.45	54,896.63	50,166.24
Bulk Supply Tariff (Rs./Unit)	$I = (H/E) * 10$	4.79	<b>4.89</b>	<b>4.89</b>	<b>4.84</b>
APPC (including Renewables, excluding Transmission Charges) (ex-Bus)		3.99	4.15	4.19	4.12
Total Power purchase from Renewable Sources (MU)			7,388.93	7,388.93	7,388.93
Total Power purchase cost from Renewable Sources (Rs. Crores)			2,757.29	2,757.29	2,757.29
<b>APPC (excluding Renewables, excluding Transmission Charges in line with CERC) (ex-Bus)</b>			4.18	4.22	4.15

4.4.12. The power purchase cost is then computed by considering the allowable power purchase (MU) and the Bulk Supply Tariff computed at Discoms periphery, further, direct power purchase cost of 0.37 Crores PVVNL has been disallowed. Accordingly, Power purchase cost approved for FY 2019-20 is as under:

**TABLE 4-23: APPROVED POWER PURCHASE COST FOR FY 2019-20 (IN RS. CRORE)**

Particulars	FY 2019-20						
	Unit	DVVNL	MVVNL	PVVNL	PuVVNL	KESCO	Consolidated
Retail Sales	MU	19,456.14	18,426.23	29,065.91	21,237.26	3,300.50	91,486.05
Distribution Losses	%	12.10%	11.80%	11.80%	12.20%	7.76%	11.82%
Energy at Discom Periphery for Retail Sales	MU	22,134.40	20,891.42	32,954.55	24,188.23	3,578.25	1,03,746.85
Intra-State Transmission Losses	%	3.43%	3.43%	3.43%	3.43%	3.43%	3.430%
Energy Available at State periphery for Transmission	MU	22,920.58	21,633.45	34,125.04	25,047.35	3,705.35	1,07,431.76
Interstate Transmission Loss	%	1.63%	1.63%	1.63%	1.63%	1.63%	1.63%



Particulars	FY 2019-20						
	Unit	DVVNL	MVVNL	PVVNL	PuVVNL	KESCO	Consolidated
Power Purchase Required & Billed Energy (MU) (ex-Bus)	MU	23,301.23	21,992.72	34,691.77	25,463.32	3,766.88	1,09,215.93
BST (actual)/BST (Recomputed)	Rs/unit	4.84	4.84	4.84	4.84	4.84	4.84
<b>Total Power Procurement Cost (Rs. Crore) as per BST</b>	<b>Rs/unit</b>	<b>10,702.97</b>	<b>10,101.93</b>	<b>15,935.00</b>	<b>11,696.09</b>	<b>1,730.25</b>	<b>50,166.24</b>

4.4.13. Further, as mentioned earlier, the Petitioners have overbooked the sales of 1647.76 MUs under the unmetered categories of the consumers against the norms approved for those categories. The additional power purchase cost due to sales overbooked is as depicted below:

**TABLE 4-24: DISALLOWANCE IN PPC FOR FY 2019-20 (RS. CRORE)**

S.NO.	Particulars	DVVNL	MVVNL	PVVNL	PuVVNL	KESCO	Consolidated
1	Excess Sales booked under unmetered categories (MU)	193.52	649.90	767.08	37.26	-	1647.76
2	Distribution Loss (%)	12.10%	11.80%	11.80%	12.20%	7.76%	11.82%
3	Excess energy at Discom periphery (MU)	220.16	736.85	869.71	42.43	-	1869.15
4	BST (approved) (Rs/kWh)	4.84	4.84	4.84	4.84	4.84	4.84
5	<b>Disallowance in PPC due to excess sales booking in unmetered categories (Rs. Crore)</b>	<b>106.46</b>	<b>356.30</b>	<b>420.54</b>	<b>20.52</b>	<b>0.00</b>	<b>903.82</b>

4.4.14. The Commission, while Truing Up for FY 2018-19 had disallowed the excess sales booked & corresponding Power purchase cost. However, this year, as a special case, considering the adverse conditions created due to Covid-19 pandemic continuing, and the financial impact of the same on Discoms conditions, the same has not been disallowed as a one-time relief. However, the Commission shall take strict view about the excess sales being booked under unmetered category and directs the Petitioner to correct the same in future and stern action will be taken by the Commission in subsequent Tariff Orders. Accordingly, the total Power Purchase Cost approved for FY 2019-20 is Rs. 50,166.24 Crores.



### Sharing of Efficiency Loss/Gain

4.4.15. Further, the Petitioners have submitted that Regulation 9.2 of UPERC (Multi Year Distribution Tariff) Regulations, 2014 provides the illustrative variations or expected variations in the performance of the Distribution Licensee, which may be attributed by the Commission to controllable factors include the following:

- a) Variations in capital expenditure
- b) Variations in Aggregate Technical & Commercial (AT&C) losses
- c) Distribution Losses
- d) Variations in Return on Equity (ROE), depreciation and working capital requirements
- e) Failure to meet the standards specified in the Standards of Performance Regulations, except where exempted
- f) Variation in operation & maintenance expenses
- g) Variation in Wires Availability and Supply Availability

4.4.16. Regulation 11 of the Uttar Pradesh Electricity Regulatory Commission (Multi Year Distribution Tariff) Regulations, 2014 specifies as shown under:

#### Quote

*11. Mechanism for sharing of gains or losses on account of controllable factors*

*11.1 The approved aggregate gain to the Distribution Licensee on account of controllable factor shall be dealt with in the following manner:*

*a. One-half of the amount of such gain shall be passed on as a rebate in tariff over such period as may be stipulated in the Order of the Commission;*

*b. The balance amount of such gain, may be utilized at the discretion of the Distribution Licensee.*

*11.2 The approved aggregate loss to the Distribution Licensee on account of controllable factor shall be dealt with in the following manner:*

*(a) One-half of the amount of such loss may be passed on as an additional charge in tariff over such period as may be stipulated in the Order of the Commission; and*

*(b) The balance amount of loss shall be absorbed by the Distribution Licensee.*

#### Unquote

4.4.17. In the view of above, the Petitioners have mentioned that, any gain or loss on account of the controllable parameters like variation in distribution losses, Aggregate Technical & Commercial (AT&C) losses, O&M expenses etc. is to be dealt



in accordance to the Regulation 11 of UPERC (Multi Year Distribution Tariff) Regulations, 2014.

4.4.18. The Petitioners have further submitted that UPERC (Multi Year Distribution Tariff) Regulations, 2014 consider both, variation in Distribution Loss and variation in AT&C Loss as controllable factors, and also allow sharing of gains or losses on account of controllable factors. The Petitioners have submitted that AT&C Loss includes both Distribution Loss and Collection Efficiency and sharing both, i.e. variation in Distribution Loss and variation in AT&C Loss will lead to double accounting of the claim by the Petitioner. Therefore, the Petitioners have submitted the claim of sharing of Distribution Loss variation and Collection Efficiency component of AT&C Loss variation only. The detailed workings are shown under:

**A) Efficiency gains/losses on account of variation in Distribution Losses**

**TABLE 4-25: EFFICIENCY GAINS/LOSSES CLAIMED ON ACCOUNT OF VARIATION IN DISTRIBUTION LOSSES OF DVVNL FOR FY 2019-20**

S. No	Efficiency Gains /Losses	FY 2019-20
A	Distribution Loss (%) - Approved in T.O dated 03.09.2019	12.10%
B	Distribution Loss (%) - Audited	21.27%
C	Distribution Losses (MU) (At Approved loss (%))	2,678.26
D	Distribution Losses (MU) (At Audited loss (%))	5,254.84
E	Additional Units Loss due to higher Distribution Losses (MU) (E=D-C)	2,576.58
F	Claimed Bulk Supply Tariff (Rs/kWh) (F)	4.89
G	Gain/(Loss) (E*F/10) (Rs. Cr)	(1,260.38)
H	<b>Gain/(Loss) sharing (G/2) Rs. Cr</b>	<b>(630.19)</b>

**TABLE 4-26: EFFICIENCY GAINS/LOSSES CLAIMED ON ACCOUNT OF VARIATION IN DISTRIBUTION LOSSES OF MVVNL FOR FY 2019-20**

S. No	Efficiency Gains /Losses	FY 2019-20
A	Distribution Loss (%) - Approved in T.O dated 03.09.2019	11.80%
B	Distribution Loss (%) - Audited	19.37%
C	Distribution Losses (MU) (At Approved loss (%))	2,465.19
D	Distribution Losses (MU)(At Audited loss (%))	4,425.45
E	Units Loss (MU) (E=D-C)	1,960.26
F	Claimed Bulk Supply Tariff (Rs/kWh) (F)	4.89
G	Gain/(Loss) (E*F/10) (Rs. Cr)	(958.89)
H	<b>Gain/(Loss) sharing (G/2) Rs. Cr</b>	<b>(479.45)</b>



**TABLE 4-27: EFFICIENCY GAINS/LOSSES CLAIMED ON ACCOUNT OF VARIATION IN DISTRIBUTION LOSSES OF PUVNL FOR FY 2019-20**

S. No	Efficiency Gains /Losses	FY 2019-20
A	Distribution Loss (%)- Approved in T.O dated 03.09.2019	11.80%
B	Distribution Loss (%)- Audited	15.59%
C	Distribution Losses (MU) (At Approved loss (%))	3,888.64
D	Distribution Losses (MU)(At Audited loss (%))	5,366.50
E	Units Lost (MU) (E=D-C)	1,477.86
F	Claimed Bulk Supply Tariff (Rs/kWh) (F)	4.89
G	Gain/(Loss) (E*F/10) (Rs. Cr)	(722.92)
H	<b>Gain/(Loss) sharing (G/2) Rs. Cr</b>	<b>(361.46)</b>

**TABLE 4-28: EFFICIENCY GAINS/LOSSES CLAIMED ON ACCOUNT OF VARIATION IN DISTRIBUTION LOSSES OF PUVVNL FOR FY 2019-20**

S. No	Efficiency Gains /Losses	FY 2019-20
A	Distribution Loss (%)- Approved in T.O dated 03.09.2019	12.20%
B	Distribution Loss (%)- Audited	20.32%
C	Distribution Losses (MU) (At Approved loss (%))	2,950.96
D	Distribution Losses (MU)(At Audited loss (%))	5,414.33
E	Additional Units Loss due to higher Distribution Losses (MU) (E=D-C)	2,463.36
F	Claimed Bulk Supply Tariff (Rs/kWh) (F)	4.89
G	Loss (E*F/10) (Rs. Cr)	(1,204.99)
H	<b>Loss sharing (G/2) Rs. Cr</b>	<b>(602.50)</b>

**TABLE 4-29: EFFICIENCY GAINS/LOSSES CLAIMED ON ACCOUNT OF VARIATION IN DISTRIBUTION LOSSES OF KESCO FOR FY 2019-20**

S. No	Efficiency Gains /Losses	FY 2019-20
A	Distribution Loss (%)- Approved in T.O dated 03.09.2019	11.80%
B	Distribution Loss (%)- Audited	7.76%
C	Distribution Losses (MU) (At Approved loss (%))	441.56
D	Distribution Losses (MU)(At Audited loss (%))	277.75
E	Units saved (MU) (E=C-D)	163.81
F	Claimed Bulk Supply Tariff (Rs/kWh) (F)	4.89
G	Gain (E*F/10) (Rs. Cr)	80.13
H	<b>Gain Sharing (G/2) Rs. Cr</b>	<b>40.07</b>



**TABLE 4-30: CONSOLIDATED EFFICIENCY GAINS/LOSSES CLAIMED ON ACCOUNT OF VARIATION IN DISTRIBUTION LOSSES OF 5 STATE DISCOMS FOR FY 2019-20**

S. No	Efficiency Gains /Losses	FY 2019-20
A	Distribution Loss (%) - Approved in T.O dated 03.09.2019	11.96%
B	Distribution Loss (%) - Audited	18.48%
C	Distribution Losses (MU) (At Approved loss (%))	12,839.06
D	Distribution Losses (MU) (At Audited loss (%))	20,738.87
E	Additional Units Loss due to higher Distribution Losses (MU) (E=D-C)	7,899.82
F	Claimed Bulk Supply Tariff (Rs/kWh) (F)	4.89
G	Loss (E*F/10) (Rs. Cr)	(3864.32)
H	Loss sharing (G/2) Rs. Cr	(1932.16)

**B) Efficiency gains/losses on account of variation in AT&C Losses**

**TABLE 4-31: AT&C LOSS COMPUTATION AS PER ANNEXURE B OF MYT REGULATION, 2014 OF DVNL FOR FY 2019-20**

Sr. No.	Particulars	Formula	Units	FY 2019-20
1	Generation (own as well as any other connected generation net after deducting auxiliary consumption) within area of supply of Distribution Licensee	A	MU	
2	Input energy (metered Import) received at interface points of Distribution Licensee network	B	MU	24,710.98
3	Input energy (metered Export) by the Distribution Licensee at interface points of Distribution Licensee network	C	MU	
4	Total Energy available for sale within the licensed area to the consumers of the Distribution Licensee	D=A+B-C	MU	24,710.98
5	Energy billed to metered consumers within the licensed area of the Distribution Licensee	E	MU	19,456.14
6	Energy billed to un-metered consumers within the licensed area of the Distribution Licensee	F	MU	
7	Total Energy Billed	G=E+F	MU	19,456.14
8	Amount billed to consumer within the licensed area of the Distribution Licensee	H	Rs crores	10,831.65
9	Late Payment Surcharge	I	Rs crores	357.12
10	Amount realized by the Distribution Licensee out of the amount Billed at H	J	Rs crores	8,135.08
11	Subsidy Amount Received	K	Rs crores	2,179.86
12	Amount Realised on account of theft cases	L	Rs crores	
13	Energy Realized on account of theft cases	M=(L X G)/H	MU	



Approval of ARR and Tariff for State Discoms for FY 2021-22, APR of  
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Sr. No.	Particulars	Formula	Units	FY 2019-20
14	Collection Efficiency (%)	$N = \left[ \frac{(J - I + K + L)}{(H + K + L)} \right] \times 100$	%	76.53%
15	Energy Realized by the Distribution Licensee	$P = N \times G$	MU	14,889.95
16	Distribution Loss (%)	$Q = \left[ \frac{(D - G)}{D} \right] \times 100$	%	21.27%
17	AT&C Loss (%)	$R = \left[ \frac{(D - (P + M))}{D} \right] \times 100$	%	39.74%

**TABLE 4-32: AT&C LOSS COMPUTATION AS PER ANNEXURE B OF MYT REGULATION, 2014 OF MVVNL FOR FY 2019-20**

Sr. No.	Particulars	Formula	Unit	FY 2019-20
1	Generation (own as well as any other connected generation net after deducting auxiliary consumption) within area of supply of Distribution Licensee	A	MU	
2	Input energy (metered Import) received at interface points of Distribution Licensee network	B	MU	22,851.68
3	Input energy (metered Export) by the Distribution Licensee at interface points of Distribution Licensee network	C	MU	
4	Total Energy available for sale within the licensed area to the consumers of the Distribution Licensee	$D = A + B - C$	MU	22,851.68
5	Energy billed to metered consumers within the licensed area of the Distribution Licensee	E	MU	18,426.23
6	Energy billed to un-metered consumers within the licensed area of the Distribution Licensee	F	MU	
7	Total Energy Billed	$G = E + F$	MU	18,426.23
8	Amount billed to consumer within the licensed area of the Distribution Licensee	H	Rs crores	11,905.54
9	Late Payment Surcharge	I	Rs crores	255.13
10	Amount realized by the Distribution Licensee out of the amount Billed at H	J	Rs crores	9,610.47
11	Subsidy Amount Received	K	Rs crores	1,886.38
12	Amount Realised on account of theft cases	L	Rs crores	
13	Energy Realized on account of theft cases	$M = (L \times G) / H$	MU	
14	Collection Efficiency (%)	$N = \left[ \frac{(J - I + K + L)}{(H + K + L)} \right] \times 100$	%	81.51%
15	Energy Realized by the Distribution Licensee	$P = N \times G$	MU	15,019.11



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Sr. No.	Particulars	Formula	Unit	FY 2019-20
16	Distribution Loss (%)	$Q = \frac{[(D-G)/D] \times 100}{100}$	%	19.37%
17	AT&C Loss (%)	$R = \frac{[(D-(P+M))/D] \times 100}{100}$	%	34.28%

**TABLE 4-33: AT&C LOSS COMPUTATION AS PER ANNEXURE B OF MYT REGULATION, 2014 OF PVVNL FOR FY 2019-20**

Sr. No.	Particulars	Formula	Units	FY 2019-20
1	Generation (own as well as any other connected generation net after deducting auxiliary consumption) within area of supply of Distribution Licensee	A	MU	-
2	Input energy (metered Import) received at interface points of Distribution Licensee network	B	MU	34,432.42
3	Input energy (metered Export) by the Distribution Licensee at interface points of Distribution Licensee network	C	MU	-
4	Total Energy available for sale within the licensed area to the consumers of the Distribution Licensee	$D = A + B - C$	MU	34,432.42
5	Energy billed to metered consumers within the licensed area of the Distribution Licensee	E	MU	29,065.91
6	Energy billed to un-metered consumers within the licensed area of the Distribution Licensee	F	MU	
7	Total Energy Billed	$G = E + F$	MU	29,065.91
8	Amount billed to consumer within the licensed area of the Distribution Licensee	H	Rs crores	17,039.25
9	Late Payment Surcharge	I	Rs crores	15.64
10	Amount realized by the Distribution Licensee out of the amount Billed at H	J	Rs crores	16,339.34
11	Subsidy Amount Received	K	Rs crores	2,764.67
12	Amount Realised on account of theft cases	L	Rs crores	
13	Energy Realized on account of theft cases	$M = (L \times G) / H$	MU	-
14	Collection Efficiency (%)	$N = \frac{[(J - I + K + L) / (H + K + L)] \times 100}{100}$	%	96%
15	Energy Realized by the Distribution Licensee	$P = N \times G$	MU	28,015.71
16	Distribution Loss (%)	$Q = \frac{[(D-G)/D] \times 100}{100}$	%	15.59%
17	AT&C Loss (%)	$R = \frac{[(D-(P+M))/D] \times 100}{100}$	%	18.64%



**TABLE 4-34: AT&C LOSS COMPUTATION AS PER ANNEXURE B OF MYT REGULATION, 2014 OF PUVVNL FOR FY 2019-20**

Sr. No.	Particulars	Formula	Units	FY 2019-20
1	Generation (own as well as any other connected generation net after deducting auxiliary consumption) within area of supply of Distribution Licensee	A	MU	-
2	Input energy (metered Import) received at interface points of Distribution Licensee network	B	MU	26,651.59
3	Input energy (metered Export) by the Distribution Licensee at interface points of Distribution Licensee network	C	MU	-
4	Total Energy available for sale within the licensed area to the consumers of the Distribution Licensee	D=A+B-C	MU	26,651.59
5	Energy billed to metered consumers within the licensed area of the Distribution Licensee	E	MU	21,237.26
6	Energy billed to un-metered consumers within the licensed area of the Distribution Licensee	F	MU	
7	Total Energy Billed	G=E+F	MU	21,237.26
8	Amount billed to consumer within the licensed area of the Distribution Licensee	H	Rs crores	11,641.41
9	Late Payment Surcharge	I	Rs crores	264.74
10	Amount realized by the Distribution Licensee out of the amount Billed at H	J	Rs crores	8,778.64
11	Subsidy Amount Received	K	Rs crores	3,289.09
12	Amount Realised on account of theft cases	L	Rs crores	
13	Energy Realized on account of theft cases	M=(LXG)/H	MU	-
14	Collection Efficiency (%)	$N = \frac{[(J - I + K + L)]}{(H + K + L)} \times 100$	%	79.05%
15	Energy Realized by the Distribution Licensee	P=NXG	MU	16,788.66
16	Distribution Loss (%)	$Q = \frac{(D - G)}{D} \times 100$	%	20.32%
17	<b>AT&amp;C Loss (%)</b>	$R = \frac{(D - (P + M))}{D} \times 100$	%	<b>37.01%</b>

**TABLE 4-35: AT&C LOSS COMPUTATION AS PER ANNEXURE B OF MYT REGULATION, 2014 OF KESCO FOR FY 2019-20**

Sr. No.	Particulars	Formula	Units	FY 2019-20
1	Generation (own as well as any other connected generation net after deducting auxiliary consumption) within area of supply of Distribution Licensee	A	MU	-



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Sr. No.	Particulars	Formula	Units	FY 2019-20
2	Input energy (metered Import) received at interface points of Distribution Licensee network	B	MU	3,578.25
3	Input energy (metered Export) by the Distribution Licensee at interface points of Distribution Licensee network	C	MU	-
4	Total Energy available for sale within the licensed area to the consumers of the Distribution Licensee	$D=A+B-C$	MU	3,300.50
5	Energy billed to metered consumers within the licensed area of the Distribution Licensee	E	MU	3,300.50
6	Energy billed to un-metered consumers within the licensed area of the Distribution Licensee	F	MU	
7	Total Energy Billed	$G=E+F$	MU	3,300.50
8	Amount billed to consumer within the licensed area of the Distribution Licensee	H	Rs crores	2,619.39
9	Late Payment Surcharge	I	Rs crores	0.45
10	Amount realized by the Distribution Licensee out of the amount Billed at H	J	Rs crores	2,401.81
11	Subsidy Amount Received	K	Rs crores	-
12	Amount Realised on account of theft cases	L	Rs crores	
13	Energy Realized on account of theft cases	$M=(LXG)/H$	MU	-
14	Collection Efficiency (%)	$N=[(J-I+K+L)/(H+K+L)]X 100$	%	91.68%
15	Energy Realized by the Distribution Licensee	$P=NXG$	MU	3,025.78
16	Distribution Loss (%)	$Q=[(D-G)/D]X 100$	%	7.76%
17	AT&C Loss (%)	$R=[(D-(P+M))/D]X100$	%	15.44%

4.4.19. The Collection Efficiency computed above has been used by Petitioners to compute the sharing loss on account of collection efficiency component of AT&C Loss claimed as under:

**TABLE 4-36: EFFICIENCY GAINS/(LOSSES) CLAIMED ON ACCOUNT OF VARIATION OF COLLECTION EFFICIENCY COMPONENT OF AT&C LOSS OF DVVNL FOR FY 2019-20**

Particulars	Unit	FY 2019-20
Actual Collection Efficiency	%	76.53%
Normative Collection Efficiency	%	96.30%
Revenue Assessment	Rs Crore	10,831.65
Sharing of (Loss)/ Gain of Collection Efficiency component of AT&C Loss	Rs Crore	(1,070.66)



**TABLE 4-37: EFFICIENCY GAINS/(LOSSES) CLAIMED ON ACCOUNT OF VARIATION OF COLLECTION EFFICIENCY COMPONENT OF AT&C LOSS OF MVVNL FOR FY 2019-20**

Particulars	Unit	FY 2019-20
Actual Collection Efficiency	%	81.51%
Normative Collection Efficiency	%	96.50%
Revenue Assessment	Rs Crore	11,905.54
<b>Sharing of (Loss)/ Gain of Collection Efficiency component of AT&amp;C Loss</b>	<b>Rs Crore</b>	<b>(892.35)</b>

**TABLE 4-38: EFFICIENCY GAINS/(LOSSES) CLAIMED ON ACCOUNT OF VARIATION OF COLLECTION EFFICIENCY COMPONENT OF AT&C LOSS OF PVVNL FOR FY 2019-20**

Particulars	Unit	FY 2019-20
Actual Collection Efficiency	%	96.39%
Normative Collection Efficiency	%	97.50%
Revenue Assessment	Rs Crore	17,039.25
<b>Sharing of (Loss)/ Gain of Collection Efficiency component of AT&amp;C Loss</b>	<b>Rs Crore</b>	<b>(94.84)</b>

**TABLE 4-39: EFFICIENCY GAINS/(LOSSES) CLAIMED ON ACCOUNT OF VARIATION OF COLLECTION EFFICIENCY COMPONENT OF AT&C LOSS OF PUVVNL FOR FY 2019-20**

Particulars	Unit	FY 2019-20
Actual Collection Efficiency	%	79.05%
Normative Collection Efficiency	%	96.25%
Revenue Assessment	Rs Crore	11,641.41
<b>Sharing of (Loss)/ Gain of Collection Efficiency component of AT&amp;C Loss</b>	<b>Rs Crore</b>	<b>(1,001.00)</b>

**TABLE 4-40: EFFICIENCY GAINS/(LOSSES) CLAIMED ON ACCOUNT OF VARIATION OF COLLECTION EFFICIENCY COMPONENT OF AT&C LOSS OF KESCO FOR FY 2019-20**

Particulars	Unit	FY 2019-20
Actual Collection Efficiency	%	91.68%
Normative Collection Efficiency	%	97.00%
Revenue Assessment	Rs Crore	2,619.39
<b>Sharing of (Loss)/ Gain of Collection Efficiency component of AT&amp;C Loss</b>	<b>Rs Crore</b>	<b>(69.73)</b>



**TABLE 4-41: CONSOLIDATED EFFICIENCY GAINS/(LOSSES) CLAIMED ON ACCOUNT OF VARIATION OF COLLECTION EFFICIENCY COMPONENT OF AT&C LOSS OF 5 STATE DISCOMS FOR FY 2019-20**

Particulars	Unit	FY 2019-20
Actual Collection Efficiency	%	85.03%
Normative Collection Efficiency	%	96.71%
Revenue Assessment	Rs Crore	54,037.24
<b>Sharing of (Loss)/ Gain of Collection Efficiency component of AT&amp;C Loss</b>	<b>Rs Crore</b>	<b>(3128.58)</b>

4.4.20. Hence, the total sharing of distribution gains/losses and sharing of gains/losses of collection efficiency component of AT&C Loss is shown in table below:

**TABLE 4-42: SHARING OF DISTRIBUTION GAINS/LOSSES AND COLLECTION EFFICIENCY COMPONENT OF AT&C LOSS OF DVVNL FOR FY 2019-20 (RS CRORE)**

S. No	Efficiency Gains /Losses	Amount
A	Efficiency gains/(losses) on account of variation in Distribution Losses	630.19
B	Efficiency gains/(losses) on account of variation in Collection Efficiency component of AT&C Loss	1,070.66
<b>C</b>	<b>Total Loss sharing (A+B)</b>	<b>1,700.85</b>

**TABLE 4-43: SHARING OF DISTRIBUTION GAINS/LOSSES AND COLLECTION EFFICIENCY COMPONENT OF AT&C LOSS OF MVVNL FOR FY 2019-20 (RS CRORE)**

S. No	Efficiency Gains /Losses	Amount
A	Efficiency gains/(losses) on account of variation in Distribution Losses	479.45
B	Efficiency gains/(losses) on account of variation in Collection Efficiency component of AT&C Loss	892.35
<b>C</b>	<b>Total Loss sharing (A+B)</b>	<b>1,371.80</b>

**TABLE 4-44: SHARING OF DISTRIBUTION GAINS/LOSSES AND COLLECTION EFFICIENCY COMPONENT OF AT&C LOSS OF PVVNL FOR FY 2019-20 (RS CRORE)**

S. No	Efficiency Gains /Losses	Amount
A	Efficiency gains/(losses) on account of variation in Distribution Losses	361.46
B	Efficiency gains/(losses) on account of variation in Collection Efficiency component of AT&C Loss	94.84
<b>C</b>	<b>Total Loss sharing (A+B)</b>	<b>456.30</b>



**TABLE 4-45: SHARING OF DISTRIBUTION GAINS/LOSSES AND COLLECTION EFFICIENCY COMPONENT OF AT&C LOSS OF PUVVNL FOR FY 2019-20 (RS CRORE)**

S. No	Efficiency Gains /Losses	Amount
A	Efficiency gains/(losses) on account of variation in Distribution Losses	602.50
B	Efficiency gains/(losses) on account of variation in Collection Efficiency component of AT&C Loss	1001.00
C	<b>Total Loss sharing (A+B)</b>	<b>1,603.49</b>

**TABLE 4-46: SHARING OF DISTRIBUTION GAINS/LOSSES AND COLLECTION EFFICIENCY COMPONENT OF AT&C LOSS OF KESCO FOR FY 2019-20 (RS CRORE)**

S. No	Efficiency Gains /Losses	Amount
A	Efficiency gains/(losses) on account of variation in Distribution Losses	40.07
B	Efficiency gains/(losses) on account of variation in Collection Efficiency component of AT&C Loss	69.73
C	<b>Total Loss sharing (A+B)</b>	<b>109.79</b>

**TABLE 4-47: CONSOLIDATED SHARING OF DISTRIBUTION GAINS/LOSSES AND COLLECTION EFFICIENCY COMPONENT OF AT&C LOSS OF 5 STATE DISCOMS FOR FY 2019-20 (RS CRORE)**

S. No	Efficiency Gains /Losses	Amount
A	Efficiency gains/(losses) on account of variation in Distribution Losses	2,113.67
B	Efficiency gains/(losses) on account of variation in Collection Efficiency component of AT&C Loss	3,128.58
C	<b>Total Loss sharing (A+B)</b>	<b>5,242.25</b>

4.4.21. The State Discoms requested the Commission to allow the loss sharing as computed in the above tables in accordance with the provisions of UPERC (Multi Year Distribution Tariff) Regulations, 2014.

4.4.22. It is observed that all the Petitioners have claimed the sharing of gain/loss on account of variation in Distribution Losses and Collection Efficiency component of AT&C Loss, which constitutes to a total as shown under:

**TABLE 4-48: TOTAL GAIN / LOSS SHARING ON EFFICIENCY AS CLAIMED BY PETITIONERS FOR FY 2019-20**

S.No	Efficiency gains/losses	DVVNL	MVVNL	PVVNL	PuVVNL	KESCO*	Consolidated
A	Efficiency gains/losses on account of variation in Distribution Losses	630.19	479.45	361.46	602.50	40.07	2,113.67



S.No	Efficiency gains/losses	DVVNL	MVVNL	PVVNL	PuVVNL	KESCO*	Consolidated
B	Efficiency gains/losses on account of variation in Collection Efficiency component of AT&C Loss	1,070.66	892.35	94.84	1,001.00	69.73	3,128.58
C	<b>Total Gain/ Loss sharing (A+B)</b>	<b>1,700.85</b>	<b>1,371.80</b>	<b>456.30</b>	<b>1,603.50</b>	<b>109.80</b>	<b>5,242.25</b>

*\*KESCO is passing on the efficiency (in Distribution Loss reduction) to consumers and asking for their portion of Gain as additional part in ARR. DVVNL, MVVNL, PVVNL & PuVVNL are asking for their portion of Loss sharing in Distribution Losses as additional part in ARR. However, all the state Discoms are asking for their portion of Loss sharing in Collection Efficiency component of AT&C Loss as additional part in ARR*

4.4.23. As regards the sharing of Loss on account of variation on Distribution Losses, it is to be noted that the UDAY trajectory of distribution losses were accepted & approved by the Commission in its Tariff Order for FY 2016-17 dated 1st August 2016, which is later than the notification of the MYT Regulations 2014. Under the UDAY scheme, the licensees agreed to the distribution loss trajectory without claiming for sharing of the efficiency gains/losses, which was adopted/accepted/approved by the Commission and so the sharing of distribution losses cannot be applied to them for the whole period covered by UDAY i.e. upto FY 2019-20.

4.4.24. Further, the Commission in its Tariff Order dated 03.09.2019 for FY 2019-20, stated as under:

Quote

*15.1.1 Hence, in accordance to the Uttar Pradesh Electricity Regulatory Commission (Multi Year Distribution Tariff) Regulations, 2014, any gain or loss on account of the controllable parameters like improved performance by way of reduction of distribution losses, O&M expenses etc. is to be dealt with. However, the Commission has allowed only the efficiency gain on account of improved distribution losses for PVVNL and KESCO as shown under:*

**Table 4 14: APPROVED EFFICIENCY GAINS FOR FY 2017-18**

S. No	Efficiency Gains on account of improvement in Distribution Loss	PVVNL	KESCO
A	Distribution Loss (%)- Approved in T.O dated 30.11.2017	18.18%	15.28%
B	Distribution Loss (%)- Audited	17.43%	13.00%
C	Distribution Losses (MU)-At Approved loss (%)	6090.78	679.04
D	Distribution Losses (MU)-At Audited loss (%)	6001.37	478.18
E	Units Saved (MU) (E=D-C)	89.41	200.86
F	Trued up Bulk Supply Tariff (Rs/kWh) (F)	4.15	4.15
G	Gain (E*F/10) (Rs. Cr)	37.06	83.26
H	50% Sharing with Discom (50% of C) (Rs. Cr)	18.53	41.63



15.1.2 Further, it is to be noted that, there is a substantial revenue gap between ARR and revenue for FY 2017-18, hence, any amounts allowed on account of sharing of losses will only enhance the existing large gap and create extra burden on the consumers. Therefore, the Commission has not allowed the sharing on losses for the Discoms for which the actual distribution losses are higher than the targeted distribution losses.

#### Unquote

- 4.4.25. As can be seen above, the Commission has already deliberated on the issue in the last year's Tariff Order and had observed that any gain on account of the controllable parameters like improved performance by way of reduction of distribution losses etc. is to be allowed, however loss sharing cannot be allowed. Further, any amount allowed on account of sharing of losses will only create extra burden on the consumers. Accordingly, the Commission has not allowed the sharing on losses for the Discoms for which the actual distribution losses are higher than the targeted distribution losses for FY 2019-20. However, the Commission has allowed only the efficiency gain on account of improved distribution losses for KESCO for FY 2019-20.
- 4.4.26. Further, in regards to the claim of the Licensees for the sharing of Gain/Losses on account of variation in Collection Efficiency & ATC Losses, it is to be noted that the Gain/Losses are given on the controllable parameters, which have been approved by the Commission in its Tariff Orders (for FY 2019-20), from which any deviation on the value (+ve or -ve side) will come in play only on account of efficiency (i.e. improved performance) shown by Licensee.
- 4.4.27. It is to mention that there is no provision in the Regulations and also the Commission has not approved any Collection Efficiency (%) or AT&C Loss (%) for any of the Licensees in any of the years covered under the MYT Regulations 2014, hence the question of sharing of Gain / Losses does not even arise. Accordingly, the claim of the Licensees for sharing on account of variation in Collection Efficiency component of AT&C Loss is not justified and is untenable.
- 4.4.28. Accordingly, the Commission has allowed only the efficiency gain on account of improved distribution losses for KESCO as shown under:



**TABLE 4-49: APPROVED EFFICIENCY GAINS FOR FY 2019-20**

S.No	Efficiency gains/losses Approved	DVVNL	MVVNL	PVVNL	PuVVNL	KESCO	Consolidated
A	Efficiency gains/losses on account of variation in Distribution Losses	-	-	-	-	40.07	40.07
B	Efficiency gains/losses on account of variation in Collection Efficiency component of AT&C Loss	-	-	-	-	-	-
C	<b>Total Gain/ Loss sharing (A+B)</b>	-	-	-	-	<b>40.07</b>	<b>40.07</b>

#### 4.5. TRANSMISSION CHARGES

4.5.1. The State Discoms submitted that in the Tariff Order for FY 2019-20, the Commission had approved the Transmission Charges for DVVNL, MVVNL, PVVNL, PuVVNL and KESCO as Rs. 417.62 Crore, Rs. 395.91 Crore, Rs. 625.00 Crore, Rs. 476.75 Crore, and Rs. 68.93 Crore, respectively. The State Discoms namely DVVNL, MVVNL, PVVNL, PuVVNL and KESCO submitted that as per the audited accounts, they have incurred Rs. 744.25 Crore, Rs. 675.57 Crore, Rs. 1033.10 Crore, Rs. 804.03 Crore, and Rs 107.67 Crore, respectively, towards transmission charges. The Commission has approved the transmission charges as under:

**TABLE 4-50: INTRASTATE TRANSMISSION CHARGES FOR FY 2019-20 (5 DISCOMS)**

Particulars	Approved In T.O Dated 03.09.2019		Claimed		Approved upon Truing up	
	Units Wheeled (MU)	Transmission charges (Rs. Crore)	Units Wheeled (MU)	Transmission charges (Rs. Crore)	Units Wheeled (MU)	Transmission charges* (Rs. Crore)
DVVNL	22595.39	417.62	22134.40	744.25	22134.40	696.63
MVVNL	21420.90	395.91	20891.42	675.57	20891.42	639.34
PVVNL	33815.85	625.00	32954.55	1033.10	32954.55	1005.79
PuVVNL	25794.88	476.75	24188.23	804.03	24188.23	758.50
KESCO	3729.68	68.93	3578.25	107.67	3578.25	107.67
<b>Total</b>	<b>107356.70</b>	<b>1984.21</b>	<b>103746.85</b>	<b>3364.61</b>	<b>103746.85</b>	<b>3207.92</b>

\*These also include past year arrears of UPPTCL, recovered in FY 2018-19

4.5.2. Further, additional Transmission charges arising out of Truing-up of FY 2019-20 for UPPTCL are also allowed as shown below:



**TABLE 4-51: ADDITIONAL RECOVERY TRANSMISSION CHARGES OF UPPTCL**

Particulars	Inter-state Transmission Charges	Additional Transmission Charges Recovery	Total Transmission Charges approved in FY 2019-20
DVVNL	696.63	164.57	861.20
MVVNL	639.34	155.33	794.67
PVVNL	1,005.79	245.02	1,250.81
PuVVNL	758.50	179.85	938.34
KESCO	107.67	26.61	134.27
<b>Total</b>	<b>3,207.92</b>	<b>771.38</b>	<b>3,979.30</b>

#### 4.6. O&M EXPENSES

- 4.6.1. Operation and Maintenance (O&M) expenses comprise of employee related costs, A&G expenses and R&M expenditure. The State Discom's submissions on each of the heads of O&M expenditure for FY 2019-20, and the Commission's analysis on truing up of the O&M expenditure heads have been discussed in the subsequent paragraphs.
- 4.6.2. Regulation 25 of Uttar Pradesh Electricity Regulatory Commission (Multi Year Distribution Tariff) Regulations, 2014, stipulates the methodology for consideration of the O&M Expenses, wherein such expenses are linked to the inflation index determined under these Regulations. The relevant extract of the Regulations is as follows:

Quote

*25. Operation & Maintenance Expenses*

*(a) The Commission shall stipulate a separate trajectory of norms for each of the components of O&M expenses viz., Employee cost, Repairs and maintenance (R&M) expense and Administrative and General Expense (A&G) expense. Provided that such norms may be specified for a specific Distribution Licensee or a class of Distribution Licensees.*

*(b) Norms shall be defined in terms of combination of number of personnel per 1000 consumers and number of personnel per substation along with annual expenses per personnel for Employee cost; combination of A&G expense per personnel and A&G expense per 1000 consumers for A&G expenses and R&M expense as percentage of gross fixed assets for estimation of R&M expenses:*



(c) One-time expenses such as expense due to change in accounting policy, arrears paid due to pay commissions etc., shall be excluded from the norms in the trajectory.

(d) The expenses beyond the control of the Distribution Licensee such as dearness allowance, terminal benefits etc. in Employee cost etc., shall be excluded from the norms in the trajectory.

(e) The One-time expenses and the expenses beyond the control of the Distribution Licensee shall be allowed by the Commission over and above normative Operation & Maintenance Expenses after prudence check.

(f) The norms in the trajectory shall be specified over the control period with due consideration to productivity improvements.

(g) The norms shall be determined at constant prices of base year and escalation on account of inflation shall be over and above the baseline.

(h) The Distribution Licensee specific trajectory of norms shall be identified by the Commission on the basis of simple average of previous five years audited figures, duly normalized for any abnormal variation.

(i) For new Distribution Licensee whose date of commercial operation is within the tariff period (i.e. April 1, 2015 to March 31, 2020), detailed project report shall be used by the Commission to estimate values of norms.”

#### 25.1 Employee Cost

Employee cost shall be computed as per the approved norm escalated by consumer price index (CPI), adjusted by provisions for expenses beyond the control of the Licensee and one-time expected expenses, such as recovery/adjustment of terminal benefits, implications of pay commission, arrears, Interim Relief etc., governed by the following formula:

$$EMP_n = (EMP_b * CPI \text{ inflation}) + Provision$$

Where:

*EMP<sub>n</sub>*: Employee expense for the year n.

*EMP<sub>b</sub>*: Employee expense as per the norm CPI inflation: is the average increase in the Consumer Price Index (CPI) for immediately preceding three financial years.

*Provision*: Provision for expenses beyond control of the Distribution Licensee and expected one-time expenses as specified above.”



### 25.2 Repairs and Maintenance Expense

Repairs and Maintenance expense shall be calculated as percentage (as per the norm defined) of Average Gross Fixed Assets for the year governed by following formula:

$$R\&Mn = K_b * GFAn$$

Where:

R&Mn: Repairs & Maintenance expense for nth year

GFAn: Average Gross Fixed Assets for nth year

Kb: Percentage point as per the norm.”

### 25.3 Administrative and General Expense

A&G expense shall be computed as per the norm escalated by wholesale price index (WPI) and adjusted by provisions for confirmed initiatives (IT etc. initiatives as proposed by the Distribution Licensee and validated by the Commission) or other expected one-time expenses, and shall be governed by following formula:

$$A\&Gn = (A\&Gb * WPI \text{ inflation}) + Provision$$

Where:

A&Gn: A&G expense for the year n

A&Gb: A&G expense as per the norm

WPI inflation: is the average increase in the Wholesale Price Index (WPI) for immediately preceding three financial years

Provision: Cost for initiatives or other one-time expenses as proposed by the Distribution Licensee and validated by the Commission. “

Unquote

- 4.6.3. As per the provisions of the aforesaid Regulations, the Commission in MYT Order dated November 30, 2017 had computed the norms for Employee expenses, R&M expenses and A&G expenses. The relevant extract of the Order is as follows:

Quote

*Computation of Employee Cost:*



6.4.15 The year wise i.e. FY 2017-18, FY 2018-19 and FY 2019-20 Employee Expense (Consumers) and Employee Expense (Substation) is calculated considering norms per 1000 consumers and norms per substation (calculated above) using following formulae:

Employee Expense (Consumers)= (Norms per 1000 consumers \* Number of consumers) / 1000

Employee Expense (Substation)= (Norms per substation \* Number of consumers)

Particulars	Base Value	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
CPI Inflation		4.12%	8.80%	8.80%	8.80%
Norms per 1000 consumers (Rs Crore)	0.096	0.142*	0.155	0.168	0.183
No of consumers		3663851	4218858	6343419	8015513
Employee Expense (F) (Rs Crore)		520.46	652.04	1066.69	1466.50
Norms per substation (Rs Crore)	0.0012	0.0018	0.0019	0.0021	0.0023
No of sub-stations		297158	322276	348325	371365
Employee Expense (G) (Rs Crore)		522.18	616.16	724.58	840.49

\*Note-Values is arrived after escalating the base values by applying CPI inflation for FY 2012-13 to 2016-17.

.....

Computation of Repair & Maintenance (R&M) Cost:

6.4.23 Then the total R&M Expense is calculated by using following formulae:

Total R&M Expense = Kb \* Average GFA

Particulars	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
Average GFA (Rs Crore)	6294.49	7092.06	8383.71	9964.58	11561.52



Approval of ARR and Tariff for State Discoms for FY 2021-22, APR of  
FY 2020-21 and True-up of FY 2019-20

Particulars	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
WPI Inflation	-3.65%	1.73%	4.46%	4.46%	4.46%
Kb	5.73% = (5.94%)*(1- 3.65%)	5.83 % (= 5.73% *(1+ 1.73%))	6.09%( =5.83%*(1+ 4.46%))	6.36% (=6.09%*(1+ 4.46%))	6.64% (=6.36%*(1+ 4.46%))

.....

*Computation of Administrative & General (A&G) Cost:*

6.4.32 Then the year wise i.e. FY 2017-18, FY 2018-19 and FY 2019-20 total A&G Expenses are calculated considering A&G Expense (Consumers) and A&G Expense (Employee) per 1000 consumers as shown below:

*A&G Expense (Consumers)= (Norms per 1000 consumers \* Number of consumers) / 1000*

*A&G Expense (Employee)= (Norms per employee \* Number of employee)*

Particulars	Base Value	2016-17	2017-18	2018-19	2019-20
WPI Inflation		1.73%	4.46%	4.46%	4.46%
Norms per 1000 consumers (RsCrore)	0.027	0.028*	0.029	0.031	0.032
No of consumers (nos.)		3663851	4218858	6343419	8015513
A&G Expense (F) (Rs Crore)		103.36	124.33	195.27	257.74
Norms per Employee (Rs Crore)	0.00119	0.0122*	0.0127	0.0133	0.0139
No of employees (nos.)		8029	8459	8892	9118
A&G Expense (G) (Rs Crore)		97.70	107.52	118.06	126.46

Note- \*Values arrived after escalating the base values by applying WPI inflation for FY 2012-13 to FY 2015-16

**Unquote**

4.6.4. For the purpose of True Up, the norms as computed in MYT Order dated 30.11.2017 as shown above, for FY 2019-20, have been considered. The Commission has



considered the actual parameters like No. of employees, No. of sub-stations, No. of consumers etc. as submitted by the Licensees. Accordingly, the normative Employee, A&G and R&M Expenses are as shown under:

### Normative Employee Expense

4.6.5. The State Discoms have considered the same methodology and norms for the Truing-up of Employee Expenses for FY 2019-20 as approved by the Commission in the Tariff Order for FY 2019-20 dated 03<sup>rd</sup> September 2019. Further, the 7<sup>th</sup> Pay Commission arrears, has been booked in the Audited Accounts for FY 2019-20 which have been requested to be allowed as one-time expense under Regulation 25(C) of the Distribution MYT Tariff Regulations, 2014. The Discoms have submitted that the Commission in Para 6.4.10 of Tariff Order for FY 2017-18 dated 30 November 2017 admitted the same. Extract of the same is shown as below:

Quote

*6.4.10 ... Further, the petitioners have already claimed the 7th Pay Commission arrears which would be allowed as one-time expense under Regulation 25 of the Distribution MYT Tariff Regulations, 2014...*

Unquote

4.6.6. Normative Employee Expenses approved by the Commission in the Tariff Order September 03, 2019, by the Petitioner and the Commission for FY 2019-20 has been shown in the Table below:

**TABLE 4-52: NORMATIVE EMPLOYEE EXPENSE OF DVVNL FOR FY 2019-20 (RS. CRORE)**

S.No.	Particular	Approved in T.O 03.09.2019	Normative as computed by Petitioner	Normative as computed by Commission
A	Norms per 1000 consumers (Rs. Crore)	0.183	0.183	0.183
B	Number of consumers (Nos.)	5541910	5177178	5177178
C	Employee Expenses (consumers) (Rs. Crore)	1014.17	947.42	947.42
D	Norms per substation (Rs. Crore)	0.002	0.002	0.002
E	Number of substations (Nos.)	403001	493503	493503
F	Employee Expenses (substation) (Rs. Crore)	926.90	1135.06	1135.06
G	Gross Employee Expenses (C+F)/2	970.54	1041.24	1041.24
H	Less: Employee Expenses Capitalized (Rs. Crore)	242.83	220.38	220.38
I	Add: Arrears (Rs. Crore)		10.72	
K	<b>Net Employee Expenses (G-H+I) (Rs. Crore)</b>	<b>727.70</b>	<b>831.57</b>	<b>820.86</b>



**TABLE 4-53: NORMATIVE EMPLOYEE EXPENSE OF MVVNL FOR FY 2019-20 (RS. CRORE)**

SI No.	Particular	Approved in T.O 03.09.2019	Normative as computed by Petitioner	Normative as computed by Commission
A	Norms per 1000 consumers (Rs. Crore)	0.261	0.261	0.261
B	Number of consumers (Nos.)	7763591	7813203	7813203
C	Employee Expenses (consumers) (Rs. Crore)	2026.30	2039.25	2039.25
D	Norms per substation (Rs. Crore)	0.005	0.005	0.005
E	Number of substations (Nos.)	348874	665592	665592
F	Employee Expenses (substation) (Rs. Crore)	1709.48	3327.96	3261.40
G	Gross Employee Expenses (C+F)/2	1867.89	2683.60	2650.32
H	Less: Employee Expenses Capitalized (Rs. Crore)	214.25	433.04	433.04
I	Add: Arrears (Rs. Crore)		28.58	
K	<b>Net Employee Expenses (G-H+I) (Rs. Crore)</b>	<b>1653.64</b>	<b>2279.14</b>	<b>2217.28</b>

**TABLE 4-54: NORMATIVE EMPLOYEE EXPENSE OF PVVNL FOR FY 2019-20 (RS. CRORE)**

SI No.	Particular	Approved in T.O 03.09.2019	Normative as computed by Petitioner	Normative as computed by Commission
A	Norms per 1000 consumers (Rs. Crore)	0.192	0.192	0.192
B	Number of consumers (Nos.)	64,64,743	66,49,732	66,49,732
C	Employee Expenses (consumers) (Rs. Crore)	1,241.23	1,276.75	1,276.75
D	Norms per substation (Rs. Crore)	0.004	0.004	0.004
E	Number of substations (Nos.)	3,68,541	5,70,491	5,70,491
F	Employee Expenses (substation) (Rs. Crore)	1,363.60	2,281.96	2,281.96
G	Gross Employee Expenses (C+F)/2	1,302.42	1,779.36	1,779.36
H	Less: Employee Expenses Capitalized (Rs. Crore)	276.72	158.26	158.26
I	Add: Arrears (Rs. Crore)		12.6	
K	<b>Net Employee Expenses (G-H+I) (Rs. Crore)</b>	<b>1025.69</b>	<b>1,633.7</b>	<b>1,621.09</b>

**TABLE 4-55: NORMATIVE EMPLOYEE EXPENSE OF PUVVNL FOR FY 2019-20 (RS. CRORE)**

SI No.	Particular	Approved in T.O 03.09.2019	Normative as computed by Petitioner	Normative as computed by Commission
A	Norms per 1000 consumers (Rs. Crore)	0.218	0.218	0.218
B	Number of consumers (Nos.)	8912241	8349215	8349215
C	Employee Expenses (consumers) (Rs. Crore)	1942.87	1820.13	1820.13
D	Norms per substation (Rs. Crore)	0.004	0.004	0.004



SI No.	Particular	Approved in T.O 03.09.2019	Normative as computed by Petitioner	Normative as computed by Commission
E	Number of substations (Nos.)	399934	455274	455274
F	Employee Expenses (substation) (Rs. Crore)	1599.74	1821.10	1821.10
G	Gross Employee Expenses (C+F)/2	1771.30	1820.61	1820.61
H	Less: Employee Expenses Capitalized (Rs. Crore)	265.97	460.33	460.33
I	Add: Arrears (Rs. Crore)		3.05	
K	<b>Net Employee Expenses (G-H+I) (Rs. Crore)</b>	<b>1505.33</b>	<b>1363.33</b>	<b>1360.28</b>

**TABLE 4-56: NORMATIVE EMPLOYEE EXPENSE OF KESCO FOR FY 2019-20 (RS. CRORE)**

SI No.	Particular	Approved in T.O 03.09.2019	Normative as computed by Petitioner	Normative as computed by Commission
A	Norms per 1000 consumers (Rs. Crore)	0.350	0.350	0.350
B	Number of consumers (Nos.)	666018	626253	626253
C	Employee Expenses (consumers) (Rs. Crore)	233.11	219.19	219.19
D	Norms per substation (Rs. Crore)	0.044	0.044	0.044
E	Number of substations (Nos.)	5060	5147	5147
F	Employee Expenses (substation) (Rs. Crore)	224.16	228.01	228.01
G	Gross Employee Expenses (C+F)/2	228.63	223.60	223.60
H	Less: Employee Expenses Capitalized (Rs. Crore)	11.68	11.83	11.83
I	Add: Arrears (Rs. Crore)		2.76	
K	<b>Net Employee Expenses (G-H+I) (Rs. Crore)</b>	<b>216.95</b>	<b>214.53</b>	<b>211.77</b>

#### Normative Administrative and General Expense (A&G)

4.6.7. Normative A&G expenses approved by the Commission in the Tariff Order dated September 03<sup>rd</sup>, 2019 and normative computed by the Petitioner and Commission for FY 2019-20 has been shown in the Table below:

**TABLE 4-57: NORMATIVE A&G OF DVVNL FOR FY 2019-20 (RS. CRORE)**

Particulars	Approved in T.O 03.09.2019	Normative as computed by Petitioner	Normative as computed by Commission
Norms per 1000 consumers (Rs Crore)	0.032	0.032	0.032
Number of Consumers (nos)	5541910	5177178	5177178
Administration & General Expenses (consumers) (F) (Rs Crore)	177.34	165.67	165.67
Norms per Employee (Rs Crore)	0.01	0.01	0.01



Particulars	Approved in T.O 03.09.2019	Normative as computed by Petitioner	Normative as computed by Commission
Number of Employee (nos)	5026	5402	5402
Administration & General Expenses (Employee) (G) (Rs Crore)	69.86	75.09	75.09
<b>Total Administration &amp; General Expenses (F+G)/2 (Rs Crore)</b>	<b>123.60</b>	<b>120.38</b>	<b>120.38</b>

**TABLE 4-58: NORMATIVE A&G OF MVVNL FOR FY 2019-20 (RS. CRORE)**

Particulars	Approved in T.O 03.09.2019	Normative as computed by Petitioner	Normative as computed by Commission
Norms per 1000 consumers (Rs Crore)	0.0587	0.0590	0.0587
Number of Consumers (nos)	7763591	7813203	7813203
Administration & General Expenses (consumers) (F) (Rs Crore)	455.72	460.98	458.64
Norms per Employee (Rs Crore)	0.0203	0.0200	0.0203
Number of Employee (nos)	10588	7567	7567
Administration & General Expenses (Employee) (G) (Rs Crore)	214.94	151.34	153.61
<b>Total Administration &amp; General Expenses (F+G)/2 (Rs Crore)</b>	<b>335.33</b>	<b>306.16</b>	<b>306.12</b>

**TABLE 4-59: NORMATIVE A&G OF PVVNL FOR FY 2019-20 (RS. CRORE)**

Particulars	Approved in T.O 03.09.2019	Normative as computed by Petitioner	Normative as computed by Commission
Norms per 1000 consumers (Rs Crore)	0.0230	0.0234	0.0234
Number of Consumers (nos)	64,64,743	66,49,732	66,49,732
Administration & General Expenses (consumers) (F) (Rs Crore)	151.27	155.60	155.60
Norms per Employee (Rs Crore)	0.0130	0.013	0.013
Number of Employee (nos)	7,831	7,067	7,067
Administration & General Expenses (Employee) (G) (Rs Crore)	104.15	91.87	91.87
<b>Total Administration &amp; General Expenses (F+G)/2 (Rs Crore)</b>	<b>127.71</b>	<b>123.74</b>	<b>123.74</b>

**TABLE 4-60: NORMATIVE A&G OF PUVVNL FOR FY 2019-20 (RS. CRORE)**

Particulars	Approved in T.O 03.09.2019	Normative as computed by Petitioner	Normative as computed by Commission
Norms per 1000 consumers (Rs Crore)	0.0257	0.0257	0.0257
Number of Consumers (nos)	89,12,241	8349215	8349215
Administration & General Expenses (consumers) (F) (Rs Crore)	229.04	214.57	214.57
Norms per Employee (Rs Crore)	0.013	0.013	0.013
Number of Employee (nos)	8970	8603	8603



Particulars	Approved in T.O 03.09.2019	Normative as computed by Petitioner	Normative as computed by Commission
Administration & General Expenses (Employee) (G) (Rs Crore)	120.20	115.28	115.28
<b>Total Administration &amp; General Expenses (F+G)/2 (Rs Crore)</b>	<b>174.62</b>	<b>164.93</b>	<b>164.93</b>

**TABLE 4-61: NORMATIVE A&G OF KESCO FOR FY 2019-20 (RS. CRORE)**

Particulars	Approved in T.O 03.09.2019	Normative as computed by Petitioner	Normative as computed by Commission
Norms per 1000 consumers (Rs Crore)	0.035	0.035	0.035
Number of Consumers (nos)	666018	626253.00	626253.00
Administration & General Expenses (consumers) (F) (Rs Crore)	23.58	22.17	22.17
Norms per Employee (Rs Crore)	0.0139	0.0139	0.0139
Number of Employee (nos)	1588	1504.00	1504.00
Administration & General Expenses (Employee) (G) (Rs Crore)	22.07	20.91	20.91
<b>Total Administration &amp; General Expenses (F+G)/2 (Rs Crore)</b>	<b>22.83</b>	<b>21.54</b>	<b>21.54</b>

#### Normative Repair & Maintenance Expense (R&M)

4.6.8. Normative R&M Expenses approved by the Commission in the Tariff Order dated September 03<sup>rd</sup>, 2019 and normative computed by the Petitioner and Commission for FY 2019-20 has been shown in the Table below:

**TABLE 4-62: NORMATIVE R&M OF DVVNL FOR FY 2019-20 (RS. CRORE)**

S. No.	Particulars	Approved in T.O 03.09.2019	Normative as computed by Petitioner	Normative as computed by Commission
A	Average GFA for R&M (Rs. Crore)	11192.97	12633.55	12670.05
B	Kb	6.64%	6.64%	6.64%
C	<b>R&amp;M Expenses (Rs. Crore)</b>	<b>743.21</b>	<b>838.87</b>	<b>841.29</b>

**TABLE 4-63: NORMATIVE R&M OF MVVNL FOR FY 2019-20 (RS. CRORE)**

S. No.	Particulars	Approved in T.O 03.09.2019	Normative as computed by Petitioner	Normative as computed by Commission
A	Average GFA for R&M (Rs. Crore)	10273.05	11796.56	11796.58
B	Kb	5.48%	5.48%	5.48%
C	<b>R&amp;M Expenses (Rs. Crore)</b>	<b>562.55</b>	<b>646.45</b>	<b>645.98</b>



**TABLE 4-64: NORMATIVE R&M OF PVVNL FOR FY 2019-20 (RS. CRORE)**

S. No.	Particulars	Approved in T.O 03.09.2019	Normative as computed by Petitioner	Normative as computed by Commission
A	Average GFA for R&M (Rs. Crore)	14390.37	16068.35	16067.77
B	Kb	3.87%	3.87%	3.87%
C	<b>R&amp;M Expenses (Rs. Crore)</b>	<b>556.79</b>	<b>621.85</b>	<b>621.82</b>

**TABLE 4-65: NORMATIVE R&M OF PUVVNL FOR FY 2019-20 (RS. CRORE)**

S. No.	Particulars	Approved in T.O 03.09.2019	Normative as computed by Petitioner	Normative as computed by Commission
A	Average GFA for R&M (Rs. Crore)	12823.38	15375.38	16561.39
B	Kb	6.47%	6.47%	6.47%
C	<b>R&amp;M Expenses (Rs. Crore)</b>	<b>829.67</b>	<b>994.79</b>	<b>1071.52</b>

**TABLE 4-66: NORMATIVE R&M OF KESCO FOR FY 2019-20 (RS. CRORE)**

S. No.	Particulars	Approved in T.O 03.09.2019	Normative as computed by Petitioner	Normative as computed by Commission
A	Average GFA for R&M (Rs. Crore)	924.00	1400.48	1401.20
B	Kb	6.89%	6.89%	6.89%
C	<b>R&amp;M Expenses (Rs. Crore)</b>	<b>63.66</b>	<b>96.49</b>	<b>96.54</b>

4.6.9. It is observed from the above tables that there is a variance in the normative R&M expense as claimed by the State Discoms with that as computed by Commission due to the difference in the approved closing GFA.

4.6.10. The State Discoms in their submissions have claimed the actual O&M expense and have also claimed the sharing of gains/losses for O&M expenses accordingly.

#### **Smart Metering OPEX**

4.6.11. The State Discoms submitted that the Commission vide its letter dated 16.05.2018 directed UPPCL to submit the detailed roll out plan of installation of smart meters for the State Discoms of Uttar Pradesh for the approval of the Hon'ble Commission.

4.6.12. In response to the directions of the Commission, UPPCL vide its letter dated 06.08.2018 submitted the smart meter roll out plan for the State Discoms under "Opex Model". Under "Opex Model", State Discoms are required to pay monthly fee (arrived at through competitive bidding process conducted by EESL) for each



meter reading through Smart Meter to Energy Efficiency Services Limited (EESL), a Government of India company and there is no additional burden of depreciation, interest and return on equity on the consumer towards the cost of Smart Meter. A presentation in this regard was also made at UPERC on 11.9.2018 to address the queries raised by the Commission.

- 4.6.13. The Commission vide Order dated 15.11.2018 approved the Smart Meter rollout plan for State Discoms of Uttar Pradesh. The Commission in the Order dated 15.11.2018 as directed below:

Quote

*Since installation of Smart Meters is a national programme and has produced very encouraging financial returns in private Discoms, the Commission approves the proposed roll out plan of UPPCL and Discoms submitted before the Commission.....*

.....

*DISCOM will pay EESL on OPEX basis as O&M expenditure. The assets will be in the books of EESL till the transfer of assets at the end of project at zero value.*

*Further Hon'ble Commission in its Tariff Order FY 2019-20 dt. 03.09.2019 at clause no. 6.18.7 has mentioned this expenditure under the head of A&G expenses as below:*

*It may kindly be noted that this type of expenses was not envisaged during projection of MYT O&M norms for FY 2017-18 to FY 2019-20. Further, O&M Norms approved by the Hon'ble Commission were based on five-year Audited Accounts, which didn't have any O&M expenses towards smart metering. The amount of this additional O&M has been entered as rent in the replies of comments on roll out plan submitted to Hon'ble Commission vide MD, UPPCL letter no. 352/CE(Com-II)/Smart Meter/18 dt. 25.09.2018. Therefore, this expense may be considered under the head of A&G expenses as additional expenses.*

Unquote

- 4.6.14. Further the State Discoms mentioned that the amount has been sought as 'Additional A&G Expenses' for smart metering is payable to EESL to cover cost towards smart meter and box installation, AMI software cost, consumer indexing, training, integration and commissioning of AMI solution. It may be noted that this cost has been proposed to be recovered under Opex model based on per meter per month basis and there shall be no additional burden of depreciation, interest and return on equity on the consumer.



4.6.15. The State Discoms namely DVVNL, MVVNL, PVVNL, PuVVNL and KESCO submitted that the amount billed by EESL inclusive of GST to the State Discoms are amounting to Rs 6.20 Crore, Rs. 3.86 Crore, Rs. 2.47 Crore, Rs. 18.48 Crore and Rs. 7.39 Crore respectively. The Licensees submitted that the Commission in Tariff Order FY 2019-20 dt. 03.09.2019 at Clause no. 6.18.8 has stated that “*the Commission however shall review the same at the time of the True-up, and hence not allowed the same*”, accordingly this expenditure has been detailed by the State Owned Discoms for FY 2019-20.

4.6.16. As regard to additional O&M for smart metering opex, it is noted that under the OPEX model, Petitioners have mentioned that the cost of Rs 86 (+ taxes) per meter per month will be charged by EESL from UPPCL as Interest & PMC (project management consulting) cost. The Petitioner have submitted that the overall benefits of the rollout will be two folds:

(i) Tangible benefits i.e. Bill quality improvement and savings due to AT&C loss reduction via increase in billing efficiency and reduction of theft (UPPCL submitted that there would be increase in Billing efficiency by 5% to 7% and Collection Efficiency will be 100%)

(ii) Intangible benefits would be consumer satisfaction, Data Analytics, MIS and monitoring of exceptions and savings on faster detection of defective meters leading to reduction in assessed bills.

4.6.17. The Commission approved the Roll Out plan for Smart Meters vide its Order dated 15th Nov. 2018. The Commission in its Order observed as follows:

Quote

*Acknowledging the advantages of smart metering the Commission has noted that the UPPCL has proposed in improvement in billing efficiency by 5-7% and in the data submitted for 40 lakh meters the maximum billing efficiency has been projected at 85%. In smart metering the meter data has to flow on line in the billing system and if the system works efficiently, why not 100% billing can be ensured. It appears that this important aspect has not been looked into with enough seriousness while giving the projections to the Commission. The smart metering system is a costly solution and unless the value addition is commensurate with the investment the initiation of programme cannot be justified. The Commission feels that at 98% billing efficiency should be ensured in cases where the smart meters have been put up (emphasis added).*

Unquote



4.6.18. The Commission approved the roll out plan subject to following conditions:

- The Billing efficiency of the consumers having smart meters is not less than 98%
- Since the smart meters have remote disconnection features, the collection efficiency of target consumers shall not be less than 95%.

4.6.19. Keeping the above in view, since the net improvement in Collection and Billing Efficiency has been envisaged keeping the net consumer tariff (ABR) constant and the Net benefit/gain to the Discoms is without any increase in the consumer tariffs, and the above scheme would be in OPEX mode, it means the scheme is self-sustaining and hence the total cost should stay out of the ARR.

4.6.20. In past, the Commission has approved several schemes for theft reduction and power quality improved like replacement of LT lines with ABC conductor, whose CAPEX was allowed in the ARR considering the merit of the schemes and benefits to both Discoms and also considering the fact that the Commission approves a stringent Distribution Loss trajectory in the ARR, which is much lower than the actual losses of the Discoms and such schemes like ABC cables should be allowed to encourage and support the Discoms /utilities efforts to reduce the losses and meet the Commission target.

However, the Smart Meter Rollout scheme is OPEX model and not CAPEX model. With roll out of Smart Meters, the billing and collection efficiency of Discoms will increase thereby reducing the commercial losses. It is expected that the overall O&M cost of the Discoms would also decrease due to improved billing & collection efficiency which would be compensated by the charges paid in OPEX model. Further, since the MYT Distribution and Transmission Regulations, 2014 provide for the O&M expenses on the normative basis, hence the same cannot be allowed as additional O&M expense.

#### **O&M COST OF UPPCL**

4.6.21. The State Discoms submitted that the Commission in the True-up Order for FY 2018-19 has disallowed O&M expenses to UPPCL. While disallowing the same, the Hon'ble Commission has held that the procurement of power is the responsibility of Petitioner for which the Hon'ble Commission allows considerable amount of O&M expenses and interest on working capital. Since the expenses incurred by UPPCL are on account of procuring power for the Petitioner, Petitioner shall take care of such expenses incurred by UPPCL from the O&M expenses allowed to it.

4.6.22. The Petitioners submitted that the Commission has never considered UPPCL's O&M expenses while approving the power purchase costs for the Discoms and while



determining the O&M expenses applicable to the Discoms, the Hon'ble Commission did not consider UPPCL's O&M expenses.

- 4.6.23. The Petitioners submitted that the treatment of holding company O&M expenses in other States has been allowed in their Tariff Orders by the respective SERCs.
- 4.6.24. Bihar Electricity Regulatory Commission (BERC) has approved the expenses of Bihar State Power (Holding) Company Limited (BSPHCL) in its Tariff order. South/North Bihar Power Distribution Corporation Limited submitted the following:

Quote

*"SBPDCL has submitted that BSPHCL provides common services to all the segregated entities and as per the Transfer Scheme "operating expenses incurred by the Holding Company like administration and general expenses, legal and consulting fees, etc. would be shared by the BSPGCL, BSPTCL, SBPDCL and NBPDC in the ratio of their respective equity".*

Unquote

- 4.6.25. Treatment of Madhya Pradesh Power Management Company Limited (MPPMCL) expenses by Madhya Pradesh Regulatory Commission (MPERC) in Retail Tariff Order for FY 2018-19 dated 3<sup>rd</sup> May 2018 is reproduced below:

Quote

*3.77 The Petitioners have filed Rs. 197 Crore as MPPMCL expenses for FY 2018-19. The Commission has observed that most of the expenses included in MPPMCL cost relate to the expenses proposed to be incurred for the power purchase. The Commission is of the opinion that such expenses should have been included under power purchase cost. Further, the Commission has admitted expenses of Rs. 116 Crore towards O&M expenses only and Rs. 596 Crore as other income, as filed by the Petitioners. Net MPPMCL cost admitted in this Order is Rs. (-) 480 Crore has been allocated among the Discoms. The expenses related to power purchase, if any, incurred by MPPMCL would be appropriately considered at the time of truing up for FY 2018-19, after prudence check.*

Unquote

- 4.6.26. Gujarat Electricity Regulatory Commission (GERC) in Tariff Order for FY 2019-20 dated 24th April 2019 has approved the expenses of Gujarat Urja Vikas Nigam Limited (GUVNL) the relevant portion of the order is reproduced below:



#### Quote

*5.8.3.2 PGVCL has submitted that GUVNL is entrusted with the function of Bulk Power Purchase on behalf of four Distribution Companies and Bulk Supply of power to Distribution Companies for onwards retail supply to consumers, trading of surplus power on behalf of Distribution Companies and activities related to overall coordination between the subsidiary companies. GUVNL is procuring power on behalf of all four DISCOMs to have economical and optimized power purchase cost. It also undertakes the function of raising and managing overall loan portfolio of GUVNL and its subsidiaries. GUVNL is charging Rs.0.04 for every transaction of the unit. The total cost has been arrived at after considering the total dispatchable units required to be served to all the four DISCOMs during FY 2019-20 to FY 2020-21.*

#### Unquote

- 4.6.27. From the aforementioned submission, Petitioners stated that, it has been clear that BERG, MPERC and GERC allow O&M cost of States holding companies in the respective State Discoms ARR.
- 4.6.28. Petitioner further submitted that UPPCL being a holding company of all state owned Distribution Licensees of UP, perform various functions for and on behalf of its subsidiary state owned Distribution Licensees, which includes the following:
- In consultation with Discoms, undertake long-term/ medium-term/short-term planning and assessment of the power purchase requirements for the Discoms and explore opportunities for power procurement as per the regulations of UPERC;
  - Co-ordinate regulatory affairs on behalf of Discoms;
  - Policy framing;
  - Co-ordinate with Financial Institutions for arranging and managing lending for the Capex Schemes;
  - Appointment, training, establishment and managing statutory responsibilities of retirement benefit
  - Co-ordinate for various Central and State Government Schemes for the improvement of performance of Discoms i.e., SAUBHAGYA, UDAY etc.
- 4.6.29. Further, Petitioners submitted that UPPCL has now allocated its O&M expenses to all of its subsidiary State Government Distribution Licensees, in a rational and transparent manner in the books of accounts with effect from FY 2019-20. The



Petitioner requested the Commission to allow the allocation methodology and the allocated UPPCL O&M expenses.

- 4.6.30. As regards to UPPCL O&M Expenses, the Commission in Tariff Order dated October 1, 2014, in the matter of Determination of ARR and Tariff for FY 2015-16 and True up for FY 2012-13 had directed the State Discoms to manage the O&M Expenses incurred by UPPCL (for procuring the power) from the O&M Expenses allowed to them. The relevant extract of the Commission's Order dated October 1, 2014 of DVVNL is quoted below:

Quote

*4.2.14 The Commission has verified the above amount from the Audited Accounts of UPPCL and has allowed such expenses based on actual for FY 2014-15. As the above expenses have been incurred by UPPCL, which is mostly for procuring the power for the Discoms, the above expenses for the purpose of Truing up has been considered as a part of Bulk Supply Tariff. It may further be noted that the procurement of power is the responsibility of the Distribution Licensee for which the Commission allows considerable amount of O&M Expenses and interest on working capital to the Licensee.*

*The Commission has allowed such expenses for the past years, however, for future years, i.e., from FY 2014-15 onwards, the Licensee is directed to manage such O&M Expenses for procuring the power from the O&M Expenses allowed to it.*

Unquote

- 4.6.31. Thus, regarding UPPCL's O&M Expenses, it is clear that the Commission had not allowed such expenses in the previous orders giving clear directions that from FY 2014-15 onwards the Licensees should manage procurement of power from the O&M Expenses allowed to them. Accordingly, the O&M expenses claimed by the State Discoms towards O&M Expenses of UPPCL allocated to them are not allowed. The Commission again reiterates that the procurement of power is the responsibility of the Distribution Licensees for which the Commission allows considerable amount of O&M Expenses and interest on working capital to the Licensees.

It is further observed that some of the State Discoms have claimed UPPCL's O&M expenses by merging them as part of O&M expenses under different sub-heads i.e. employee, R&M & A&G expenses. As the Petitioners submitted that UPPCL has now allocated its O&M expenses to its subsidiary State Government Distribution Licensees, in the books of accounts with effect from FY 2019-20, the Commission



has done the prudence check of O&M Expenses of UPPCL from the balance sheet of the State Discoms and the same, as found in the balance sheets, have been disallowed.

### Sharing of Gains

4.6.32. Further, Regulation 9.2 of Uttar Pradesh Electricity Regulatory Commission (Multi Year Distribution Tariff) Regulations, 2014 provides the illustrative variations or expected variations in the performance of the Distribution Licensee, which may be attributed by the Hon'ble Commission to controllable factors include the following:

- a) Variations in capital expenditure
- b) Variations in Aggregate Technical & Commercial (AT&C) losses
- c) Distribution Losses
- d) Variations in Return on Equity (ROE), depreciation and working capital requirements
- e) Failure to meet the standards specified in the Standards of Performance Regulations, except where exempted
- f) Variation in operation & maintenance expenses
- g) Variation in Wires Availability and Supply Availability

4.6.33. Regulation 11 of the Uttar Pradesh Electricity Regulatory Commission (Multi Year Distribution Tariff) Regulations, 2014 specifies as shown under:

Quote

*11. Mechanism for sharing of gains or losses on account of controllable factors*

*11.1 The approved aggregate gain to the Distribution Licensee on account of controllable factor shall be dealt with in the following manner:*

*a. One-half of the amount of such gain shall be passed on as a rebate in tariff over such period as may be stipulated in the Order of the Commission;*

*b. The balance amount of such gain, may be utilized at the discretion of the Distribution Licensee.*

*11.2 The approved aggregate loss to the Distribution Licensee on account of controllable factor shall be dealt with in the following manner:*

*(a) One-half of the amount of such loss may be passed on as an additional charge in tariff over such period as may be stipulated in the Order of the Commission; and*

*(b) The balance amount of loss shall be absorbed by the Distribution Licensee.*

UnQuote



- 4.6.34. Hence, any gain or loss on account of the controllable parameters like variation in distribution losses, Aggregate Technical & Commercial (AT&C) losses, O&M expenses etc. is to be dealt in accordance with the Regulation 11 of Uttar Pradesh Electricity Regulatory Commission (Multi Year Distribution Tariff) Regulations, 2014.
- 4.6.35. The Commission, vide order dated 11.11.2020 in the matter of True-up Order of FY 2018-19 was of the view that there is a wide variation between normative and actual parameters of O&M expenses of the Petitioners, which cannot be on the account of efficiency of the Petitioners. The relevant extracts are as under:

*Quote*

*“4.6.37 The Commission has taken a view to allow the “lower of normative or actual for each element of O&M, i.e. Employee Expense, R&M & A&G”. Further, the Commission observes, that this year also, that there is a large variation in the normative and actual O&M Expenses. In current filings, the Licensees have shown considerable reduction in all the components, like lower sales, power purchase, O&M expenses etc. which resulted in vast variation in all the parameters. The sharing of gains is allowed for incentivisation of efficiency. It is for sure that such wide variations cannot be on account of the efficiency of the licensees. Hence, the Commission is not allowing the sharing of O&M Expenses. Further, the Commission directs the Licensees to submit the detailed explanation for this variation in its next filings.*

*4.6.38 It is further pertinent to mention, that the above approach of the Commission is sub judice before Hon`ble APTEL. Accordingly, the Commission while allowing the O&M expenses, has considered the “lower of normative or actual for each element of O&M, i.e. Employee Expense, R&M & A&G” and has not allowed the sharing of gain/loss of O&M expenses.”*

*Unquote*

- 4.6.36. As per above, the Commission has taken a view to allow the “lower of normative or actual for each element of O&M, i.e. Employee Expense, R&M & A&G”. Further, the Commission observes, that this year also, there is a large variation in the normative and actual O&M Expenses. In current filings, the Licensees have shown considerable reduction in all the components, like lower sales, power purchase, O&M expenses etc. which resulted in vast variation in all the parameters. The sharing of gains is allowed for incentivisation of efficiency. It is for sure that such wide variations cannot be on account of the efficiency of the Licensees. Hence, the Commission is



not allowing the sharing of O&M Expenses. Further, the Commission directs the Licensees to submit the detailed explanation for this variation in its next filings.

4.6.37. It is further pertinent to mention, that the above approach of the Commission is sub judice before Hon`ble APTEL. Accordingly, the Commission while allowing the O&M expenses, has considered the “lower of normative or actual for each element of O&M, i.e. Employee Expense, R&M & A&G” and has not allowed the sharing of gain/loss of O&M expenses.

It is to further mention that the State Discoms have claimed UPPCL O&M expenses by merging them as part of O&M expenses under different sub-heads i.e. employee, R&M & A&G expenses. The Commission has tried to identify and remove the same under different head and show them separately, however, where ever, it could not be bifurcated, the same has been reduced from the employee expenses, to give effect to the disallowance of the UPPCL O&M expenses.

4.6.38. Based on the above submission, the summary of the Operation & Maintenance expenses (O&M) approved in the Tariff Order for FY 2019-20 vis-a-vis the actual O&M expenses as per Audited Accounts and computed as normative are provided in the following tables:

**TABLE 4-67: O&M EXPENSES OF DVVNL AS APPROVED BY THE COMMISSION FOR FY 2019-20 (RS. CRORE)**

Particulars	Approved for FY 2019-20 in T.O dated dt. 03.09.2019	Audited Accounts	Normative as per Commission	True-Up Petition	Approved upon Truing-up
Employee Expenses	970.54	524.11	1041.24	524.11	524.11
Repair & Maintenance Expenses	743.21	545.49	841.29	545.49	545.49
Administrative and General Expenses	123.60	538.34	120.38	538.34	120.38
Gross O&M Expenses	1837.35	1607.94	2002.91	1607.94	1189.98
Less: Employee Expenses capitalized	242.83	220.38	220.38	220.38	220.38
Add: Sharing of Gains	-	-	-	201.63	-
Add: Arrears 7th Pay					
UPPCL O&M (included in above)				67.95	-
Add: Smart Meter Opex	-	6.20	-	6.20	-
<b>Net O&amp;M Expenses</b>	<b>1594.52</b>	<b>1393.76</b>	<b>1782.53</b>	<b>1595.39</b>	<b>969.60</b>



**TABLE 4-68: O&M EXPENSES OF MVVNL AS APPROVED BY THE COMMISSION FOR FY 2019-20 (RS. CRORE)**

Particulars	Approved for FY 2019-20 in T.O dated dt. 03.09.2019	Audited Accounts	Normative as per Commission	True-Up Petition	Approved upon Truing-up
Employee Expenses	1867.89	760.12	2217.28	794.71	760.12
Repair & Maintenance Expenses	562.55	367.33	645.98	375.38	367.33
Administrative and General Expenses	335.33	600.57	306.12	606.64	306.12
Gross O&M Expenses	2765.77	1728.02	3169.39	1776.73	1433.57
Less: Employee Expenses capitalized	214.15	433.04	433.04	433.04	433.04
Add: Sharing of Gains	-	-	-	944.03	-
Add: Arrears 7th Pay					
UPPCL O&M (included in above)		48.71			
Add: Smart Meter Opex	-	3.86	-	3.86	-
<b>Net O&amp;M Expenses</b>	<b>2551.62</b>	<b>1347.55</b>	<b>2736.34</b>	<b>2291.58</b>	<b>1000.53</b>

**TABLE 4-69: O&M EXPENSES OF PVVNL AS APPROVED BY THE COMMISSION FOR FY 2019-20 (RS. CRORE)**

Particulars	Approved for FY 2019-20 in T.O dated dt. 03.09.2019	Audited Accounts	Normative as per Commission	True-Up Petition	Approved upon Truing-up
Employee Expenses	1,302.42	604.50	1,621.09	644.39	604.50
Repair & Maintenance Expenses	556.79	592.19	621.85	609.30	592.19
Administrative and General Expenses	127.71	544.46	123.74	559.82	123.74
Gross O&M Expenses	1,986.92	1,741.15	2,366.67	1,813.51	1,320.43
Less: Employee Expenses capitalized	276.72	158.26	158.26	158.26	158.26
Add: Sharing of Gains				362.02	
Add: Arrears 7th Pay					
UPPCL O&M (included in above)				72.36	
Add: Smart Meter Opex		2.47		2.47	
<b>Net O&amp;M Expenses</b>	<b>1,710.19</b>	<b>1,657.71</b>	<b>2,208.41</b>	<b>2,019.74</b>	<b>1,162.16</b>



**TABLE 4-70: O&M EXPENSES OF PUVVNL AS APPROVED BY THE COMMISSION FOR FY 2019-20 (RS. CRORE)**

Particulars	Approved for FY 2019-20 in T.O dated dt. 03.09.2019	Audited Accounts	Normative as per Commission	True-Up Petition	Approved upon Truing-up
Employee Expenses	1771.30	769.55	1820.61	769.55	769.55
Repair & Maintenance Expenses	829.67	869.83	1071.52	869.83	869.83
Administrative and General Expenses	174.62	441.25	164.93	441.25	164.93
Gross O&M Expenses	2775.60	2080.63	3057.06	2080.63	1804.30
Less: Employee Expenses capitalized	265.97	460.33	460.33	460.33	460.33
Add: Sharing of Gains	-	-	-	451.38	-
Add: Arrears 7th Pay					
UPPCL O&M (included in above)					
Add: Smart Meter Opex	-	18.48	-	18.48	-
<b>Net O&amp;M Expenses</b>	<b>2509.63</b>	<b>1638.77</b>	<b>2596.73</b>	<b>2090.15</b>	<b>1343.97</b>

**TABLE 4-71: O&M EXPENSES OF KESCO AS APPROVED BY THE COMMISSION FOR FY 2019-20 (RS. CRORE)**

Particulars	Approved for FY 2019-20 in T.O dated dt. 03.09.2019	Audited Accounts	Normative as per Commission	True-Up Petition	Approved upon Truing-up
Employee Expenses	228.63	136.65	223.60	136.65	136.65
Repair & Maintenance Expenses	63.66	83.69	96.54	83.69	83.69
Administrative and General Expenses	22.83	129.49	21.54	129.49	21.54
Gross O&M Expenses	315.12	349.83	341.68	349.83	241.88
Less: Employee Expenses capitalized	11.68	11.83	11.83	11.83	11.83
Add: Sharing of Gains				-2.72	
Add: Arrears 7th Pay					
UPPCL O&M (included in above)					
Add: Smart Meter Opex		7.39		7.39	
<b>Net O&amp;M Expenses</b>	<b>303.44</b>	<b>345.39</b>	<b>329.85</b>	<b>342.66</b>	<b>230.05</b>



**TABLE 4-72: CONSOLIDATED O&M EXPENSES OF STATE DISCOMS AS APPROVED BY THE COMMISSION FOR FY 2019-20 (RS. CRORE)**

Particulars	Approved for FY 2019-20 in T.O dated dt. 03.09.2019	Audited Accounts	Normative as per Commission	True-Up Petition	Approved upon Truing-up
Employee Expenses	6140.78	2794.92	6923.83	2869.41	2794.92
Repair & Maintenance Expenses	2755.89	2458.53	3277.18	2483.69	2458.53
Administrative and General Expenses	784.09	2254.10	736.70	2275.53	736.70
Gross O&M Expenses	9680.76	7507.55	10937.71	7628.63	5990.16
Less: Employee Expenses capitalized	1011.35	1283.85	1283.85	1283.85	1283.85
Add: Sharing of Gains	0.00	0.00	0.00	1,956.35	0.00
Add: Arrears 7th Pay	0.00	0.00	0.00	0.00	0.00
UPPCL O&M (included in above)	-	121.07	-	121.07	-
Add: Smart Meter Opex	0.00	38.40	0.00	38.40	0.00
<b>Net O&amp;M Expenses</b>	<b>8,669.40</b>	<b>6,334.46</b>	<b>9,653.86</b>	<b>8,339.52</b>	<b>4,706.31</b>

**TABLE 4-73: CONSOLIDATED EMPLOYEE EXPENSES OF STATE DISCOMS AS APPROVED BY THE COMMISSION FOR FY 2019-20 (RS. CRORE)**

Sl. No	Particulars	Approved	Audited	Normative as per Commission	Claimed in True up	Allowed
1	DVVNL	970.54	524.11	1041.24	524.11	524.11
2	MVVNL	1,867.89	760.12	2,217.28	794.71	760.12
3	PVVNL	1,302.42	604.50	1,621.09	644.39	604.50
4	PuVVNL	1,771.30	769.55	1,820.61	769.55	769.55
5	KESCo	228.63	136.65	223.60	136.65	136.65
6	<b>Consolidated (5 Discoms)</b>	<b>6140.78</b>	<b>2794.92</b>	<b>6923.83</b>	<b>2869.41</b>	<b>2794.92</b>

**TABLE 4-74: CONSOLIDATED R & M EXPENSES OF STATE DISCOMS AS APPROVED BY THE COMMISSION FOR FY 2019-20 (RS. CRORE)**

Sl. No	Particulars	Approved	Audited	Normative as per Commission	Claimed in True up	Allowed
1	DVVNL	743.21	545.49	841.29	545.49	545.49
2	MVVNL	562.55	367.33	645.98	375.38	367.33



Sl. No	Particulars	Approved	Audited	Normative as per Commission	Claimed in True up	Allowed
3	PVVNL	556.79	592.19	621.85	609.30	592.19
4	PuVVNL	829.67	869.83	1071.52	869.83	869.83
5	KESCo	63.66	83.69	96.54	83.69	83.69
6	<b>Consolidated (5 Discoms)</b>	<b>2755.88</b>	<b>2458.53</b>	<b>3277.18</b>	<b>2483.69</b>	<b>2458.53</b>

**TABLE 4-75: CONSOLIDATED A&G EXPENSES OF STATE DISCOMS AS APPROVED BY THE COMMISSION FOR FY 2019-20 (RS. CRORE)**

Sl.No	Particulars	Approved	Audited	Normative	Claimed in True-up	Allowed
1	DVVNL	123.60	538.34	120.38	538.34	120.38
2	MVVNL	335.33	600.57	306.12	606.64	306.12
3	PVVNL	127.71	544.46	123.74	559.82	123.74
4	PuVVNL	174.62	441.25	164.93	441.25	164.93
5	KESCo	22.83	129.49	21.54	129.49	21.54
6	<b>Consolidated (5 Discoms)</b>	<b>784.09</b>	<b>2254.10</b>	<b>736.70</b>	<b>2275.53</b>	<b>736.70</b>

**TABLE 4-76: CONSOLIDATED GROSS O&M EXPENSES OF STATE DISCOMS AS APPROVED BY THE COMMISSION FOR FY 2019-20 (RS. CRORE)**

Sl.No	Particulars	Approved	Audited	Normative	Claimed in True-up	Allowed
1	DVVNL	1837.35	1607.94	2002.91	1607.94	1189.98
2	MVVNL	2765.77	1728.02	3169.39	1776.73	1433.57
3	PVVNL	1986.92	1741.15	2366.67	1813.51	1320.43
4	PuVVNL	2775.59	2080.63	3057.06	2080.63	1804.30
5	KESCo	315.12	349.83	341.68	349.83	241.88
6	<b>Consolidated (5 Discoms)</b>	<b>9680.75</b>	<b>7507.55</b>	<b>10937.71</b>	<b>7628.63</b>	<b>5990.16</b>

#### 4.7. CAPITAL INVESTMENTS & FINANCING OF CAPITAL INVESTMENTS

4.7.1. The State Discoms have submitted that the Commission in its previous Tariff Orders and True-up Orders had considered a normative approach for financing the capital expenditure with a normative debt equity ratio of 70:30. Considering this approach, 70% of the capital expenditure undertaken in any year was financed through loan and balance 30% has been financed through equity contributions. The portion of



capital expenditure financed through consumer contributions, capital subsidies and grants are separated and the depreciation and interest thereon are not charged to the consumers and beneficiaries. The amounts received as consumer contributions, capital subsidies and grants were traced from the audited accounts. The total capital investment after netting off the capital investment through deposit works, has been considered to be funded through debt and equity.

- 4.7.2. The Petitioners submitted the scheme wise details of the capex along with percentage breakup of Central Govt. Grants considered in both investments and additional capitalization for FY 2019-20.
- 4.7.3. Further, in the Tariff Order dated September 03, 2019, the reasons for reduction of the Capital Grants is provided as under:

Quote

*4.6.3 The Commission in the Tariff Order dated January 22, 2019, had deducted the capital grants (under schemes like Vyapar Vikas Nidhi, Dr Ram Manohar Lohiya Samagra Gram Vikas Yojna, DDUGVY, R-APDRP, IPDS and RGGVY) from the total investment paving the way to reduce the depreciation and interest burden of which increases year on year on consumer. The extract of the Order is quoted below:*

Quote

*4.5.2 During the presentation on October 5, 2018, before the Commission, the Licensees stated that, the grant portion of the schemes availed has been converted to equity by Govt of UP, hence the same have not been reduced from the investments. The Commission vide letter dated October 5, 2018 directed the State Discoms i.e. DVVNL, MVVNL, PVVNL and PuVVNL to submit the amounts capitalised under schemes like Vyapar Vikas Nidhi, Dr Ram Manohar Lohiya Samagra Gram Vikas Yojna, DDUGVY, R-APDRP, IPDS and RGGVY. The Commission observes that the intent of the Govt of India is to provide relief to the consumers by providing the grant for the schemes. If the grant is also added in the investments and the same is added as 70:30 then the burden of the consumer by the way of depreciation and interest would increase year after year. The Commission is of the view that the capital grants provided by Gol for capital investments should be deducted from the value of total investments and only balance should be taken by financing in the ratio of 70:30. KESCO does not avail any such scheme. Accordingly, the Commission has reduced the grant*



amounts from the Central Govt. schemes like RGGVY, R-APDRP and IPDS for DVVNL, MVVNL, PVVNL and PuVVNL.

Unquote

4.6.4 Accordingly, for FY 2017-18 methodology adopted by the Commission for allowing the capital investments funded from the schemes having grant are as shown under:

**SCHEMES FOR FY 2017-18**

Schemes	Allowed	Deducted
RGGVY 11th Plan	10%	90%
DDUGJY	40%	60%
RAPDRP	75%	25%
IPDS	40%	60%

Unquote

4.7.4. Accordingly, for FY 2019-20 the Petitioners have submitted the schemes funding as per the methodology adopted by the Commission for Truing up of FY 2018-19. The capital investments funded from the schemes having grant, as submitted by the Petitioners for approval of the Commission, are as shown under:

**TABLE 4-77: % ALLOCATION OF GRANTS IN SCHEMES FOR FY 2019-20**

Schemes	Allowed	Deducted
RGGVY 11th Plan	10%	90%
DDUGJY	40%	60%
RAPDRP	75%	25%
IPDS	40%	60%
Saubhagya Yojhna	40%	60%

4.7.5. The Petitioners have submitted the details of the capex schemes as shown in the below table:

**TABLE 4-78: SCHEMES FOR DVVNL FOR FY 2019-20**

Particulars	Gross Claimed/ Allowed		Grants / Deductions		Net Allowed	
	Investments	Capex	Investments	Capex	Investments	Capex
Other Schemes	801.90	3243.89	0.00	0.00	801.90	3243.89
RGGVY 11 <sup>th</sup> & 12 <sup>th</sup> Plan	747.97	650.47	673.17	585.42	74.80	65.05
DDUGJY	225.17	187.27	135.10	112.36	90.07	74.91
APDRP	0.00	0.00	0.00	0.00	0.00	0.00



Approval of ARR and Tariff for State Discoms for FY 2021-22, APR of  
FY 2020-21 and True-up of FY 2019-20

Particulars	Gross Claimed/ Allowed		Grants / Deductions		Net Allowed	
	Investments	Capex	Investments	Capex	Investments	Capex
RAPDRP	70.24	111.61	17.56	27.90	52.68	83.70
IPDS	21.61	60.77	12.97	36.46	8.64	24.31
SAUBHAGYA YOJNA	544.79	439.10	326.88	263.46	217.92	175.64
Total excluding Interest and employee capitalisation (A)	2411.68	4693.11	1165.67	1025.61	1246.00	3667.50
Add: Employee Capitalisation (B)	220.38	220.38	0.00	0.00	220.38	220.38
Add: Interest Capitalization (C)	105.01	105.01	0.00	0.00	105.01	105.01
<b>Total (D=A+B+C)</b>	<b>2086.29</b>	<b>4367.72</b>	<b>1165.67</b>	<b>1025.61</b>	<b>920.61</b>	<b>3342.11</b>

**TABLE 4-79: SCHEMES FOR MVVNL FOR FY 2019-20**

Particulars	Gross Claimed/ Allowed		Grants / Deductions		Net Allowed	
	Investments	Capex	Investments	Capex	Investments	Capex
Other Schemes	2341.78	2312.99	0.00	0.00	2341.78	2312.99
RGGVY 11 <sup>th</sup> &12 <sup>th</sup> Plan	125.19	123.65	112.67	111.29	12.52	12.37
DDUGJY	263.30	260.06	157.98	156.04	105.32	104.03
APDRP	0.00	0.00	0.00	0.00	0.00	0.00
RAPDRP	0.00	0.00	0.00	0.00	0.00	0.00
IPDS	247.99	244.94	148.79	146.97	99.20	97.98
SAUBHAGYA YOJNA	811.27	801.30	486.76	480.78	324.51	320.52
Total excluding Interest and employee capitalisation (A)	3789.54	3742.94	906.21	895.07	2883.33	2847.87
Add:Employee Capitalisation (B)	433.04	433.04	0.00	0.00	433.04	433.04
Add: Interest Capitalization (C)	93.91	93.91	0.00	0.00	93.91	93.91
<b>Total (D=A+B+C)</b>	<b>4316.49</b>	<b>4269.89</b>	<b>906.21</b>	<b>895.07</b>	<b>3410.27</b>	<b>3374.82</b>

**TABLE 4-80: SCHEMES FOR PVVNL FOR FY 2019-20**

Particulars	Gross Claimed/ Allowed		Grants / Deductions		Net Allowed	
	Investments	Capex	Investments	Capex	Investments	Capex
Other Schemes	1432.16	2017.28	0.00	0.00	1432.16	2017.28
RGGVY 11th &12 th Plan	143.30	187.14	128.97	168.43	14.33	18.71
DDUGJY	659.09	819.50	395.46	491.70	263.64	327.80
APDRP	0.00	0.00	0.00	0.00	0.00	0.00
RAPDRP	155.37	209.93	38.84	52.48	116.52	157.45
IPDS	353.32	460.52	211.99	276.31	141.33	184.21



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FY 2020-21 and True-up of FY 2019-20

Particulars	Gross Claimed/ Allowed		Grants / Deductions		Net Allowed	
	Investments	Capex	Investments	Capex	Investments	Capex
SAUBHAGYA YOJNA	652.36	652.73	391.42	391.64	260.95	261.09
Total excluding Interest and employee capitalisation (A)	3395.60	4347.09	1166.68	1380.56	2228.92	2966.54
Add: Employee Capitalisation (B)	158.26	63.31	0.00	0.00	158.26	63.31
Add: Interest Capitalization (C)	215.65	86.26	0.00	0.00	215.65	86.26
<b>Total (D=A+B+C)</b>	<b>3021.68</b>	<b>4197.53</b>	<b>1166.68</b>	<b>1380.56</b>	<b>1855.00</b>	<b>2816.97</b>

**TABLE 4-81: SCHEMES FOR PUVVNL FOR FY 2019-20**

Particulars	Gross Claimed/ Allowed		Grants / Deductions		Net Allowed	
	Investments	Capex	Investments	Capex	Investments	Capex
Other Schemes	1860.26	2040.41	0.00	0.00	1860.26	2040.41
RGGVY 11th &12 th Plan	36.88	777.79	33.19	700.01	3.69	77.78
DDUGJY	185.72	578.38	111.43	347.03	74.29	231.35
APDRP	0.00	0.00	0.00	0.00	0.00	0.00
RAPDRP	0.00	301.97	0.00	0.00	0.00	301.97
IPDS	291.08	1010.85	174.65	606.51	116.43	404.34
SAUBHAGYA YOJNA	724.87	1721.64	434.92	1032.98	289.95	688.66
Total excluding Interest and employee capitalisation (A)	3098.81	6431.04	754.19	2686.53	2344.62	3744.51
Add: Employee Capitalisation (B)	460.33	460.33	0.00	0.00	460.33	460.33
Add: Interest Capitalization (C)	225.36	225.36	0.00	0.00	225.36	225.36
<b>Total (D=A+B+C)</b>	<b>3784.51</b>	<b>7116.74</b>	<b>754.19</b>	<b>2686.53</b>	<b>3030.31</b>	<b>4430.21</b>

**TABLE 4-82: SCHEMES FOR KESCO FOR FY 2019-20**

Particulars	Gross Claimed/ Allowed		Grants / Deductions		Net Allowed	
	Investments	Capex	Investments	Capex	Investments	Capex
Other Schemes	208.06	143.96	0.00	0.00	208.06	143.96
RGGVY 11th &12 th Plan	0.00	0.00	0.00	0.00	0.00	0.00
DDUGJY	0.00	0.00	0.00	0.00	0.00	0.00
APDRP	0.00	0.00	0.00	0.00	0.00	0.00
RAPDRP	0.00	0.00	0.00	0.00	0.00	0.00
IPDS	0.00	0.00	0.00	0.00	0.00	0.00
SAUBHAGYA YOJNA	0.00	0.00	0.00	0.00	0.00	0.00
Total excluding Interest and employee capitalisation (A)	208.06	143.96	0.00	0.00	208.06	143.96
Add:Employee Capitalisation (B)	11.83	11.83	0.00	0.00	11.83	11.83
Add: Interest Capitalization (C)	0.00	0.00	0.00	0.00	0.00	0.00



Particulars	Gross Claimed/ Allowed		Grants / Deductions		Net Allowed	
	Investments	Capex	Investments	Capex	Investments	Capex
<b>Total (D=A+B+C)</b>	<b>196.23</b>	<b>132.13</b>	<b>0.00</b>	<b>0.00</b>	<b>196.23</b>	<b>132.13</b>

**TABLE 4-83: CONSOLIDATED SCHEMES OF 5 STATE DISCOMS FOR FY 2019-20**

Particulars	Gross Claimed/ Allowed		Grants / Deductions		Net Allowed	
	Investments	Capex	Investments	Capex	Investments	Capex
Other Schemes	6644.15	9758.53	0.00	0.00	6644.15	9758.53
RGGVY 11th &12 th Plan	1053.33	1739.06	948.00	1565.15	105.33	173.91
DDUGJY	1333.29	1845.22	799.97	1107.13	533.31	738.09
APDRP	0.00	0.00	0.00	0.00	0.00	0.00
RAPDRP	225.61	623.51	56.40	80.38	169.21	543.12
IPDS	914.01	1777.08	548.40	1066.25	365.60	710.83
SAUBHAGYA YOJNA	2733.30	3614.76	1639.98	2168.86	1093.32	1445.91
Total excluding Interest and employee capitalisation (A)	12903.68	19358.15	3992.76	5987.77	8910.93	13370.38
Add: Employee Capitalisation (B)	1283.85	1188.89	0.00	0.00	1283.85	1188.89
Add: Interest Capitalization (C)	639.93	510.54	0.00	0.00	639.93	510.54
<b>Total (D=A+B+C)</b>	<b>13405.19</b>	<b>20084.01</b>	<b>3992.76</b>	<b>5987.77</b>	<b>9412.43</b>	<b>14096.23</b>

4.7.6. The capital grants provided by GoI for capital investments of above central schemes, and the consumer contribution are considered as part of capex. The State Discoms have submitted the actual capital investments undertaken by it during the FY 2019-20 by considering the Capital Work in Progress Balances (CWIP) and Gross Fixed Asset (GFA) balances as per Audited Accounts.

4.7.7. Further, the Regulation 23A of UPERC MYT Transmission Regulations, 2014 states that:

Quote

*23 A Capital Expenditure*

*a. Capital expenditure shall be considered on scheme wise basis.*

*b. For capital expenditure greater than INR 10 Crore, the Distribution Licensee shall seek prior approval of the Commission.*



*c. The Distribution Licensee shall submit detailed supporting documents while seeking approval from the Commission.*

*Provided that supporting documents shall include but not limited to purpose of investment, capital structure, capitalization schedule, financing plan and cost-benefit analysis:*

*d. The approval of the capital expenditure by the Commission for the ensuing year shall be in accordance with load growth, system extension, rural electrification, distribution loss reduction or quality improvement as proposed in the Distribution Licensee's supporting documents.*

*e. The Commission may also undertake a detailed review of the actual works compared with the works approved in the previous Tariff Order while approving the capital expenditure for the ensuing year.*

*f. In case the capital expenditure is required for emergency work, the licensee shall submit an application, containing all relevant information along with reasons justifying the emergent nature of the proposed work, seeking post facto approval by the Commission.*

*g. The Distribution Licensee shall take up the work prior to receiving the approval from the Commission provided that the emergent nature of the scheme has been certified by its Board of Directors.*

*h. If capital expenditure is less than INR 10 Crore, the Distribution Licensee shall undertake the execution of the plan with simultaneous notification to the Commission with all of the relevant supporting documents.*

*i. During the true-up exercise, the Commission shall take appropriate action as is mentioned in Regulation 19.1 of these regulations.*

*j. Consumer's contribution towards cost of capital asset shall be treated as capital receipt and credited in current liabilities until transferred to a separate account on commissioning of the assets.*

Unquote

- 4.7.8. The Commission, from time to time, in its Tariff Orders has directed the Petitioners to submit the Capital investment plan and take prior approval of the schemes greater than INR 10 Crore as per Regulation 23A of the UPERC MYT Regulations 2014. Also, the Petitioners did not take prior approval from the Commission for any of the schemes with capital expenditure greater than INR 10 Crore. However, the



Commission is allowing Capital investment for FY 2019-20 in tune to the claim of the Petitioners, but sternly directs the Petitioners to submit the Capital investment plan and take prior approval of the schemes greater than INR 10 Crore in the subsequent Petitions.

4.7.9. The Commission has computed the actual capital investments undertaken by the Licensees in FY 2019-20, based on the audited accounts. The details are provided in the Tables below:

**TABLE 4-84: CAPITAL INVESTMENT OF DVVNL OF FOR FY 2019-20**

Capital Investment in FY 2019-20 (Rs. Crore)					
Particulars	Derivation	Approved in T.O dt. 03.09.2019	Audited	Claimed	Approved upon truing up
Opening WIP as on 1st April	A	1575.78	4341.03	4341.03	4341.03
Investments	B	1752.44	2086.29	2086.29	2086.29
Employee Expenses capitalization	C	242.83	220.38	220.38	220.38
A&G Expenses Capitalisation	D	0.00	0.00	0.00	0.00
Interest Capitalisation on Interest on long term loans	E	166.33	105.01	105.01	105.01
Total Investments	F= A+B+C+D+E	3737.38	6752.71	6752.71	6752.71
Transferred to GFA (Total Capitalisation)	G	1494.95	4693.11	4693.11	4693.11
<b>Closing WIP</b>	<b>H=F-G</b>	<b>2242.43</b>	<b>2059.59</b>	<b>2059.59</b>	<b>2059.59</b>

**TABLE 4-85: CAPITAL INVESTMENT OF MVVNL OF FOR FY 2019-20**

Capital Investment in FY 2019-20 (Rs. Crore)					
Particulars	Derivation	Approved in T.O dt. 03.09.2019	Audited	Claimed	Approved upon truing up
Opening WIP as on 1st April	A	2033.14	6461.66	6461.66	6461.66
Investments	B	1584.22	3262.59	3262.59	3262.59
Employee Expenses capitalization	C	214.15	433.04	433.04	433.04
A&G Expenses Capitalisation	D	0.00	0.00	0.00	0.00
Interest Capitalisation on Interest on long term loans	E	109.71	93.91	93.91	93.91
Total Investments	F= A+B+C+D+E	3941.22	10251.20	10251.20	10251.20
Transferred to GFA (Total Capitalization)	G	1576.48	3742.94	3742.94	3742.94
<b>Closing WIP</b>	<b>H=F-G</b>	<b>2364.73</b>	<b>6508.25</b>	<b>6508.25</b>	<b>6508.25</b>



**TABLE 4-86: CAPITAL INVESTMENT OF PVVNL OF FOR FY 2019-20**

Capital Investment in FY 2019-20 (Rs. Crore)					
Particulars	Derivation	Approved in T.O dt. 03.09.2019	Audited	Claimed	Approved upon truing up
Opening WIP as on 1st April	A	1939.52	1119.28	1119.28	1119.28
Investments	B	2157.25	3021.68	3021.68	3021.68
Employee Expenses capitalization	C	276.72	158.26	158.26	158.26
A&G Expenses Capitalization	D	0.00	0.00	0.00	0.00
Interest Capitalization on Interest on long term loans	E	149.35	215.65	215.65	215.65
Total Investments	F= A+B+C+D+E	4522.85	4514.88	4514.88	4514.88
Transferred to GFA (Total Capitalization)	G	1809.14	4347.09	4347.09	4347.10
<b>Closing WIP</b>	<b>H=F-G</b>	<b>2713.71</b>	<b>167.78</b>	<b>167.78</b>	<b>167.78</b>

**TABLE 4-87: CAPITAL INVESTMENT OF PUVVNL OF FOR FY 2019-20**

Capital Investment in FY 2019-20 (Rs. Crore)					
Particulars	Derivation	Approved in T.O dt. 03.09.2019	Audited	Claimed	Approved upon truing up
Opening WIP as on 1st April	A	2599.09	5617.89	5617.89	5617.89
Investments	B	1136.20	2413.12	2413.12	2413.12
Employee Expenses capitalization	C	265.97	460.33	460.33	460.33
A&G Expenses Capitalization	D	0.00	0.00	0.00	0.00
Interest Capitalization on Interest on long term loans	E	97.97	225.36	225.36	225.36
Total Investments	F= A+B+C+D+E	4099.23	8716.70	8716.70	8716.71
Transferred to GFA (Total Capitalization)	G	1639.69	6431.04	6431.04	6431.05
<b>Closing WIP</b>	<b>H=F-G</b>	<b>2459.54</b>	<b>2285.66</b>	<b>2285.66</b>	<b>2285.66</b>

**TABLE 4-88: CAPITAL INVESTMENT OF KESCO OF FOR FY 2019-20**

Capital Investment in FY 2019-20 (Rs. Crore)					
Particulars	Derivation	Approved in T.O dt. 03.09.2019	Audited	Claimed	Approved upon truing up
Opening WIP as on 1st April	A	170.21	169.52	169.52	169.52
Investments	B	119.70	196.23	196.23	196.23
Employee Expenses capitalization	C	11.68	11.83	11.83	11.83
A&G Expenses Capitalization	D	0.00	0.00	0.00	0.00



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Capital Investment in FY 2019-20 (Rs. Crore)					
Particulars	Derivation	Approved in T.O dt. 03.09.2019	Audited	Claimed	Approved upon trueing up
Interest Capitalization on Interest on long term loans	E	0.00	0.00	0.00	0.00
Total Investments	F= A+B+C+D+E	301.59	377.58	377.58	377.58
Transferred to GFA (Total Capitalization)	G	120.64	143.96	143.96	143.96
<b>Closing WIP</b>	<b>H=F-G</b>	<b>180.95</b>	<b>233.62</b>	<b>233.62</b>	<b>233.62</b>

**TABLE 4-89: CONSOLIDATED CAPITAL INVESTMENT OF 5 STATE DISCOMS OF FOR FY 2019-20**

Capital Investment in FY 2019-20 (Rs. Crore)					
Particulars	Derivation	Approved in T.O dt. 03.09.2019	Audited	Claimed	Approved upon trueing up
Opening WIP as on 1st April	A	8,317.75	17,709.38	17,709.38	17,709.38
Investments	B	6,749.80	10,979.90	10,979.90	10,979.90
Employee Expenses capitalization	C	1,011.35	1,283.85	1,283.85	1,283.85
A&G Expenses Capitalization	D	0.00	0.00	0.00	0.00
Interest Capitalization on Interest on long term loans	E	523.36	639.93	639.93	639.93
Total Investments	F= A+B+C+D+E	16,602.26	30,613.06	30,613.06	30,613.07
Transferred to GFA (Total Capitalization)	G	6,640.90	19,358.15	19,358.15	19,358.16
<b>Closing WIP</b>	<b>H=F-G</b>	<b>9,961.37</b>	<b>11,254.91</b>	<b>11,254.91</b>	<b>11,254.91</b>

4.7.10. The Consumer Contributions, capital grants and subsidies as submitted by the State Discoms namely DVVNL, MVVNL, PVVNL, PuVVNL and KESCO and as allowed by the Commission are shown in the Table below:

**TABLE 4-90: CONSUMER CONTRIBUTIONS, CAPITAL GRANTS AND SUBSIDIES RECEIVED IN FY 2019-20 OF DVVNL (RS. CRORE)**

Particulars	Approved in T.O 03.09.2019	Audited	Claimed	Approved
Opening Balance of Consumer Contributions, Grants and Subsidies towards Cost of Capital Assets	2986.86	3598.20	3598.20	3598.20
Additions during the year includes consumer contribution and grants	173.07	1252.30	1252.30	1252.30



Particulars	Approved in T.O 03.09.2019	Audited	Claimed	Approved
Less: Amortisation on consumer contribution part only	49.63	56.69	56.69	290.39*
<b>Closing Balance</b>	<b>3110.30</b>	<b>4793.81</b>	<b>4793.81</b>	<b>4560.11</b>

\*computed based on WDV rates

**TABLE 4-91: CONSUMER CONTRIBUTIONS, CAPITAL GRANTS AND SUBSIDIES RECEIVED IN FY 2019-20 OF MVVNL (RS. CRORE)**

Particulars	Approved in T.O 03.09.2019	Audited	Claimed	Approved
Opening Balance of Consumer Contributions, Grants and Subsidies towards Cost of Capital Assets	1624.53	4346.76	4346.76	4,346.75
Additions during the year includes consumer contribution and grants	168.80	1184.29	1184.29	1,184.29
Less: Amortisation on consumer contribution part only	87.29	55.79	55.79	187.05*
<b>Closing Balance</b>	<b>1706.04</b>	<b>5475.27</b>	<b>5475.27</b>	<b>5343.99</b>

\*computed based on wdv rates

**TABLE 4-92: CONSUMER CONTRIBUTIONS, CAPITAL GRANTS AND SUBSIDIES RECEIVED IN FY 2019-20 OF PVVNL (RS. CRORE)**

Particulars	Approved in T.O 03.09.2019	Audited	Claimed	Approved
Opening Balance of Consumer Contributions, Grants and Subsidies towards Cost of Capital Assets	2263.55	4314.27	4314.27	4314.27
Additions during the year includes consumer contribution and grants	267.15	262.97	262.97	1429.65
Less: Amortisation on consumer contribution part only	66.97	160.76	160.76	300.62*
<b>Closing Balance</b>	<b>2463.73</b>	<b>4416.48</b>	<b>4416.48</b>	<b>5443.30</b>

\*computed based on wdv rates



**TABLE 4-93: CONSUMER CONTRIBUTIONS, CAPITAL GRANTS AND SUBSIDIES RECEIVED IN FY 2019-20 OF PUVVNL (RS. CRORE)**

Particulars	Approved in T.O 03.09.2019	Audited	Claimed	Approved
Opening Balance of Consumer Contributions, Grants and Subsidies towards Cost of Capital Assets	1773.69	4032.97	4032.97	4,032.97
Additions during the year includes consumer contribution and grants	143.13	911.29	911.29	911.29
Less: Amortisation on consumer contribution part only	80.84	123.45	123.45	257.69*
<b>Closing Balance</b>	<b>1835.98</b>	<b>4820.81</b>	<b>4820.81</b>	<b>4686.57</b>

\*computed based on wdv rates

**TABLE 4-94: CONSUMER CONTRIBUTIONS, CAPITAL GRANTS AND SUBSIDIES RECEIVED IN FY 2019-20 OF KESCO (RS. CRORE)**

Particulars	Approved in T.O 03.09.2019	Audited	Claimed	Approved
Opening Balance of Consumer Contributions, Grants and Subsidies towards Cost of Capital Assets	224.38	396.44	396.44	396.44
Additions during the year includes consumer contribution and grants	21.00	23.38	23.38	23.38
Less: Amortisation on consumer contribution part only	5.60	9.17	9.17	18.10*
<b>Closing Balance</b>	<b>239.78</b>	<b>410.65</b>	<b>410.65</b>	<b>401.72</b>

\*computed based on WDV rates

**TABLE 4-95: CONSOLIDATED CONSUMER CONTRIBUTIONS, CAPITAL GRANTS AND SUBSIDIES RECEIVED OF 5 STATE DISCOMS IN FY 2019-20 (RS. CRORE)**

Particulars	Approved in T.O 03.09.2019	Audited	Claimed	Approved
Opening Balance of Consumer Contributions, Grants and Subsidies towards Cost of Capital Assets	8873.01	16688.64	16688.64	16688.64
Additions during the year includes consumer contribution and grants	773.15	3634.23	3634.23	4800.91
Less: Amortisation on consumer contribution part only	290.33	405.86	405.86	1053.85*
<b>Closing Balance</b>	<b>9355.83</b>	<b>19917.01</b>	<b>19917.01</b>	<b>20435.70</b>

\*computed based on WDV rates



- 4.7.11. From the above tables, it is seen that out of the total investments made in FY 2019-20, some have been through the consumer contributions, capital subsidies and grants received during the corresponding period and the balance have been funded through debt and equity. Considering a debt equity ratio of 70:30, 70% of the capital investment is approved to be funded through debt and balance 30% through equity.
- 4.7.12. The portion of capital expenditure financed through consumer contributions, capital subsidies and grants has been deducted as the depreciation and interest thereon would not be charged to the consumers. The Commission has also verified the above amounts as per the audited accounts of the Licensees.
- 4.7.13. Thus, based on the above, the approved financing of the capital investment for the State Discoms namely DVVNL, MVVNL, PVVNL, PuVVNL and KESCO is depicted in the Tables below:

**TABLE 4-96: FINANCING OF CAPITAL INVESTMENT AS APPROVED BY THE COMMISSION FOR DVVNL IN FY 2019-20 (RS. CRORE)**

Financing of the Capital Investments in FY 2019-20 (Rs. Crore)					
Particulars	Derivation	Approved in T.O. 03.09.2019	Audited	Claimed	Approved upon truing up
Investment	A	1752.44	2086.29	2086.29	2086.29
Less:					
Consumer Contribution	B	173.07	86.62	86.62	86.62
Grants	C		1165.67	1165.67	1165.67
Investment funded by debt and equity	D=A-(B+C)	1579.37	833.99	833.99	833.99
<b>Debt Funded</b>	<b>70% of D</b>	<b>1105.56</b>	<b>583.80</b>	<b>583.80</b>	<b>583.80</b>
<b>Equity Funded</b>	<b>30% of D</b>	<b>473.81</b>	<b>250.20</b>	<b>250.20</b>	<b>250.20</b>

**TABLE 4-97: FINANCING OF CAPITAL INVESTMENT AS APPROVED BY THE COMMISSION FOR MVVNL IN FY 2019-20 (RS. CRORE)**

Financing of the Capital Investments in FY 2019-20 (Rs. Crore)					
Particulars	Derivation	Approved in T.O. 03.09.2019	Audited	Claimed	Approved upon truing up
Investment	A	1584.22	3262.59	3262.59	3262.59
Less:					
Consumer Contribution	B	168.80	278.08	278.08	278.08
Grants	C		906.21	906.21	906.21
Investment funded by debt and equity	D=A-(B+C)	1415.42	2078.30	2078.30	2,078.30



Financing of the Capital Investments in FY 2019-20 (Rs. Crore)					
Particulars	Derivation	Approved in T.O. 03.09.2019	Audited	Claimed	Approved upon truing up
Debt Funded	70% of D	990.79	1454.81	1454.81	1,454.81
Equity Funded	30% of D	424.62	623.49	623.49	623.49

**TABLE 4-98: FINANCING OF CAPITAL INVESTMENT AS APPROVED BY THE COMMISSION FOR PUVNL IN FY 2019-20 (RS. CRORE)**

Financing of the Capital Investments in FY 2019-20 (Rs. Crore)					
Particulars	Derivation	Approved in T.O. 03.09.2019	Audited	Claimed	Approved upon truing up
Investment	A	2157.25	3021.68	3021.68	3021.68
Less:					
Consumer Contribution	B	267.15	262.97	262.97	262.97
Grants	C			-*	1166.68
Investment funded by debt and equity	D=A-(B+C)	1890.11	2758.71	2758.71	1,592.03
<b>Debt Funded</b>	<b>70% of D</b>	<b>1323.07</b>	<b>1931.09</b>	<b>1931.09</b>	<b>1114.42</b>
<b>Equity Funded</b>	<b>30% of D</b>	<b>567.03</b>	<b>827.61</b>	<b>827.61</b>	<b>477.61</b>

\*Petitioner has not considered Grant in Petition

**TABLE 4-99: FINANCING OF CAPITAL INVESTMENT AS APPROVED BY THE COMMISSION FOR PUVVNL IN FY 2019-20 (RS. CRORE)**

Financing of the Capital Investments in FY 2019-20 (Rs. Crore)					
Particulars	Derivation	Approved in T.O. 03.09.2019	Audited	Claimed	Approved upon truing up
Investment	A	1136.20	2413.12	2413.12	2413.12
Less:					
Consumer Contribution	B	143.13	157.10	157.10	157.10
Grants	C		754.19	754.19	754.19
Investment funded by debt and equity	D=A-(B+C)	993.07	1501.82	1501.82	1,501.82
<b>Debt Funded</b>	<b>70% of D</b>	<b>695.15</b>	<b>1051.28</b>	<b>1051.28</b>	<b>1051.28</b>
<b>Equity Funded</b>	<b>30% of D</b>	<b>297.92</b>	<b>450.55</b>	<b>450.55</b>	<b>450.55</b>



**TABLE 4-100: FINANCING OF CAPITAL INVESTMENT AS APPROVED BY THE COMMISSION FOR KESCO IN FY 2019-20 (RS. CRORE)**

Financing of the Capital Investments in FY 2019-20 (Rs. Crore)					
Particulars	Derivation	Approved in T.O. 03.09.2019	Audited	Claimed	Approved upon truing up
Investment	A	119.70	196.23	196.23	196.23
Less:					
Consumer Contribution	B	21.00	23.38	23.38	23.38
Grants	C				0.00
Investment funded by debt and equity	D=A-(B+C)	98.70	172.84	172.84	172.84
<b>Debt Funded</b>	<b>70% of D</b>	<b>69.09</b>	<b>120.99</b>	<b>120.99</b>	<b>120.99</b>
<b>Equity Funded</b>	<b>30% of D</b>	<b>29.61</b>	<b>51.85</b>	<b>51.85</b>	<b>51.85</b>

**TABLE 4-101: CONSOLIDATED FINANCING OF CAPITAL INVESTMENT AS APPROVED BY THE COMMISSION FOR 5 STATE DISCOMS IN FY 2019-20 (RS. CRORE)**

Financing of the Capital Investments in FY 2019-20 (Rs. Crore)					
Particulars	Derivation	Approved in T.O. 22.01.2019	Audited	Claimed	Approved upon truing up
Investment	A	6,749.80	10,979.90	10,979.90	10,979.90
Less:		0.00	0.00	0.00	0.00
Consumer Contribution	B	773.15	808.16	808.16	808.16
Grants	C	0.00	2,826.08	2,826.08	3,992.76
Investment funded by debt and equity	D=A-(B+C)	5,976.65	7,345.66	7,345.66	6,178.99
<b>Debt Funded</b>	<b>70% of D</b>	<b>4,183.66</b>	<b>5,141.96</b>	<b>5,141.96</b>	<b>4,325.29</b>
<b>Equity Funded</b>	<b>30% of D</b>	<b>1,793.00</b>	<b>2,203.70</b>	<b>2,203.70</b>	<b>1,853.70</b>

#### 4.8. INTEREST AND FINANCE CHARGES

##### Interest on Long Terms Loan

4.8.1. The relevant extract of the MYT Regulations, 2014 has been quoted below:

Quote

*27. Treatment of Interest on loan*

*a) The Distribution Licensee shall provide detailed loan-wise, project-wise and utilization-wise details of all of the pending loans.*



b) *If the equity actually deployed is more than 30 % of the capital cost, equity in excess of 30 % shall be treated as normative loan.*

*Provided that where equity actually deployed is less than 30% of the capital cost, the actual loan shall be considered for determination of interest on loan.*

c) *Actual loan or normative loan, if any, shall be referred as gross normative loan in these regulations.*

d) *The normative loan outstanding as of April 1 of transition period/control period shall be computed by deducting the cumulative repayment as approved by the Commission (basis as mentioned below) up to March 31 of current period (year before transition period / control period as applicable) from the gross normative loan.*

e) *The repayment for the transition / control period as applicable shall be deemed to be equal to the depreciation allowed for the year.*

f) *Notwithstanding any moratorium period availed by the Distribution Licensee, the repayment of the loan shall be considered for the transition / control period, as applicable, as per annual depreciation allowed.*

g) *The rate of interest shall be the weighted average rate of interest calculated on the basis of actual loan portfolio at the beginning of each year of the transition / control period, in accordance with terms and conditions of relevant loan agreements, or bonds or non-convertible debentures:*

*Provided that if no actual loan is outstanding but normative loan is still outstanding, the last available weighted average rate of interest shall be applicable.*

*Provided further that the interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest.*

*Provided also that exception shall be made for the existing loans which may have different terms as per the agreements already executed if the Commission is satisfied that the loan has been contracted for and applied to identifiable and approved projects.*

h) *The Distribution Licensee shall make every effort to refinance the loan as long as it results in net benefit to the consumers.*

*Provided that the cost associated with such refinancing shall be eligible to be passed through in tariffs and the benefit on account of refinancing of loan and interest on*



loan shall be shared in the ratio of 50:50 between the Distribution Licensee and the consumers.

Provided further that the Distribution Licensee shall submit the calculation of such benefit to the Commission for its approval.

i) The Distribution Licensee shall enable tracking of the loans converted into grants under schemes like APDRP by providing information and data regularly to the Commission and for ensuring that the interest on these loans which has been passed on to the consumers inappropriately in the earlier years shall be recovered from the Distribution Licensee.

#### Unquote

- 4.8.2. Considering a debt equity ratio of 70:30, 70% of the capital investment is funded through debt and balance 30% through equity. Allowable depreciation for the year has been considered as normative loan repayment.
- 4.8.3. In line with the approach adopted by the Commission in its previous Orders, interest expenses have been considered as an uncontrollable cost as the interest rates are determined by various external factors and the actual loans taken are consequential to the capital expenditure undertaken by the Licensees. The Commission has considered the closing loan balance of FY 2018-19 as the opening loan balance of FY 2019-20. The interest capitalisation has been considered at the same rate as per audited accounts.
- 4.8.4. Considering the above, the gross interest on long term loan for the State Discoms namely DVVNL, MVVNL, PVVNL, PuVVNL and KESCO has been worked out as shown in the Tables below:

**TABLE 4-102: INTEREST ON LONG TERM LOAN FOR DVVNL IN FY 2019-20 (RS. CRORE)**

Particulars	Approved in T.O 03.09.2019	Claimed	Approved upon truing up
Opening Loan	3261.91	3717.55	3717.54
Loan Additions (70% of Investments)	1105.56	583.80	583.80
Less: Repayments (Depreciation allowable for the year)	459.01	345.87	347.49
Closing Loan Balance	3908.46	3955.47	3953.85
Weighted Average Rate of Interest	11.71%	11.21%	11.21%
Interest on long term loan	419.78	430.25	430.16



Particulars	Approved in T.O 03.09.2019	Claimed	Approved upon truing up
Less: Interest Capitalized	166.33	105.01	105.01
<b>Net Interest Charged</b>	<b>253.45</b>	<b>325.24</b>	<b>325.15</b>

**TABLE 4-103: INTEREST ON LONG TERM LOAN FOR MVVNL IN FY 2019-20 (RS. CRORE)**

Particulars	Approved in T.O 03.09.2019	Claimed	Approved upon truing up
Opening Loan	3029.72	3223.61	3223.61
Loan Additions (70% of Investments)	990.79	1454.81	1454.81
Less: Repayments (Depreciation allowable for the year)	259.94	176.79	183.13
Closing Loan Balance	3760.57	4501.63	4495.28
Weighted Average Rate of Interest (%)	11.34%	10.91%	10.91%
Interest on long term loan	384.93	421.57	421.22
Less: Interest Capitalized	109.71	93.91	93.91
<b>Net Interest on long term loans</b>	<b>275.22</b>	<b>327.66</b>	<b>327.31</b>

**TABLE 4-104: INTEREST ON LONG TERM LOAN FOR PVVNL IN FY 2019-20 (RS. CRORE)**

Particulars	Approved in T.O 03.09.2019	Claimed	Approved upon truing up
Opening Loan	4469.12	3438.80	3438.80
Loan Additions (70% of Investments)	1323.07	1931.09	1114.42
Less: Repayments (Depreciation allowable for the year)	570.70	300.26	403.52
Closing Loan Balance	5221.49	5069.63	4149.70
Weighted Average Rate of Interest (%)	11.96%	8.40%	8.40%
Interest on long term loan	579.50	357.47	318.82
Less: Interest Capitalized	149.35	215.65	215.65
<b>Net Interest Charged</b>	<b>430.15</b>	<b>141.82</b>	<b>103.17</b>



**TABLE 4-105: INTEREST ON LONG TERM LOAN FOR PUVVNL IN FY 2019-20 (RS. CRORE)**

Particulars	Approved in T.O 03.09.2019	Claimed	Approved upon truing up
Opening Loan	5,386.06	5596.53	5596.53
Loan Additions (70% of Investments)	695.15	1051.28	1051.28
Less: Repayments (Depreciation allowable for the year)	393.10	243.17	380.04
Closing Loan Balance	5,688.11	6404.64	6267.77
Weighted Average Rate of Interest	11.30%	10.24%	10.24%
Interest on long term loan	625.91	614.35	607.34
Less: Interest Capitalized	97.97	225.36	225.36
<b>Net Interest Charged</b>	<b>527.93</b>	<b>388.98</b>	<b>381.98</b>

**TABLE 4-106: INTEREST ON LONG TERM LOAN FOR KESCO IN FY 2019-20 (RS. CRORE)**

Particulars	Approved in T.O 03.09.2019	Claimed	Approved upon truing up
Opening Loan	58.44	21.05	21.05
Loan Additions (70% of Investments)	69.09	120.99	120.99
Less: Repayments (Depreciation allowable for the year)	31.24	31.07	40.82
Closing Loan Balance	96.30	110.97	101.23
Weighted Average Rate of Interest	12.00%	10.63%	10.63%
Interest on long term loan	9.28	7.02	6.50
Less: Interest Capitalized	0.00	0.00	0.00
<b>Net Interest Charged</b>	<b>9.28</b>	<b>7.02</b>	<b>6.50</b>

**TABLE 4-107: CONSOLIDATED INTEREST ON LONG TERM LOAN FOR 5 STATE DISCOMS IN FY 2019-20 (RS. CRORE)**

Particulars	Approved in T.O 03.09.2019	Claimed	Approved upon truing up
Opening Loan	16,205.25	15,997.54	15997.53
Loan Additions (70% of Investments)	4,183.66	5,141.96	4325.29
Less: Repayments (Depreciation allowable for the year)	1,713.99	1,097.16	1355.00
Closing Loan Balance	18,674.91	20,042.34	18967.82



Particulars	Approved in T.O 03.09.2019	Claimed	Approved upon truing up
Weighted Average Rate of Interest	11.66%	10.16%	10.20%
Interest on long term loan	2,019.40	1,830.66	1784.04
Less: Interest Capitalized	523.36	639.93	639.93
<b>Net Interest Charged</b>	<b>1,496.03</b>	<b>1,190.73</b>	<b>1144.11</b>

#### FINANCE CHARGES & INTEREST ON SECURITY DEPOSIT

- 4.8.5. The State Discoms' namely DVVNL, MVVNL, PVVNL and PuVVNL & KESCo have submitted the interest on consumer security deposit for FY 2019-20 as Rs. 39.62 Crore, Rs. 28.53 Crore, Rs. 92.29 Crore, Rs. 24.25 Crore and Rs. 8.83 Crore respectively against Rs. 48.67 Crore, Rs. 48.87 Crore, Rs. 108 Crore, Rs. 33.38 Crore, and Rs. 10.61 Crore respectively approved by the Commission in Tariff Order dated September 03, 2019 towards total finance charges during FY 2019-20.
- 4.8.6. The State Discoms namely, DVVNL, MVVNL, PVVNL, PuVVNL & KESCO have submitted the bank and finance charges of Rs. 3.08 Crore, Rs. 3.08 Crore, Rs. 40.23 Crore, Rs. 8.40 Crore and Rs. 4.56 Crore as per the Audited account, respectively against Rs. 2.22 Crore, Rs. 24.08 Crore, Rs. 30.37 Crore, Rs. 32.26 Crore, and Rs. 3.37 Crore respectively approved by the Commission in Tariff Order dated September 03, 2019 towards total finance charges during FY 2019-20.
- 4.8.7. The Bank charges and interest on consumer security deposits and finance charges have been allowed at actual based on audited accounts.
- 4.8.8. Thus, the Commission has approved finance charges for the State Discoms namely DVVNL, MVVNL, PVVNL, PuVVNL & KESCO for FY 2019-20 as shown in the Table below:

**TABLE 4-108: FINANCE CHARGES FOR DVVNL FOR FY 2019-20 (RS. CRORE)**

Particulars	Approved in Tariff Order dt. 03.09.2019	Audited	Claimed	Approved upon Truing Up
Interest on Security to Consumers	48.67	39.62	39.62	39.62
Finance/ Bank Charges	2.22	3.08	3.08	3.08
<b>Total Finance Charges</b>	<b>50.88</b>	<b>42.70</b>	<b>42.70</b>	<b>42.70</b>



**TABLE 4-109: FINANCE CHARGES FOR MVVNL FOR FY 2019-20 (RS. CRORE)**

Particulars	Approved in Tariff Order dt. 03.09.2019	Audited	Claimed	Approved upon Truing Up
Interest on Security to Consumers	48.87	28.53	28.53	28.53
Finance/ Bank Charges	24.08	3.08	3.08	3.08
<b>Total Finance Charges</b>	<b>72.95</b>	<b>31.61</b>	<b>31.61</b>	<b>31.61</b>

**TABLE 4-110: FINANCE CHARGES FOR PVVNL FOR FY 2019-20 (RS. CRORE)**

Particulars	Approved in Tariff Order dt. 03.09.2019	Audited	Claimed	Approved upon Truing Up
Interest on Security to Consumers	108.00	92.29	92.29	92.29
Finance/ Bank Charges	30.37	40.23	40.23	40.23
<b>Total Finance Charges</b>	<b>138.37</b>	<b>132.53</b>	<b>132.53</b>	<b>132.53</b>

**TABLE 4-111: FINANCE CHARGES FOR PUVVNL FOR FY 2019-20 (RS. CRORE)**

Particulars	Approved in Tariff Order dt. 03.09.2019	Audited	Claimed	Approved upon Truing Up
Interest on Security to Consumers	33.38	24.25	24.25	24.25
Finance/ Bank Charges	32.26	8.40	8.40	8.40
<b>Total Finance Charges</b>	<b>65.64</b>	<b>32.65</b>	<b>32.65</b>	<b>32.65</b>

**TABLE 4-112: FINANCE CHARGES FOR KESCO FOR FY 2019-20 (RS. CRORE)**

Particulars	Approved in Tariff Order dt. 03.09.2019	Audited	Claimed	Approved upon Truing Up
Interest on Security to Consumers	10.61	8.83	8.83	8.83
Finance/ Bank Charges	3.37	4.56	4.56	4.56
<b>Total Finance Charges</b>	<b>13.98</b>	<b>13.39</b>	<b>13.39</b>	<b>13.39</b>

**TABLE 4-113: CONSOLIDATED FINANCE CHARGES & INTEREST ON SECURITY DEPOSIT FOR STATE DISCOMS FOR FY 2019-20 (RS. CRORE)**

Particulars	Approved in Tariff Order dt. 03.09.2019	Audited	Claimed	Approved upon Truing Up
Interest on Security to Consumers	249.53	193.52	193.52	193.52
Finance/ Bank Charges	92.30	59.35	59.35	59.35



Particulars	Approved in Tariff Order dt. 03.09.2019	Audited	Claimed	Approved upon Truing Up
Total Finance Charges	341.83	252.88	252.88	252.88

#### 4.9. INTEREST ON WORKING CAPITAL

- 4.9.1. The State Discoms have submitted the normative interest on working capital based on the principles outlined in the Multi Year Tariff Distribution Regulations, 2014. The State Discoms namely DVVNL, MVVNL, PVVNL, PuVVNL and KESCO have claimed the normative interest on working capital.
- 4.9.2. In this regard, Regulation 28 of the Multi Year Tariff Distribution Regulations, 2014 specifies as follows:

##### Quote

*“28. Interest on Working Capital*

*The Distribution Licensee shall be allowed interest on estimated level of working capital for the financial year, computed as follows:*

*a) O&M expenses for one month.*

*b) Two months equivalent of expected revenue. c) Maintenance spares*

*@ 40% of R&M expenses for two months.*

*Less:*

*Security deposits from consumers, if any.*

*Provided that the interest on working capital shall be on normative basis and rate of interest shall be equal to the State Bank Advance Rate (SBAR) as of the date on which petition for determination of tariff is accepted by the Commission.*

*Provided further that interest shall be allowed on consumer security deposits as per the provisions of the Electricity Supply Code, 2005 and its subsequent amendments / addendums & the new regulations made after repeal of the same.”*

##### Unquote

- 4.9.3. Based on the methodology specified in the above Regulations, the Commission in its Tariff Order for FY 2019-20 had allowed normative interest on working capital for State Discoms. Following the similar approach and in accordance with the



Regulations, the Commission in this Order has assessed the working capital and interest thereon.

- 4.9.4. As per the provisions of the aforesaid regulations, the Commission for the purpose of computing Interest on Working Capital for FY 2019-20 has considered SBAR as on July 01, 2019 (the date of admittance of tariff Petition for determination of tariff for FY 2019-20), i.e., 13.80%. (Source: <https://sbi.co.in/web/interest-rates/interest-rates/benchmark-prime-lending-rate-historical-data>)
- 4.9.5. The summary of the Interest on working capital approved by the Commission in the Tariff Order for FY 2019-20, dated September 03, 2019 claimed by the State Discoms namely DVVNL, MVVNL, PVVNL, PuVVNL and KESCO and that Trued-Up approved by the Commission is shown in the Tables below:

**TABLE 4-114: INTEREST ON WORKING CAPITAL OF DVVNL FOR FY 2019-20 (RS. CRORE)**

Particulars	Approved in T.O 03.09.2019	Claimed	Approved upon truing up
O&M expenses for 1 month	132.88	132.95	80.80
Two months equivalent of expected revenue	1849.70	2168.59	1805.28
Maintenance spares @ 40% of R&M expenses for two months	49.55	36.37	36.37
Gross Total	2032.12	2337.90	1922.44
Less: Security deposits from consumers, if any	627.95	645.97	645.97
<b>Net Working Capital</b>	<b>1404.18</b>	<b>1691.94</b>	<b>1276.48</b>
State Bank Advance Rate (SBAR) %	13.80%	13.80%	13.80%
<b>Interest on Working Capital</b>	<b>193.78</b>	<b>233.49</b>	<b>176.15</b>

**TABLE 4-115: INTEREST ON WORKING CAPITAL OF MVVNL FOR FY 2019-20 (RS. CRORE)**

Particulars	Approved in T.O 03.09.2019	Claimed	Approved upon truing up
O&M expenses for 1 month	212.64	190.97	83.38
Two months equivalent of expected revenue	2114.30	2298.65	1984.26
Maintenance spares @ 40% of R&M expenses for two months	37.50	25.03	24.49
Gross Total	2364.44	2514.64	2092.12
Less: Security deposits from consumers, if any	672.61	656.02	656.02



Particulars	Approved in T.O 03.09.2019	Claimed	Approved upon truing up
<b>Net Working Capital</b>	<b>1691.83</b>	<b>1858.63</b>	<b>1436.11</b>
State Bank Advance Rate (SBAR) %	13.80%	13.80%	13.80%
<b>Interest on Working Capital</b>	<b>233.47</b>	<b>256.49</b>	<b>198.18</b>

**TABLE 4-116: INTEREST ON WORKING CAPITAL OF PVVNL FOR FY 2019-20 (RS. CRORE)**

Particulars	Approved in T.O 03.09.2019	Claimed	Approved upon truing up
O&M expenses for 1 month	142.52	168.31	96.85
Two months equivalent of expected revenue	3332.02	3300.65	2839.87
Maintenance spares @ 40% of R&M expenses for two months	37.12	40.62	39.48
Gross Total	3511.65	3509.58	2976.20
Less: Security deposits from consumers, if any	1453.36	1493.25	1493.25
<b>Net Working Capital</b>	<b>2058.29</b>	<b>2016.33</b>	<b>1482.95</b>
State Bank Advance Rate (SBAR) %	13.80%	13.80%	13.80%
<b>Interest on Working Capital</b>	<b>284.04</b>	<b>278.25</b>	<b>204.65</b>

**TABLE 4-117: INTEREST ON WORKING CAPITAL OF PUVVNL FOR FY 2019-20 (RS. CRORE)**

Particulars	Approved in T.O 03.09.2019	Claimed	Approved upon truing up
O&M expenses for 1 month	209.14	174.18	112.00
Two months equivalent of expected revenue	2366.87	2488.42	1940.23
Maintenance spares @ 40% of R&M expenses for two months	55.31	57.99	57.99
Gross Total	2631.32	2720.58	2110.22
Less: Security deposits from consumers, if any	453.13	429.86	429.86
<b>Net Working Capital</b>	<b>2178.19</b>	<b>2290.72</b>	<b>1680.36</b>
State Bank Advance Rate (SBAR) %	13.80%	13.80%	13.80%
<b>Interest on Working Capital</b>	<b>300.59</b>	<b>316.12</b>	<b>231.89</b>



**TABLE 4-118: INTEREST ON WORKING CAPITAL OF KESCO FOR FY 2019-20 (RS. CRORE)**

Particulars	Approved in T.O 03.09.2019	Claimed	Approved upon truing up
O&M expenses for 1 month	25.29	28.56	19.17
Two months equivalent of expected revenue	447.68	436.57	436.57
Maintenance spares @ 40% of R&M expenses for two months	4.24	5.58	5.58
Gross Total	477.21	470.70	461.32
Less: Security deposits from consumers, if any	136.87	154.59	154.59
<b>Net Working Capital</b>	<b>340.33</b>	<b>316.11</b>	<b>306.72</b>
State Bank Advance Rate (SBAR) %	13.80%	13.80%	13.80%
<b>Interest on Working Capital</b>	<b>46.97</b>	<b>42.35</b>	<b>42.33</b>

**TABLE 4-119: CONSOLIDATED INTEREST ON WORKING CAPITAL OF 5 STATE DISCOMS FOR FY 2019-20 (RS. CRORE)**

Particulars	Approved in T.O 03.09.2019	Claimed	Approved upon truing up
O&M expenses for 1 month	722.45	694.97	392.19
Two months equivalent of expected revenue	10110.56	10692.88	9006.21
Maintenance spares @ 40% of R&M expenses for two months	183.73	165.59	163.90
Gross Total	11016.74	11553.44	9562.30
Less: Security deposits from consumers, if any	3343.92	3379.69	3379.69
<b>Net Working Capital</b>	<b>7672.82</b>	<b>8173.73</b>	<b>6182.61</b>
State Bank Advance Rate (SBAR) %	13.80%	13.80%	13.80%
<b>Interest on Working Capital</b>	<b>1058.85</b>	<b>1127.97</b>	<b>853.20</b>

4.9.6. The following table summarises the interest and finance charges approved by the Commission in the Tariff Order, interest and finance charges claimed by the Licensees namely DVVNL, MVVNL, PVVNL, PuVVNL and KESCo and Trued Up by the Commission in this Tariff Order FY 2019-20.



**TABLE 4-120: SUMMARY INTEREST & FINANCE CHARGES OF DVVNL FOR FY 2019-20**

Particulars	Approved in T.O 03.09.2019	Claimed	Approved upon truing up
<b>A: Interest on Long Term Loans</b>			
Gross Interest on Long Term Loan	419.78	430.25	430.16
Less: Interest Capitalization	166.33	105.01	105.01
Net Interest on Long Term Loans	253.45	325.24	325.15
<b>B: Finance and Other Charges</b>			
Interest on Consumer Security Deposits	48.67	39.62	39.62
Bank / Finance Charges	2.22	3.08	3.08
Total Finance Charges	50.88	42.70	42.70
<b>C: Interest on Working Capital</b>	193.78	233.49	176.15
<b>Total (A+B+C)</b>	<b>498.11</b>	<b>601.43</b>	<b>544.01</b>

**TABLE 4-121: SUMMARY INTEREST & FINANCE CHARGES OF MVVNL FOR FY 2019-20**

Particulars	Approved in T.O 03.09.2019	Claimed	Approved upon truing up
<b>A. Interest on Long Term Loans</b>			
Gross Interest on Long Term Loan	384.93	421.57	421.22
Less: Interest Capitalisation	109.71	93.91	93.91
Net Interest on Long Term Loans	275.22	327.66	327.31
<b>B. Finance and Other charges</b>			
Interest on Consumer Security Deposit	48.87	28.53	28.53
Bank / Finance Charges	24.08	3.08	3.08
Total Finance Charges	72.95	31.61	31.61
<b>C. Interest on Working Capital</b>	233.47	256.49	198.18
<b>Total (A+B+C)</b>	<b>581.65</b>	<b>615.76</b>	<b>557.11</b>

**TABLE 4-122: SUMMARY INTEREST & FINANCE CHARGES OF PVVNL FOR FY 2019-20**

Particulars	Approved in T.O 03.09.2019	Claimed	Approved upon truing up
<b>A: Interest on Long Term Loans</b>			
Gross Interest on Long Term Loan	579.50	357.47	318.82
Less: Interest Capitalization	149.35	215.65	215.65
Net Interest on Long Term Loans	430.15	141.82	103.17
<b>B: Finance and Other Charges</b>			



Particulars	Approved in T.O 03.09.2019	Claimed	Approved upon truing up
Interest on Consumer Security Deposits	108.00	92.29	92.29
Bank / Finance Charges	30.37	40.23	40.23
Total Finance Charges	138.37	132.53	132.53
C: Interest on Working Capital	284.04	278.25	204.65
<b>Total (A+B+C)</b>	<b>852.56</b>	<b>552.60</b>	<b>440.35</b>

**TABLE 4-123: SUMMARY INTEREST & FINANCE CHARGES OF PUVVNL FOR FY 2019-20**

Particulars	Approved in T.O 03.09.2019	Claimed	Approved upon truing up
A: Interest on Long Term Loans			
Gross Interest on Long Term Loan	625.91	614.35	607.34
Less: Interest Capitalization	97.97	225.36	225.36
Net Interest on Long Term Loans	527.94	388.98	381.98
B: Finance and Other Charges			
Interest on Consumer Security Deposits	33.38	24.25	24.25
Bank / Finance Charges	32.26	8.40	8.40
Total Finance Charges	65.64	32.65	32.65
C: Interest on Working Capital	300.59	316.12	231.89
<b>Total (A+B+C)</b>	<b>894.16</b>	<b>737.76</b>	<b>646.52</b>

**TABLE 4-124: SUMMARY INTEREST & FINANCE CHARGES OF KESCO FOR FY 2019-20**

Particulars	Approved in T.O 03.09.2019	Claimed	Approved upon truing up
A: Interest on Long Term Loans			
Gross Interest on Long Term Loan	9.28	7.02	6.50
Less: Interest Capitalization	0.00	0.00	0.00
Net Interest on Long Term Loans	9.28	7.02	6.50
B: Finance and Other Charges			
Interest on Consumer Security Deposits	10.61	8.83	8.83
Bank / Finance Charges	3.37	4.56	4.56
Total Finance Charges	13.97	13.39	13.39
C: Interest on Working Capital	46.97	42.35	42.33
<b>Total (A+B+C)</b>	<b>70.22</b>	<b>62.75</b>	<b>62.21</b>



**TABLE 4-125: CONSOLIDATED SUMMARY INTEREST & FINANCE CHARGES OF 5 STATE DISCOMS FOR FY 2019-20**

Particulars	Approved in T.O 03.09.2019	Claimed	Approved upon truing up
A: Interest on Long Term Loans			
Gross Interest on Long Term Loan	2019.40	1830.65	1784.04
Less: Interest Capitalization	523.36	639.93	639.93
Net Interest on Long Term Loans	1496.04	1190.73	1144.11
B: Finance and Other Charges			
Interest on Consumer Security Deposits	249.53	193.53	193.53
Bank / Finance Charges	92.29	59.35	59.35
Total Finance Charges	341.82	252.88	252.88
C: Interest on Working Capital	1058.85	1126.70	853.20
<b>Total (A+B+C)</b>	<b>2896.71</b>	<b>2570.30</b>	<b>2250.19</b>

#### 4.10. DEPRECIATION

- 4.10.1. The actual depreciation expense as per audited accounts of DVVNL, MVVNL, PVVNL, PuVVNL and KESCo are Rs. 273.76 Crore, Rs. 251.67 Crore, Rs. 419.37 Crore, Rs. 466.98 Crore and Rs. 40.77 Crore respectively, which is as per the depreciation rates prescribed by the Companies Act, 1956. The Petitioner further submitted that for the purpose of Truing up, it has computed the depreciation expense on the actual GFA base and at the rates as per MYT Distribution Tariff Regulations, 2014 applicable for True up of FY 2019-20.
- 4.10.2. The Commission in previous orders had considered a normative approach wherein it had considered a normative gearing of 70:30. Considering this approach, 70% of the capital expenditure undertaken in any year was considered to be financed through loan and balance 30% has been considered to be financed through equity contributions. The portion of capital expenditure financed through consumer contributions, capital subsidies and grants were separated as the depreciation and interest thereon would not be charged to the consumers.
- 4.10.3. The Licensees have submitted the weighted average depreciation rate of 5.24% for DVVNL, 5.26% for MVVNL, 5.24% for PVVNL, 5.26% for PuVVNL and 5.23% for KESCo for the truing up in respect of FY 2019-20. Some of the State Discoms have submitted the FAR till FY 2019-20. However, not all Licensees have submitted the detailed FAR in Excels, as directed by the Commission. The Commission directs the



Licensees to submit the detailed FAR in Excel with all the details of the assets opening, addition, deduction & closing values, as well as depreciation & cumulative depreciations, with the bifurcation of the assets owned by the Licensee, assets created out of Grants and assets created out of consumer contribution. Failing which, the Commission would be constrained to take adverse action in the next year's True-up.

- 4.10.4. Further, it is observed that the Licensees have not computed the depreciation rate in accordance with the rates specified for individual asset block, i.e., buildings, plant and machinery, etc., in accordance with the Multi Year Distribution Tariff Regulations, 2014 i.e. WDV rates, however the Licensees have considered the SLM rate of the assets, hence they have considered lower rates of depreciation and claimed a lower amount of depreciation for the year.
- 4.10.5. The Commission during the Truing up of FY 2018-19 had deducted the grants from the GFA for computations of depreciation and the same approach has been taken for FY 2019-20 also. Further, the Opening GFA of FY 2019-20 as claimed by the Petitioners is not matching with the Commission approved figures. For computation of depreciation, the closing of FY 2018-19 has been considered as opening of FY 2019-20 and net written down opening value has been computed, the grant amount for the year to be deducted from the asset addition during the year, has considered as claimed by the Petitioner i.e. the amount of investment through grant.
- 4.10.6. Accordingly, the Commission computed the weighted average depreciation rate and the same is considered in the computation of depreciation on consumer assets. Thus, the approved depreciation for FY 2019-20 for State Discoms' namely DVVNL, MVVNL, PVVNL, PuVVNL and KESCO are as shown in the Tables given below:

**TABLE 4-126: GROSS DEPRECIATION OF DVVNL FOR FY 2019-20**

Particular	Approved in 03.09.2019	Claimed in True Up	Approved in True Up
Opening GFA	9969.73	9,744.21	9,744.21
Cumulative Dep	4288.11	3,318.76	3,557.05
Written Down Value: Opening	5817.71	6,425.45	6,187.15
Additions to GFA	1494.95	4,693.11	4,693.11
Less: Deductions to GFA		677.01	677.01
Less: Grants		1,025.61	1,025.61
Closing GFA	11464.68	9,415.94	9,177.64



Particular	Approved in 03.09.2019	Claimed in True Up	Approved in True Up
Rate of Depreciation (%)	7.75%	5.24%	7.78%
<b>Gross Allowable Depreciation</b>	508.64	414.69	597.89
Less: Dep. On Consumer Contribution	49.63	68.81	250.40
<b>Net Allowable Depreciation</b>	<b>459.01</b>	<b>345.88</b>	<b>347.49</b>

**TABLE 4-127: GROSS DEPRECIATION OF MVVNL FOR FY 2019-20**

Particular	Approved in 03.09.2019	Claimed In True Up	Approved in True Up
Opening GFA	7920.61	6,048.00	6,047.98
Cumulative Dep	4328.69	2,728.39	2,866.85
Written Down Value: Opening	3591.91	3,319.89	3,181.14
Additions to GFA	1576.48	3,742.94	3,742.94
Less: Deductions to GFA		639.40	639.40
Less: Grants		895.07	895.07
Closing GFA	9497.09	5,528.36	8,256.46
Rate of Depreciation (%)	7.93%	5.26%	7.82%
<b>Gross Allowable Depreciation</b>	347.23	232.58	335.00
Less: Dep. on Consumer Contribution	87.29	55.79	151.87
<b>Net Allowable Depreciation</b>	<b>259.94</b>	<b>176.79</b>	<b>183.13</b>

**TABLE 4-128: GROSS DEPRECIATION OF PVVNL FOR FY 2019-20**

Particular	Approved in 03.09.2019	Claimed in True Up	Approved in True Up
Opening GFA	12793.27	12,285.34	12,285.35
Cumulative Dep	5884.74	4,647.18	4,856.21
Written Down Value: Opening	7293.37	7,638.16	7,428.12
Additions to GFA	1809.14	4,347.09	4,347.10
Less: Deductions to GFA		636.88	636.77
Less: Grants		1,380.56	1,380.56
Closing GFA	14602.41	9,968.11	9,758.19
Rate of Depreciation (%)	7.78%	5.24%	7.57%
<b>Gross Allowable Depreciation</b>	637.67	461.02	650.34
Less: Consumer Contribution	66.97	160.76	246.81
<b>Net Allowable Depreciation</b>	<b>570.70</b>	<b>300.26</b>	<b>403.52</b>



**TABLE 4-129: GROSS DEPRECIATION OF PUVVNL FOR FY 2019-20**

Particular	Approved in 03.09.2019	Claimed In True Up	Approved in True Up
Opening GFA	10434.93	8,776.85	8,776.86
Cumulative Dep	4716.94	3,254.56	3,392.41
Written Down Value: Opening	5290.35	5,522.29	5,384.45
Additions to GFA	1639.69	6,431.04	6,431.05
Less: Deductions to GFA		848.66	848.66
Less: Grants		2,686.53	2,686.53
Closing GFA	12074.62	8,418.17	8,280.33
Rate of Depreciation (%)	7.76%	5.26%	7.80%
<b>Gross Allowable Depreciation</b>	473.94	366.58	532.96
Less: Consumer Contribution	80.84	123.41	152.93
<b>Net Allowable Depreciation</b>	<b>393.10</b>	<b>243.17</b>	<b>380.04</b>

**TABLE 4-130: GROSS DEPRECIATION OF KESCO FOR FY 2019-20**

Particular	Approved in 03.09.2019	Claimed In True Up	Approved in True Up
Opening GFA	863.68	1344.78	1143.94
Cumulative Dep	453.38	446.95	446.95
Written Down Value: Opening	410.31	696.99	679.50
Additions to GFA	120.64	143.96	143.96
Less: Deductions to GFA			0.00
Less: Grants			0.00
Closing GFA	984.32	1488.74	823.46
Rate of Depreciation (%)	7.83%	5.23%	7.84%
<b>Gross Allowable Depreciation</b>	36.84	40.24	58.92
Less: Consumer Contribution	5.60	9.17	18.11
<b>Net Allowable Depreciation</b>	<b>31.24</b>	<b>31.07</b>	<b>40.82</b>

**TABLE 4-131: CONSOLIDATED GROSS DEPRECIATION OF 5 STATE DISCOMS FOR FY 2019-20**

Particular	Approved in 03.09.2019	Claimed In True Up	Approved in True Up
Opening GFA	41982.22	38199.18	38134.45
Cumulative Dep	19671.86	14395.84	15119.47
Written Down Value: Opening	22403.64	23602.78	22860.37



Particular	Approved in 03.09.2019	Claimed In True Up	Approved in True Up
Additions to GFA	6640.90	19358.14	19358.16
Less: Deductions to GFA		2801.95	2801.84
Less: Grants		5987.77	5987.77
Closing GFA	48623.11	34819.32	36296.08
	7.81%	5.19%	7.87%
<b>Gross Allowable Depreciation</b>	<b>2004.32</b>	<b>1515.11</b>	<b>2175.11</b>
Less: Consumer Contribution	290.33	417.94	820.12
<b>Net Allowable Depreciation</b>	<b>1713.99</b>	<b>1097.17</b>	<b>1355.00</b>

#### 4.11. PROVISION FOR BAD AND DOUBTFUL DEBT

- 4.11.1. The State Discoms namely DVVNL, MVVNL, PVVNL, PuVVNL & KESCO have claimed Rs. 162.00 Crore, Rs. 134.22 Crore, Rs. 40.89 Crore, Rs. 164.61 Crore and Rs. 22.48 Crore respectively towards provision for bad and doubtful debt for FY 2019-20.
- 4.11.2. The Regulation 29 of the Multi Year Distribution Tariff Regulations, 2014 provides for expenses under bad and doubtful Debts to the extent of 2% of the revenue receivables as shown below:

##### Quote

*“29. Bad and Doubtful Debts:*

*Bad and Doubtful Debts shall be allowed as a legitimate business expense with the ceiling limit of 2% of the revenue receivables provided the distribution licensee actually identifies and writes off bad debts as per the transparent policy approved by the Commission. In case there is any recovery of bad debts already written off, the recovered bad debt will be treated as other income.”*

##### Unquote

- 4.11.3. The Commission observes that in accordance with Multi Year Distribution Tariff Regulations, 2014 the bad debts subject to actual write off in the audited books shall be allowed up to 2% of the revenue for the year under consideration. The Licensees have claimed bad debts for FY 2019-20 within 2% of the revenue billed during the year as per the transparent policy duly approved by the Commission in the Tariff Order dated September 03, 2019.



4.11.4. The Commission considers it appropriate that since the Licensees have written off the bad debts in accordance to the Multi Year Distribution Tariff Regulations, 2014 the same may be trued up within 2% on the revenue approved by the Commission.

4.11.5. The details of bad debts trued up by the Commission for FY 2019-20 are within 2% of the revenue approved or as per provision of bad debts in the audited accounts for FY 2019-20, whichever is lower. The same is depicted in the tables below:

**TABLE 4-132: PROVISION FOR BAD AND DOUBTFUL DEBT OF DVVNL FOR FY 2019-20**

Particulars	Approved in T.O 03.09.2019	Claimed	Approved upon Truing up
Total Revenue Receivables from Retail Sales		10,831.65	
% of Provision for Bad and Doubtful Debts		2.00%	
Bad and Doubtful Debts as per Regulation		216.63	
Bad and Doubtful Debts as per Audited Account		162.00	
<b>Bad Debt</b>	<b>207.22</b>	<b>162.00</b>	<b>162.00</b>

**TABLE 4-133: PROVISION FOR BAD AND DOUBTFUL DEBT OF MVVNL FOR FY 2019-20**

Particulars	Approved in T.O 03.09.2019	Claimed	Approved upon Truing up
Total Revenue Receivables from Retail Sales		11,905.54	
% of Provision for Bad and Doubtful Debts		2.00%	
Bad and Doubtful Debts as per Regulation		238.11	
Bad and Doubtful Debts as per Audited Account		134.22	
<b>Bad Debt</b>	<b>244.50</b>	<b>134.22</b>	<b>134.22</b>

**TABLE 4-134: PROVISION FOR BAD AND DOUBTFUL DEBT OF PVVNL FOR FY 2019-20**

Particulars	Approved in T.O 03.09.2019	Claimed	Approved upon Truing up
Total Revenue Receivables from Retail Sales		17,039.25	
% of Provision for Bad and Doubtful Debts		2.00%	
Bad and Doubtful Debts as per Regulation		340.78	
Bad and Doubtful Debts as per Audited Account		40.89	
<b>Bad Debt</b>	<b>389.41</b>	<b>40.89</b>	<b>40.89</b>



**TABLE 4-135: PROVISION FOR BAD AND DOUBTFUL DEBT OF PUVVNL FOR FY 2019-20**

Particulars	Approved in T.O 03.09.2019	Claimed	Approved upon Truing up
Total Revenue Receivables from Retail Sales		11,641.41	
% of Provision for Bad and Doubtful Debts		2.00%	
Bad and Doubtful Debts as per Regulation		232.83	
Bad and Doubtful Debts as per Audited Account		164.61	
<b>Bad Debt</b>	<b>261.71</b>	<b>164.61</b>	<b>164.61</b>

**TABLE 4-136: PROVISION FOR BAD AND DOUBTFUL DEBT OF KESCO FOR FY 2019-20**

Particulars	Approved in T.O 03.09.2019	Claimed	Approved upon Truing up
Total Revenue Receivables from Retail Sales		2,619.39	
% of Provision for Bad and Doubtful Debts		2.00%	
Bad and Doubtful Debts as per Regulation		52.39	
Bad and Doubtful Debts as per Audited Account		22.48	
<b>Bad Debt</b>	<b>52.00</b>	<b>22.48</b>	<b>22.48</b>

**TABLE 4-137: CONSOLIDATED PROVISION FOR BAD AND DOUBTFUL DEBT OF 5 STATE DISCOMS FOR FY 2019-20**

Particulars	Approved in T.O 03.09.2019	Claimed	Approved upon Truing up
Total Revenue Receivables from Retail Sales		54037.24	
% of Provision for Bad and Doubtful Debts		2.0%	
Bad and Doubtful Debts as per Regulation		1080.75	
Bad and Doubtful Debts as per Audited Account		524.21	
<b>Bad Debt</b>	<b>1154.84</b>	<b>524.21</b>	<b>524.21</b>

#### 4.12. RETURN ON EQUITY

4.12.1. The State Discoms namely DVVNL, MVVNL, PVVNL, PuVVNL, KESCo have claimed Rs. 465.78 Crore, Rs. 301.47 Crore, Rs. 564.17 Crore, Rs. 476.32 Crore and Rs. 46.13 Crore respectively towards return on equity for FY 2019-20. The Licensees have claimed the Return on Equity by considering the Gross GFA less consumer contributions and grants for FY 2019-20.



4.12.2. The Regulation 31 of the Distribution MYT Regulations, 2014 provides for return on equity @16% as specified below:

Quote

*“31 Treatment of Return on equity*

*a) Return on equity shall be computed on 30% of the capital base or actual equity, whichever is lower:*

*Provided that assets funded by consumer contribution, capital subsidies / grants and corresponding depreciation shall not form part of the capital base. Actual equity infused in the Distribution Licensee as per book value shall be considered as perpetual and shall be used for computation in these regulations.*

*b) 16% (sixteen) post-tax return on equity shall be considered irrespective of whether the Distribution Licensee has claimed return on equity in the ARR petition.”*

Unquote

4.12.3. The Commission has considered closing equity approved in the true up Order for FY 2018-19 as opening for FY 2019-20. Equity addition during the year has been considered 30% of GFA addition during the year net of consumer contribution, capital subsidies & grants.

4.12.4. The Return on Equity (RoE) for FY 2019-20 is shown in the Tables below:

**TABLE 4-138: RETURN ON EQUITY OF DVVNL FOR FY 2019-20**

Particulars	Approved in T.O 03.09.2019	Claimed	Allowed in True up
Opening Equity	2392.15	2374.00	2374.00
Additions (30% of Capitalization)	448.49	1407.93	1407.93
Less: Consumer Contribution (30%)	51.92	25.99	25.99
Less: Grants (30%)	0.00	307.68	307.68
<b>Closing Equity</b>	<b>2788.72</b>	<b>3448.26</b>	<b>3448.26</b>
Rate of Return on Equity (%)	16.00%	16.00%	16.00%
<b>Return on Equity</b>	<b>414.47</b>	<b>465.78</b>	<b>465.78</b>

**TABLE 4-139: RETURN ON EQUITY OF MVVNL FOR FY 2019-20**

Particulars	Approved in T.O 03.09.2019	Claimed	Allowed in True up
Opening Equity	1886.82	1498.70	1498.70



Particulars	Approved in T.O 03.09.2019	Claimed	Allowed in True up
Additions (30% of Capitalization)	472.95	1122.88	1122.88
Less: Consumer Contribution (30%)	87.29	83.42	83.42
Less: Grants (30%)		268.52	268.52
<b>Closing Equity</b>	<b>2272.47</b>	<b>2269.64</b>	<b>2269.64</b>
Rate of Return on Equity (%)	16.00%	16.00%	16.00%
<b>Return on Equity</b>	<b>332.74</b>	<b>301.47</b>	<b>301.47</b>

**TABLE 4-140: RETURN ON EQUITY OF PVVNL FOR FY 2019-20**

Particulars	Approved in T.O 03.09.2019	Claimed	Allowed in True up
Opening Equity	3148.80	3120.50	3120.50
Additions (30% of Capitalization)	542.74	1304.13	1304.13
Less: Consumer Contribution (30%)	66.97	78.89	78.89
Less: Grants (30%)		414.17	414.17
<b>Closing Equity</b>	<b>3624.58</b>	<b>3931.57</b>	<b>3931.57</b>
Rate of Return on Equity (%)	16%	16%	16%
<b>Return on Equity</b>	<b>541.87</b>	<b>564.17</b>	<b>564.17</b>

**TABLE 4-141: RETURN ON EQUITY OF PUVVNL FOR FY 2019-20**

Particulars	Approved in T.O 03.09.2019	Claimed	Allowed in true up
Opening Equity	2660.62	2438.91	2438.91
Additions (30% of Capitalization)	491.91	1929.31	1929.31
Less: Consumer Contribution (30%)	44.69	47.13	47.13
Less: Grants (30%)		805.96	805.96
<b>Closing Equity</b>	<b>3107.83</b>	<b>3515.13</b>	<b>3515.13</b>
Rate of Return on Equity (%)	16.00%	16.00%	16%
<b>Allowable Return on Equity</b>	<b>461.48</b>	<b>476.32</b>	<b>476.32</b>

**TABLE 4-142: RETURN ON EQUITY OF KESCO FOR FY 2019-20**

Particulars	Approved in T.O 03.09.2019	Claimed	Allowed in True-up
Opening Equity	187.06	270.20	270.20
Additions (30% of Capitalization)	36.19	36.17	43.19
Less: Consumer Contribution (30%)	3.82	0.00	7.02
Less: Grants (30%)		0.00	0.00



Particulars	Approved in T.O 03.09.2019	Claimed	Allowed in True-up
<b>Closing Equity</b>	<b>219.43</b>	<b>306.37</b>	<b>306.37</b>
Rate of Return on Equity (%)	16.00%	16.00%	16.00%
<b>Allowable Return on Equity</b>	<b>32.52</b>	<b>46.13</b>	<b>46.13</b>

**TABLE 4-143: CONSOLIDATED RETURN ON EQUITY OF 5 STATE DISCOMS FOR FY 2019-20**

Particulars	Approved in T.O 03.09.2019	Claimed	Allowed in true up
Opening Equity	10275.46	9702.31	9702.31
Additions (30% of Capitalization)	1992.27	5800.42	5800.42
Less: Consumer Contribution (30%)	254.69	235.43	235.43
Less: Grants (30%)	0	1796.33	1796.33
<b>Closing Equity</b>	<b>12013.03</b>	<b>13470.97</b>	<b>13470.97</b>
Rate of Return on Equity (%)	16.00%	16.00%	16.00%
<b>Allowable Return on Equity</b>	<b>1783.08</b>	<b>1853.87</b>	<b>1853.87</b>

#### 4.13. DEEMED REVENUE

4.13.1. For LMV-10 consumers, based on the balance sheet data and past trend, the Commission has computed deemed revenue of Rs. 61.05 Crore, Rs. 70.18 Crore, Rs.55.28 Crore and Rs. 140.68 Crore of the State Discoms namely DVVNL, MVVNL, PVVNL and PuVVNL respectively.

4.13.2. The Commission had abolished the LMV-10 category in MYT Order dated November 30, 2017 and considered all consumers of LMV-10 category as LMV-1 metered category. However, despite repeated directions of the Commission the same has not been done by the Licensees. Hence the Commission is forced to re-compute the Revenue for LMV-10 consumers considering the average consumption per consumer per month to be 700 units and at Rs. 7.00 / kWh (the rate of LMV-1, other metered category – highest slab). This revenue will be added to the final revenue of the Licensees while carrying out the truing up of revenue.

**TABLE 4-144: CONSUMPTION OF LMV-10 IN FY 2019-20 (RS. CRORE)**

FY 2019-20	No. of Consumers	Load	Sales
LMV-10	(Nos.)	kW	MU
DVVNL	17,329	82,167.88	101.89



FY 2019-20	No. of Consumers	Load	Sales
LMV-10	(Nos.)	kW	MU
MVVNL	26,628	84,038.00	156.57
PVVNL	19,723	1,32,158.00	115.97
PuVVNL	29,407	97,646.00	172.91
KESCo	5,131	19,903.00	30.17
Consolidated	<b>98,218</b>	<b>4,15,912.88</b>	<b>577.5</b>

**TABLE 4-145: CONSOLIDATED DEEMED REVENUE OF LMV-10 FOR FY 2019-20 (RS. CRORE)**

Revenue Final Figures	FY 2019-20		
	Claimed	Approved deemed Revenue	Additional Deemed Revenue
	(A)	(B)	C=B-A (Only if B>A)
DVVNL	40.84	101.89	61.05
MVVNL	86.39	156.57	70.18
PVVNL	60.69	115.97	55.28
PuVVNL	32.23	172.91	140.68
KESCO	52.85	30.17	-
Consolidated	<b>273.01</b>	<b>577.52</b>	<b>327.19</b>

#### 4.14. SUBSIDY FROM GOUP

4.14.1. The State Discoms namely DVVNL, MVVNL, PVVNL, PuVVNL have claimed the subsidy from GOUP as Rs. 2,179.86 Core, Rs. 1,886.38 Crore, Rs. 2,764.67 Crore and Rs. 3,289.09 Crore respectively, against Rs. 2,007.64 Crore, Rs. 2,414.14 Core, Rs. 1,723.81 Crore and Rs. 2,958.41 Crore respectively approved in the Tariff Order dated September 03, 2019.

4.14.2. The Commission has accepted the submission of the State Discoms under this head as listed in the table below:

**TABLE 4-146: SUBSIDY OF GOUP FOR 5 STATE DISCOMS FOR FY 2019-20**

Particulars	Approved in T.O dt. 03.09.2019	Audited Accounts	Claimed in True-up	Approved
DVVNL	2007.64	2179.86	2179.86	2179.86
MVVNL	2414.14	1886.38	1886.38	1886.38
PVVNL	1723.81	2764.67	2764.67	2764.67
PuVVNL	2958.41	3289.09	3289.09	3289.09



Particulars	Approved in T.O dt. 03.09.2019	Audited Accounts	Claimed in True-up	Approved
KESCO	0.00	0.00	0.00	0.00
<b>Consolidated (5 Discoms)</b>	<b>9104.00</b>	<b>10120.00</b>	<b>10120.00</b>	<b>10120.00</b>

#### 4.15. NON-TARIFF INCOME

- 4.15.1. The State Discoms namely DVVNL, MVVNL, PVVNL, PuVVNL and KESCO have submitted that the actual Non-Tariff Income (including Delayed Payment Surcharge but excluding the finance cost of DPS) during FY 2019-20 as Rs. 170.24 Crore, Rs. 158.25 Crore, Rs. 38.96 Crore, Rs. 284.31 Crore and Rs. 42.26 Crore, respectively as compared to Rs. 23.27 Crore, Rs. 40.36 Crore, Rs. 42.47 Crore, Rs. 18.93 Crore and Rs. 18.16 Crore respectively approved by the Commission in the Tariff Order.
- 4.15.2. The Petitioners have claimed Delayed Payment Surcharge along with Revenue. However, in accordance with Regulation 33 of the Multi Year Distribution Tariff Regulations, 2014, the same should be a part of Non-Tariff Income. The relevant extract of the MYT Regulations, 2014 is shown below:

#### Quote

##### *33. Non-Tariff Income*

*All incomes being incidental to electricity business and derived by the Licensee from sources, including but not limited to profit derived from disposal of assets, rents, delayed payment surcharge, meter rent (if any), income from investments other than contingency reserves, miscellaneous receipts from the consumers and income to Licensed business from the Other Business of the Distribution Licensee shall constitute Non-Tariff Income of the Licensee.*

*Interest earned on security deposits, in excess of the rate specified by the Commission shall be considered as Non-Tariff income of the Licensees.*

*The amount received by the Licensee on account of Non-Tariff Income shall be deducted from the aggregate revenue requirement in calculating the net revenue requirement of such Licensee.*

*Provided further that any expenditure incurred for generating/ earning Non- Tariff Income may be reduced from such income.*

#### Unquote



- 4.15.3. The Petitioners have submitted that the Commission in its Tariff Order for NPCL dated 03 November 2019, has allowed the Cost of Borrowing for Delayed Payment Surcharge as an additional expenditure and reduced the NTI by the financing cost of DPS. The relevant extract of the NPCL Tariff Order, dated September 03, 2019 is reproduced below:

Quote

*3.24.6 In Order to appropriately compensate for the cost incurred for financing the deferred payment beyond the normative period, the Commission in Tariff Order dated June 18, 2015 had reduced the amount of Non-Tariff Income by the financing costs of DPS. Therefore, the financing cost of DPS is computed by the Petitioner by grossing up the DPS conservatively based on the highest applicable surcharge rate, which is 1.5% per month. In this regard, the Commission vide mail to the Petitioner enquired as under:*

*3.24.8 The financing cost of DPS is computed by the Commission based on the actual DPS for the year. The DPS is grossed up conservatively based on the highest applicable surcharge rate, which is 2% per month, however, the Petitioner has taken surcharge rate as 1.5% per month. Further, the financing cost is arrived at on the grossed-up amount and interest rate of 13.75%, as approved for working capital requirement.*

Unquote

- 4.15.4. For Truing-Up of FY 2019-20, the Petitioner has claimed the Delayed Payment Surcharge along with the Non-Tariff Income and have reduced the financing cost of delay payment surcharge from the non-tariff income. The Delayed payment surcharge as per the Audited accounts of the Petitioners namely DVVNL, MVVNL, PVVNL, PuVVNL, KESCO are Rs. 357.12 Crore, Rs. 255.13 Crore, Rs. 15.64 Crore, Rs. 264.74 Crore and Rs. 0.45 Crore respectively. As regards financing cost of Delay payment surcharge, the Commission is of the following view:
- 4.15.5. As regards financing cost of Delay payment surcharge, the Commission is of the following view that working capital is used to meet all of the short-term expenses of an organisation. These short-term expenses include mainly purchase of raw material, discharging of short-term debt liability and other day-to-day operating expenses. It is very critical to run any business smoothly & to meet its financial obligations which are due within one year.



- 4.15.6. Every distribution company needs working capital to meet its day to day operating expenses. Keeping in view the legitimacy of requirement of working capital, the UPERC made the norms in its MYT, 2019 & earlier Regulations that how much working capital will be needed by a distribution company to run its business and the interest on this working capital which will be allowed in the ARR. The relevant portion of MYT, 2014 & MYT, 2019 Regulations is reproduced below:

Quote

MYT Regulations, 2014

*28 The Distribution Licensee shall be allowed interest on estimated level of working capital for the financial year, computed as follows:*

*(a) O & M expenses for one month.*

*(b) Two months equivalent of expected revenue.*

*(c) Maintenance spares @ 40% of the R&M expenses for two months.*

*Less*

*Security deposits from consumers, if any.*

*Provided that the interest on working capital shall be on normative basis and rate of interest shall be equal to the State Bank Advance Rate (SBAR) as of the date on which petition for determination of tariff is accepted by the Commission.*

*Provided further that interest shall be allowed on consumer security deposits as per the provision on the Electricity Supply Code, 2005 and its subsequent amendments/addendums and the new Regulations made after repeal of the same.*

MYT Regulations, 2019

25.2 Distribution Business

*(a) The working capital requirement of the Distribution Business shall cover:*

*(i) Operation and maintenance expenses for one month;*

*(ii) Maintenance spares at 40% of the R&M expenses for two months; and*

*(iii) One and half month equivalent of the expected revenue from charges for use of Distribution system at the prevailing Tariff (excluding Electricity Duty);*

*minus*

*(iv) Amount held as security deposits from Distribution System Users:*



*Provided that for the purpose of Truing-Up for any year, the working capital requirement shall be re-computed on the basis of the values of components of working capital approved by the Commission in the Truing- Up;*

*(b)Rate of interest on working capital shall be simple interest and shall be equal to the SBI MCLR (1 Year) on October 01, 2019 plus 250 basis points:*

*Provided that for the purpose of Truing-Up for any year, simple interest on working capital shall be allowed at a rate equal to the weighted average SBI MCLR (1 Year) prevailing during the concerned Year plus 250 basis points.*

*(c)Interest shall be allowed on consumer security deposits as per the provisions of the Electricity Supply Code, 2005 and its subsequent amendments/ addendums and the new Regulations made after repeal of the same.*

#### Unquote

- 4.15.7. In the above Regulations, two months equivalent of expected revenue in MYT, 2014 & one and half month equivalent of the expected revenue from charges for use of Distribution system at the prevailing Tariff (excluding Electricity Duty) in MYT, 2019 have been taken to calculate the working capital requirement, which means that within the said period, every consumer will pay its electricity bills.
- 4.15.8. However, despite of due date mentioned in the bills, it is seen that ample consumers pay their electricity bills beyond this due date which results the need for additional financing for Interest on Working Capital by the distribution companies and burden of interest on this additional fund. Further, the Delayed Payment Surcharge recovered from the consumers are being shown by the distribution licensee in their P & L Statement, to promote the consumers to pay their bills within the due date and strengthen of cash flow of the distribution companies, the following provisions (which are penal in nature) have been kept in the Rate Schedule of TO for the FY 2019-20 and earlier years':

#### Quote

##### **7. SURCHARGE / PENALTY:**

##### **(i) DELAYED PAYMENT:**

*If a consumer fails to pay his electricity bill by the due date specified therein, a late payment surcharge shall be levied at 1.25% on the dues (excluding late payment surcharge) per month; up-to first three months of delay and subsequently at 2.00% on the dues (excluding late payment surcharge) per month of delay. Late payment*



*surcharge shall be calculated proportionately for the number of days for which the payment is delayed beyond the due date specified in the bill and levied on the unpaid amount of the bill excluding delayed payment surcharge. Imposition of this surcharge is without prejudice to the right of the Licensee to disconnect the supply or take any other measure permissible under the law.*

**15. Rebate on Payment On or Before Due Date**

*A rebate at the rate of 1.00% on the RATE shall be given in case the payment is made on or before the due date. However, a rebate at the rate of 5.00% on the RATE shall be given to LMV-5 (Rural) (i.e. PTW Rural Category Agricultural Consumers) category of electricity consumers in case the payment is made on or before due date. The consumers having any arrears in the bill shall not be entitled for this rebate. The consumers who have made advance deposit against their future monthly energy bills shall also be eligible for the above rebate applicable on the RATE.*

**Unquote**

4.15.9. Further, despite of recovering Delayed Payment Surcharge from consumers which is also allowed in the ARR, the Petitioners have claimed the financing cost of this surcharge. Taking into consideration the above, the Commission`s views are that:

- The UPERC MYT Regulations, 2014 do not provide any methodology / provision of computing the quantum of DPS & its financing cost, therefore it cannot be taken as normative.
- However, seeing the genuineness of the need of financing cost of the DPS, if the Licensees have actually incurred the financing of DPS and & Licensee can clearly demonstrated by the records, the same can be allowed to the Licensee.
- If, the Licensee has put in its equity in financing the DPS, it is to be noted that any excess equity (more than 30%) has already been considered as normative loan and interest has been given on it. Hence, Licensee has already received return of financing cost.

4.15.10. Hence, the Commission has disallowed the financing cost of DPS, claimed by the Petitioners for FY 2019-20.

4.15.11. As regards, non-tariff income, the Commission has approved the Non-Tariff Income after adding the financing cost of DPS to non-tariff income (which was negated from the NTI by the petitioners) of the State Discoms namely DVVNL, MVVNL, PVVNL, PuVVNL and KESCO under this head and has accordingly approved Non-Tariff



Income including DPS as Rs. 375.58 Crore, Rs. 304.95 Crore, Rs. 47.95 Crore, Rs. 284.31 Crore and Rs. 42.52 Crore respectively for FY 2019-20.

#### 4.16. REVENUE FROM SALE OF POWER

4.16.1. The State Discoms namely DVVNL, MVVNL, PVVNL, PuVVNL and KESCO have submitted that the actual revenue from sale of power during FY 2019-20 is Rs. 10831.65 Crore, Rs. 11,905.54 Crore, Rs. 17039.25 Crore, Rs. 11,641.41 Crore and Rs. 2,619.39 Crore respectively towards electricity sales of 19456 MU, 18,426.23 MU, 29,065.91 MU, 20795.20 MU and 3,300.50 MU respectively against Rs. 11,098.21 Crore, Rs. 11,868.16 Crore, Rs. 19992.10 Crore, Rs. 14,201.20 Crore and Rs. 2,546.23 Crore respectively approved by the Commission in its Tariff Order dated September 03, 2019.

4.16.2. The Licensees were asked to submit the data regarding Surcharge Waiver in various One-Time Settlement (OTS) schemes. Except for KESCO, the other Licensees have not made the submissions as had been asked for. The Licensee are directed to submit year wise data from the year the same was abolished, to FY 2020-21, in the next filing. Based on the submission of the above data appropriate treatment of the surcharge waived off will be made.

#### 4.17. ARR AND REVENUE GAP / (SURPLUS) FOR FY 2019-20 AFTER TRUING UP

4.17.1. The Aggregate Revenue Requirement, Revenue Gap and sharing of gain/(loss) for the State Discoms namely DVVNL, MVVNL, PVVNL, PuVVNL and KESCO is summarised below:

**TABLE 4-147: SUMMARY OF ARR FOR TRUE UP OF DVVNL FOR FY 2019-20**

S. No.	Particular	FY 2019-20		
		Approved in T.O 03.09.2019	Claimed	Approved
1	Cost of Power Procurement (including Inter State Transmission)	10,826.23	10,827.40	10,702.97
2	Disallowance in PPC due to excess sales (in unmetered) wrt Normative	-	-	-
3	Cost of Gain / (Loss) on Account of AT&C	-	1,070.66	-
4	Efficiency Gains / (Loss) on account of variation in Distribution Loss	-	630.19	-
5	Transmission and Load Dispatch Charges (Intra-State Transmission Charges)	417.62	744.25	861.20
6	<b>Gross O&amp;M Expenses</b>	1,837.35	1,614.14	1,189.98
7	Employee expenses	970.54	524.11	524.11



Approval of ARR and Tariff for State Discoms for FY 2021-22, APR of FY 2020-21 and True-up of FY 2019-20

S. No.	Particular	FY 2019-20		
		Approved in T.O 03.09.2019	Claimed	Approved
8	R&M expenses	743.21	538.34	120.38
9	A&G expenses	123.60	545.49	545.49
10	UPPCL O&M Expenses	-	-	-
11	Smart Meter Opex	-	6.20	-
12	Arrears (7th Pay Commission)	-	-	-
13	Interest on Loan Capital	419.78	430.25	430.16
14	Interest on Security Deposit from Consumers and Distribution system Users	48.67	39.62	39.62
15	Interest on Working Capital	193.78	233.49	176.15
16	Finance Charges	2.22	3.08	3.08
17	Depreciation	459.01	345.87	347.49
18	Interest on GPF	-	-	-
<b>19</b>	<b>Gross expenditure</b>	<b>14,204.66</b>	<b>15,938.95</b>	<b>13,750.66</b>
20	Less: Employee expenses capitalised	242.83	220.38	220.38
21	Less: A&G expenses capitalise	-	-	-
22	Less: Interest expenses capitalised	166.33	105.01	105.01
<b>23</b>	<b>Net expenditure</b>	<b>13,795.50</b>	<b>15,613.56</b>	<b>13,425.27</b>
24	Bad Debts & Provisions	207.22	162.00	162.00
25	Prior Period expenses/Comprehensive Incomes	-	-	-
<b>26</b>	<b>Net expenditure with provisions</b>	<b>14,002.72</b>	<b>15,775.57</b>	<b>13,587.28</b>
27	Add: Return on Equity	414.47	465.78	465.78
28	Less: Non-Tariff Income	23.27	170.24	375.58
29	Add: Cost of borrowing DPS	-	-	-
30	Less: Cross Subsidy surcharge (STOA)	8.56	6.92	6.92
<b>31</b>	<b>Aggregate Revenue Requirement</b>	<b>14,385.36</b>	<b>16,064.19</b>	<b>13,670.56</b>
32	Gain on O&M Expenses	-	201.63	-
33	Sharing of Gain/Loss on O&M Expenses (50% to Consumers)	-	201.63	-
<b>34</b>	<b>Net ARR</b>	<b>14,385.36</b>	<b>16,265.82</b>	<b>13,670.56</b>
35	Revenue from existing Tariff	10,435.89	10,831.65	10,831.65
36	Deemed Revenue (LMV-10)	-	-	61.05
37	Deemed Revenue (Sales Adjustment)	-	-	-
38	GoUP Subsidy	2,007.64	2,179.86	2,179.86
<b>39</b>	<b>Net Revenue Gap/(Surplus) before Tariff revision (ARR-Revenue)</b>	<b>1,941.83</b>	<b>3,254.31</b>	<b>598.00</b>
40	Less: Additional Subsidy to be provided by GoUP	-	-	-
41	Tariff Revision Impact	662.32	-	-
<b>42</b>	<b>Net Revenue Gap /(Surplus) after Tariff revision</b>	<b>1,279.51</b>	<b>3,254.31</b>	<b>598.00</b>



**TABLE 4-148: SUMMARY OF ARR FOR TRUE UP OF MVNVL FOR FY 2019-20**

S. No.	Particular	FY 2019-20		
		Approved in T.O 03.09.2019	Claimed	Approved
1	Cost of Power Procurement (including Inter State Transmission)	10,263.49	10,219.37	10,101.93
2	Disallowance in PPC due to excess sales (in unmetered) wrt Normative	-	-	-
3	Cost of Gain / (Loss) on Account of AT&C	-	892.35	-
4	Efficiency Gains / (Loss) on account of variation in Distribution Loss	-	479.45	-
5	Transmission and Load Dispatch Charges (Intra-State Transmission Charges)	395.91	675.57	794.67
6	<b>Gross O&amp;M Expenses</b>	2,765.77	1,780.59	1,433.57
7	Employee expenses	1,867.89	794.71	760.12
8	A&G expenses	335.33	606.64	306.12
9	R&M expenses	562.55	375.38	367.33
10	UPPCL O&M Expenses	-	48.71	-
11	Smart Meter Opex	-	3.86	-
12	Arrears (7th Pay Commission)	-	-	-
13	Interest on Loan Capital	384.93	421.57	421.22
14	Interest on Security Deposit from Consumers and Distribution system Users	48.87	28.53	28.53
15	Interest on Working Capital	233.47	256.49	198.18
16	Finance Charges	24.08	3.08	3.08
17	Depreciation	259.94	176.79	183.13
18	Interest on GPF	-	-	-
19	<b>Gross expenditure</b>	<b>14,376.46</b>	<b>14,933.78</b>	<b>13,164.32</b>
20	Less: Employee expenses capitalised	214.15	433.04	433.04
21	Less: A&G expenses capitalised	-	-	-
22	Less: Interest expenses capitalised	109.71	93.91	93.91
23	<b>Net expenditure</b>	<b>14,052.60</b>	<b>14,406.84</b>	<b>12,637.37</b>
24	Bad Debts & Provisions	244.50	134.22	134.22
25	Prior Period expenses/Comprehensive Incomes	-	-	-
26	<b>Net expenditure with provisions</b>	<b>14,297.10</b>	<b>14,541.06</b>	<b>12,771.60</b>
27	Add: Return on Equity	332.74	301.47	301.47
28	Less: Non-Tariff Income	40.36	158.25	304.95
29	Add: Cost of borrowing DPS	-	-	-
30	Less: Cross Subsidy surcharge (STOA)	-	-	-
31	<b>Aggregate Revenue Requirement</b>	<b>14,589.48</b>	<b>14,684.27</b>	<b>12,768.11</b>
32	Gain on O&M Expenses	-	944.03	-
33	Sharing of Gain/Loss on O&M Expenses (50% to Consumers)	-	944.03	-
34	<b>Net ARR</b>	<b>14,589.48</b>	<b>15,628.30</b>	<b>12,768.11</b>



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S. No.	Particular	FY 2019-20		
		Approved in T.O 03.09.2019	Claimed	Approved
35	Revenue from existing Tariff	11,868.16	11,905.54	11,905.54
36	Deemed Revenue (LMV-10)	-	-	70.18
37	Deemed Revenue (Sales Adjustment)	-	-	-
38	GoUP Subsidy	2,414.14	1,886.38	1,886.38
39	<b>Net Revenue Gap/(Surplus) before Tariff revision (ARR-Revenue)</b>	<b>307.18</b>	<b>1,836.38</b>	<b>(1,094.00)</b>
40	Less: Additional Subsidy to be provided by GoUP	-	-	-
41	Tariff Revision Impact	817.66	-	-
42	<b>Net Revenue Gap /(Surplus) after Tariff revision</b>	<b>(510.48)</b>	<b>1,836.38</b>	<b>(1,094.00)</b>

TABLE 4-149: SUMMARY OF ARR FOR TRUE UP OF PVVNL FOR FY 2019-20

S. No.	Particular	FY 2019-20		
		Approved in T.O 03.09.2019	Claimed	Approved
1	Cost of Power Procurement (including Inter State Transmission)	16,202.34	16,120.61	15,935.00
2	Disallowance in PPC due to excess sales (in unmetered) wrt Normative	-	-	-
3	Cost of Gain / (Loss) on Account of AT&C	-	94.84	-
4	Efficiency Gains / (Loss) on account of variation in Distribution Loss	-	361.46	-
5	Transmission and Load Dispatch Charges (Intra-State Transmission Charges)	625.00	1,033.10	1,250.81
6	<b>Gross O&amp;M Expenses</b>	1,986.92	1,815.98	1,320.43
7	Employee expenses	1,302.42	644.39	604.50
8	A&G expenses	127.71	559.82	123.74
9	R&M expenses	556.79	609.30	592.19
10	UPPCL O&M Expenses	-	72.36	-
11	Smart Meter Opex	-	2.47	-
12	Arrears (7th Pay Commission)	-	-	-
13	Interest on Loan Capital	579.50	357.47	318.82
14	Interest on Security Deposit from Consumers and Distribution system Users	108.00	92.29	92.29
15	Interest on Working Capital	284.04	278.25	204.65
16	Finance Charges	30.37	40.23	40.23
17	Depreciation	570.70	300.26	403.52
18	Interest on GPF	-	-	-



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S. No.	Particular	FY 2019-20		
		Approved in T.O 03.09.2019	Claimed	Approved
19	<b>Gross expenditure</b>	<b>20,386.87</b>	<b>20,494.51</b>	<b>19,565.76</b>
20	Less: Employee expenses capitalised	276.72	158.26	158.26
21	Less: A&G expenses capitalised	-	-	-
22	Less: Interest expenses capitalised	149.35	215.65	215.65
23	<b>Net expenditure</b>	<b>19,960.80</b>	<b>20,120.60</b>	<b>19,191.84</b>
24	Bad Debts & Provisions	389.41	40.89	40.89
25	Prior Period expenses/Comprehensive Incomes	-	-	-
26	<b>Net expenditure with provisions</b>	<b>20,350.21</b>	<b>20,161.49</b>	<b>19,232.73</b>
27	Add: Return on Equity	541.87	564.17	564.17
28	Less: Non-Tariff Income	42.47	38.96	47.95
29	Add: Cost of borrowing DPS	-	-	-
30	Less: Cross Subsidy surcharge (STOA)	-	0.64	0.64
31	<b>Aggregate Revenue Requirement</b>	<b>20,849.61</b>	<b>20,686.05</b>	<b>19,748.31</b>
32	Gain on O&M Expenses	-	362.02	-
33	Sharing of Gain/Loss on O&M Expenses (50% to Consumers)	-	362.02	-
34	<b>Net ARR</b>	<b>20,849.61</b>	<b>21,048.08</b>	<b>19,748.31</b>
35	Revenue from existing Tariff	18,882.91	17,039.25	17,039.25
36	Deemed Revenue (LMV-10)	-	-	55.28
37	Deemed Revenue (Sales Adjustment)	-	-	-
38	GoUP Subsidy	1,723.81	2,764.67	2,764.67
39	<b>Net Revenue Gap/(Surplus) before Tariff revision (ARR-Revenue)</b>	<b>242.89</b>	<b>1,244.16</b>	<b>(110.88)</b>
40	Less: Additional Subsidy to be provided by GoUP	-	-	-
41	Tariff Revision Impact	1,109.19	-	-
42	<b>Net Revenue Gap /(Surplus) after Tariff revision</b>	<b>(866.30)</b>	<b>1,244.16</b>	<b>(110.88)</b>

TABLE 4-150: SUMMARY OF ARR FOR TRUE UP OF PUVVNL FOR FY 2019-20

S. No.	Particular	FY 2019-20		
		Approved in T.O 03.09.2019	Claimed	Approved
1	Cost of Power Procurement (including Inter State Transmission)	12,359.22	11,840.63	11,696.09
2	Disallowance in PPC due to excess sales (in unmetered) wrt Normative	-	-	-
3	Cost of Gain / (Loss) on Account of AT&C	-	1,001.00	-
4	Efficiency Gains / (Loss) on account of variation in Distribution Loss	-	602.50	-



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S. No.	Particular	FY 2019-20		
		Approved in T.O 03.09.2019	Claimed	Approved
5	Transmission and Load Dispatch Charges (Intra-State Transmission Charges)	476.75	804.03	938.34
6	<b>Gross O&amp;M Expenses</b>	2,775.59	2,099.11	1,804.30
7	Employee expenses	1,771.30	769.55	769.55
8	A&G expenses	174.62	441.25	164.93
9	R&M expenses	829.67	869.83	869.83
10	UPPCL O&M Expenses	-	-	-
11	Smart Meter Opex	-	18.48	-
12	Arrears (7th Pay Commission)	-	-	-
13	Interest on Loan Capital	625.91	614.35	607.34
14	Interest on Security Deposit from Consumers and Distribution system Users	33.38	24.25	24.25
15	Interest on Working Capital	300.59	316.12	231.89
16	Finance Charges	32.26	8.40	8.40
17	Depreciation	393.10	243.17	380.04
18	Interest on GPF	-	-	-
19	<b>Gross expenditure</b>	<b>16,996.80</b>	<b>17,553.55</b>	<b>15,690.65</b>
20	Less: Employee expenses capitalised	265.97	460.33	460.33
21	Less: A&G expenses capitalised	-	-	-
22	Less: Interest expenses capitalised	97.97	225.36	225.36
23	<b>Net expenditure</b>	<b>16,632.86</b>	<b>16,867.85</b>	<b>15,004.95</b>
24	Bad Debts & Provisions	261.71	164.61	164.61
25	Prior Period expenses/Comprehensive Incomes	-	-	-
26	<b>Net expenditure with provisions</b>	<b>16,894.57</b>	<b>17,032.46</b>	<b>15,169.56</b>
27	Add: Return on Equity	461.48	476.32	476.32
28	Less: Non-Tariff Income	18.93	284.31	284.31
29	Add: Cost of borrowing DPS	-	-	-
30	Less: Cross Subsidy surcharge (STOA)	-	0.57	0.57
31	<b>Aggregate Revenue Requirement</b>	<b>17,337.12</b>	<b>17,223.90</b>	<b>15,361.00</b>
32	Gain on O&M Expenses	-	451.38	-
33	Sharing of Gain/Loss on O&M Expenses (50% to Consumers)	-	451.38	-
34	<b>Net ARR</b>	<b>17,337.12</b>	<b>17,675.28</b>	<b>15,361.00</b>
35	Revenue from existing Tariff	13,057.69	11,641.41	11,641.41
36	Deemed Revenue (LMV-10)	-	-	140.68
37	Deemed Revenue (Sales Adjustment)	-	-	-
38	GoUP Subsidy	2,958.41	3,289.09	3,289.09
39	<b>Net Revenue Gap/(Surplus) before Tariff revision (ARR-Revenue)</b>	<b>1,321.02</b>	<b>2,744.78</b>	<b>289.82</b>
40	Less: Additional Subsidy to be provided by GoUP	-	-	-
41	Tariff Revision Impact	1,143.51	-	-
42	<b>Net Revenue Gap /(Surplus) after Tariff revision</b>	<b>177.51</b>	<b>2,744.78</b>	<b>289.82</b>



**TABLE 4-151: SUMMARY OF ARR FOR TRUE UP OF KESCO FOR FY 2019-20**

S. No.	Particular	FY 2019-20		
		Approved in T.O 03.09.2019	Claimed	Approved
1	Cost of Power Procurement (including Inter State Transmission)	1,787.02	1,750.36	1,730.25
2	Disallowance in PPC due to excess sales (in unmetered) wrt Normative	-	-	-
3	Cost of Gain / (Loss) on Account of AT&C	-	69.73	-
4	Efficiency Gains / (Loss) on account of variation in Distribution Loss	-	40.07	40.07
5	Transmission and Load Dispatch Charges (Intra-State Transmission Charges)	68.93	107.67	134.27
6	<b>Gross O&amp;M Expenses</b>	315.12	357.22	241.88
7	Employee expenses	228.63	136.65	136.65
8	A&G expenses	22.83	129.49	21.54
9	R&M expenses	63.66	83.69	83.69
10	UPPCL O&M Expenses	-	-	-
11	Smart Meter Opex	-	7.39	-
12	Arrears (7th Pay Commission)	-	-	-
13	Interest on Loan Capital	9.28	7.02	6.50
14	Interest on Security Deposit from Consumers and Distribution system Users	10.61	8.83	8.83
15	Interest on Working Capital	46.97	43.62	42.33
16	Finance Charges	3.37	4.56	4.56
17	Depreciation	31.24	31.07	40.82
18	Interest on GPF	-	-	-
19	<b>Gross expenditure</b>	<b>2,272.54</b>	<b>2,420.14</b>	<b>2,249.49</b>
20	Less: Employee expenses capitalised	11.68	11.83	11.83
21	Less: A&G expenses capitalised	-	-	-
22	Less: Interest expenses capitalised	-	-	-
23	<b>Net expenditure</b>	<b>2,260.86</b>	<b>2,408.31</b>	<b>2,237.66</b>
24	Bad Debts & Provisions	52.00	22.48	22.48
25	Prior Period expenses/Comprehensive Incomes	-	-	-
26	<b>Net expenditure with provisions</b>	<b>2,312.86</b>	<b>2,430.79</b>	<b>2,260.15</b>
27	Add: Return on Equity	32.52	46.13	46.13
28	Less: Non-Tariff Income	18.16	42.26	42.52
29	Add: Cost of borrowing DPS	-	-	-
30	Less: Cross Subsidy surcharge (STOA)	-	-	-
31	<b>Aggregate Revenue Requirement</b>	<b>2,327.22</b>	<b>2,434.66</b>	<b>2,263.75</b>
32	Gain on O&M Expenses	-	(2.72)	-
33	Sharing of Gain/Loss on O&M Expenses (50% to Consumers)	-	(2.72)	-



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S. No.	Particular	FY 2019-20		
		Approved in T.O 03.09.2019	Claimed	Approved
34	<b>Net ARR</b>	<b>2,327.22</b>	<b>2,431.93</b>	<b>2,263.75</b>
35	Revenue from existing Tariff	2,546.23	2,619.39	2,619.39
36	Deemed Revenue (LMV-10)	-	-	-
37	Deemed Revenue (Sales Adjustment)	-	-	-
38	GoUP Subsidy	-	-	-
39	<b>Net Revenue Gap/(Surplus) before Tariff revision (ARR-Revenue)</b>	<b>(219.01)</b>	<b>(187.46)</b>	<b>(355.64)</b>
40	Less: Additional Subsidy to be provided by GoUP	-	-	-
41	Tariff Revision Impact	139.82	-	-
42	<b>Net Revenue Gap /(Surplus) after Tariff revision</b>	<b>(358.83)</b>	<b>(187.46)</b>	<b>(355.64)</b>

**TABLE 4-152: SUMMARY OF ARR FOR TRUE UP FOR FY 2019-20 (CONSOLIDATED)**

S. No.	Particular	FY 2019-20		
		Approved in T.O 03.09.2019	Claimed	Approved
1	Cost of Power Procurement (including Inter State Transmission)	51,438.30	50,758.38	50,166.24
2	Disallowance in PPC due to excess sales (in unmetered) wrt Normative	-	-	-
3	Cost of Gain / (Loss) on Account of AT&C	-	3,128.58	-
4	Efficiency Gains / (Loss) on account of variation in Distribution Loss	-	2,113.67	40.07
5	Transmission and Load Dispatch Charges (Intra-State Transmission Charges)	1,984.21	3,364.61	3,979.30
6	<b>Gross O&amp;M Expenses</b>	<b>9,680.75</b>	<b>7,667.03</b>	<b>5,990.16</b>
7	Employee expenses	6,140.78	2,869.41	2,794.92
8	A&G expenses	784.09	2,275.53	736.70
9	R&M expenses	2,755.88	2,483.69	2,458.53
10	UPPCL O&M Expenses	-	121.07	-
11	Smart Meter Opex	-	38.40	-
12	Arrears (7th Pay Commission)	-	-	-
13	Interest on Loan Capital	2,019.40	1,830.65	1,784.04
14	Interest on Security Deposit from Consumers and Distribution system Users	249.53	193.53	193.53
15	Interest on Working Capital	1,058.85	1,127.97	853.20
16	Finance Charges	92.30	59.35	59.35
17	Depreciation	1,713.99	1,097.16	1,355.00



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S. No.	Particular	FY 2019-20		
		Approved in T.O 03.09.2019	Claimed	Approved
18	Interest on GPF	-	-	-
19	<b>Gross expenditure</b>	<b>68,237.33</b>	<b>71,340.94</b>	<b>64,420.88</b>
20	Less: Employee expenses capitalised	1,011.35	1,283.85	1,283.85
21	Less: A&G expenses capitalised	-	-	-
22	Less: Interest expenses capitalised	523.36	639.93	639.93
23	<b>Net expenditure</b>	<b>66,702.62</b>	<b>69,417.16</b>	<b>62,497.10</b>
24	Bad Debts & Provisions	1,154.84	524.21	524.21
25	Prior Period expenses/Comprehensive Incomes	-	-	-
26	<b>Net expenditure with provisions</b>	<b>67,857.45</b>	<b>69,941.36</b>	<b>63,021.31</b>
27	Add: Return on Equity	1,783.08	1,853.86	1,853.86
28	Less: Non-Tariff Income	143.19	694.02	1,055.31
29	Add: Cost of borrowing DPS	-	-	-
30	Less: Cross Subsidy surcharge (STOA)	8.56	8.13	8.13
31	<b>Aggregate Revenue Requirement</b>	<b>69,488.78</b>	<b>71,093.07</b>	<b>63,811.73</b>
32	Gain on O&M Expenses	-	1,956.35	-
33	Sharing of Gain/Loss on O&M Expenses (50% to Consumers)	-	1,956.35	-
34	<b>Net ARR</b>	<b>69,488.78</b>	<b>73,049.42</b>	<b>63,811.73</b>
35	Revenue from existing Tariff	56,790.87	54,037.24	54,037.24
36	Deemed Revenue (LMV-10)	-	-	327.19
37	Deemed Revenue (Sales Adjustment)	-	-	-
38	GoUP Subsidy	9,104.00	10,120.00	10,120.00
39	<b>Net Revenue Gap/(Surplus) before Tariff revision (ARR-Revenue)</b>	<b>3,593.90</b>	<b>8,892.17</b>	<b>(672.71)</b>
40	Less: Additional Subsidy to be provided by GoUP	-	-	-
41	Tariff Revision Impact	3,872.50	-	-
42	<b>Net Revenue Gap /(Surplus) after Tariff revision</b>	<b>(278.61)</b>	<b>8,892.17</b>	<b>(672.71)</b>

4.17.2. As observed from above Tables, against the revenue gap/surplus of total of Rs. 8,892.17 Crore claimed by the State Discoms namely DVVNL, MVVNL, PVVNL, PuVVNL and KESCo for truing up of FY 2019-20, the Commission has worked out the surplus of total of Rs. 672.71 Crore while carrying out the truing up on the basis of audited accounts.



4.17.3. Analysis on few parameters for percentage are depicted below:

**TABLE 4-153: ANALYSIS ON FEW PARAMETERS FOR PERCENTAGE (%) CHANGE**

Parameters	FY 2018-19	FY 2019-20	% Change
Total Sales (MU)	88095.25	91,486.05	3.85%
Revenue from tariff (Rs. Crore)	50025.42	54,037.24	8.02%
Total Power Purchase (MU)	104317.35	1,09,215.93	4.70%
Total Power Purchase (Rs. Crore)	52186.51	50,166.24	-3.87%
ARR (Rs. Crore)	60404.45	63,811.73	5.64%
Revenue Gap / (Surplus) (Rs. Crore)	62.65	(672.71)	-1173.75%
BST (Rs. / kWh)	5.00	4.84	-3.29%
ABR (Rs. / kWh)	5.68	5.91	3.99%
ACoS (Rs. / kWh)	6.86	6.98	1.68%



## 5. ANNUAL PERFORMANCE REVIEW OF FY 2020-21

### 5.1. INTRODUCTION

- 5.1.1. In this Chapter the Commission has carried out the Annual Performance Review for FY 2020-21 in line with the provisions of the Uttar Pradesh Electricity Regulatory Commission (Multi Year Tariff for Distribution & Transmission) Regulations, 2019.
- 5.1.2. Regulation 7 of the MYT Regulations, 2019 specifies that under the MYT framework, the performance of the Licensee shall be subject to Annual Performance Review (APR) as shown under:

Quote

*7 Annual Performance Review*

*7.1 The Licensee shall file Petition for Annual Performance Review (APR) as provided in Regulation 4.1 of these Regulations:*

*Provided that the Petition shall include information in such form as may be prescribed by the Commission, together with the audited/ provisional Accounting Statements, extracts of books of account and such other details, etc., as per the Guidelines and Formats prescribed.*

Unquote

### 5.2. BILLING DETERMINANTS: NUMBER OF CONSUMERS AND CONNECTED LOAD

- 5.2.1. State Discoms have submitted the billing determinants or consumption parameters i.e., number of consumers and connected load for FY 2020-21. The State Discoms submitted that there is deviation in approved sales and revised sales for FY 2020-21. Further, the Licensees submitted that based on the provisional figures available till December 2020, the revised estimates for FY 2020-21 are even lower than the sales projections submitted to Commission in the Business Plan Petition and ARR Petition for FY 2020-21. The State Discoms are unlikely to achieve the category-wise and total energy sales approved by the Commission.
- 5.2.2. The State Discoms submitted that due to impact of the pandemic of COVID-19 and recent lockdowns, the demand scenario of not only the State, but whole Country remained very uncertain and unstable during FY 2020-21.
- 5.2.3. Based on the submissions of the State Discoms, the comparison of billing determinants as approved by the Commission vide Tariff Order dated November 11,



42020 and as submitted by State Discoms for FY 2020-21 is shown in the Tables below:

**TABLE 5-1: CATEGORY WISE NO. OF CONSUMERS AND CONNECTED LOAD (KW) OF DVVNL FOR FY 2020-21**

Category	No of Consumers		Connected Load	
	Approved in order dated November 11, 2020	Claimed in APR	Approved in order dated November 11, 2020	Claimed in APR
LMV-1 Domestic light fan & power	5,235,515	46,61,608	7,056,838.31	59,83,105
LMV-2-Non domestic light fan & power	301,996	2,32,595	772,237.19	5,82,276
LMV-3 Public lamps	1,549	623	40,794.99	11,717
LMV-4 Light, fan & power for public/private institution	25,282	22,366	115,527.98	96,185
LMV-5 Private tube well/pumping sets	274,605	2,72,393	2,033,253.66	20,16,826
LMV-6 Small & medium power upto 100 hp/75kw	47,063	37,548	434,957.38	3,38,118
LMV-7 Public water works	11,348	9,194	108,606.48	93,660
LMV-8 State tube wells & pumps canal upto 100 hp (LMV-8)	7,304	7,285	200,590.37	1,49,776
LMV-9 Temporary supply	3,416	1,973	7,805.01	3,759
LMV- 10 Departmental employees	20,284	17,849	93,136.05	84,633
LMV-11 Electric Vehicles	-	-	-	-
HV-1 Non industrial bulk load	758	529	188,105.91	1,23,711
HV-2 Large & heavy power above 100 bhp (75 kw)	3,438	3,021	1,152,969.20	10,29,239
HV-3 Railway traction	-	-	-	-
HV-4 Lift irrigation & p. canal above 100 bhp (75kw)	56	54	41,769.11	39,286
Bulk supply	-	1	-	11,53,729
Extra State Consumers	-	-	-	-
<b>Total</b>	<b>59,32,612</b>	<b>52,67,038</b>	<b>12,246,592</b>	<b>1,17,06,021</b>

**TABLE 5-2: CATEGORY WISE NO. OF CONSUMERS AND CONNECTED LOAD (KW) OF MVVNL FOR FY 2020-21**

Category	No of Consumers		Connected Load	
	Approved in order dated November 11, 2020	Claimed in APR	Approved in order dated November 11, 2020	Claimed in APR
LMV-1 Domestic light fan & power	74,57,169	72,64,535	99,00,993.53	94,28,833
LMV-2-Non domestic light fan & power	3,82,696	3,70,316	10,86,210.20	10,59,953
LMV-3 Public lamps	1,403	1,411	1,04,313.37	1,00,015



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Category	No of Consumers		Connected Load	
	Approved in order dated November 11, 2020	Claimed in APR	Approved in order dated November 11, 2020	Claimed in APR
LMV-4 Light, fan & power for public/private institution	23,649	22,852	1,46,338.72	1,37,068
LMV-5 Private tube well/pumping sets	2,32,269	2,32,939	10,20,119.23	10,23,042
LMV-6 Small & medium power upto 100 hp/75kw	22,120	21,783	2,78,849.82	2,71,556
LMV-7 Public water works	3,716	3,661	1,12,853.20	1,11,337
LMV-8 State tube wells & pumps canal upto 100 hp	10,002	9,987	2,00,519.55	1,67,397
LMV-9 Temporary supply	5,615	5,455	56,827.54	19,019
LMV- 10 Departmental employees	27,560	27,183	88,239.90	85,788
LMV-11 Electric Vehicles	-	-	-	-
HV-1 Non industrial bulk load	1,203.29	1,169	4,18,046.17	3,89,798
HV-2 Large & heavy power above 100 bhp (75 kw)	2,155.93	2,049	8,91,062.30	8,46,673
HV-3 Railway traction	2.5	2	20,000.00	15,200
HV-4 Lift irrigation & p. canal above 100 bhp (75kw)	10.41	10	9,082.19	7340
Bulk supply	-	-	-	-
Extra State Consumers	1	1	5000	5000
<b>Total</b>	<b>81,69,573</b>	<b>79,63,353</b>	<b>1,43,38,456</b>	<b>1,36,68,021</b>

**TABLE 5-3: CATEGORY WISE NO. OF CONSUMERS AND CONNECTED LOAD (KW) OF PUVNL FOR FY 2020-21**

Category	No of Consumers		Connected Load	
	Approved in order dated November 11, 2020	Claimed in APR	Approved in order dated November 11, 2020	Claimed in APR
LMV-1 Domestic light fan & power	60,27,481	58,05,107	1,18,88,227.02	1,10,72,989
LMV-2-Non domestic light fan & power	4,72,684	4,50,718	14,11,102.73	13,47,300
LMV-3 Public lamps	1,213	1,228	57,310.24	55,118
LMV-4 Light, fan & power for public/private institution	18,013	17,550	1,37,364.45	1,16,850
LMV-5 Private tube well/pumping sets	4,62,681	4,55,852	33,69,762.44	33,31,142
LMV-6 Small & medium power upto 100 hp/75kw	60,683	59,071	8,99,442.33	8,66,319
LMV-7 Public water works	3,873	3,873	1,45,960.74	1,32,032
LMV-8 State tube wells & pumps canal upto 100 hp	4,831	4,831	80,140.73	76,179
LMV-9 Temporary supply	4,577	4,577	42,949.12	52,320
LMV- 10 Departmental employees	20,413	20,117	1,38,765.90	1,34,801
LMV-11 Electric Vehicles	-	-	-	-
HV-1 Non industrial bulk load	2,581.55	2,228	14,54,942.18	12,23,301
HV-2 Large & heavy power above 100 bhp (75 kw)	5,877.43	5,577	21,93,724.91	20,66,974
HV-3 Railway traction	5.03	5	54,301.26	57,467
HV-4 Lift irrigation & p. canal above 100 bhp (75kw)	2.02	2	314.11	314
Bulk supply	-	-	-	-
Extra State Consumers	-	-	-	-
<b>Total</b>	<b>70,84,914</b>	<b>68,30,736</b>	<b>2,18,74,308</b>	<b>2,05,33,105</b>



**TABLE 5-4: CATEGORY WISE NO. OF CONSUMERS AND CONNECTED LOAD (KW) OF PUVVNL FOR FY 2020-21**

Category	No of Consumers		Connected Load	
	Approved in order dated November 11, 2020	Claimed in APR	Approved in order dated November 11, 2020	Claimed in APR
LMV-1 Domestic light fan & power	80,03,162	77,17,101	1,12,74,757.78	1,09,40,422
LMV-2-Non domestic light fan & power	4,40,872	4,25,251	13,55,288.55	13,07,195
LMV-3 Public lamps	348	352	69,003.87	43,205
LMV-4 Light, fan & power for public/private institution	22,950	22,258	1,32,785.17	1,28,674
LMV-5 Private tube well/pumping sets	3,14,062	3,11,933	13,42,892.30	13,34,732
LMV-6 Small & medium power upto 100 hp/75kw	31,357	30,619	3,51,206.84	3,42,611
LMV-7 Public water works	3,481	3,419	1,34,684.33	1,12,319
LMV-8 State tube wells & pumps canal upto 100 hp	11,620	11,605	2,05,054.55	2,11,118
LMV-9 Temporary supply	290	285	606.95	3,664
LMV- 10 Departmental employees	30,436	29,995	1,02,528.30	99,599
LMV-11 Electric Vehicles	-	-	-	-
HV-1 Non industrial bulk load	903.28	858	2,74,394.48	2,60,078
HV-2 Large & heavy power above 100 bhp (75 kw)	1,233.50	1,171	2,71,823.00	2,58,054
HV-3 Railway traction		1		10,800
HV-4 Lift irrigation & p. canal above 100 bhp (75kw)	32.32	32	1,41,850.97	1,40,638
Bulk supply	-	-	-	-
Extra State Consumers	-	1	-	770
<b>Total</b>	<b>88,60,747</b>	<b>85,54,882</b>	<b>1,56,56,877</b>	<b>1,51,93,880</b>

**TABLE 5-5: CATEGORY WISE NO. OF CONSUMERS AND CONNECTED LOAD (KW) OF KESCO FOR FY 2020-21**

Category	No of Consumers		Connected Load	
	Approved in order dated November 11, 2020	Claimed in APR	Approved in order dated November 11, 2020	Claimed in APR
LMV-1 Domestic light fan & power	5,45,240	5,36,815	13,25,542.76	13,33,221.76
LMV-2-Non domestic light fan & power	82,263	81,373	2,43,250.25	2,40,615.90
LMV-3 Public lamps	20	20	11,122	10,278.00
LMV-4 Light, fan & power for public/private institution	1,584	1,538	29,186.25	27,150.00
LMV-5 Private tube well/pumping sets		14		
LMV-6 Small & medium power upto 100 hp/75kw	13,812	13,386	1,03,712.85	1,00,515.90
LMV-7 Public water works	1,138	1,124	41,441.68	43,157.30
LMV-8 State tube wells & pumps canal upto 100 hp	-	-	-	-
LMV-9 Temporary supply	-	106	-	447
LMV- 10 Departmental employees	5,311	5,144	20,898.15	19,952.76
LMV-11 Electric Vehicles	-	-	-	-
HV-1 Non industrial bulk load	284.28	279	90,657.67	85,073.31
HV-2 Large & heavy power above 100 bhp (75 kw)	657.9	618	2,56,814.55	2,39,513.42
HV-3 Railway traction	-	-	-	-



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Category	No of Consumers		Connected Load	
	Approved in order dated November 11, 2020	Claimed in APR	Approved in order dated November 11, 2020	Claimed in APR
HV-4 Lift irrigation & p. canal above 100 bhp (75kw)	-	-	-	-
Bulk supply	-	-	-	-
Extra State Consumers	-	-	-	-
<b>Total</b>	<b>6,50,311</b>	<b>6,40,417</b>	<b>21,22,626.16</b>	<b>20,99,925.35</b>

**TABLE 5-6: CONSOLIDATED CATEGORY WISE NO. OF CONSUMERS AND CONNECTED LOAD (KW) OF 5 STATE DISCOMS FOR FY 2020-21**

Category	No of Consumers		Connected Load	
	Approved in order dated November 11, 2020	Claimed in APR	Approved in order dated November 11, 2020	Claimed in APR
LMV-1 Domestic light fan & power	27,268,566	2,59,85,166	41,446,359	3,87,58,571
LMV-2-Non domestic light fan & power	1,680,511	15,60,253	4,868,089	45,37,340
LMV-3 Public lamps	4,533	3,634	282,545	2,20,333
LMV-4 Light, fan & power for public/private institution	91,478	86,564	561,203	5,05,927
LMV-5 Private tube well/pumping sets	1,283,617	12,73,131	7,766,028	77,05,742
LMV-6 Small & medium power upto 100 hp/75kw	175,035	1,62,407	2,068,169	19,19,120
LMV-7 Public water works	23,556	21,271	543,547	4,92,505
LMV-8 State tube wells & pumps canal upto 100 hp	33,757	33,708	686,305	6,04,470
LMV-9 Temporary supply	13,898	12,396	108,188	79,209
LMV- 10 Departmental employees	104,004	1,00,288	443,569	4,24,774
LMV-11 Electric Vehicles	-	0	-	0
HV-1 Non industrial bulk load	5,730	5,063	2,426,147	20,81,961
HV-2 Large & heavy power above 100 bhp (75 kw)	13,363	12,436	4,766,394	44,40,453
HV-3 Railway traction	8	8	74,301	83,467
HV-4 Lift irrigation & p. canal above 100 bhp (75kw)	101	98	193,016	1,87,578
Bulk supply	-	1	-	11,53,729
Extra State Consumers	1	2	5,000.00	5,770
<b>Total</b>	<b>3,06,98,157</b>	<b>2,92,56,426</b>	<b>6,62,38,859</b>	<b>6,32,00,952</b>

5.2.4. The Commission has observed that category-wise consolidated number of consumers and category-wise consolidated connected load of consumers as submitted by the State Discoms for FY 2020-21 is lower than the approved for FY 2020-21.



5.2.5. The analysis of decrease in No. of Consumers and Connected Load for FY 2020-21 would be carried out during True-Up proceedings after receipt of annual audited balance sheet & P&L statements of respective State Discoms.

### 5.3. ENERGY SALES

5.3.1. The Comparison of Energy Sales as approved by the Commission vide Tariff Order dated November 11, 2020 and as submitted by State Discoms for FY 2020-21 is shown in the Tables below:

**TABLE 5-7: CATEGORY WISE SALES OF DVVNL FOR FY 2020-21 (MU)**

Category	Approved in order dated November 11, 2020	Claimed in APR
LMV-1 Domestic light fan & power	8,865.52	7,242.74
LMV-2-Non domestic light fan & power	1,058.48	878.85
LMV-3 Public lamps	68.40	38.93
LMV-4 Light, fan & power for public/private institution	242.44	222.32
LMV-5 Private tube well/pumping sets	3,392.49	4,298.61
LMV-6 Small & medium power upto 100 hp/75kw	728.59	486.43
LMV-7 Public water works	394.12	350.96
LMV-8 State tube wells & pumps canal upto 100 hp	682.93	826.6
LMV-9 Temporary supply	14.62	5.62
LMV- 10 Departmental employees	145.58	144.46
LMV-11 Electric Vehicles	-	-
HV-1 Non industrial bulk load	355.65	256.3
HV-2 Large & heavy power above 100 bhp (75 kw)	3,089.46	2,345.93
HV-3 Railway traction	-	-
HV-4 Lift irrigation & p. canal above 100 bhp (75kw)	140.62	132.1
Bulk supply	-	1,887.31
Extra State Consumers	-	-
<b>Total</b>	<b>19,179</b>	<b>19,117.15</b>

**TABLE 5-8: CATEGORY WISE SALES OF MVVNL FOR FY 2020-21 (MU)**

Category	Approved in order dated November 11, 2020	Claimed in APR
LMV-1 Domestic light fan & power	10,992.60	10,120.73
LMV-2-Non domestic light fan & power	1,303.99	1,367.55
LMV-3 Public lamps	372.54	310.52



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Category	Approved in order dated November 11, 2020	Claimed in APR
LMV-4 Light, fan & power for public/private institution	198.72	248.24
LMV-5 Private tube well/pumping sets	1,746.01	2,065.26
LMV-6 Small & medium power upto 100 hp/75kw	512.37	478.5
LMV-7 Public water works	498.91	399.95
LMV-8 State tube wells & pumps canal upto 100 hp	905.34	889.78
LMV-9 Temporary supply	74.55	54.23
LMV- 10 Departmental employees	214.97	164.88
LMV-11 Electric Vehicles	-	-
HV-1 Non industrial bulk load	660.59	670.98
HV-2 Large & heavy power above 100 bhp (75 kw)	1,318.28	1,330.09
HV-3 Railway traction	36.23	24.17
HV-4 Lift irrigation & p. canal above 100 bhp (75kw)	80.04	64.02
Bulk supply	-	-
Extra State Consumers	23.77	23.77
<b>Total</b>	<b>18,939</b>	<b>18,212.67</b>

**TABLE 5-9: CATEGORY WISE SALES OF PVVNL FOR FY 2020-21 (MU)**

Category	Approved in order dated November 11, 2020	Claimed in APR
LMV-1 Domestic light fan & power	12,480.48	11,392.90
LMV-2-Non domestic light fan & power	1,495.85	1,532.66
LMV-3 Public lamps	207.49	177.29
LMV-4 Light, fan & power for public/private institution	168.14	169.35
LMV-5 Private tube well/pumping sets	5,557.78	6,044.13
LMV-6 Small & medium power upto 100 hp/75kw	1,061.83	1,045.19
LMV-7 Public water works	493.53	405.16
LMV-8 State tube wells & pumps canal upto 100 hp	357.13	295.56
LMV-9 Temporary supply	76.96	85.23
LMV- 10 Departmental employees	181.99	147.34
LMV-11 Electric Vehicles	-	-
HV-1 Non industrial bulk load	1,665.10	1,326.31
HV-2 Large & heavy power above 100 bhp (75 kw)	4,897.25	4,674.63
HV-3 Railway traction	63.9	85.28
HV-4 Lift irrigation & p. canal above 100 bhp (75kw)	0.78	1.21
Bulk supply	-	-
Extra State Consumers	-	-
<b>Total</b>	<b>28,708.20</b>	<b>27,382.25</b>



**TABLE 5-10: CATEGORY WISE SALES OF PUVVNL FOR FY 2020-21 (MU)**

Category	Approved in order dated November 11, 2020	Claimed in APR
LMV-1 Domestic light fan & power	13,930.06	12,459.78
LMV-2-Non domestic light fan & power	1,777.71	1,874.31
LMV-3 Public lamps	102.65	131.01
LMV-4 Light, fan & power for public/private institution	144.42	278.31
LMV-5 Private tube well/pumping sets	2,296.31	2,428.86
LMV-6 Small & medium power upto 100 hp/75kw	492.651	585.88
LMV-7 Public water works	345.39	390.88
LMV-8 State tube wells & pumps canal upto 100 hp	1,007.68	1,098.36
LMV-9 Temporary supply	0.27	8.96
LMV- 10 Departmental employees	237.4	108.34
LMV-11 Electric Vehicles	-	-
HV-1 Non industrial bulk load	454.76	411.07
HV-2 Large & heavy power above 100 bhp (75 kw)	1,039.90	1,220.61
HV-3 Railway traction	-	16.85
HV-4 Lift irrigation & p. canal above 100 bhp (75kw)	486.48	463.77
Bulk supply	-	-
Extra State Consumers	-	3.01
<b>Total</b>	<b>22,316</b>	<b>21,480.00</b>

**TABLE 5-11: CATEGORY WISE SALES OF KESCO FOR FY 2020-21 (MU)**

Category	Approved in order dated November 11, 2020	Claimed in APR
LMV-1 Domestic light fan & power	1,728.29	1,499.50
LMV-2-Non domestic light fan & power	289.93	308.54
LMV-3 Public lamps	37	36.81
LMV-4 Light, fan & power for public/private institution	81.94	62.43
LMV-5 Private tube well/pumping sets	-	0.08
LMV-6 Small & medium power upto 100 hp/75kw	275.63	313.32
LMV-7 Public water works	103.87	105.61
LMV-8 State tube wells & pumps canal upto 100 hp	-	-
LMV-9 Temporary supply	11.38	3.19
LMV- 10 Departmental employees	41.42	38.21
LMV-11 Electric Vehicles	-	-
HV-1 Non industrial bulk load	187.76	160.62
HV-2 Large & heavy power above 100 bhp (75 kw)	510.46	493.11



Category	Approved in order dated November 11, 2020	Claimed in APR
HV-3 Railway traction	-	-
HV-4 Lift irrigation & p. canal above 100 bhp (75kw)	-	-
Bulk supply	-	-
Extra State Consumers	-	-
<b>Total</b>	<b>3,268</b>	<b>3,021.43</b>

**TABLE 5-12: CONSOLIDATED CATEGORY WISE SALES OF 5 STATE DISCOMS FOR FY 2020-21 (MU)**

Category	Approved in order dated November 11, 2020	Claimed in APR
LMV-1 Domestic light fan & power	47,997	42,715.65
LMV-2-Non domestic light fan & power	5,926	5,961.91
LMV-3 Public lamps	788	694.56
LMV-4 Light, fan & power for public/private institution	836	980.65
LMV-5 Private tube well/pumping sets	12,993	14,836.94
LMV-6 Small & medium power upto 100 hp/75kw	3,072	2,909.32
LMV-7 Public water works	1,835	1,652.56
LMV-8 State tube wells & pumps canal upto 100 hp	2,953	3,110.30
LMV-9 Temporary supply	178	157.23
LMV- 10 Departmental employees	821	603.23
LMV-11 Electric Vehicles	-	0.00
HV-1 Non industrial bulk load	3,324	2,825.28
HV-2 Large & heavy power above 100 bhp (75 kw)	10,855	10,064.37
HV-3 Railway traction	100	126.30
HV-4 Lift irrigation & p. canal above 100 bhp (75kw)	708	661.10
Bulk supply	-	1,887.31
Extra State Consumers	24	26.78
<b>Total</b>	<b>92,410</b>	<b>89,213.50</b>

5.3.2. The Commission has observed that category-wise consolidated sales as submitted by the State Discoms for FY 2020-21 is lower than the approved category-wise consolidated sales for FY 2020-21.

5.3.3. The analysis of decrease in sales for FY 2020-21 would be carried out during True-Up proceedings after receipt of annual audited balance sheet & P&L statements of respective State Discoms.



## 5.4. DISTRIBUTION LOSS

5.4.1. The Comparison of Distribution losses as approved by the Commission vide Tariff Order dated November 11, 2020 and as submitted by State Discoms for FY 2020-21 is shown in the Table below:

**TABLE 5-13: DISTRIBUTION LOSSES CLAIMED FOR FY 2020-21**

Particulars	Approved in order dated November 11, 2020	Claimed in APR
DVVNL	11.80%	21.35%
MVVNL	11.51%	18.65%
PVVNL	11.51%	14.65%
PuVVNL	11.83%	19.20%
KESCO	8.42%	8.54%
<b>Consolidated (5 Discoms)</b>	<b>11.54%</b>	<b>17.90%</b>

5.4.2. The actual losses are higher in comparison to the approved losses. The analysis of Distribution losses for FY 2020-21 would be carried out during True-Up proceedings after receipt of annual audited balance sheet & P&L statements of respective State Discoms.

## 5.5. POWER PURCHASE QUANTUM AND COST

5.5.1. Regulations 14 “Procurement of Power” of the MYT Regulations 2019 provides as under:

Quote

*14.1 The Distribution Licensee shall prepare a plan for procurement of power to serve the demand for electricity in its area of supply and submit such plan to the Commission for approval:*

*Provided that such power procurement plan for the full Control Period shall be submitted along with the Petition for Business Plan for the Control Period from April 1, 2020 to March 31, 2025, as stipulated in these Regulations.*

*14.2 The power procurement plan of the Distribution Licensee must follow Regulation 5.4, and be optimized on cost and shall comprise the following:*



- (a) A quantitative forecast of the seasonal variation in unrestricted base load and peak load for electricity within its area of supply;
- (b) An estimate of the optimum quantities and cost of power supply from the identified sources of power purchase, including own generation if any;
- (c) Power Purchase Agreements (PPAs) and contracts/ agreements entered to meet the load requirement;
- (d) An estimate of adequate availability of power to meet the seasonal variation in base load and peak load requirement:  
Provided that such estimate of demand and supply shall be on month-wise basis in Mega-Watt (MW) along with the Plant Load factor (PLF) of the plant as well as expressed in Million Units (MU);
- (e) Taking into consideration the sufficient long-term capacity PPAs already contracted by the State Discoms with coal based Thermal Power Station to meet the projected demand till FY 2026-2027, no new long term PPA with coal based thermal power plant shall be contracted till December 2022 or until further Orders of the Commission;
- (f) Standards to be maintained with regard to quality and reliability of supply, in accordance with the relevant Regulations or Orders of the Commission;
- (g) Measures proposed for Energy Conservation, Energy Efficiency, and Demand Side Management;
- (h) The requirement for new sources of power procurement, including augmentation of own generation capacity, if any, and identified new sources of supply, based on (a) to (g) above;
- (i) The impact of Open Access on load;
- (j) Taking into consideration the Transmission and distribution capacities;
- (k) Impact of renewables on overall demand/ power procurement;
- (l) Impact of Storage Capacities including Batteries, EV Charging Stations etc.;

**D. Any other aspect as required by the Commission:**

*Provided that the forecast or estimates contained in the long-term procurement plan shall be separately stated for peak and off-peak periods, in terms of quantities of power to be procured (in MU) and maximum demand (in MW).*

*14.3 The forecast or estimate shall be prepared using forecasting techniques based on past data and reasonable assumptions regarding the future:*

*Provided that the forecast or estimate shall take into account factors such as overall economic growth of the State, advent of competition in the electricity*



*sector, trends in captive power and Grid migration, impact of loss reduction initiatives and Energy conservation, use of energy efficiency appliances/equipment, fuel supply and cost, impact of renewables, etc.”*

#### Unquote

- 5.5.2. Since, the power purchase expense is the largest component in the ARR of a Distribution Licensee; it becomes imperative that this element of cost is incurred with utmost care based on the most efficient way of power procurement from the generating stations through long-term / short-term power purchase arrangements, through bilateral power purchase agreements or Power Exchange etc. trying to replace expensive power with cheaper power whenever possible.
- 5.5.3. Uttar Pradesh has got both thermal as well as Hydro generating stations. UPRVUNL owns all the thermal generating stations within the State and the hydro stations are owned by UPJVNL. UPPCL is procuring power on behalf of Discoms at consolidated level. Accordingly, the Power Purchase section represents the consolidated power purchase at UPPCL level.

**TABLE 5-14: CONSOLIDATED ENERGY BALANCE FOR FY 2020-21**

Particulars	Approved in order dated November 11, 2020	Claimed in APR
Retail Sales (MU)	92,409.63	89,213.50
Distribution Losses (%)	11.54%	17.90%
Energy at DISCOM Periphery for Retail Sales (MU)	1,04,467.34	1,08,664.67
Intra-State Transmission Losses %	3.40%	3.40%
Energy Available at State periphery for Transmission (MU)	1,08,144.23	1,12,489.30
Inter State Losses (MU)	1,183.43	992.78
Inter-State Transmission Losses % (% computed on Total input energy)	1.08%	0.87%
Purchases Required & Billed Energy (MU)	1,09,327.66	1,13,482.07

- 5.5.4. The State Owned Discoms submitted that the Power Purchase Cost for FY 2020-21 is estimated based on the provisional data available for Power Purchase quantum and cost for FY 2020-21.
- 5.5.5. The revised estimates of total power purchase quantum from State owned generating stations, Central generating stations and other sources for FY 2020-21 as submitted by State Discoms is presented in the Table below:



**TABLE 5-15: POWER PURCHASE COST FOR FY 2020-21**

Generating Stations	Units (MU)	Fixed Charges (Rs. Crore)	Energy/ Variable Charges (Rs. Crore)	Other Cost (Rs. Crore)	Total Cost (Rs. Crore)
Long term Sources					
Power procured from own Generating Stations (if any)					
From State Generating Stations Thermal					
ANPARA-A	3,250.17	258.55	627.7	1.1	887.36
ANPARA-B	6,914.77	315.42	1,224.83	-	1,540.25
PANKI	-	-	-	-	-
PARICHHA	-	-	-	-	-
PARICHHA EXT.	1,186.20	333.66	431.32	-	764.98
OBRA-A	-	-	-	-	-
OBRA-B	3,854.64	309.07	927.02	-	1,236.09
HARDUAGANJ	9.93	36.15	3.67	-	39.82
HARDUAGANJ EXT.	2,087.86	532.38	725.66	-	1,258.04
PARICHHA EXT. STAGE-II	1,792.42	486.27	648.63	-	1,134.90
ANPARA-D	3,082.88	508.94	556.78	-	1,065.71
Panki Extension	-	-	-	-	-
HARDUAGANJ EXT. Stage II	-	-	-	-	-
OBRA-C	-	-	-	-	-
Jawaharpur	-	-	-	-	-
UPRVUNL Consolidated	-	-	-	47.86	47.86
<b>Sub-Total</b>	<b>22,178.87</b>	<b>2,780.44</b>	<b>5,145.61</b>	<b>48.96</b>	<b>7,975.01</b>
From State Generating Stations Hydro					
RIHAND	685.87	16.51	70.09	22.51	109.12
OBRA ( H )	345.83	8.92	23.73	0.51	33.15
MATATILA	67.15	2.69	4.58	0	7.27
KHARA	283.24	11.99	13.12	0.34	25.45
UGC	25.09	-	7.1	-	7.1
SHEETLA	2.49	-	0.48	-	0.48
BELKA	3.13	-	0.58	-	0.58
BABAIL	0.3	-	0.04	0.23	0.27
<b>Sub-Total</b>	<b>1,413.10</b>	<b>40.11</b>	<b>119.72</b>	<b>23.59</b>	<b>183.43</b>
<b>From Central Sector Generating Stations</b>					
Thermal (NTPC)					



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Generating Stations	Units (MU)	Fixed Charges (Rs. Crore)	Energy/ Variable Charges (Rs. Crore)	Other Cost (Rs. Crore)	Total Cost (Rs. Crore)
ANTA GPS	232.18	54.35	99.38	0.43	154.16
AURAIYA GPS	373.04	108.38	157	9.56	274.95
DADRI GPS	846.94	115.11	310.92	12.24	438.26
JHANOR GPS	1.92	0.19	0.39	-	0.58
KAWAS GPS	2	0.15	0.4	0	0.56
TANDA TPS	1,250.40	366.51	401.31	29.75	797.57
FGUTPS-1	737.89	185.08	231.9	18.4	435.38
FGUTPS-2	399.11	93.17	127.63	13.28	234.08
FGUTPS-3	268.4	61.36	86.26	9.29	156.91
FGUTPS-4	958.98	253.68	291.69	23.96	569.33
FSTPS	210.04	19.04	57.01	1.47	77.53
KHTPS-1	349.41	52.2	78.88	0.28	131.37
KHTPS-2	934.15	155.57	200.36	3.3	359.23
NCTPS-1	245.41	55.7	82.49	1.16	139.34
NCTPS-2	262.05	117.23	92.45	6.93	216.62
RIHAND-1	1,988.76	186.3	280.55	0.51	467.36
RIHAND-2	2,306.32	156.75	324.32	7.7	488.77
RIHAND-3	2,632.78	343.07	365.52	14.78	723.37
SINGRAULI	4,751.38	352.81	669.96	-	1,022.77
KORBA-I STPS	17.95	1.21	2.5	0.01	3.73
KORBA-III STPS	9.53	1.25	1.31	0.03	2.58
MAUDA-I STPS	3.91	3.44	1.11	0.17	4.72
MAUDA-II STPS	10.12	4.29	2.96	0.12	7.37
SOLAPUR TPS	2.91	4.18	0.84	0.02	5.04
SIPAT-I	33.64	4.58	4.8	0.04	9.41
SIPAT-II STPS	11.58	1.48	1.71	0.01	3.2
VINDHYACHAL-I STPS	16.53	1.54	2.76	-	4.31
VINDHYACHAL-II STPS	12.05	0.93	1.94	0	2.88
VINDHYACHAL-III STPS	13.2	1.48	2.11	-0.06	3.52
VINDHYACHAL-IV STPS	16.92	2.94	2.68	0.01	5.63
VINDHYACHAL-V STPS	9.22	1.69	1.51	-0.03	3.17
Tanda II	2,497.86	543.25	630.6	17.06	1,190.91
Indira Gandhi STPS, Jhajjar	227.36	25.04	80.74	0.36	106.14
URS Power					
SINGRAULI STAGE III	6.24	3.36	1.57	0.05	4.98
Indira Gandhi STPS, Jhajjar	14.82	4.22	3.15	0	7.37
GADARWARA STPS-I	10.61	4.5	2.96	0	7.47



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Generating Stations	Units (MU)	Fixed Charges (Rs. Crore)	Energy/ Variable Charges (Rs. Crore)	Other Cost (Rs. Crore)	Total Cost (Rs. Crore)
LARA STPS-I	-	-	-	-97.79	-97.79
KHARGONE STPS					
NTPC Consolidated					
<b>Sub-Total</b>	<b>21,665.62</b>	<b>3,286.03</b>	<b>4,603.68</b>	<b>73.05</b>	<b>7,962.76</b>
<b>NPCIL</b>					
KAPS	5.5	-	1.3	0.04	1.34
NAPP	1,133.91	-	344.63	2.2	346.82
TAPP-3 & 4	16.8	-	5.51	1.78	7.29
RAPP-3 & 4	518.63	-	172.58	-0.44	172.14
RAPP-5 & 6	787.18	-	306.32	-	306.32
<b>Sub-Total</b>	<b>2,462.01</b>	<b>-</b>	<b>830.33</b>	<b>3.58</b>	<b>833.92</b>
<b>Hydro (NHPC)</b>					
SALAL	249.86	18.85	16.53	35.45	70.84
TANAKPUR	88.52	20.35	14.3	0.01	34.66
CHAMERA-I	492.88	39.44	58.32	-0.08	97.67
URI	616.26	50.7	52.29	-0.06	102.93
CHAMERA-II	173.04	15.1	20.2	0.04	35.34
DHAULIGANGA	290.51	38.86	37.91	0.03	76.81
DULHASTI	591.22	138.03	158.64	0.05	296.72
SEWA-II	143.08	38.56	39.84	0	78.39
CHAMERA-III	245.17	49.06	46.99	0.03	96.08
URI-II	379.33	67.64	65.07	-0.09	132.63
PARBATI-III	155.75	66.66	27	0.06	93.73
KISHANGANGA	445.16	84.14	94.76	0.08	178.98
PARBATI-II	-	-	-	-	-
SUBANSIRI LOWER	-	-	-	-	-
PAKALDUL	-	-	-	-	-
NHPC Consolidated	-	-	-	175.28	175.28
<b>Sub-Total</b>	<b>3,870.79</b>	<b>627.41</b>	<b>631.84</b>	<b>210.8</b>	<b>1,470.04</b>
<b>HYDRO (NTPC)</b>					
KOLDAM HPS	677.69	183.94	159.65	-	343.59
TAPOVAN VISHNUGARH	-	-	-	-	-
LATA TAPOVAN HEP	-	-	-	-	-
SINGRAULI SHPS	8.82	-	4.44	-	4.44
<b>Sub-Total</b>	<b>686.51</b>	<b>183.94</b>	<b>164.1</b>	<b>-</b>	<b>348.04</b>
<b>HYDRO</b>					
TEHRI	1,200.27	265.15	252.56	59.41	577.12



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Generating Stations	Units (MU)	Fixed Charges (Rs. Crore)	Energy/ Variable Charges (Rs. Crore)	Other Cost (Rs. Crore)	Total Cost (Rs. Crore)
KOTESHWAR	492.22	117.79	105.83	-4.9	218.72
Dhukwan SHP- THDC	50.98	-	24.83	-	24.83
VISHNUGARH PIPAL KOTHI	-	-	-	-	-
Thermal					
KHURJA STPP	-	-	-	-	-
<b>Sub-Total</b>	<b>1,743.47</b>	<b>382.94</b>	<b>383.21</b>	<b>54.51</b>	<b>820.66</b>
<b>SJVN</b>					
RAMPUR	323.93	77.28	54.84	164.42	296.54
NATHPA JHAKRI	1,246.06	158.9	108.51	10.27	277.68
<b>Sub-Total</b>	<b>1,569.99</b>	<b>236.18</b>	<b>163.35</b>	<b>174.68</b>	<b>574.22</b>
<b>NEEPCO</b>					
Kameng HEP	103.04	-	41.22	0.02	41.25
<b>IPP/JV</b>					
<b>HYDRO</b>					
TALA	149.44	-	32.28	0.01	32.29
VISHNU PRAYAG	1,584.29	24.48	171.55	-33.56	162.47
KARCHAM	865.31	179.51	114.82	99.35	393.68
TEESTA-III	881.37	328.28	190.69	9.72	528.69
SRI NAGAR HEP	1,308.80	373.06	308.01	-	681.06
Rajghat Hydro	-	-	-	-	-
Hydro (Competitive Bidding)	-	-	-	-	-
<b>Thermal</b>					
Meja Thermal Power Plant	1,836.67	651.52	468.21	-10.8	1,108.93
LANCO	7,141.18	563.65	1,384.80	300.77	2,249.22
BEPL BARKHERA	147.33	108.6	51.01	70.08	229.69
BEPL KHAMBHAKHERA	148.36	111.59	50.83	0.03	162.46
BEPL KUNDRAKHI	193.76	114.46	60.32	0.03	174.81
BEPL MAQSOODAPUR	154.05	111.82	51.63	0.03	163.48
BEPL UTRAULA	212.01	113.7	70.94	0.03	184.67
KSK MAHANADI	5,084.61	1,467.61	1,484.48	-92.97	2,859.12
LALITPUR	6,343.58	3,151.81	1,900.25	281.47	5,333.53
M.B. POWER	2,108.48	600.88	411.1	1,049.89	2,061.87
PRAYAGRAJ POWER	8,728.02	1,407.44	2,371.15	-7.4	3,771.19
R.K.M.POWER	2,336.65	609.89	442.32	52.16	1,104.37
ROSA-1&2	6,125.35	1,163.64	1,584.96	269.54	3,018.14
SASAN	3,792.91	50.76	406.03	79.32	536.11



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Generating Stations	Units (MU)	Fixed Charges (Rs. Crore)	Energy/ Variable Charges (Rs. Crore)	Other Cost (Rs. Crore)	Total Cost (Rs. Crore)
TRN ENERGY	1,464.07	242.25	228.42	456.73	927.41
NABINAGAR POWER PROJECT	379.87	133.51	79.26	-8.43	204.34
APCPL					
Ghatampur					
<b>Sub-Total</b>	<b>50,986.11</b>	<b>11,508.46</b>	<b>11,863.07</b>	<b>2,516.01</b>	<b>25,887.54</b>
<b>Total</b>	<b>106,679.50</b>	<b>19,045.51</b>	<b>23,946.14</b>	<b>3,105.21</b>	<b>46,096.85</b>
Medium term Sources					
Short term Sources	-	-	-	-	-
Medium term Sources	-	-	-	-	-
Cogen/ Captive					
Baggasse/Cogen/ CPP 1	-	-	-	-	-
Baggasse/Cogen/ CPP 2	-	-	-	-	-
Cogen/ Captive	2,357.57	-	797.15	-8.95	788.2
Bilateral & Others (Power purchased through Trading)	-	-	-	-	-
				-	
Solar (Existing )	-	-	-	-	-
Solar (FY 20)	-	-	-	-	-
Solar (FY 21)	-	-	-	-	-
Solar (FY 22)	-	-	-	-	-
Solar (FY 23)	-	-	-	-	-
SOLAR FY (24)	-	-	-	-	-
SOLAR FY 25	-	-	-	0.15	0.15
<b>Sub-Total</b>	<b>3,206.71</b>	<b>-</b>	<b>1,266.90</b>	<b>0.15</b>	<b>1,267.05</b>
<b>Non-Solar (Renewable)</b>					
WIND	1,502.98	-	506.41	-	506.41
WIND (FY 20)	-	-	-	-	-
WIND (FY 21)	-	-	-	-	-
WIND (FY 22)	-	-	-	-	-
Biomass Existing	-	-	-	-	-
Biomass FY 20	-	-	-	-	-
MSW FY 21	-	-	-	-	-
Slop based power project	-	-	-	0.05	0.05
<b>Sub-Total</b>	<b>1,502.98</b>	<b>-</b>	<b>506.41</b>	<b>0.05</b>	<b>506.46</b>
NVVN Thermal	772.14	-	234.02	8.24	242.26
NVVN Solar	291.89	-	204.59	6.61	211.2



Approval of ARR and Tariff for State Discoms for FY 2021-22, APR of FY 2020-21 and True-up of FY 2019-20

Generating Stations	Units (MU)	Fixed Charges (Rs. Crore)	Energy/ Variable Charges (Rs. Crore)	Other Cost (Rs. Crore)	Total Cost (Rs. Crore)
<b>OTHER SOURCES</b>					
UI Charges					
Reactive Energy Charges					
OA					
Fwd/Rev Banking					
IEX Purchase					
IEX sale					
<b>Sub Total</b>					
<b>PTC Unverified Power Purchase</b>					
REC	-	-	-	-	-
UI Charges					
Open Access Charges					
Banking					
PGCIL Charges					-
WUPPTCL Charges					-
SEUPPTCL Charges					-
Reactive Energy Charges					-
Case-I Transmission Charges					-
Any other charges					
STU Charges					-
Transmission Charges				5,122.21	5,122.21
Less					
Late Payment Surcharge					
<b>Grand Total</b>	<b>114,810.80</b>	<b>19,045.51</b>	<b>26,955.21</b>	<b>8,233.38</b>	<b>54,234.24</b>

5.5.6. The Commission has observed that the State Owned Discoms, for the purpose of allocating the power purchase cost to the Discoms for FY 2020-21 as per Differential Bulk Supply Tariff (DBST) approach, initially determined the Bulk Supply Tariff (BST) based on the consolidated projected power purchase cost for FY 2020-21. The BST for FY 2020-21 on consolidated basis is shown in the table below:



**TABLE 5-16: BULK SUPPLY FOR FY 2020-21**

Bulk Supply Tariff for FY 2020-21		
Particulars	Approved in order dated November 11, 2020	Claimed in APR
Power Purchase cost (Rs Crore)	54,284.73	54,234.24
Power Input (MU)	1,09,327.65	1,13,482.07
Inter-State Trans Losses (%) (% Computed on Total Input Energy)	2.88%	0.87%
Inter-State Loss (MU)	1,183.41	992.76
Input at Transco End (MU)	1,08,144.24	1,12,489.30
Intra-State Trans Losses (%)	3.40%	3.40%
Input as Discom End (MU)	1,04,467.34	1,08,664.67
<b>BST at Discom Periphery (Rs/Kwh)</b>	<b>5.20</b>	<b>4.99</b>

#### DIFFERENTIAL BULK SUPPLY TARIFF

5.5.7. The Petitioner submitted that based on the Commission's approved methodology, the Differential Bulk Supply Tariff (DBST) for FY 2020-21 has been computed and thereafter, the Petitioner has worked out the power purchase cost for FY 2020-21 on the same.

5.5.8. The Computation of DBST as per the approved methodology by the Commission is shown in the below:

**TABLE 5-17: DBST COMPUTATION FOR FY 2020-21**

S.No.	Particulars	Formulae	DVVNL	PVVNL	PuVVNL	MVVNL	KESCO	Total
1	Revenue from Tariff including subsidy (Rs Cr)	A	12,387.29	20,164.96	15,670.74	13,236.63	2,467.11	63,926.72
2	Energy Sales (MU)	B	19,117.15	27,382.25	21,480.00	18,212.67	3,021.43	89,213.50
<b>3</b>	<b>Power Procurement Cost</b>							
A1	Power Procurement Cost – Allocated and Unallocated PPAs (Rs Cr)							49,112.03
A2	Inter State Transmission Charges (Rs Cr)							5,122.21
A1+A2	Total Power Procurement Cost excluding intra state Transmission Charges (In Rs Cr)	C						54,234.24
4	Power Procurement cost of Allocated PPAs (Rs Cr)	D	2559.44	4729.17	2748	2748	188.56	12,973.18



Approval of ARR and Tariff for State Discoms for FY 2021-22, APR of  
FY 2020-21 and True-up of FY 2019-20

S.No.	Particulars	Formulae	DVVNL	PVVNL	PuVVNL	MVVNL	KESCO	Total
5	Total Power Required at Discom Periphery (MU)	E	24,306.61	32,082.30	26,584.16	22,388.04	3,303.55	108,664.67
6	Power at Discom Periphery from allocated PPAs (MU)	F	4914.6	9230.23	5324.03	5324.03	409.42	25,202.31
7	Other Cost (Intra State Transmission, O&M, Interest, Dep etc.) (Rs. Cr.)	G	3,928.88	4,768.21	4,711.59	3,747.01	648.32	17,804.01
8	ABR (Rs/ Unit)	$H=(A/B)*10$	6.48	7.36	7.3	7.27	8.17	7.17
9	Other Cost (Rs/Unit of Sale)	$I=G*10/B$	2.06	1.74	2.19	2.06	2.15	2
10	Power Purchase Rate							
A	Allocated PPAs per unit of sale (Rs/unit)	$J=D*10/B$	1.34	1.73	1.28	1.51	0.62	1.45
B	Unallocated PPAs per unit of sale	$K=(C-\text{Total PP at "D"})*10/\text{Total Sale at "B"}$	4.62					
11	Revenue available for unallocated PPAs (Rs./unit of sale)	$L=H-I-J$	3.09	3.9	3.82	3.7	5.4	3.72
12	Power Purchase Allocation (per unit of sale) "K" in the ratio of available Revenue "L"	M	3.84	4.85	4.76	4.61	6.72	4.62
13	Total Power Purchase cost per unit of sale including allocated PPAs	$N=J+M$	5.18	6.58	6.04	6.12	7.34	6.08
14	Total Power Purchase Cost (Rs Crs)	$O=N*B/10$	9,901.86	18,007.05	12,968.38	11,139.26	2,217.70	54,234.24
	DBST (Rs/Unit)							
15	DBST Computation of Allocated PPAs	P	5.21	5.12	5.16	5.16	4.61	5.15
16	DBST Computation of Unallocated PPAs	$Q=M*B/(E-F)$	3.79	5.81	4.81	4.92	7.01	4.94
17	<b>DBST of total PPAs</b>	<b><math>R=O*10/E</math></b>	4.07	5.61	4.88	4.98	6.71	4.99

**TABLE 5-18: APPROVED POWER PURCHASE COST FOR FY 2020-21 BY THE COMMISSION IN T.O DT  
11.11.2020**

Particulars	DVVNL	MVVNL	PVVNL	PuVVNL	KESCO	Consolidated
Allowable Power Purchase (MU)	21,744.72	21,402.32	32,442.31	25,309.86	3,568.13	1,04,467.34
BST (Rs. / kWh)	4.85	5.38	5.32	5.06	6.04	5.20
Power Procurement Cost from UPPCL (Rs. Crore)	10,546.04	11,508.91	17,257.40	12,815.00	2,157.39	54,284.73



5.5.9. The Petitioners have submitted the allowable power purchase cost for FY 2020-21 and is as shown in the table below:

**TABLE 5-19: POWER PURCHASE COST FOR FY 2020-21 AS SUBMITTED BY THE PETITIONERS FOR FY 2020-21**

Particulars	DVVNL	MVVNL	PVVNL	PuVVNL	KESCo	Consolidated
Allowable Power Purchase (MU)	24,306.61	22,388.04	32,082.30	26,584.16	3,303.55	1,08,664.66
Average Rate (Rs./kWh)/ DBST	4.07	4.98	5.61	4.88	6.71	4.99
Power Procurement Cost from UPPCL (Rs. Crore)	9901.86	11139.26	18,007.05	12,968.38	2217.7	54,234.24

5.5.10. The Consolidated the power purchase cost based on the above Differential Bulk Supply Tariff (DBST) for FY 2020-21 is shown in the table below:

**TABLE 5-20: CONSOLIDATED TOTAL POWER PURCHASE COST FOR FY 2020-21**

Total Power Purchase Cost Claimed for FY 2020-21 (Rs Crore) Consolidated (5 Discoms)		
Particulars	Approved in order dated November 11, 2020	Claimed in APR
Power Purchase Cost (including inter-state Transmission charges)	54,284.73	54,234.24
Intra-state Transmission Charges	2,484.23	2,586.22
Total Power Purchase Cost	56,768.96	56,820.46

5.5.11. The analysis of Power Purchase for FY 2020-21 would be carried out during True-Up proceedings after receipt of annual audited balance sheet & P&L statements of respective State Discoms.

## 5.6. ENERGY BALANCE

5.6.1. The Energy Balance approved by the Commission in the Tariff Order dated 11.11.2020 and claimed by the State Discoms for FY 2020-21 is shown in the Table below:

**TABLE 5-21: ENERGY BALANCE FOR FY 2020-21 APPROVED BY THE COMMISSION (TARIFF ORDER DATED 11.11.2020)**

Particulars	DVVNL	MVVNL	PVVNL	PuVVNL	KESCO	CONSOLIDATED
Retail Sales (MU)	19,178.84	18,938.91	28,708.20	22,315.70	3,267.68	92,409.63
Distribution Losses (%)	11.80%	11.51%	11.51%	11.83%	8.42%	11.54%
Energy at DISCOM Periphery for Retail Sales (MU)	21,744.72	21,402.32	32,442.31	25,309.86	3,568.13	1,04,467.34
Intra-State Transmission Losses %*	3.40%	3.40%	3.40%	3.40%	3.40%	3.40%



Particulars	DVVNL	MVVNL	PVVNL	PuVVNL	KESCO	CONSOLIDATED
Energy Available at State periphery for Transmission (MU)	22,510.06	22,155.61	33,584.17	26,200.68	3,693.71	1,08,144.23
Inter State Losses (MU)	246.33	242.46	367.51	286.71	40.42	1,183.43
Inter-State Transmission Losses % (% computed on Total input energy)	1.08%	1.08%	1.08%	2.88%	1.08%	1.08%
Purchases Required & Billed Energy (MU)	22,756.39	22,398.07	33,951.68	26,487.39	3,734.13	1,09,327.66

**TABLE 5-22: ENERGY BALANCE CLAIMED FOR FY 2020-21**

Particulars	DVVNL	MVVNL	PVVNL	PuVVNL	KESCO	CONSOLIDATED
Retail Sales (MU)	19,117.15	18,212.67	27,382.25	21,480.00	3,021.43	89,213.50
Distribution Losses (%)	21.35%	18.65%	14.65%	19.20%	8.54%	17.90%
Energy at DISCOM Periphery for Retail Sales (MU)	24,306.61	22,388.04	32,082.30	26,584.16	3,303.55	1,08,664.66
Intra-State Transmission Losses %*	3.40%	3.40%	3.40%	3.40%	3.40%	3.40%
Energy Available at State periphery for Transmission (MU)	25,162.13	23,176.02	33,211.49	27,519.84	3,419.82	1,12,489.30
Inter State Losses (MU)	222.06	687.26	293.1	242.87	101.41	1,546.70
Inter-State Transmission Losses % (% computed on Total input energy)	0.87%	2.88%	0.87%	0.87%	2.88%	1.36%
Purchases Required & Billed Energy (MU)	25,384.19	23,863.28	33,504.60	27,762.71	3,521.23	1,14,036.01

5.6.2. The analysis of Energy Balance for FY 2020-21 would be carried out during True-Up proceedings after receipt of annual audited balance sheet & P&L statements of respective State Discoms.

## 5.7. INTRA STATE TRANSMISSION CHARGES

5.7.1. The Commission in its Tariff Order dated November 11, 2020, has taken transmission charges (i.e., Transmission charges as approved by the Commission in the UPPTCL Tariff Order for FY 2020-21 dated November 10, 2020) for all State DISCOMs for FY 2020-21, as shown in the Table below:



**TABLE 5-23: APPROVED TRANSMISSION CHARGES FOR FY 2020-21 (IN T.O. DATED 11.11.2020)**

Particulars	DVVNL	MVVNL	PVVNL	PuVVNL	KESCO	Consolidated
Energy Input into Transmission-Distribution Interface (MU)	21,744.72	21,402.32	32,442.31	25,309.86	3,568.13	1,04,467.34
Transmission Tariff (Rs/kWh)	0.238	0.238	0.238	0.238	0.238	0.238
<b>Transmission Cost (Rs. /Crore)</b>	<b>517.09</b>	<b>508.95</b>	<b>771.48</b>	<b>601.87</b>	<b>84.85</b>	<b>2,484.23</b>

5.7.2. The State Discoms have submitted the Transmission Charges for FY 2020-21 as shown in the Table below:

**TABLE 5-24: TRANSMISSION CHARGES FOR FY 2020-21 AS SUBMITTED BY THE STATE DISCOMS**

Particulars	DVVNL	MVVNL	PVVNL	PuVVNL	KESCO	Consolidated
Energy Input into Transmission-Distribution Interface (MU)	24,306.61	22,388.04	32,082.30	26,584.16	3,303.55	1,08,664.66
Transmission Tariff (Rs/kWh)	0.238	0.238	0.238	0.238	0.238	0.238
<b>Transmission Cost (Rs. /Crore)</b>	<b>578.50</b>	<b>532.84</b>	<b>763.56</b>	<b>632.70</b>	<b>78.62</b>	<b>2,586.22</b>

5.7.3. The transmission charges for FY 2020-21 would be carried out during True-Up proceedings after receipt of annual audited balance sheet & P&L statements of respective State Discoms.

## 5.8. O&M EXPENSES

5.8.1. The Operation & Maintenance (O&M) Expenses comprises of Employee Expenses, Repair & Maintenance (R&M) Expenses and Administrative and General (A&G) Expenses. Regulation 45 of UPERC (Multi Year Tariff for Distribution & Transmission) Regulations, 2019, stipulates the detailed methodology for determination of Operation & Maintenance (O&M) Expenses for the Control Period from FY 2020-21 to FY 2024-25. The detailed methodology as stated in Regulation 45 is reproduced as under:

Quote

*“45Operation and Maintenance Expenses*

*a) The Operation and Maintenance expenses for the Distribution Business shall be computed as stipulated in with these Regulations.*

*b) The Operation and Maintenance expenses shall be derived on the basis of the average of the Trued-Up values (without efficiency gain / loss) for the last five (5) financial years ending March 31, 2019 subject to prudence check by the Commission. However, if Trued-Up values (without efficiency gain / loss) are not*



available for FY 2018-19, then last five (5) available Trued-Up values (without efficiency gain / loss) will be considered and subsequently when the same are available the base year value (i.e. FY 2019-20) will be recomputed

c) The average of such operation and maintenance expenses shall be considered as Operation and Maintenance expenses for the middle year and shall be escalated year on year with the escalation factor considering CPI and WPI of respective years in the ratio of 60:40, for subsequent years up to FY 2019-20.

d) The One-time expenses such as expense due to change in accounting policy, arrears paid due to Pay Commissions, etc., and the expenses beyond the control of the Distribution Licensee such as dearness allowance, terminal benefits, etc., in Employee cost, shall be allowed by the Commission over and above normative Operation & Maintenance Expenses after prudence check.

(e) At the time of Truing-up of the O&M expenses, the actual point to point inflation over Wholesale Price Index numbers as per Office of Economic Advisor of Government of India and the actual Consumer Price Index for Industrial Workers (all India) as per Labour Bureau, Government of India, in the concerned year shall be considered.

#### 45.1 Employee Cost

Employee cost shall be computed as per the following formula escalated by consumer price index (CPI), adjusted by provisions for expenses beyond the control of the Licensee and one-time expected expenses, such as recovery / adjustment of terminal benefits, implications of Pay Commission, arrears, Interim Relief, etc.:

$$EMP_n = EMP_{n-1} \times (1 + \text{CPI inflation})$$

Where:

$EMP_n$ : Employee expense for the  $n$ th year;

$EMP_{n-1}$ : Employee expense for the  $(n-1)$ th year;

CPI inflation is the average of Consumer Price Index (CPI) for immediately preceding three Financial Years.

#### 45.2 Repairs and Maintenance Expense

Repairs and Maintenance expense shall be calculated by following formula:

$$R\&M_n = R\&M_{n-1} (1 + \text{WPI inflation})$$

Where:



*R&Mn: Repairs & Maintenance expense for the nth year;*

*R&Mn-1: Repairs & Maintenance expense for the (n-1)th year;*

*WPI inflation is the average of Wholesale Price Index (WPI) for immediately preceding three Financial Years.*

#### *45.3 Administrative and General Expense*

*A&G expense shall be computed as per the following formula escalated by wholesale price index (WPI) and adjusted by provisions for confirmed initiatives (IT etc. initiatives as proposed by the Distribution Licensee and validated by the Commission) or other expected one-time expenses:*

*$A\&G_n = A\&G_{n-1} (1 + \text{WPI inflation})$*

*Where:*

*A&G<sub>n</sub>: A&G expense for the nth year;*

*A&G<sub>n-1</sub>: A&G expense for the (n-1)th year;*

*WPI inflation is the average of Wholesale Price Index (WPI) for immediately preceding three Financial Years:*

*Provided that Interest and Finance charges such as Credit Rating charges, collection facilitation charges, financing cost of Delayed Payment Surcharge and other finance charges shall be a part of A&G expenses.*

*Illustration: For FY 2020-21, (n-1)th year will be FY 2019-20 which is also the base year.*

Unquote

## **5.9. Smart Metering OPEX**

5.9.1. The State Discoms submitted that the Commission vide its letter dated 16.05.2018 directed UPPCL to submit the detailed roll out plan of installation of smart meters for the State Discoms of Uttar Pradesh for the approval of the Commission.

5.9.2. In response to the directions of the Commission, UPPCL vide its letter dated 06.08.2018 submitted the smart meter roll out plan for the State Discoms under "Opex Model". In terms of the rollout plan Energy Efficiency Services Limited (EESL) will make the upfront capital investment during the built-up phase and will recover its investment out of gains of the project on OPEX basis. Accordingly, Petitioner are required to pay monthly fee on OPEX basis as O&M expenditure to EESL on per



meter per month basis. The per meter per month cost is calculated as total project cost spread over the actual recovery period, post integration of meters on per meter basis.

- 5.9.3. The Commission vide Order dated 15.11.2018 approved the Smart Meter rollout plan for State Discoms of Uttar Pradesh. The operative part of the Commission's Order is depicted as under:

Quote

*Since installation of Smart Meters is a national programme and has produced very encouraging financial returns in private Discoms, the Commission approves the proposed roll out plan of UPPCL and Discoms submitted before the Commission.....*

Unquote

- 5.9.4. The Commission in the Order dated 15.11.2018 as directed below:

Quote

DISCOM will pay EESL on OPEX basis as O&M expenditure. The assets will be in the books of EESL till the transfer of assets at the end of project at zero value.

Further Hon'ble Commission in its Tariff Order FY 2019-20 dt. 03.09.2019 at clause no. 6.18.7 has mentioned this expenditure under the head of A&G expenses as below:

*It may kindly be noted that this type of expenses was not envisaged during projection of MYT O&M norms for FY 2017-18 to FY 2019-20. Further, O&M Norms approved by the Hon'ble Commission were based on five-year Audited Accounts, which didn't have any O&M expenses towards smart metering. The amount of this additional O&M has been entered as rent in the replies of comments on roll out plan submitted to Hon'ble Commission vide MD, UPPCL letter no. 352/CE(Com-II)/Smart Meter/18 dt. 25.09.2018. Therefore, this expense may be considered under the head of A&G expenses as additional expenses.*

Unquote

- 5.9.5. Further the State Discoms mentioned that the amount sought as 'Additional A&G Expenses for smart metering is payable to EESL as O&M expenses to cover the cost towards smart meter and box installation, AMI software cost, consumer indexing, training, integration and commissioning of AMI solution. This cost was proposed to be recovered under Opex model based on per meter per month basis. Further, there



will be no additional burden of depreciation, interest and return on equity on the end-consumer.

- 5.9.6. The State Discoms namely DVVNL, MVVNL, PVVNL, PuVVNL and KESCO submitted that the amount billed by EESL inclusive of GST to the State Discoms are amounting to Rs 28.6 Crore, Rs. 56.78 Crore, Rs. 104.45 Crore, Rs. 59.21 Crore and Rs. 12.90 Crore respectively.
- 5.9.7. As regard to additional O&M for smart metering opex, it is noted that under the OPEX model, Petitioners have mentioned that the cost of Rs 86 (+ taxes) per meter per month will be charged by EESL from UPPCL as Interest & PMC (project management consulting) cost. The Petitioner have submitted that the overall benefits of the rollout will be two folds:
- 5.9.8. (i) Tangible benefits i.e., Bill quality improvement and savings due to AT&C loss reduction via increase in billing efficiency and reduction of theft (UPPCL submitted that there would be increase in Billing efficiency by 5% to 7% and Collection Efficiency will be 100%)
- 5.9.9. (ii) Intangible benefits would be consumer satisfaction, Data Analytics, MIS and monitoring of exceptions and savings on faster detection of defective meters leading to reduction in assessed bills.
- 5.9.10. The Commission approved the Roll Out plan for Smart Meters vide its Order dated 15th Nov. 2018. The Commission in its Order observed as follows:

Quote

*“Acknowledging the advantages of smart metering the Commission has noted that the UPPCL has proposed in improvement in billing efficiency by 5-7% and in the data submitted for 40 lakh meters the maximum billing efficiency has been projected at 85%. In smart metering the meter data has to flow on line in the billing system and if the system works efficiently, why not 100% billing can be ensured. It appears that this important aspect has not been looked into with enough seriousness while giving the projections to the Commission. The smart metering system is a costly solution and unless the value addition is commensurate with the investment the initiation of programme cannot be justified. The Commission feels that at 98% billing efficiency should be ensured in cases where the smart meters have been put up (emphasis added).”*

Unquote

- 5.9.11. The Commission approved the roll out plan subject to following conditions:



- The Billing efficiency of the consumers having smart meters is not less than 98%
- Since the smart meters have remote disconnection features, the collection efficiency of target consumers shall not be less than 95%.

5.9.12. Keeping the above in view, since the net improvement in Collection and Billing Efficiency has been envisaged keeping the net consumer tariff (ABR) constant and the Net benefit/gain to the Discoms is without any increase in the consumer tariffs, and the above scheme would be in OPEX mode, it means the scheme is self-sustaining and hence the total cost should stay out of the ARR.

5.9.13. In past, the Commission has approved several schemes for theft reduction and power quality improved like replacement of LT lines with ABC conductor, whose CAPEX was allowed in the ARR considering the merit of the schemes and benefits to both Discoms and also considering the fact that the Commission approves a stringent Distribution Loss trajectory in the ARR, which is much lower than the actual losses of the Discoms and such schemes like ABC cables should be allowed to encourage and support the Discoms /utilities efforts to reduce the losses and meet the Commission target.

5.9.14. However, the Smart Meter Rollout scheme is OPEX model and not CAPEX model. With roll out of Smart Meters, the billing and collection efficiency of Discoms will increase thereby reducing the commercial losses. It is expected that the overall O&M cost of the Discoms would also decrease due to improved billing & collection efficiency which would be compensated by the charges paid in OPEX model. Hence the same cannot be allowed as additional O&M expense.

#### **5.10. O&M COST OF UPPCL**

5.10.1. The State Discoms submitted that the Commission in the True-up Order for FY 2018-19 has disallowed O&M expenses to UPPCL. While disallowing the same, the Commission has held that the procurement of power is the responsibility of Petitioner for which the Commission allows considerable amount of O&M expenses and interest on working capital. Since the expenses incurred by UPPCL are on account of procuring power for the Petitioners, the Petitioners shall take care of such expenses incurred by UPPCL from the O&M expenses allowed to it.

5.10.2. At this juncture, it is pertinent to note that: -

5.10.3. (a) The Commission has never considered UPPCL's O&M expenses while approving the power purchase costs for the Discoms.



5.10.4. (b) While determining the O&M expenses applicable to the Discoms, the Commission did not consider UPPCL's O&M expenses.

5.10.5. The State Discoms submitted that the MYT Regulations, 2014 provide for the methodology for consideration of O&M expenses. Regulation 25 of the MYT Regulations, 2014, inter-alia, provides that the Commission shall stipulate a trajectory for each of the components of the O&M expenses viz. Employee Cost, Repairs and Maintenance (R&M) expense and Administrative and General Expense (A&G) expense. Further, the Commission shall take into account any escalation on account of inflation etc. The relevant extract is reproduced below: -

*Quote*

*"25. Operation & Maintenance Expenses*

*(a) The Commission shall stipulate a separate trajectory of norms for each of the components of O&M expenses viz., Employee cost, Repairs and maintenance (R&M) expense and Administrative and General Expense (A&G) expense. Provided that such norms may be specified for a specific Distribution Licensee or a class of Distribution Licensees.*

*(b) Norms shall be defined in terms of combination of number of personnel per 1000 consumers and number of personnel per substation along with annual expenses per personnel for Employee cost; combination of A&G expense per personnel and A&G expense per 1000 consumers for A&G expenses and R&M expense as percentage of gross fixed assets for estimation of R&M expenses:*

*(c) One-time expenses such as expense due to change in accounting policy, arrears paid due to pay commissions etc., shall be excluded from the norms in the trajectory.*

*(d) The expenses beyond the control of the Distribution Licensee such as dearness allowance, terminal benefits etc. in Employee cost etc., shall be excluded from the norms in the trajectory.*

*(e) The One-time expenses and the expenses beyond the control of the Distribution Licensee shall be allowed by the Commission over and above normative Operation & Maintenance Expenses after prudence check.*

*(f) The norms in the trajectory shall be specified over the control period with due consideration to productivity improvements.*

*(g) The norms shall be determined at constant prices of base year and escalation on account of inflation shall be over and above the baseline.*



*(h) The Distribution Licensee specific trajectory of norms shall be identified by the Commission on the basis of simple average of previous five years audited figures, duly normalized for any abnormal variation.*

*(i) For new Distribution Licensee whose date of commercial operation is within the tariff period (i.e., April 1, 2015 to March 31, 2020), detailed project report shall be used by the Commission to estimate values of norms.”*

*Unquote*

- 5.10.6. The State Discoms submitted that from the above, it is evident that the extant Regulations provide for detailed norms for consideration / utilization of the O&M expenses that are allowed by the Commission. It is submitted that the O&M expenses allowed to the Discoms are to be mandatorily utilized in terms of the prevailing norms and take into account various factors.
- 5.10.7. The State Discoms further submitted that UPPCL itself has to take into account various factors while utilizing the O&M expenses allowed to it. The same has to be utilized in terms of the norms laid down in the Regulations framed by the Commission. Disallowance of the same by the Commission would have an adverse impact on the financial health of UPPCL as well as UP Discoms, including the Petitioner.
- 5.10.8. Therefore, UPPCL has started to allocate its O&M expenses to all of its subsidiary State Government Distribution Licensees, in a rational and transparent manner in the books of accounts wef FY 2019-20. As the UPPCL O&M expenses are not forming part of claimed normative O&M expenses, therefore the Petitioner has considered a nominal 5% escalation every year in the FY 2018-19 figures of UPPCL O&M expenses till FY 2020-21 and allocated the same in proportion to the energy drawl by respective Discoms. Further, at the time of true-up of FY 2021-22, the UPPCL O&M Expenses shall form part of the Petitioner’s O&M Expenses, in line with the UPPCL OM issued, therefore, it shall not be claimed separately in true-up.
- 5.10.9. It is also important to mention here that, both expenses i.e. Smart metering OPEX and UPPCL O&M Expenses, were not covered under the A&G Expense head in the past and therefore, shall be allowed in full, over and above the usual A&G Expenses proposed by the Petitioner.
- 5.10.10. It is pertinent to mention that the Commission in past has not allowed the UPPCL O&M expenses. However, the Commission will carry out the detailed analysis of UPPCL O&M for FY 2020-21 at the time of true up.



5.10.11. The analysis of O&M cost of UPPCL Expenses for FY 2020-21 would be carried out during True-Up proceedings after receipt of annual audited balance sheet & P&L statements of respective State Discoms.

5.10.12. Summary of O&M Expenses as submitted by the State Discoms along with approved values by the Commission in Tariff Order dated November 11, 2020 are as shown in the Tables below:

**TABLE 5-25: O&M EXPENSES OF DVVNL IN FY 2020-21 (RS. CRORE)**

Particulars	Approved in order dated November 11, 2020	Claimed in APR
Employee Expenses	489.24	464.27
Administrative and General Expenses	93.72	344.55
Repair & Maintenance Expenses	411.94	933.08
Gross O&M Expenses	994.9	1,741.90
Less: Employee Expenses capitalized	289.38	220.38
Less: Administrative and General Expenses capitalized	0	0
Expenses Capitalised	289.38	220.38
Net O&M Expenses	705.52	1,521.52
Add: Additional Expenses under the head Employee Expenses		
7th Pay Commission Arrears under Employee Expenses		8.72
Add: Additional Expenses under the head A&G Expenses		
Smart Meter OPEX		28.60
UPPCL O&M Expenses		70.50
<b>Total O&amp;M Expenses to be claimed in the APR</b>	<b>705.52</b>	<b>1,629.33</b>

**TABLE 5-26: O&M EXPENSES OF MVVNL IN FY 2020-21 (RS. CRORE)**

Particulars	Approved in order dated November 11, 2020	Claimed in APR
Employee Expenses	661.05	691.8
Administrative and General Expenses	209.68	430.83
Repair & Maintenance Expenses	315.06	828.17
Gross O&M Expenses	1,185.79	1,950.80
Less: Employee Expenses capitalized	327.29	433.04
Less: Administrative and General Expenses capitalized		
Expenses Capitalised	327.29	433.04



Particulars	Approved in order dated November 11, 2020	Claimed in APR
Net O&M Expenses	858.50	1,517.75
Add: Additional Expenses under the head Employee Expenses		
7th Pay Commission Arrears under Employee Expenses		28.58
Add: Additional Expenses under the head A&G Expenses		
Smart Meter OPEX		56.78
UPPCL O&M Expenses		66.31
<b>Total O&amp;M Expenses to be claimed in the APR</b>	<b>858.50</b>	<b>1,669.42</b>

**TABLE 5-27: O&M EXPENSES OF PVVNL IN FY 2020-21 (RS. CRORE)**

Particulars	Approved in order dated November,11 2020	Claimed in APR
Employee Expenses	601.49	626.58
Administrative and General Expenses	127.11	503.03
Repair & Maintenance Expenses	331.97	1,015.47
Gross O&M Expenses	1,060.57	2,145.08
Less: Employee Expenses capitalized	272.93	158.26
Less: Administrative and General Expenses capitalized	0	0
Expenses Capitalised	272.93	158.26
Net O&M Expenses	787.64	1,986.81
Add: Additional Expenses under the head Employee Expenses		
7th Pay Commission Arrears under Employee Expenses		21.51
Add: Additional Expenses under the head A&G Expenses		
Smart Meter OPEX		104.45
UPPCL O&M Expenses		94.99
<b>Total O&amp;M Expenses to be claimed in the APR</b>	<b>787.64</b>	<b>*2,207.76</b>

\* The Petitioner in Table 3-15 of the Petition claims Total O&M expense of Rs. 2207.76 Cr whereas in Table 3.29 of the Petition, the Petitioner claims Total O&M of Rs. 2183.27 Crore. The Commission observed that Rs 2183.27 is a result of linking error in the Format submitted by the Petitioner.



**TABLE 5-28: O&M EXPENSES OF PUVVNL IN FY 2020-21 (RS. CRORE)**

Particulars	Approved in order dated November 11, 2020	Claimed in APR
Employee Expenses	737.94	692.68
Administrative and General Expenses	146.35	338.31
Repair & Maintenance Expenses	540.11	1,442.32
Gross O&M Expenses	1,424.40	2,473.31
Less: Employee Expenses capitalized	360.19	460.33
Less: Administrative and General Expenses capitalized	0	0
Expenses Capitalised	360.19	460.33
Net O&M Expenses	1,064.21	2,012.98
Add: Additional Expenses under the head Employee Expenses		
7th Pay Commission Arrears under Employee Expenses		5.38
Add: Additional Expenses under the head A&G Expenses		
Smart Meter OPEX		59.21
UPPCL O&M Expenses		78.82
<b>Total O&amp;M Expenses to be claimed in the APR</b>	<b>1,064.21</b>	<b>2,156.39</b>

**TABLE 5-29: O&M EXPENSES OF KESCO IN FY 2020-21 (RS. CRORE)**

Particulars	Approved in order dated November 11, 2020	Claimed in APR
Employee Expenses	147.46	142.34
Administrative and General Expenses	26.58	96.01
Repair & Maintenance Expenses	64.46	149.42
Gross O&M Expenses	238.49	387.78
Less: Employee Expenses capitalized	42.74	11.83
Less: Administrative and General Expenses capitalized		
Expenses Capitalised	42.74	11.83
Net O&M Expenses	195.76	375.94
Add: Additional Expenses under the head Employee Expenses		
7th Pay Commission Arrears under Employee Expenses		13.24
Add: Additional Expenses under the head A&G Expenses		
Smart Meter OPEX		12.90



Particulars	Approved in order dated November 11, 2020	Claimed in APR
UPPCL O&M Expenses		9.87
<b>Total O&amp;M Expenses to be claimed in the APR</b>	<b>195.76</b>	<b>411.94</b>

\*The Commission observed that there is a mismatch between the Petition and the format submitted by the Petitioner with regards to Employee, A&G and R&M Expenses. However, the Commission has considered the numbers as per the format.

**TABLE 5-30: CONSOLIDATED O&M EXPENSES OF 5 STATE DISCOMS IN FY 2020-21 (RS. CRORE)**

Particulars	Approved in order dated November 11, 2020	Claimed in APR
Employee Expenses	2637.18	2617.67
Administrative and General Expenses	603.44	1712.73
Repair & Maintenance Expenses	1663.54	4368.46
Gross O&M Expenses	4904.15	8698.87
Less: Employee Expenses capitalized	1318.75	1283.84
Less: Administrative and General Expenses capitalized	-	-
Expenses Capitalised	1318.75	1283.84
Net O&M Expenses	3585.41	7415.03
Add: Additional Expenses under the head Employee Expenses	-	-
7th Pay Commission Arrears under Employee Expenses	-	77.43
Add: Additional Expenses under the head A&G Expenses	-	-
Smart Meter OPEX	-	261.94
UPPCL O&M Expenses	-	320.49
<b>Total O&amp;M Expenses to be claimed in the APR</b>	<b>3585.41</b>	<b>8074.84</b>

## 5.11. CAPITAL INVESTMENT

5.11.1. The State Discoms has considered the same Capex schemes as approved by the UPERC in its Tariff Order for FY 2020-21 dated November 11, 2020.

5.11.2. The Petitioner's Opening CWIP, fresh investment, Interest and employee capitalisation has been considered as approved by the Commission in its Tariff Order for FY 2020-21 dated November 11, 2020. Considering the Capital Work in Progress balances (CWIP), investment during the year, capitalisations, the Petitioner has computed the closing CWIP for FY 2020-21.



5.11.3. The details of Capitalisation and Work-in-progress for FY 2020-21 as revised by the State Discoms and as approved by the Commission in Order dated November 11, 2020, is shown in the Tables below:

**TABLE 5-31: CAPITAL INVESTMENT OF DVVNL IN FY 2020-21 (RS. CRORE)**

Capital Investment in FY 2020-21 (Rs Crore)			
Particulars	Derivation	Approved in order dated November,11 2020	Claimed in APR
Opening WIP as on 1st April	A	4,318.95	2,059.59
Investments	B	1,549.85	1,549.85
Employee Expenses capitalisation	C	289.38	220.38
A&G Expenses Capitalisation	D	0	0
Interest Capitalisation on Interest on long term loans	E	104.80	105.01
<b>Total Investments</b>	<b>F= A+B+C+D+E</b>	<b>6,262.97</b>	<b>3,934.83</b>
Transferred to GFA (Total Capitalisation)	G	2,505.19	1,769.16
<b>Closing WIP</b>	<b>H=F-G</b>	<b>3,757.78</b>	<b>2,165.66</b>

**TABLE 5-32: CAPITAL INVESTMENT OF MVVNL IN FY 2020-21 (RS. CRORE)**

Capital Investment in FY 2020-21 (Rs Crore)			
Particulars	Derivation	Approved in order dated November,11 2020	Claimed in APR
Opening WIP as on 1st April	A	6,811.99	6,508.25
Investments	B	2,429.40	2,429.40
Employee Expenses capitalisation	C	327.29	433.04
A&G Expenses Capitalisation	D	-	-
Interest Capitalisation on Interest on long term loans	E	19.76	93.91
<b>Total Investments</b>	<b>F= A+B+C+D+E</b>	<b>9,588.44</b>	<b>9,464.60</b>
Transferred to GFA (Total Capitalisation)	G	3,835.38	4,060.14
<b>Closing WIP</b>	<b>H=F-G</b>	<b>5,753.06</b>	<b>5,404.46</b>



**TABLE 5-33: CAPITAL INVESTMENT OF PVVNL IN FY 2020-21 (RS. CRORE)**

Capital Investment in FY 2020-21 (Rs Crore)			
Particulars	Derivation	Approved in order dated November,11 2020	Claimed in APR
Opening WIP as on 1st April	A	1,110.09	167.78
Investments	B	2,573.80	2,573.80
Employee Expenses capitalization	C	327.29	158.26
A&G Expenses Capitalization	D	0	0
Interest Capitalization on Interest on long term loans	E	61.11	215.65
<b>Total Investments</b>	<b>F= A+B+C+D+E</b>	<b>4,072.29</b>	<b>3,115.51</b>
Transferred to GFA (Total Capitalization)	G	1,840.16	1,470.55
<b>Closing WIP</b>	<b>H=F-G</b>	<b>2,232.13</b>	<b>1,644.95</b>

**TABLE 5-34: CAPITAL INVESTMENT OF PUVVNL IN FY 2020-21 (RS. CRORE)**

Capital Investment in FY 2020-21 (Rs Crore)			
Particulars	Derivation	Approved in order dated November,11 2020	Claimed in APR
Opening WIP as on 1st April	A	4,805.89	2,285.66
Investments	B	3,249.16	3,249.16
Employee Expenses capitalisation	C	386.41	460.33
A&G Expenses Capitalisation	D	-	0
Interest Capitalisation on Interest on long term loans	E	208.28	225.36
<b>Total Investments</b>	<b>F= A+B+C+D+E</b>	<b>8,649.74</b>	<b>6,220.51</b>
Transferred to GFA (Total Capitalisation)	G	3,464.42	2,899.62
<b>Closing WIP</b>	<b>H=F-G</b>	<b>5,185.31</b>	<b>3,320.89</b>

**TABLE 5-35: CAPITAL INVESTMENT OF KESCO IN FY 2020-21 (RS. CRORE)**

Capital Investment in FY 2020-21 (Rs Crore)			
Particulars	Derivation	Approved in order dated November,11 2020	Claimed in APR
Opening WIP as on 1st April	A	182.14	233.62
Investments	B	258.5	258.50



Capital Investment in FY 2020-21 (Rs Crore)			
Particulars	Derivation	Approved in order dated November,11 2020	Claimed in APR
Employee Expenses capitalisation	C	42.74	11.83
A&G Expenses Capitalisation	D	-	-
Interest Capitalisation on Interest on long term loans	E	-	-
<b>Total Investments</b>	<b>F= A+B+C+D+E</b>	<b>483.38</b>	<b>503.96</b>
Transferred to GFA (Total Capitalisation)	G	193.35	208.68
<b>Closing WIP</b>	<b>H=F-G</b>	<b>290.03</b>	<b>295.27</b>

TABLE 5-36: CONSOLIDATED CAPITAL INVESTMENT OF 5 DISCOMS IN FY 2020-21 (RS. CRORE)

Capital Investment in FY 2020-21 (Rs Crore)			
Particulars	Derivation	Approved in order dated November,11 2020	Claimed in APR
Opening WIP as on 1st April	A	17,229.06	11,254.90
Investments	B	10,060.71	10,060.71
Employee Expenses capitalisation	C	1,373.11	1,283.84
A&G Expenses Capitalisation	D	-	-
Interest Capitalisation on Interest on long term loans	E	393.95	639.93
<b>Total Investments</b>	<b>F= A+B+C+D+E</b>	<b>29,056.83</b>	<b>23,239.38</b>
Transferred to GFA (Total Capitalisation)	G	11,838.50	10,408.15
<b>Closing WIP</b>	<b>H=F-G</b>	<b>17,218.33</b>	<b>12,831.23</b>

5.11.4. The analysis of capital investment for FY 2020-21 would be carried out during True-Up proceedings after receipt of annual audited balance sheet & P&L statements of respective State Discoms.

## 5.12. FINANCING OF THE CAPITAL INVESTMENT

5.12.1. The State Discoms have considered a normative ratio of 70:30 for financing of capital cost. Considering this approach, 70% of the capital expenditure undertaken in any year has been considered to be financed through loan and balance 30% has been considered to be financed through equity contributions. The portion of capital expenditure financed through consumer contribution, capital subsidies and grants



has been deducted as the depreciation and interest thereon would not be charged to the beneficiaries.

- 5.12.2. The total capital investment after netting off the capital investment through deposit works, has been considered to be funded through debt and equity.
- 5.12.3. The details of funding of Capital investment for FY 2020-21 as revised by the State Discoms and as approved by the Commission in Tariff Order dated November 11, 2020, are shown in the Tables below:

**TABLE 5-37: FINANCING OF CAPITAL INVESTMENT OF DVVNL IN FY 2020-21 (RS. CRORE)**

Particulars	Derivation	Claimed in APR
Investment	A	1,549.85
Less: Consumer Contribution and Grants	B	356.36
Investment funded by debt and equity	D=A-B	1,193.49
<b>Debt Funded</b>	<b>70% of D</b>	<b>835.44</b>
<b>Equity Funded</b>	<b>30% of D</b>	<b>358.05</b>

**TABLE 5-38: FINANCING OF CAPITAL INVESTMENT OF MVVNL IN FY 2020-21 (RS. CRORE)**

Particulars	Derivation	Claimed in APR
Investment	A	2,429.40
Less: Consumer Contribution and Grants	B	1,202.59
Investment funded by debt and equity	D=A-B	1,226.81
<b>Debt Funded</b>	<b>70% of D</b>	<b>858.77</b>
<b>Equity Funded</b>	<b>30% of D</b>	<b>368.04</b>

**TABLE 5-39: FINANCING OF CAPITAL INVESTMENT OF PVVNL IN FY 2020-21 (RS. CRORE)**

Particulars	Derivation	Claimed in APR
Investment	A	2,573.80
Less: Consumer Contribution and Grants	B	262.97



Particulars	Derivation	Claimed in APR
Investment funded by debt and equity	D=A-B	2,310.83
<b>Debt Funded</b>	<b>70% of D</b>	<b>1,617.58</b>
<b>Equity Funded</b>	<b>30% of D</b>	<b>693.25</b>

**TABLE 5-40: FINANCING OF CAPITAL INVESTMENT OF PUVVNL IN FY 2020-21 (RS. CRORE)**

Particulars	Derivation	Claimed in APR
Investment	A	3,249.16
Less: Consumer Contribution and Grants	B	2,361.91
Investment funded by debt and equity	D=A-B	887.25
<b>Debt Funded</b>	<b>70% of D</b>	<b>621.08</b>
<b>Equity Funded</b>	<b>30% of D</b>	<b>266.18</b>

**TABLE 5-41: FINANCING OF CAPITAL INVESTMENT OF KESCO IN FY 2020-21 (RS. CRORE)**

Particulars	Derivation	Claimed in APR
Investment	A	258.5
Less: Consumer Contribution and Grants	B	102.00
Investment funded by debt and equity	D=A-B	156.50
<b>Debt Funded</b>	<b>70% of D</b>	<b>109.55</b>
<b>Equity Funded</b>	<b>30% of D</b>	<b>46.95</b>

**TABLE 5-42: CONSOLIDATED FINANCING OF CAPITAL INVESTMENT OF 5 STATE DISCOMS IN FY 2020-21 (RS. CRORE)**

Particulars	Derivation	Claimed in APR
Investment	A	10,060.71
Less: Consumer Contribution and Grants	B	4,285.83
Investment funded by debt and equity	D=A-B	5,774.88
<b>Debt Funded</b>	<b>70% of D</b>	<b>4,042.42</b>
<b>Equity Funded</b>	<b>30% of D</b>	<b>1,732.46</b>



- 5.12.4. The analysis of Financing of capital investment for FY 2020-21 would be carried out during True-Up proceedings after receipt of annual audited balance sheet & P&L statements of respective State Discoms.

### 5.13. GROSS FIXED ASSETS (GFA) AND DEPRECIATION

- 5.13.1. The State Discoms have computed the allowable depreciation expense on the GFA base for FY 2020-21 and at the rates approved by the Commission in MYT Distribution Regulations, 2019. The State Discoms has computed the depreciation only on the depreciable asset base and has excluded the non-depreciable assets.
- 5.13.2. The basis of determination of depreciation is stated in Regulation 21.1 of UPERC MYT Regulations, 2019. The Regulation 21.1 as quoted below:

#### Quote

*“21.1 The Licensee, shall be permitted to recover Depreciation on the value of fixed assets used in their respective businesses, computed in the following manner:*

*(a) The approved original cost of the fixed assets shall be the value base for calculation of Depreciation:*

*Provided that the Depreciation shall be allowed on the entire capitalised amount of the new assets after reducing the approved original cost of the retired or replaced or de-capitalised assets.*

*(b) Depreciation shall be computed annually based on the Straight- Line Method at the rates stipulated in the Annexure- A to these Regulations.*

*Provided that the Licensee shall ensure that once the individual asset is depreciated to the extent of seventy percent, remaining depreciable value as on 31st March of the year closing shall be spread over the balance Useful Life of the asset including the Extended Life, as per submission of the Licensee and approved by the Commission.*

*b) The salvage value of the asset shall be considered at 10% of the allowable capital cost and Depreciation shall be allowed up to a maximum of 90% of the allowable capital cost of the asset:*

*Provided that land owned shall not be treated as a Depreciable asset and shall be excluded while computing Depreciation*

*Provided further that Depreciation shall be chargeable from the first year of commercial operation.*



(d) Depreciation shall not be allowed on assets funded by Consumer Contributions or Subsidies/ Grants/ Deposit works.

Unquote

5.13.3. The State Discoms submitted that the Commission has considered the written down depreciation method for the assets capitalized before 1.4.2020 and straight-line depreciation method for assets capitalized after 1.4.2020. The State Discoms has computed the allowable depreciation expense on the GFA base based on the Commission's approach approved in Tariff Order for FY 2020-21 and at the rates approved by the Commission in MYT (Distribution and Transmission) Regulations, 2019. The Petitioner has computed the depreciation only on the depreciable asset base.

5.13.4. Further, the State Discoms have considered the amortisation of Consumer contribution as approved in Tariff Order for FY 2020-21. Considering this philosophy, the gross entitlement towards depreciation has been computed as shown in the Table below:

5.13.5. The Petitioners have submitted the details of Net Depreciation as summarised in the table below:

**TABLE 5-43: GROSS ALLOWABLE DEPRECIATION FOR ASSETS UPTO 31.03.2020 FOR FY 2020-21 AS SUBMITTED BY DVVNL (RS. CRORE)**

Sr. No	Particulars	Closing Written down GFA (as on 31.3.2020)	Gross Depreciation during 2019-20	Balance Depreciable Value as on 1.4.2020 (Opening GFA)	Addition to GFA	Average % of Deductions of Last 3 true-Ups	Deduction to GFA	Closing GFA	Average GFA	Depreciation Rate	Allowable Gross Depreciation
1	Land & Land Rights	1.12	-	1.12				1.12	1.12	0.00%	0
2	Buildings	216.33	6.25	210.08				210.08	210.08	3.34%	7.02
3	Plant & Machinery	1,511.87	88.63	1,423.24				1,423.24	1,423.24	5.28%	75.15
4	Lines, Cables, Network etc.	7,669.88	318.81	7,351.07				7,351.07	7,351.07	5.28%	388.14
5	Vehicles	0.74	0.05	0.69				0.69	0.69	6.33%	0.04
6	Furniture & Fixtures	11.29	0.68	10.61				10.61	10.61	6.33%	0.67
7	Office Equipment's	4.71	0.27	4.44				4.44	4.44	6.33%	0.28
8	Total Fixed Assets	9,415.94	414.69	9,001.26				9,001.26	9,001.26		471.3
9	Non depreciable	1.12	0	1.12				1.12	1.12	0	



Approval of ARR and Tariff for State Discoms for FY 2021-22, APR of FY 2020-21 and True-up of FY 2019-20

Sr. No	Particulars	Closing Written down GFA (as on 31.3.2020)	Gross Depreciation during 2019-20	Balance Depreciable Value as on 1.4.2020 (Opening GFA)	Addition to GFA	Average % of Deductions of Last 3 true-Ups	Deduction to GFA	Closing GFA	Average GFA	Depreciation Rate	Allowable Gross Depreciation
	assets (Land & Land Rights)										
10	Depreciable assets	9,414.82	414.69	9,000.13				9,000.13	9,000.13	5.24%	471.30

**TABLE 5-44: GROSS ALLOWABLE DEPRECIATION FOR ASSETS AFTER 1.04.2020 FOR FY 2020-21 AS SUBMITTED BY DVVNL (RS. CRORE)**

S.No.	Particulars	Addition to GFA	Deduction to GFA	Deduction of Grants	Closing GFA	Average GFA	Depreciation Rate	Allowable Gross Depreciation
1	Land & Land Rights	0	0	0	0	0	0.00%	0
2	Buildings	41.3	0	1.88	39.41	19.71	3.34%	0.66
3	Plant & Machinery	279.77	0	12.77	267	133.5	5.28%	7.05
4	Lines, Cables, Network etc.	1,445.01	0	65.95	1,379.05	689.53	5.28%	36.41
5	Vehicles	0.14	0	0.01	0.13	0.06	6.33%	0
6	Furniture & Fixtures	2.09	0	0.1	1.99	1	6.33%	0.06
7	Office Equipment's	0.87	0	0.04	0.83	0.42	6.33%	0.03
8	Total Fixed Assets	1,769.16	0	80.75	1,688.42	844.21		44.21
9	Non depreciable assets (Land & Land Rights)	0	0	0	0	0	0	0
10	Depreciable assets	1,769.16	0	80.75	1,688.42	844.21	5.24%	44.21

**TABLE 5-45: NET DEPRECIATION FOR ASSETS OF DVVNL FOR FY 2020-21 (RS. CRORE)**

Particulars	Approved	Projected
Gross Depreciation on Assets up to 31.3.2020	429.68	471.3
Gross Depreciation on Assets after 1.4.2020	63.9	44.21
Gross Allowable Depreciation	493.58	515.50
Less: Equivalent amount of depreciation on assets acquired out of the Consumer Contribution and GoUP Subsidy	70.68	70.68
<b>Net Allowable Depreciation</b>	<b>422.9</b>	<b>444.82</b>



Approval of ARR and Tariff for State Discoms for FY 2021-22, APR of FY 2020-21 and True-up of FY 2019-20

**TABLE 5-46: GROSS ALLOWABLE DEPRECIATION FOR ASSETS UPTO 31.03.2020 FOR FY 2020-21 AS SUBMITTED BY MVVNL (RS. CRORE)**

Sr. No	Particulars	Closing Written down GFA (as on 31.3.2020)	Gross Depreciation during 2020-21	Balance Depreciable Value as on 1.4.2020 (Opening GFA)	Addition to GFA	Average % of Deductions of Last 3 true-Ups	Deduction to GFA	Closing GFA	Average GFA	Depreciation Rate	Allowable Gross Depreciation
1	Land & Land Rights	0.62	0	0.62				0.62	0.62	0.00%	0
2	Buildings	73.8	2.24	71.56				71.56	71.56	3.34%	2.39
3	Other Civil Works	4.54	0.15	4.39				4.39	4.39	3.34%	0.15
4	Plant & Machinery	1222.36	61.63	1160.73				1160.73	1160.73	5.28%	61.29
5	Lines, Cables, Network etc.	4187.73	166.13	4021.6				4021.6	4021.6	5.28%	212.34
6	Vehicles	1.93	0.12	1.8				1.8	1.8	6.33%	0.11
7	Furniture & Fixtures	4	0.24	3.75				3.75	3.75	6.33%	0.24
8	Office Equipments	33.39	2.06	31.32				31.32	31.32	6.33%	1.98
9	<b>Total Fixed Assets</b>	<b>5528.36</b>	<b>232.58</b>	<b>5295.79</b>				<b>5295.79</b>	<b>5295.79</b>	<b>0.00%</b>	<b>278.5</b>
10	Non depreciable assets (Land & Land Rights)	0.62	0	0.62				0.62	0.62	0.00%	0
11	<b>Depreciable assets</b>	<b>5527.74</b>	<b>232.58</b>	<b>5295.17</b>				<b>5295.16</b>	<b>5295.16</b>	<b>5.26%</b>	<b>278.5</b>

**TABLE 5-47 GROSS ALLOWABLE DEPRECIATION FOR ASSETS AFTER 1.04.2020 FOR FY 2020-21 AS SUBMITTED BY MVVNL (RS. CRORE)**

S.No.	Particulars	Closing Written down GFA (as on 31.3.2020)	Gross Depreciation during 2019-20	Balance Depreciable Value (as on 1.4.2020) for FY 2020-21)	Addition to GFA	Deduction to GFA	Deduction of Grants	Closing GFA	Average GFA	Depreciation Rate	Allowable Gross Depreciation
1	Land & Land Rights	0	0	0	0	0	0	0	0	0.00%	0
2	Buildings	0	0	0	54.87	0	6.56	48.31	24.15	3.34%	0.81
3	Other Civil Works	0	0	0	3.37	0	0.4	2.96	1.48	3.34%	0.05
4	Plant & Machinery	0	0	0	8901	0	106.42	78359	39179	5.28%	20.69
5	Lines, Cables, Network etc.	0	0	0	30830.62	0	368.72	27140.9	13570.45	5.28%	71.67
6	Vehicles	0	0	0	1.38	0	0.17	1.22	0.61	6.33%	0.04



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S.No.	Particulars	Closing Written down GFA (as on 31.3.2020)	Gross Depreciation during 2019-20	Balance Depreciable Value (as on 1.4.2020) for FY 2020-21)	Addition to GFA	Deduction to GFA	Deduction of Grants	Closing GFA	Average GFA	Depreciation Rate	Allowable Gross Depreciation
7	Furniture & Fixtures	0	0	0	2.88	0	0.34	2.53	1.27	6.33%	0.08
8	Office Equipments	0	0	0	242	0	2.87	21.14	10.57	6.33%	0.67
9	<b>Total Fixed Assets</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4060.14</b>	<b>0</b>	<b>48549</b>	<b>3574.65</b>	<b>1787.32</b>	<b>0.00%</b>	<b>94</b>
10	Non depreciable assets (Land & Land Rights)	0	0	0	0	0	0	0	0	0.00%	0
11	<b>Depreciable assets</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4060.14</b>	<b>0</b>	<b>48549</b>	<b>3574.65</b>	<b>1787.32</b>	<b>5.26%</b>	<b>94</b>

**TABLE 5-48: NET DEPRECIATION FOR ASSETS OF MVVNL FOR FY 2020-21 (RS. CRORE)**

Particulars	Approved	Revised Estimates
Gross Depreciation on Assets up to 31.3.2020	186.71	278.5
Gross Depreciation on Assets after 1.4.2020	68.95	94
Gross Allowable Depreciation	255.66	372.5
Less: Amortisation of assets acquired out of the Consumer Contribution	47.43	55.79
<b>Net Allowable Depreciation</b>	<b>208.23</b>	<b>316.71</b>

**TABLE 5-49: GROSS ALLOWABLE DEPRECIATION FOR ASSETS UPTO 31.03.2020 FOR FY 2020-21 AS SUBMITTED BY PVVNL (RS. CRORE)**

Sr. No	Particulars	Closing Written down GFA (as on 31.3.2020)	Gross Depreciated on during 2019-20	Balance Depreciable Value as on 1.4.2020 (Opening GFA)	Addition to GFA	Average % of Deductions of Last 3 true-Ups	Deduction to GFA	Closing GFA	Average GFA	Depreciation Rate	Allowable Gross Depreciation
1	Land & Land Rights	2.3	-	2.3				2.3	2.3	0.00%	0
2	Buildings	261.18	6.77	254.41				254.41	254.41	3.34%	8.5
3	Plant & Machinery	2,098.06	115.83	1,982.23				1,982.23	1,982.23	5.28%	104.66
4	Lines, Cables,	7,575.67	336.79	7,238.89				7,238.89	7,238.89	5.28%	382.21



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Sr. No	Particulars	Closing Written down GFA (as on 31.3.2020)	Gross Depreciated on during 2019-20	Balance Depreciable Value as on 1.4.2020 (Opening GFA)	Addition to GFA	Average % of Deductions of Last 3 true-Ups	Deduction to GFA	Closing GFA	Average GFA	Depreciation Rate	Allowable Gross Depreciation
	Network etc.										
5	Vehicles	1.19	0.08	1.11				1.11	1.11	6.33%	0.07
6	Furniture & Fixtures	6.95	0.41	6.54				6.54	6.54	6.33%	0.41
7	Office Equipment's	22.76	1.15	21.61				21.61	21.61	6.33%	1.37
8	Total Fixed Assets	9,968.11	461.01	9,507.10				9,507.10	9,507.09		497.22
9	Non depreciable assets (Land & Land Rights)	2.3	-	2.3				2.3	2.3	0	
10	Depreciable assets	9,965.80	461.01	9,504.79				9,504.79	9,504.79	5.23%	497.22

**TABLE 5-50: GROSS ALLOWABLE DEPRECIATION FOR ASSETS AFTER 1.04.2020 FOR FY 2020-21 AS SUBMITTED BY PVVNL (RS. CRORE)**

S.No.	Particulars	Addition to GFA	Deduction to GFA	Deduction of Grants	Closing GFA	Average GFA	Depreciation Rate	Allowable Gross Depreciation
1	Land & Land Rights	-	-	-	-	-	0.00%	-
2	Buildings	39.36	-	7.87	31.49	15.74	3.34%	0.53
3	Plant & Machinery	306.68	-	61.35	245.33	122.67	5.28%	6.48
4	Lines, Cables, Network etc.	1,119.98	-	224.04	895.94	447.97	5.28%	23.65
5	Vehicles	0.17	-	0.03	0.14	0.07	6.33%	0
6	Furniture & Fixtures	1.01	-	0.2	0.81	0.4	6.33%	0.03
7	Office Equipment's	3.34	-	0.67	2.67	1.34	6.33%	0.08
8	Total Fixed Assets	1,470.55	-	294.17	1,176.38	588.19	0.00%	30.77
9	Non depreciable assets (Land & Land Rights)	-	-	-	-	-	0.00%	-
10	Depreciable assets	1,470.55	-	294.17	1,176.38	588.19	5.23%	30.77



**TABLE 5-51: NET DEPRECIATION FOR ASSETS OF PUVNL FOR FY 2020-21 (RS. CRORE)**

Particulars	Approved	Projected
Gross Depreciation on Assets up to 31.3.2020	466.47	497.22
Gross Depreciation on Assets after 1.4.2020	23.31	30.77
Gross Allowable Depreciation	489.78	527.99
Less: Equivalent amount of depreciation on assets acquired out of the Consumer Contribution and GoUP Subsidy	132.37	160.76
<b>Net Allowable Depreciation</b>	<b>357.65</b>	<b>367.23</b>

**TABLE 5-52: GROSS ALLOWABLE DEPRECIATION FOR ASSETS UPTO 31.03.2020 FOR FY 2020-21 AS SUBMITTED BY PUVNL (RS. CRORE)**

Sr. No	Particulars	Closing Written down GFA (as on 31.3.2020)	Gross Depreciation during 2020-21	Balance Depreciable Value as on 1.4.2020 (Opening GFA)	Addition to GFA	Average % of Deductions of Last 3 true-Ups	Deduction to GFA	Closing GFA	Average GFA	Depreciation Rate	Allowable Gross Depreciation
1	Land & Land Rights	0.72	0	0.72				0.72	0.72	0.00%	0
2	Buildings	99.29	3.02	96.27				96.27	96.27	3.34%	3.22
3	Plant & Machinery	3758.63	184.68	3573.94				3573.94	3573.94	5.28%	188.7
4	Lines, Cables, Network etc.	4500.31	176.83	4323.48				4323.48	4323.48	5.28%	228.28
5	Vehicles	57.26	1.94	55.32				55.32	55.32	6.33%	3.5
6	Furniture & Fixtures	1.29	0.07	1.22				1.22	1.22	6.33%	0.08
7	Office Equipments	0.68	0.04	0.64				0.64	0.64	6.33%	0.04
8	<b>Total Fixed Assets</b>	<b>8418.17</b>	<b>366.58</b>	<b>8051.59</b>				<b>8051.59</b>	<b>8051.59</b>		<b>423.82</b>
9	Non depreciable assets (Land & Land Rights)	0.72		0.72				0.72	<b>0.72</b>		
10	<b>Depreciable assets</b>	<b>8417.45</b>	<b>366.58</b>	<b>8050.88</b>				<b>8050.88</b>	<b>8,050.88</b>	<b>5.26%</b>	<b>423.82</b>



**TABLE 5-53: GROSS ALLOWABLE DEPRECIATION FOR ASSETS AFTER 1.04.2020 FOR FY 2020-21 AS SUBMITTED BY PUVVNL (RS. CRORE)**

S.No.	Particulars	Closing Written down GFA (as on 31.3.2020)	Gross Depreciation during 2019-20	Balance Depreciable Value (as on 1.4.2020) for FY 2020-21	Addition to GFA	Deduction to GFA	Deduction of Grants	Closing GFA	Average GFA	Depreciation Rate	Allowable Gross Depreciation
1	Land & Land Rights	0	0	0	0	0	0	0	0	0.00%	0
2	Buildings	0	0	0	34.67	0	2.05	32.62	16.31	3.34%	0.54
3	Plant & Machinery	0	0	0	1,287.20	0	76.28	1,210.92	605.46	5.28%	31.97
4	Lines, Cables, Network etc.	0	0	0	1,557.15	0	92.27	1,464.88	732.44	5.28%	38.67
5	Vehicles	0	0	0	19.93	0	1.18	18.74	9.37	6.33%	0.59
6	Furniture & Fixtures	0	0	0	0.44	0	0.03	0.41	0.21	6.33%	0.01
7	Office Equipments	0	0	0	0.23	0	0.01	0.22	0.11	6.33%	0.01
8	<b>Total Fixed Assets</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2,899.62</b>	<b>0</b>	<b>171.83</b>	<b>2,727.79</b>	<b>1,363.90</b>		<b>71.8</b>
9	Non depreciable assets (Land & Land Rights)	0	0	0	0	0	0	0	0	0	0
10	<b>Depreciable assets</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2,899.62</b>	<b>0</b>	<b>171.83</b>	<b>2,727.79</b>	<b>1,363.90</b>	<b>5.26%</b>	<b>71.8</b>

**TABLE 5-54: NET DEPRECIATION FOR ASSETS OF PUVVNL FOR FY 2020-21 (RS. CRORE)**

Particulars	Approved	Revised Estimates
Gross Depreciation on Assets up to 31.3.2020	401.24	423.82
Gross Depreciation on Assets after 1.4.2020	28.83	71.8
Gross Allowable Depreciation	430.07	495.62
Less: Amortisation of assets acquired out of the Consumer Contribution	112.27	112.27
<b>Net Allowable Depreciation</b>	<b>317.80</b>	<b>383.35</b>

**TABLE 5-55: GROSS ALLOWABLE DEPRECIATION FOR ASSETS UPTO 31.03.2020 FOR FY 2020-21 AS SUBMITTED BY KESCO (RS. CRORE)**

Sr. No	Particulars	Closing Written down GFA (as on 31.3.2020)	Gross Depreciation during 2020-21	Balance Depreciable Value as on 1.4.2020 (Opening GFA)	Addition to GFA	Average % of Deductions of Last 3 true-Ups	Deduction to GFA	Closing GFA	Average GFA	Depreciation Rate	Allowable Gross Depreciation



*Approval of ARR and Tariff for State Discoms for FY 2021-22, APR of FY 2020-21 and True-up of FY 2019-20*

Sr. No	Particulars	Closing Written down GFA (as on 31.3.2020)	Gross Depreciation during 2020-21	Balance Depreciable Value as on 1.4.2020 (Opening GFA)	Addition to GFA	Average % of Deductions of Last 3 true-Ups	Deduction to GFA	Closing GFA	Average GFA	Depreciation Rate	Allowable Gross Depreciation
1	Land & Land Rights	-	-	-				-	-	0.00%	-
2	Buildings	26.73	0.87	25.86				25.86	25.86	3.34%	0.86
3	Plant & Machinery	282.15	13.88	268.27				268.27	268.27	5.28%	14.16
4	Lines, Cables, Network etc.	517.72	24.6	493.13				493.13	493.13	5.28%	26.04
5	Vehicles	10.97	0.69	10.28				10.28	10.28	6.33%	0.65
6	Furniture & Fixtures	1.27	0.07	1.2				1.2	1.2	6.33%	0.08
7	Office Equipments	2.11	0.13	1.98				1.98	1.98	6.33%	0.13
8	<b>Total Fixed Assets</b>	<b>840.95</b>	<b>40.24</b>	<b>800.7</b>				<b>800.7</b>	<b>800.71</b>		<b>41.92</b>
9	Non depreciable assets (Land & Land Rights)	-	-	-				-	-		-
10	<b>Depreciable assets</b>	<b>840.95</b>	<b>40.24</b>	<b>800.7</b>				<b>800.7</b>	<b>800.71</b>		<b>41.92</b>

**TABLE 5-56: GROSS ALLOWABLE DEPRECIATION FOR ASSETS AFTER 1.04.2020 FOR FY 2020-21 AS SUBMITTED BY KESCO (RS. CRORE)**

S.No.	Particulars	Closing Written down GFA (as on 31.3.2020)	Gross Depreciation during 2019-20	Balance Depreciable Value (as on 1.4.2020) for FY 2020-21	Addition to GFA	Deduction to GFA	Deduction of Grants	Closing GFA	Average GFA	Depreciation Rate	Allowable Gross Depreciation
1	Land & Land Rights	0	0	0	0	0	0	0	0	0.00%	0
2	Buildings	0	0	0	6.74	0	1.32	5.42	2.71	3.34%	0.09
3	Plant & Machinery	0	0	0	69.92	0	13.67	56.25	28.12	5.28%	1.48
4	Lines, Cables, Network etc.	0	0	0	128.52	0	25.13	103.39	51.7	5.28%	2.73
5	Vehicles	0	0	0	2.68	0	0.52	2.16	1.08	6.33%	0.07
6	Furniture & Fixtures	0	0	0	0.31	0	0.06	0.25	0.13	6.33%	0.01
7	Office Equipments	0	0	0	0.51	0	0.1	0.41	0.21	6.33%	0.01
8	<b>Total Fixed Assets</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>208.68</b>	<b>0</b>	<b>40.8</b>	<b>167.88</b>	<b>83.94</b>		<b>4.39</b>



*Approval of ARR and Tariff for State Discoms for FY 2021-22, APR of FY 2020-21 and True-up of FY 2019-20*

S.No.	Particulars	Closing Written down GFA (as on 31.3.2020)	Gross Depreciation during 2019-20	Balance Depreciable Value (as on 1.4.2020) for FY 2020-21	Addition to GFA	Deduction to GFA	Deduction of Grants	Closing GFA	Average GFA	Depreciation Rate	Allowable Gross Depreciation
9	Non depreciable assets (Land & Land Rights)	0	0	0	0	0	0	0	0		0
10	Depreciable assets	0	0	0	208.68	0	40.8	167.88	83.94		4.39

**TABLE 5-57: NET DEPRECIATION FOR ASSETS OF KESCO FOR FY 2020-21 (RS. CRORE)**

Particulars	Approved	Revised Estimate
Gross Depreciation on Assets upto 31.03.2020	38.53	41.92
Gross Depreciation on Assets upto 31.03.2020	2.38	4.39
Gross Allowable Depreciation	40.92	46.31
Less: Amortisation of assets acquired out of the Consumer Contribution	6.3	6.3
<b>Net Allowable Depreciation</b>	<b>34.62</b>	<b>40.01</b>

**TABLE 5-58: CONSOLIDATED NET DEPRECIATION OF STATE DISCOMS FOR FY 2020-21 (RS. CRORE)**

Particulars	Approved	Revised Estimate
Gross Depreciation on Assets upto 31.03.2020	1522.63	1712.76
Gross Depreciation on Assets upto 31.03.2020	187.37	245.17
Gross Allowable Depreciation	1710.01	1957.92
Less: Amortisation of assets acquired out of the Consumer Contribution	369.05	405.80
<b>Net Allowable Depreciation</b>	<b>1341.20</b>	<b>1552.12</b>

5.13.6. The analysis of the depreciation for FY 2020-21 would be carried out during True-Up proceedings after receipt of annual audited balance sheet & P&L statements of respective State Discoms.

#### **5.14. INTEREST ON LONG TERM LOANS**

5.14.1. State Discoms have considered a normative approach with a debt equity ratio of 70:30. In this approach, 70% of the capital expenditure undertaken in a year has been financed through loan and balance 30% has been considered to be funded through equity contributions.



- 5.14.2. State Discoms further submitted that the portion of capital expenditure financed through consumer contributions, capital subsidies and grants was separated and the depreciation and interest thereon was not charged to the consumers & beneficiaries. The amounts received as consumer contributions, capital subsidies and grants were traced from the audited accounts. Subsequently, the financing of the capital investment was worked out based on the gearing ratio of 70:30 and allowable depreciation was considered as normative loan repayment.
- 5.14.3. The State Discoms submitted that Commission, while computing interest on loan for FY 2020-21 has changed its approach followed in past Tariff/ True-up Orders and deducted the cumulative depreciation up to 31<sup>st</sup> March 2020 as per the Regulation 23.2 of UPERC MYT (Distribution and Transmission) Regulations, 2019. The Commission has deviated from its earlier approach of considering the closing loan from the last year as the opening, while the same is adopted for ROE and Depreciation.
- 5.14.4. The State Discoms further submitted that it has followed the approach followed by the Commission in its earlier Orders. The opening balance of long term loan has been considered equivalent to the closing loan balance for FY 2019-20
- 5.14.5. The Interest on long term loan as claimed by the State Discoms and as approved by the Commission is shown in the Tables below:

**TABLE 5-59: INTEREST ON LONG TERM LOAN OF DVVNL FOR FY 2020-21 (RS. CRORE)**

Particulars	Approved in order dated November 11, 2020	Claimed in APR
Opening Loan	2448.96	3,955.47
Loan Additions (70% of Investments)	1504.18	835.44
Less: Repayments (Depreciation allowable for the year)	422.9	444.82
Closing Loan Balance	3530.24	4,346.09
Weighted Average Rate of Interest	9.13%	11.21%
Interest on long term loan	272.91	465.49
Less: Interest Capitalized	104.8	105.01
<b>Net Interest on Loan term loan</b>	<b>168.11</b>	<b>360.49</b>



**TABLE 5-60: INTEREST ON LONG TERM LOAN OF MVVNL FOR FY 2020-21 (RS. CRORE)**

Particulars	Approved in order dated November 11, 2020	Claimed in APR
Opening Loan	121.71	4,501.63
Loan Additions (70% of Investments)	1,594.06	858.77
Less: Repayments (Depreciation allowable for the year)	208.23	316.71
Closing Loan Balance	1,507.53	5,043.68
Weighted Average Rate of Interest	7.48%	10.91%
Interest on long term loan	60.91	520.89
Less: Interest Capitalized	19.76	93.91
<b>Net Interest on long term loans</b>	<b>41.15</b>	<b>426.98</b>

**TABLE 5-61: INTEREST ON LONG TERM LOAN OF PVVNL FOR FY 2020-21 (RS. CRORE)**

Particulars	Approved in order dated November 11, 2020	Claimed in APR
Opening Loan	2,389.31	5,069.63
Loan Additions (70% of Investments)	416.1	1,617.58
Less: Repayments (Depreciation allowable for the year)	357.65	367.23
Closing Loan Balance	2,447.76	6,319.98
Weighted Average Rate of Interest	8.00%	8.40%
Interest on long term loan	193.5	478.52
Less: Interest Capitalized	61.11	215.65
<b>Net Interest on Loan term loan</b>	<b>132.38</b>	<b>262.87</b>

**TABLE 5-62: INTEREST ON LONG TERM LOAN OF PUVVNL FOR FY 2020-21 (RS. CRORE)**

Particulars	Approved in order dated November 11, 2020	Claimed in APR
Opening Loan	2,538.88	6,404.64
Loan Additions (70% of Investments)	573.31	621.07
Less: Repayments (Depreciation allowable for the year)	317.8	383.35
Closing Loan Balance	2,794.40	6,642.37
Weighted Average Rate of Interest	8.70%	10.24%



Particulars	Approved in order dated November 11, 2020	Claimed in APR
Interest on long term loan	232.03	667.88
Less: Interest Capitalized	50.08	225.36
<b>Net Interest on Loan term loan</b>	<b>181.95</b>	<b>442.52</b>

**TABLE 5-63: INTEREST ON LONG TERM LOAN OF KESCO FOR FY 2020-21 (RS. CRORE)**

Particulars	Approved in order dated November 11, 2020	Claimed in APR
Opening Loan	23.38	110.97
Loan Additions (70% of Investments)	43.85	109.55
Less: Repayments (Depreciation allowable for the year)	34.62	40.01
Closing Loan Balance	32.61	180.51
Weighted Average Rate of Interest	7.44%	10.63%
Interest on long term loan	2.08	15.49
Less: Interest Capitalized	0	0
<b>Net Interest on Loan term loan</b>	<b>2.08</b>	<b>15.49</b>

**TABLE 5-64: CONSOLIDATED INTEREST ON LONG TERM LOAN OF 5 STATE DISCOMS FOR FY 2020-21 (RS. CRORE)**

Particulars	Approved in order dated November 11, 2020	Claimed in APR
Opening Loan	7,522.24	20,042.34
Loan Additions (70% of Investments)	4,131.50	4,042.41
Less: Repayments (Depreciation allowable for the year)	1,341.20	1,552.12
Closing Loan Balance	10,312.54	22,532.63
Weighted Average Rate of Interest	8.15%	10.09%
Interest on long term loan	761.42	2,148.27
Less: Interest Capitalized	235.75	639.93
<b>Net Interest Charged</b>	<b>525.67</b>	<b>1,508.34</b>

- 5.14.6. The analysis of the Interest on Loan for FY 2020-21 would be carried out during True-Up proceedings after receipt of annual audited balance sheet & P&L statements of respective State Discoms.



### 5.15. INTEREST ON WORKING CAPITAL

5.15.1. State Discoms have worked out the interest on working capital based on the methodology specified in the Distribution MYT Regulations, 2019.

5.15.2. Regulation 25 of the MYT Regulations, 2019 lays down the norms and methodology for calculating interest on working capital, which is as follows:

#### Quote

*25.2 (a) & 25.2 (b) of UPERC (Multi Year Tariff for Distribution & Transmission) Regulations, 2019. The Regulation 25.2 (a) & 25.2 (b) is quoted below:*

*“(a) The working capital requirement of the Distribution Business shall cover:*

- (i) Operation and maintenance expenses for one month;*
- (ii) Maintenance spares at 40% of the R&M expenses for two months; and*
- (iii) One and half month equivalent of the expected revenue from charges for use of Distribution system at the prevailing Tariff (excluding Electricity Duty);*

*minus*

- (iv) Amount held as security deposits from Distribution System Users:*

*Provided that for the purpose of Truing-Up for any year, the working capital requirement shall be re-computed on the basis of the values of components of working capital approved by the Commission in the Truing- Up;*

*(b) Rate of interest on working capital shall be simple interest and shall be equal to the SBI MCLR (1 Year) on October 01, 2019 plus 250 basis points:*

*Provided that for the purpose of Truing-Up for any year, simple interest on working capital shall be allowed at a rate equal to the weighted average SBI MCLR (1 Year) prevailing during the concerned Year plus 250 basis points.”*

#### Unquote

5.15.3. In view of the above Regulations, the State Discoms have considered interest on working capital at the rate of SBAR prevailing at the time acceptance of the APR data by the Commission, i.e. at 10.65% as approved in Tariff Order dated November 11, 2020.

5.15.4. The interest on working capital as submitted by the State Discoms and as approved by the Commission for FY 2020-21 in Tariff Order dated November 11, 2020 is shown in the Tables below:



**TABLE 5-65: INTEREST ON WORKING CAPITAL OF DVVNL FOR FY 2020-21 (RS. CRORE)**

Particulars	Approved in order dated November 11, 2020	Claimed in APR
O&M expenses for 1 month	58.79	135.78
One and half Month equivalent of expected revenue	1,472.78	1,548.41
Maintenance spares @ 40% of R&M expenses for two months	27.46	62.21
Less: Security deposits from consumers, if any	640.33	640.33
Net Working Capital Requirement	918.71	1,106.06
State Bank Advance Rate (SBAR) %	10.65%	10.65%
<b>Interest on Working Capital</b>	<b>97.84</b>	<b>117.80</b>

**TABLE 5-66: INTEREST ON WORKING CAPITAL OF MVVNL FOR FY 2020-21 (RS. CRORE)**

Particulars	Approved in order dated November 11, 2020	Claimed in APR
O&M expenses for 1 month	71.54	139.12
One and half Month equivalent of expected revenue	1,574.27	1,654.58
Maintenance spares @ 40% of R&M expenses for two months	21.00	55.21
Less: Security deposits from consumers, if any	745.30	745.30
Net Working Capital Requirement	921.51	1,103.61
State Bank Advance Rate (SBAR) %	10.65%	10.65%
<b>Interest on Working Capital</b>	<b>98.14</b>	<b>117.53</b>

**TABLE 5-67: INTEREST ON WORKING CAPITAL OF PVVNL FOR FY 2020-21 (RS. CRORE)**

Particulars	Approved in order dated November 11, 2020	Claimed in APR
O&M expenses for 1 month	65.64	181.94
One and half Month equivalent of expected revenue	2,356.17	2,520.62
Maintenance spares @ 40% of R&M expenses for two month	22.13	67.70
Less: Security deposits from consumers, if any	1,647.21	1,647.21
Net Working Capital Requirement	796.72	1,123.05
State Bank Advance Rate (SBAR) %	10.65%	10.65%
<b>Interest on Working Capital</b>	<b>84.85</b>	<b>119.60</b>



**TABLE 5-68: INTEREST ON WORKING CAPITAL OF PUVVNL FOR FY 2020-21 (RS. CRORE)**

Particulars	Approved in order dated November 11, 2020	Claimed in APR
O&M expenses for 1 month	86.50	179.70
One and half Month equivalent of expected revenue	1698.56	1,958.84
Maintenance spares @ 40% of R&M expenses for two months	36.01	96.15
Less: Security deposits from consumers, if any	487.72	487.72
Net Working Capital Requirement	1333.34	1,746.98
State Bank Advance Rate (SBAR) %	10.65%	10.65%
<b>Interest on Working Capital</b>	<b>142.00</b>	<b>186.05</b>

**TABLE 5-69: INTEREST ON WORKING CAPITAL OF KESCO FOR FY 2020-21 (RS. CRORE)**

Particulars	Approved in order dated November 11, 2020	Claimed in APR
O&M expenses for 1 month	16.31	34.33
One and half Month equivalent of expected revenue	337.89	308.39
Maintenance spares @ 40% of R&M expenses for two months	4.30	9.96
Less: Security deposits from consumers, if any	145.18	145.18
Net Working Capital Requirement	213.32	207.5
State Bank Advance Rate (SBAR) %	10.65%	10.65%
<b>Interest on Working Capital</b>	<b>22.72</b>	<b>22.10</b>

**TABLE 5-70: CONSOLIDATED INTEREST ON WORKING CAPITAL OF 5 STATE DISCOMS FOR FY 2020-21 (RS. CRORE)**

Particulars	Approved in order dated November 11, 2020	Claimed in APR
O&M expenses for 1 month	298.78	670.87
One and half Month equivalent of expected revenue	7,439.67	7990.84
Maintenance spares @ 40% of R&M expenses for two months	110.90	291.23
Less: Security deposits from consumers, if any	3,665.75	3665.74
Net Working Capital Requirement	4,183.61	5,287.20
State Bank Advance Rate (SBAR) %	10.65%	10.65%
<b>Interest on Working Capital</b>	<b>445.55</b>	<b>563.09</b>



5.15.5. The analysis of the Interest on Working Capital for FY 2020-21 would be carried out during True-Up proceedings after receipt of annual audited balance sheet & P&L statements of respective State Discoms.

#### 5.16. INTEREST ON CONSUMER SECURITY DEPOSIT

5.16.1. As per the Regulation 25.2 (c) of the UPERC Distribution MYT Regulation, 2014 and as per the provisions of the UPERC Electricity Supply Code, 2005 and its subsequent amendments / addendums and the new regulations made after repeal of the same, the State Discoms have to pay interest on the consumers' security deposits.

5.16.2. As per 25.2 (c) MYT Regulations 2019, the interest on Security deposits shall be allowed as follows:

##### Quote

(c) Interest shall be allowed on consumer security deposits as per the provisions of the Electricity Supply Code, 2005 and its subsequent amendments / addendums & the new regulations made after repeal of the same.

##### Unquote

5.16.3. The interest on Security Deposit as submitted by the State Discoms and as approved by the Commission for FY 2020-21 is shown in the Tables below:

**TABLE 5-71: INTEREST ON SECURITY DEPOSIT FOR FY 2020-21 (RS. CRORE)**

Particulars	Approved in order dated November 11, 2020	Claimed in APR
DVVNL	29.14	29.14
MVVNL	32.65	32.65
PVVNL	72.97	72.97
PuVVNL	21.66	21.66
KESCo	6.61	6.61
<b>Consolidated</b>	<b>163.03</b>	<b>163.03</b>

5.16.4. The analysis of the Interest on Security Deposit for FY 2020-21 would be carried out during True-Up proceedings after receipt of annual audited balance sheet & P&L statements of respective State Discoms.



## 5.17. INTEREST AND FINANCE CHARGES

5.17.1. The comparison of interest and Finance charges as submitted by the State Discoms and as approved by the Commission for FY 2020-21 in Tariff Order dated 11.11.2020 is shown in the Tables below:

**TABLE 5-72: INTEREST AND FINANCE CHARGES OF DVVNL FOR FY 2020-21 (RS. CRORE)**

Particulars	Approved in order dated November 11, 2020	Claimed in APR
A: Interest on Long Term Loans		
Gross Interest on Long Term Loan	272.91	465.49
Less: Interest Capitalisation	104.8	105.01
Net Interest on Long Term Loans	168.11	360.49
B: Finance and Other Charges		
Interest on Consumer Security Deposits	29.14	29.14
Bank / Finance Charges		
Total Finance Charges		
C: Interest on Working Capital	97.84	117.8
<b>Total (A+B+C)</b>	<b>295.09</b>	<b>507.42</b>

**TABLE 5-73: INTEREST AND FINANCE CHARGES OF MVVNL FOR FY 2020-21 (RS. CRORE)**

Particulars	Approved in order dated November 11, 2020	Claimed in APR
A. Interest on Long Term Loans		
Gross Interest on Long Term Loan	60.91	520.89
Less: Interest Capitalisation	19.76	93.91
Net Interest on Long Term Loans	41.15	426.98
B. Finance and Other charges		
Interest on Consumer Security Deposit	32.65	32.65
Bank / Finance Charges		
Total Finance Charges		
C. Interest on Working Capital	98.14	117.53
<b>Total (A+B+C)</b>	<b>171.94</b>	<b>577.17</b>



**TABLE 5-74: INTEREST AND FINANCE CHARGES OF PVVNL FOR FY 2020-21 (RS. CRORE)**

Particulars	Approved in order dated November 11, 2020	Claimed in APR
A: Interest on Long Term Loans		
Gross Interest on Long Term Loan	193.5	478.52
Less: Interest Capitalisation	61.11	215.65
Net Interest on Long Term Loans	132.38	262.87
B: Finance and Other Charges		
Interest on Consumer Security Deposits	72.97	72.97
Bank / Finance Charges		
Total Finance Charges		
C: Interest on Working Capital	84.85	119.6
<b>Total (A+B+C)</b>	<b>290.2</b>	<b>455.45</b>

**TABLE 5-75: INTEREST AND FINANCE CHARGES OF PUVVNL FOR FY 2020-21 (RS. CRORE)**

Particulars	Approved in order dated November 11, 2020	Claimed in APR
A: Interest on Long Term Loans		
Gross Interest on Long Term Loan	232.03	667.88
Less: Interest Capitalisation	50.08	225.36
Net Interest on Long Term Loans	181.95	442.52
B: Finance and Other Charges		
Interest on Consumer Security Deposits	21.66	21.66
Bank / Finance Charges		
Total Finance Charges		
C: Interest on Working Capital	142	186.05
<b>Total (A+B+C)</b>	<b>345.61</b>	<b>650.23</b>

**TABLE 5-76: INTEREST AND FINANCE CHARGES OF KESCO FOR FY 2020-21 (RS. CRORE)**

Particulars	Approved in order dated November 11, 2020	Claimed in APR
A: Interest on Long Term Loans		
Gross Interest on Long Term Loan	2.08	15.49



Particulars	Approved in order dated November 11, 2020	Claimed in APR
Less: Interest Capitalisation	0	0
Net Interest on Long Term Loans	2.08	15.49
B: Finance and Other Charges		
Interest on Consumer Security Deposits	6.61	6.61
Bank / Finance Charges		
Total Finance Charges		
C: Interest on Working Capital	22.72	22.1
<b>Total (A+B+C)</b>	<b>31.41</b>	<b>44.2</b>

**TABLE 5-77: CONSOLIDATED INTEREST AND FINANCE CHARGES FOR FY 2020-21 (RS. CRORE)**

Particulars	Approved in order dated November 11, 2020	Claimed in APR
A: Interest on Long Term Loans		
Gross Interest on Long Term Loan	761.43	2148.27
Less: Interest Capitalization	235.75	639.93
Net Interest on Long Term Loans	525.67	1508.35
B: Finance and Other Charges		
Interest on Consumer Security Deposits	163.03	163.03
Bank / Finance Charges		
Total Finance Charges		
C: Interest on Working Capital	445.55	563.08
<b>Total (A+B+C)</b>	<b>1134.25</b>	<b>2234.47</b>

## 5.18. PROVISION FOR DOUBTFUL DEBT

5.18.1. The Regulation 46 of UPERC (Multi Year Tariff for Distribution & Transmission) Regulations, 2019 provides for expenses under bad and doubtful Debts to the extent of 2% of the revenue receivables as specified below:

Quote

46.1 For any Year, the Commission may allow a provision for write off of bad and doubtful debts up to 2% of the amount shown as Revenue Receivables from sale of electricity in the audited accounts of the Distribution Licensee for that Year or the actual write off of bad debts, whichever is less:



*Provided further that such provision allowed by the Commission for any Year shall not exceed the actual provision for write off of bad and doubtful debts made by the Distribution Licensee in the audited accounts of that Year:*

*Provided that the Commission, in its ARR / Tariff Order, may provisionally approve provision for write off of bad and doubtful debts based on the actual provision for write off of bad and doubtful debts made by the Distribution Licensee in the latest Audited Accounts available for the Petitioner, and as allowed by the Commission:*

*Provided further that if subsequent to the write off of a particular bad debt, revenue is realised from such bad debt, the same shall be included under the Non-Tariff Income of the year in which such revenue is realised.*

Unquote

- 5.18.2. The comparison of provision for doubtful debts as submitted by the State Discoms for FY 2020-21 and as approved by the Commission in Tariff Order dated November 11, 2020 is shown in the Table below:

**TABLE 5-78: PROVISION FOR BAD AND DOUBTFUL DEBTS FOR FY 2020-21 (RS. CRORE)**

Particulars	Approved in order dated November 11, 2020	Claimed in APR
DVVNL	159.8	247.75
MVVNL	207.25	264.73
PVVNL	118.28	403.3
PuVVNL	242.2	313.41
KESCO	13.57	49.34
<b>Consolidated (5 Discoms)</b>	<b>741.10</b>	<b>1,278.53</b>

- 5.18.3. The analysis of Provision for Doubtful debts for FY 2020-21 would be carried out during True-Up proceedings after receipt of annual audited balance sheet & P&L statements of respective State Discoms.

## 5.19. RETURN ON EQUITY

- 5.19.1. The Regulation 22 of the MYT (Distribution and Transmission) Regulations, 2019 provides for return on equity @15% post-tax per annum for Distribution Licensee as specified below:

Quote

“22 Return on equity



22.1 Return on equity shall be computed in Rs. terms on equity base at the rate of 14.5% post-tax per annum for the Transmission Licensee and at the rate of 15% post-tax per annum for Distribution Licensee respectively as determined in accordance with Regulation 20:

Provided that assets funded by Consumer Contribution / Deposit works, Capital Subsidies / Grants and corresponding Depreciation shall not form part of the Capital Cost. Actual Equity infused by the Licensee as per book value shall be considered and shall be used for computation in these Regulations.”

Unquote

- 5.19.2. It can be observed that the above extract of the MYT Regulations, 2019, provides for 15% post tax return on equity.
- 5.19.3. In line with provision of the MYT Regulations, 2019, the Commission had allowed Return on equity (RoE) in the Tariff Order dated November 11, 2020. The comparison of approved RoE by the Commission in Tariff Order dated November 11, 2020 and Discoms claim is shown in the Tables below:

**TABLE 5-79: RETURN ON EQUITY OF DVVNL FOR FY 2020-21 (RS. CRORE)**

Particulars	Approved in order dated November 11, 2020	Claimed in APR
Opening Equity	2744.20	3,448.26
Additions (30% of Capitalization net of Consumer Contribution and Grants)	644.65	471.18
Closing Equity	3388.85	3,919.44
Rate of Return on Equity (%)	15.00%	15.00%
<b>Return on Equity</b>	<b>459.98</b>	<b>552.58</b>

**TABLE 5-80: RETURN ON EQUITY OF MVVNL FOR FY 2020-21 (RS. CRORE)**

Particulars	Approved in order dated November 11, 2020	Claimed in APR
Opening Equity	1,411.39	2,269.64
Additions (30% of Capitalization net of Consumer Contribution and Grants)	683.16	1,072.39
Closing Equity	2,094.56	3,342.03
Rate of Return on Equity (%)	15.00%	15.00%



Particulars	Approved in order dated November 11, 2020	Claimed in APR
<b>Return on Equity</b>	<b>262.95</b>	<b>420.88</b>

**TABLE 5-81: RETURN ON EQUITY OF PVVNL FOR FY 2020-21 (RS. CRORE)**

Particulars	Approved in order dated November 11, 2020	Claimed in APR
Opening Equity	3,374.03	3,931.57
Additions (30% of Capitalization net of Consumer Contribution and Grants)	178.33	321.36
Closing Equity	3,552.36	4,252.93
Rate of Return on Equity (%)	15.00%	15.00%
<b>Return on Equity</b>	<b>519.48</b>	<b>613.84</b>

**TABLE 5-82: RETURN ON EQUITY OF PUVVNL FOR FY 2020-21 (RS. CRORE)**

Particulars	Approved in order dated November 11, 2020	Claimed in APR
Opening Equity	2,875.91	3,515.13
Additions (30% of Capitalization net of Consumer Contribution and Grants)	245.71	818.34
Closing Equity	3,121.61	4,333.47
Rate of Return on Equity (%)	15.00%	15.00%
<b>Return on Equity</b>	<b>449.81</b>	<b>588.65</b>

**TABLE 5-83: RETURN ON EQUITY OF KESCO FOR FY 2020-21 (RS. CRORE)**

Particulars	Approved in order dated November 11, 2020	Claimed in APR
Opening Equity	297.21	306.37



Particulars	Approved in order dated November 11, 2020	Claimed in APR
Additions (30% of Capitalization net of Consumer Contribution and Grants)	18.8	50.36
Closing Equity	316	356.74
Rate of Return on Equity (%)	15.00%	15.00%
<b>Return on Equity</b>	<b>45.99</b>	<b>49.73</b>

**TABLE 5-84: CONSOLIDATED RETURN ON EQUITY OF 5 STATE DISCOMS FOR FY 2020-21 (RS. CRORE)**

Particulars	Approved in order dated November 11, 2020	Claimed in APR
Opening Equity	10,702.74	13,470.97
Additions (30% of Capitalization net of Consumer Contribution and Grants)	1,770.65	2,733.63
Closing Equity	12,473.38	16,204.61
Rate of Return on Equity (%)	15.00%	15.00%
<b>Return on Equity</b>	<b>1,738.21</b>	<b>2,225.68</b>

5.19.4. The analysis of RoE for FY 2020-21 would be carried out during True-Up proceedings after receipt of annual audited balance sheet & P&L statements of respective State Discoms

## 5.20. CONTRIBUTION TO CONTINGENCY RESERVE

5.20.1. The Commission noticed that the Petitioner has not claimed any amount for Contribution to contingency reserve for FY 2020-21 in APR. Hence the Commission for the FY 2020-21 has not considered any contribution towards contingency reserves and the analysis would be carried out during True-Up proceedings after receipt of annual audited balance sheet & P&L statements of respective State Discoms.

## 5.21. NON-TARIFF INCOME

5.21.1. Non-tariff income includes income such as interest on loans & advances to employees, income from fixed rate investment deposits and other miscellaneous income from retail sources.



5.21.2. Regulation 47 of the UPERC (Multi Year Tariff for Distribution & Transmission) Regulations, 2019, provides for treatment of non-tariff income, which is as follows:

Quote

47 *Non-Tariff Income*

47.1 *The amount of Non-Tariff Income relating to the Distribution Business as approved by the Commission shall be deducted from the ARR in determining the Tariff for retail supply and Wheeling Charges of the Distribution Business:*

*Provided that the Distribution Licensee shall submit full details of its forecast of Non-Tariff Income to the Commission in such form as may be stipulated by the Commission.*

47.2 *The Non-Tariff Income shall include:*

- a) *Income from rent of land or buildings;*
- b) *Income from sale of scrap;*
- c) *Income from investments;*
- d) *Interest income on advances to suppliers/contractors;*
- e) *Interest income on loans / advances to employees;*
- f) *Income from rental from staff quarters;*
- g) *Income from rental from contractors;*
- h) *Income from hire charges from contractors and others;*
- i) *Income from delayed payment surcharge, supervision charges, etc.;*
- j) *Supervision charges for capital works;*
- k) *Income from recovery against theft and/or pilferage of electricity;*
- l) *Income from advertisements;*
- m) *Income from sale of tender documents;*
- n) *Excess found on physical verification;*
- o) *Prior Period Income;*
- p) *Miscellaneous receipts; and*
- q) *Any other Non-Tariff Income:*

*Provided that the interest earned from investments made out of Return on Equity corresponding to the regulated Business of the Distribution Business shall not be included in Non-Tariff Income.*

Unquote



5.21.3. The Non- Tariff income for FY 2020-21 as approved by the Commission in Tariff Order dated November 11, 2020 and as submitted by State Discoms is shown in the Table below:

**TABLE 5-85:NON-TARIFF INCOME FOR FY 2020-21 (RS. CRORE)**

Particulars	Approved in order dated November 11, 2020	Claimed in APR
DVVNL	24.60	24.60
MVVNL	34.73	34.73
PVVNL	17.79	17.79
PuVVNL	12.57	12.57
KESCO	25.54	25.54
<b>Consolidated (5 Discoms)</b>	<b>115.23</b>	<b>115.23</b>

5.21.4. The analysis of Non- Tariff Income for FY 2020-21 would be carried out during True-Up proceedings after receipt of annual audited balance sheet & P&L statements of respective State Discoms.

## 5.22. GOUP SUBSIDY

5.22.1. The details of GoUP subsidy for FY 2020-21 as approved by the Commission in Tariff Order dated November 11, 2020 and as submitted by State Discoms for FY 2020-21 is shown in the Table below:

**TABLE 5-86: GOUP SUBSIDY FOR FY 2020-21 (RS. CRORE)**

Particulars	Approved in order dated November 11, 2020	Claimed in APR
DVVNL	2,180.09	1,543.58
MVVNL	2,080.93	1,473.37
PVVNL	2664.18	1886.33
PuVVNL	3,224.80	2,354.07
KESCO	0	0
<b>Consolidated (5 Discoms)</b>	<b>10,250.00</b>	<b>7,257.35</b>

5.22.2. The analysis of GoUP subsidy for FY 2020-21 would be carried out during True-Up proceedings after receipt of annual audited balance sheet & P&L statements of respective State Discoms.



## 5.23. REVENUE FROM SALE OF POWER

- 5.23.1. The State Discoms have submitted the estimated revenue from existing tariff of Rs. 10207.20 Crore for DVVNL, Rs. 11155.70 Crore for MVVNL, Rs. 17500.78 Crore for PVVNL, Rs. 12345.94 Crore for PuVVNL and Rs. 2467.11 Crore for KESCO.
- 5.23.2. The following Tables summarize the revenue approved by Commission for FY 2020-21 vide Tariff Order dated November 11, 2020 and revised revenue by State Discoms at tariff approved by the Commission for FY 2020-21.

**TABLE 5-87: REVENUE FROM SALE OF POWER FOR FY 2020-21 FOR DVVNL (RS. CRORE)**

	Categories	Approved in order dated November 11, 2020	Claimed in APR
A	LMV-1 Domestic light fan & power	5,238.97	
B	LMV-2-Non domestic light fan & power	1,085.78	
C	LMV-3 Public lamps	64.84	
D	LMV-4 Light, fan & power for public/private institution	244.10	
E	LMV-5 Private tube well/pumping sets	433.76	
F	LMV-6 Small & medium power upto 100 hp/75kW	662.77	
G	LMV-7 Public water works	363.21	
H	LMV-8 State tube wells & pumps canal upto 100 hp	628.11	
I	LMV-9 Temporary supply	15.18	
J	LMV- 10 Departmental employees	111.01	
K	LMV-11: Electric Vehicles	-	
L	HV-1 Non industrial bulk load	367.63	
M	HV-2 Large & heavy power above 100 bhp (75kW)	2,435.01	
N	HV-3 Railway traction	-	
O	HV-4 Lift irrigation & p. canal above 100 bhp (75kW)	131.85	
P	Bulk Supply		
Q	Extra State Consumers		
R	<b>Total</b>	<b>11,782.24</b>	<b>10,207.20</b>



**TABLE 5-88: REVENUE FROM SALE OF POWER FOR FY 2020-21 FOR MVVNL (RS. CRORE)**

S.No	Categories	Approved in order dated November 11, 2020	Claimed in APR
A	LMV-1 Domestic light fan & power	6520.16	
B	LMV-2-Non domestic light fan & power	1309.22	
C	LMV-3 Public lamps	356.26	
D	LMV-4 Light, fan & power for public/private institution	211.22	
E	LMV-5 Private tube well/pumping sets	263.64	
F	LMV-6 Small & medium power upto 100 hp/75kW	451.48	
G	LMV-7 Public water works	457.60	
H	LMV-8 State tube wells & pumps canal upto 100 hp	811.42	
I	LMV-9 Temporary supply	77.59	
J	LMV- 10 Departmental employees	159.01	
K	LMV-11: Electric Vehicles		
L	HV-1 Non industrial bulk load	715.60	
M	HV-2 Large & heavy power above 100 bhp (75kW)	1,139.86	
N	HV-3 Railway traction	32.10	
O	HV-4 Lift irrigation & p. canal above 100 bhp (75kW)	70.42	
P	Bulk Supply		
Q	Extra State Consumers	18.61	
R	<b>Total</b>	<b>12594.19</b>	<b>11155.70</b>

**TABLE 5-89: REVENUE FROM SALE OF POWER FOR FY 2020-21 FOR PVVNL (RS.CRORE)**

S.No	Categories	Approved in order dated November 11, 2020	Claimed in APR
A	LMV-1 Domestic light fan & power	8,206.49	
B	LMV-2-Non domestic light fan & power	1,605.06	
C	LMV-3 Public lamps	203.22	
D	LMV-4 Light, fan & power for public/private institution	182.88	
E	LMV-5 Private tube well/pumping sets	695.56	
F	LMV-6 Small & medium power upto 100 hp/75kW	955.98	
G	LMV-7 Public water works	465.84	
H	LMV-8 State tube wells & pumps canal upto 100 hp	321.92	
I	LMV-9 Temporary supply	84.90	
J	LMV- 10 Departmental employees	140.81	



S.No	Categories	Approved in order dated November 11, 2020	Claimed in APR
K	LMV-11: Electric Vehicles		
L	HV-1 Non industrial bulk load	1,915.03	
M	HV-2 Large & heavy power above 100 bhp (75kW)	4,001.79	
N	HV-3 Railway traction	69.09	
O	HV-4 Lift irrigation & p. canal above 100 bhp (75kW)	0.76	
P	Bulk Supply	0.00	
Q	Extra State Consumers	0.00	
R	<b>Total</b>	<b>18,849.33</b>	<b>17500.78</b>

**TABLE 5-90: REVENUE FROM SALE OF POWER FOR FY 2020-21 FOR PUVVNL (RS.CRORE)**

S.No	Categories	Approved in order dated November 11, 2020	Claimed in APR
A	LMV-1 Domestic light fan & power	7,575.01	
B	LMV-2-Non domestic light fan & power	1,821.81	
C	LMV-3 Public lamps	119.45	
D	LMV-4 Light, fan & power for public/private institution	161.71	
E	LMV-5 Private tube well/pumping sets	317.75	
F	LMV-6 Small & medium power upto 100 hp/75kW	460.64	
G	LMV-7 Public water works	328.19	
H	LMV-8 State tube wells & pumps canal upto 100 hp (lmv-8)	898.73	
I	LMV-9 Temporary supply	0.94	
J	LMV- 10 Departmental employees	176.09	
K	LMV-11: Electric Vehicles	-	
L	HV-1 Non industrial bulk load	483.96	
M	HV-2 Large & heavy power above 100 bhp (75kW)	790.14	
N	HV-3 Railway traction	-	
O	HV-4 Lift irrigation & p. canal above 100 bhp (75kW)	454.02	
P	Bulk Supply	-	
Q	Extra State Consumers	-	
R	<b>Total</b>	<b>13,588.44</b>	<b>12345.94</b>



**TABLE 5-91: REVENUE FROM SALE OF POWER FOR FY 2020-21 FOR KESCO (RS.CRORE)**

S.No	Categories	Approved in order dated November 11, 2020	Claimed in APR
A	LMV-1 Domestic light fan & power	1,252.60	
B	LMV-2-Non domestic light fan & power	330.51	
C	LMV-3 Public lamps	40.99	
D	LMV-4 Light, fan & power for public/private institution	80.08	
E	LMV-5 Private tube well/pumping sets	-	
F	LMV-6 Small & medium power upto 100 hp/75kW	243.60	
G	LMV-7 Public water works	103.53	
H	LMV-8 State tube wells & pumps canal upto 100 hp	-	
I	LMV-9 Temporary supply	9.16	
J	LMV- 10 Departmental employees	31.02	
K	LMV-11: Electric Vehicles	-	
L	HV-1 Non industrial bulk load	193.44	
M	HV-2 Large & heavy power above 100 bhp (75kW)	418.24	
N	HV-3 Railway traction	-	
O	HV-4 Lift irrigation & p. canal above 100 bhp (75kW)	-	
P	Bulk Supply	-	
Q	Extra State Consumers	-	
R	<b>Total</b>	<b>2703.16</b>	<b>2467.11</b>

**TABLE 5-92: CONSOLIDATED REVENUE FROM SALE OF POWER FOR FY 2020-21 FOR (RS. CRORE)**

S.No	Categories	Approved in order dated November 11, 2020	Claimed in APR
A	LMV-1 Domestic light fan & power	28,793.23	
B	LMV-2-Non domestic light fan & power	6,152.37	
C	LMV-3 Public lamps	784.75	
D	LMV-4 Light, fan & power for public/private institution	880.00	
E	LMV-5 Private tube well/pumping sets	1710.73	
F	LMV-6 Small & medium power upto 100 hp/75kW	2,774.47	
G	LMV-7 Public water works	1,718.38	
H	LMV-8 State tube wells & pumps canal upto 100 hp	2,660.17	
I	LMV-9 Temporary supply	187.76	
J	LMV- 10 Departmental employees	617.93	



S.No	Categories	Approved in order dated November 11, 2020	Claimed in APR
K	LMV-11: Electric Vehicles		
L	HV-1 Non industrial bulk load	3,675.67	
M	HV-2 Large & heavy power above 100 bhp (75kW)	8,785.04	
N	HV-3 Railway traction	101.19	
O	HV-4 Lift irrigation & p. canal above 100 bhp (75kW)	657.05	
P	Bulk Supply		
Q	Extra State Consumers	19	
R	<b>Total</b>	<b>59,517.36</b>	<b>53676.73</b>

5.23.3. The analysis of Revenue for FY 2020-21 would be carried out during True-Up proceedings after receipt of annual audited balance sheet & P&L statements of respective State Discoms.

#### 5.24. ARR AND REVENUE GAP

5.24.1. In the preceding Sections, the Commission has detailed the expenses submitted by the State Discoms for FY 2020-21. The comparison of ARR and revenue Gap as approved by the Commission in Tariff Order dated November 11, 2020 and as submitted by the State Discoms for FY 2020-21 is shown in the Tables below:

**TABLE 5-93: ARR SUMMARY FOR FY 2020-21 FOR DVVNL (RS. CRORE)**

Particulars	Approved in order dated November 11, 2020	Claimed in APR
Cost of Power Procurement (including Inter State Transmission)	10,546.04	9,901.86
Disallowance in PPC due to excess sales (in unmetered) wrt Normative		
Cost of Gain / (Loss) on Account of AT&C		-
Efficiency Gains / (Loss) on account of variation in Distribution Loss		
Transmission and Load Dispatch Charges (Intra-State Transmission Charges)	517.09	578.50
<b>Gross O&amp;M Expenses</b>	<b>994.90</b>	<b>1,849.72</b>
Employee expenses	489.24	464.27
A&G expenses	93.72	344.55
R&M expenses	411.94	933.08
UPPCL O&M Expenses		70.50
Smart Meter Opex		28.60
Arrears (7th Pay Commission)		8.72



Approval of ARR and Tariff for State Discoms for FY 2021-22, APR of FY 2020-21 and True-up of FY 2019-20

Particulars	Approved in order dated November 11, 2020	Claimed in APR
Interest on Loan Capital	272.91	465.49
Interest on Security Deposit from Consumers and Distribution system Users	29.14	29.14
Interest on Working Capital	97.84	117.80
Finance Charges	-	
Depreciation	422.90	444.82
Interest on GPF		
<b>Gross expenditure</b>	<b>12,880.82</b>	<b>13,387.32</b>
Less: Employee expenses capitalised	289.38	220.38
Less: A&G expenses capitalised		-
Less: Interest expenses capitalised	104.80	105.01
<b>Net expenditure</b>	<b>12,486.64</b>	<b>13,061.93</b>
Bad Debts & Provisions	159.80	247.75
Prior Period expenses/Comprehensive Incomes		
<b>Net expenditure with provisions</b>	<b>12,646.45</b>	<b>13,309.68</b>
Add: Return on Equity	459.98	552.58
Less: Non Tariff Income	24.60	24.60
Add: Cost of borrowing DPS		
Less: Cross Subsidy surcharge (STOA)	15.34	6.92
<b>Aggregate Revenue Requirement</b>	<b>13,066.48</b>	<b>13,830.73</b>
Gain on O&M Expenses		
Sharing of Gain/Loss on O&M Expenses (50% to Consumers)		
<b>Net ARR</b>	<b>13,066.48</b>	<b>13,830.73</b>
Revenue from existing Tariff	11,782.24	10,207.20
Deemed Revenue (LMV-10)		
Deemed Revenue (Sales Adjustment)		
GoUP Subsidy	2,180.09	1,543.58
<b>Net Revenue Gap/(Surplus) before Tariff revision (ARR-Revenue)</b>	<b>(895.84)</b>	<b>2,079.95</b>
Less: Additional Subsidy to be provided by GoUP		
Tariff Revision Impact		
<b>Net Revenue Gap /(Surplus) after Tariff revision</b>	<b>(895.84)</b>	<b>2,079.95</b>

TABLE 5-94: ARR SUMMARY FOR FY 2020-21 FOR MVVNL (RS. CRORE)

Particulars	Approved in order dated November 11, 2020	Claimed in APR
Cost of Power Procurement (including Inter State Transmission)	11,508.91	11139.26
Disallowance in PPC due to excess sales (in unmetered) wrt Normative		
Cost of Gain / (Loss) on Account of AT&C		-
Efficiency Gains / (Loss) on account of variation in Distribution Loss		



Approval of ARR and Tariff for State Discoms for FY 2021-22, APR of  
FY 2020-21 and True-up of FY 2019-20

Particulars	Approved in order dated November 11, 2020	Claimed in APR
Transmission and Load Dispatch Charges (Intra-State Transmission Charges)	508.95	532.84
<b>Gross O&amp;M Expenses</b>	<b>1,185.79</b>	<b>2,102.46</b>
Employee expenses	661.05	691.80
A&G expenses	209.68	430.83
R&M expenses	315.06	828.17
UPPCL O&M Expenses		66.31
Smart Meter Opex		56.78
Arrears (7th Pay Commission)		28.58
Interest on Loan Capital	60.91	520.89
Interest on Security Deposit from Consumers and Distribution system Users	32.65	32.65
Interest on Working Capital	98.14	117.53
Finance Charges	-	
Depreciation	208.23	316.71
Interest on GPF		
<b>Gross expenditure</b>	<b>13,603.58</b>	<b>14,762.34</b>
Less: Employee expenses capitalised	327.29	433.04
Less: A&G expenses capitalised		
Less: Interest expenses capitalised	19.76	93.91
<b>Net expenditure</b>	<b>13,256.53</b>	<b>14,235.39</b>
Bad Debts & Provisions	207.75	264.73
Prior Period expenses/Comprehensive Incomes		
<b>Net expenditure with provisions</b>	<b>13,464.28</b>	<b>14,500.12</b>
Add: Return on Equity	262.95	420.88
Less: Non Tariff Income	34.73	34.73
Add: Cost of borrowing DPS		
Less: Cross Subsidy surcharge (STOA)		
<b>Aggregate Revenue Requirement</b>	<b>13,692.49</b>	<b>14,886.27</b>
Gain on O&M Expenses		
Sharing of Gain/Loss on O&M Expenses (50% to Consumers)		
<b>Net ARR</b>	<b>13,692.49</b>	<b>14,886.27</b>
Revenue from existing Tariff	12,594.19	11155.70
Deemed Revenue (LMV-10)		
Deemed Revenue (Sales Adjustment)		
GoUP Subsidy	2,080.93	1473.37
<b>Net Revenue Gap/(Surplus) before Tariff revision (ARR-Revenue)</b>	<b>(982.62)</b>	<b>2,257.20</b>
Less: Additional Subsidy to be provided by GoUP		
Tariff Revision Impact		
<b>Net Revenue Gap /(Surplus) after Tariff revision</b>	<b>(982.62)</b>	<b>2,257.20</b>



**TABLE 5-95: ARR SUMMARY FOR FY 2020-21 FOR PVVNL (RS. CRORE)**

Particulars	Approved in order dated November 11, 2020	Claimed in APR
Cost of Power Procurement (including Inter State Transmission)	17,257.40	18,007.05
Disallowance in PPC due to excess sales (in unmetered) wrt Normative		
Cost of Gain / (Loss) on Account of AT&C		-
Efficiency Gains / (Loss) on account of variation in Distribution Loss	-	
Transmission and Load Dispatch Charges (Intra-State Transmission Charges)	771.48	763.56
<b>Gross O&amp;M Expenses</b>	<b>1,060.57</b>	<b>2,341.53</b>
Employee expenses	601.49	626.58
A&G expenses	127.11	503.03
R&M expenses	331.97	1015.47
UPPCL O&M Expenses		94.99
Smart Meter Opex		104.45
Arrears (7th Pay Commission)		21.51
Interest on Loan Capital	193.50	478.52
Interest on Security Deposit from Consumers and Distribution system Users	72.97	72.97
Interest on Working Capital	84.85	119.60
Finance Charges	-	
Depreciation	357.65	367.23
Interest on GPF		
<b>Gross expenditure</b>	<b>19,798.42</b>	<b>22,174.96</b>
Less: Employee expenses capitalised	272.93	158.26
Less: A&G expenses capitalised		
Less: Interest expenses capitalised	61.11	215.65
<b>Net expenditure</b>	<b>19,464.37</b>	<b>21,801.05</b>
Bad Debts & Provisions	118.28	403.30
Prior Period expenses/Comprehensive Incomes		
<b>Net expenditure with provisions</b>	<b>19,582.65</b>	<b>22,204.35</b>
Add: Return on Equity	519.48	613.84
Less: Non Tariff Income	17.79	17.79
Add: Cost of borrowing DPS		
Less: Cross Subsidy surcharge (STOA)	2.73	0.64
<b>Aggregate Revenue Requirement</b>	<b>20,081.61</b>	<b>22,799.56</b>
Gain on O&M Expenses		
Sharing of Gain/Loss on O&M Expenses (50% to Consumers)		-
<b>Net ARR</b>	<b>20,081.61</b>	<b>22,799.76</b>
Revenue from existing Tariff	18,849.33	17,500.78
Deemed Revenue (LMV-10)		
Deemed Revenue (Sales Adjustment)		
GoUP Subsidy	2,664.18	1,886.33



Approval of ARR and Tariff for State Discoms for FY 2021-22, APR of FY 2020-21 and True-up of FY 2019-20

Particulars	Approved in order dated November 11, 2020	Claimed in APR
<b>Net Revenue Gap/(Surplus) before Tariff revision (ARR-Revenue)</b>	<b>(1,431.91)</b>	<b>3,412.65</b>
Less: Additional Subsidy to be provided by GoUP		
Tariff Revision Impact		
<b>Net Revenue Gap /(Surplus) after Tariff revision</b>	<b>(1,431.91)</b>	<b>*3,412.65</b>

\* The Petitioner in Table 3-15 of the Petition claims Net O&M expense of Rs. 2207.76 Cr whereas in Table 3.29 of the Petition, the Petitioner claims Net O&M of Rs. 2183.27 Crore. The Commission observed that Rs 2183.27 is a result of linking error in the Format submitted by the Petitioner. Hence, the corresponding Revenue gap comes to the tune of Rs 3,412.65 Cr.

**TABLE 5-96: ARR SUMMARY FOR FY 2020-21 FOR PUVVNL (RS. CRORE)**

Particulars	Approved in order dated November 11, 2020	Claimed in APR
Cost of Power Procurement (including Inter State Transmission)	12,815.00	12,968.38
Disallowance in PPC due to excess sales (in unmetered) wrt Normative		
Cost of Gain / (Loss) on Account of AT&C		
Efficiency Gains / (Loss) on account of variation in Distribution Loss		
Transmission and Load Dispatch Charges (Intra-State Transmission Charges)	601.87	632.70
<b>Gross O&amp;M Expenses</b>	<b>1,424.40</b>	<b>2,616.72</b>
Employee expenses	737.94	692.68
A&G expenses	146.35	338.31
R&M expenses	540.11	1,442.32
UPPCL O&M Expenses		78.82
Smart Meter Opex		59.21
Arrears (7th Pay Commission)		5.38
Interest on Loan Capital	232.03	667.88
Interest on Security Deposit from Consumers and Distribution system Users	21.66	21.66
Interest on Working Capital	142.00	186.05
Finance Charges		
Depreciation	317.80	383.35
Interest on GPF		
<b>Gross expenditure</b>	<b>15,554.77</b>	<b>17,476.75</b>
Less: Employee expenses capitalised	386.41	460.33



Approval of ARR and Tariff for State Discoms for FY 2021-22, APR of FY 2020-21 and True-up of FY 2019-20

Particulars	Approved in order dated November 11, 2020	Claimed in APR
Less: A&G expenses capitalised		
Less: Interest expenses capitalised	50.08	225.36
<b>Net expenditure</b>	<b>15,118.28</b>	<b>16,791.06</b>
Bad Debts & Provisions	242.20	313.41
Prior Period expenses/Comprehensive Incomes		
<b>Net expenditure with provisions</b>	<b>15,360.48</b>	<b>17,104.47</b>
Add: Return on Equity	449.81	588.65
Less: Non Tariff Income	13.14	12.57
Add: Cost of borrowing DPS		
Less: Cross Subsidy surcharge (STOA)	0.57	0.57
<b>Aggregate Revenue Requirement</b>	<b>15,796.58</b>	<b>17,679.97</b>
Gain on O&M Expenses		
Sharing of Gain/Loss on O&M Expenses (50% to Consumers)		
<b>Net ARR</b>	<b>15,796.58</b>	<b>17,679.97</b>
Revenue from existing Tariff	13,588.44	12,345.94
Deemed Revenue (LMV-10)		
Deemed Revenue (Sales Adjustment)		
GoUP Subsidy	3,324.80	2,354.07
<b>Net Revenue Gap/(Surplus) before Tariff revision (ARR-Revenue)</b>	<b>(1,116.66)</b>	<b>2,979.96</b>
Less: Additional Subsidy to be provided by GoUP		
Tariff Revision Impact		
<b>Net Revenue Gap /(Surplus) after Tariff revision</b>	<b>(1,116.66)</b>	<b>2,979.96</b>

TABLE 5-97: ARR SUMMARY FOR FY 2020-21 FOR KESCO (RS. CRORE)

Particulars	Approved in order dated November 11, 2020	Claimed in APR
Cost of Power Procurement (including Inter State Transmission)	2,157.39	2217.70
Disallowance in PPC due to excess sales (in unmetered) wrt Normative		
Cost of Gain / (Loss) on Account of AT&C		
Efficiency Gains / (Loss) on account of variation in Distribution Loss		
Transmission and Load Dispatch Charges (Intra-State Transmission Charges)	84.85	78.62
<b>Gross O&amp;M Expenses</b>	<b>238.49</b>	<b>423.78</b>
Employee expenses	147.46	142.34



Approval of ARR and Tariff for State Discoms for FY 2021-22, APR of FY 2020-21 and True-up of FY 2019-20

Particulars	Approved in order dated November 11, 2020	Claimed in APR
A&G expenses	26.58	96.01
R&M expenses	64.46	149.42
UPPCL O&M Expenses		9.87
Smart Meter Opex		12.90
Arrears (7th Pay Commission)		13.24
Interest on Loan Capital	2.08	15.49
Interest on Security Deposit from Consumers and Distribution system Users	6.61	6.61
Interest on Working Capital	22.72	22.10
Finance Charges	-	
Depreciation	34.62	40.01
Interest on GPF		
<b>Gross expenditure</b>	<b>2,546.76</b>	<b>2,804.31</b>
Less: Employee expenses capitalised	42.74	11.83
Less: A&G expenses capitalised		
Less: Interest expenses capitalised		
<b>Net expenditure</b>	<b>2,504.02</b>	<b>2,792.48</b>
Bad Debts & Provisions	13.57	49.34
Prior Period expenses/Comprehensive Incomes		
<b>Net expenditure with provisions</b>	<b>2,517.60</b>	<b>2,841.82</b>
Add: Return on Equity	45.99	49.73
Less: Non Tariff Income	25.54	25.54
Add: Cost of borrowing DPS		-
Less: Cross Subsidy surcharge (STOA)		-
<b>Aggregate Revenue Requirement</b>	<b>2,538.05</b>	<b>2,866.01</b>
Gain on O&M Expenses		
Sharing of Gain/Loss on O&M Expenses (50% to Consumers)		
<b>Net ARR</b>	<b>2,538.05</b>	<b>2,866.01</b>
Revenue from existing Tariff	2,703.16	2467.11
Deemed Revenue (LMV-10)		
Deemed Revenue (Sales Adjustment)		
GoUP Subsidy		
<b>Net Revenue Gap/(Surplus) before Tariff revision (ARR-Revenue)</b>	<b>(165.11)</b>	<b>398.91</b>
Less: Additional Subsidy to be provided by GoUP		
Tariff Revision Impact		
<b>Net Revenue Gap /(Surplus) after Tariff revision</b>	<b>(165.11)</b>	<b>398.91</b>



**TABLE 5-98: CONSOLIDATED ARR SUMMARY FOR FY 2020-21 FOR STATE DISCOMS (RS. CRORE)**

Particulars	Approved in order dated November 11, 2020	Claimed in APR
Cost of Power Procurement (including Inter State Transmission)	54,284.73	54,234.24
Disallowance in PPC due to excess sales (in unmetered) wrt Normative	-	-
Cost of Gain / (Loss) on Account of AT&C	-	-
Efficiency Gains / (Loss) on account of variation in Distribution Loss	-	-
Transmission and Load Dispatch Charges (Intra-State Transmission Charges)	2,484.23	2,586.22
<b>Gross O&amp;M Expenses</b>	<b>4,904.16</b>	<b>9,358.71</b>
Employee expenses	2,637.19	2,617.68
A&G expenses	603.43	1,712.72
R&M expenses	1,663.54	4,368.46
UPPCL O&M Expenses	-	320.49
Smart Meter Opex	-	261.93
Arrears (7th Pay Commission)	-	77.43
Interest on Loan Capital	761.42	2,148.28
Interest on Security Deposit from Consumers and Distribution system Users	163.04	163.03
Interest on Working Capital	445.55	563.09
Finance Charges	-	-
Depreciation	1,341.20	1,552.12
Interest on GPF	-	-
<b>Gross expenditure</b>	<b>64,384.34</b>	<b>70,605.69</b>
Less: Employee expenses capitalised	1,318.75	1,283.85
Less: A&G expenses capitalised	-	-
Less: Interest expenses capitalised	235.75	639.93
<b>Net expenditure</b>	<b>62,829.84</b>	<b>68,681.91</b>
Bad Debts & Provisions	741.61	1,278.53
Prior Period expenses/Comprehensive Incomes	-	-
<b>Net expenditure with provisions</b>	<b>63,571.45</b>	<b>69,960.44</b>
Add: Return on Equity	1,738.21	2,225.67
Less: Non Tariff Income	115.81	115.23
Add: Cost of borrowing DPS	-	-
Less: Cross Subsidy surcharge (STOA)	18.64	8.13
<b>Aggregate Revenue Requirement</b>	<b>65,175.21</b>	<b>72,062.75</b>
Gain on O&M Expenses	-	-
Sharing of Gain/Loss on O&M Expenses (50% to Consumers)	-	-
<b>Net ARR</b>	<b>65,175.21</b>	<b>72,062.75</b>
Revenue from existing Tariff	59,517.36	53,676.72
Deemed Revenue (LMV-10)	-	-
Deemed Revenue (Sales Adjustment)	-	-



Approval of ARR and Tariff for State Discoms for FY 2021-22, APR of FY 2020-21 and True-up of FY 2019-20

Particulars	Approved in order dated November 11, 2020	Claimed in APR
GoUP Subsidy	10,250.00	7,257.35
<b>Net Revenue Gap/(Surplus) before Tariff revision (ARR-Revenue)</b>	<b>(4,592.15)</b>	<b>11,128.67</b>
Less: Additional Subsidy to be provided by GoUP	-	-
Tariff Revision Impact	-	-
<b>Net Revenue Gap /(Surplus) after Tariff revision</b>	<b>(4,592.15)</b>	<b>*11,128.67</b>

*\* The PVVNL in Table 3-15 of the Petition claims Net O&M expense of Rs. 2207.76 Cr whereas in Table 3.29 of the Petition, the Petitioner claims an O&M of Rs. 2183.27 Crore. The Commission observed that Rs 2183.27 Cr is a result of linking error in the Format submitted by the Petitioner. Hence, the consolidated Revenue gap comes to the tune of Rs 11,128.67 Cr*

5.24.2. In Annual Performance Review (APR) of FY 2020-21, the Gap/ (Surplus) claimed by DVVNL, MVVNL, PVVNL, PuVVNL and KESCo are Rs. 2,079.95 Crore, Rs. 2,257.20 Crore, Rs. 3,412.65 Crore, Rs. 2,979.96 Crore and Rs. 398.91 Crore respectively. The consolidated figure for FY 2020-21 is coming out to be a gap of Rs. 11,128.67 Crore as per the Licensee submissions. The above figures are subjected to be revised in the True up of FY 2020-21 after receipt of annual audited balance sheet & P&L statements of respective State Discoms.



## 6. AGGREGATE REVENUE REQUIREMENT & TARIFF FOR FY 2021-22

### 6.1. INTRODUCTION

6.1.1. The Commission in earlier Chapters of this Order has undertaken Truing- Up of ARR for FY 2019-20 based on the audited accounts and APR for FY 2020-21. In this section, the Commission has undertaken the process of approval of the Aggregate Revenue Requirement (ARR) for FY 2021-22 in line with the provisions of the Distribution MYT Tariff Regulations, 2019.

6.1.2. Regulation 41.1 of the MYT Regulations, 2019, provides the principles for determination of ARR which shall contain the following components:

- Power Purchase expenses;
- Inter-State Transmission Charges;
- Intra-State Transmission Charges;
- SLDC Fees & Charges;
- Operation and Maintenance expenses;
- Depreciation;
- Interest on Loan capital;
- Interest on Working Capital;
- Provision for Bad and doubtful debts;
- Contribution to Contingency Reserves;
- Return on Equity;
- Income Tax;
- minus:
- Non-Tariff income;
- Income from other Business

6.1.3. In this Chapter, the Commission has discussed in detail, each component of ARR for FY 2021-22.

### 6.2. Billing Determinants: NO. OF CONSUMERS, CONNECTED LOAD AND SALES

6.2.1. The billing determinants of each DISCOM comprises of number of consumers, connected load (kW), energy sales (billed energy), split between rural / urban consumers.

6.2.2. The State Discoms submitted that while projecting the billing determinants (number of consumers, load and energy sales) for FY 2021-22, in its Business Plan Petition,



appropriate growth rates had been considered for different categories and sub-categories, considering FY 2021-22 to be a normal 'business as usual' year, i.e., free from impact of any lockdown situation as has happened in FY 2020-21. It is further submitted that the Commission while approving the sales for FY 2021-22, in its Business Plan Order dated 27 October 2020, had considered higher growth rates for several categories, which are unlikely to be achieved by the State Discoms, based on the current situation.

6.2.3. Therefore, the State-Owned Discoms requested the Commission to consider the billing determinants for FY 2021-22 as per projections submitted in the Petitions, which have been arrived at by considering appropriate growth rates on revised estimates for FY 2020-21 in case of number of consumers and load and on actual figures for FY 2019-20 in case of energy sales. Further, it has been submitted that the billing determinants as approved by the Commission for FY 2021-22 are not likely to be achieved and thus would result in over-projection of revenue.

6.2.4. Further, DVVNL submitted that the Commission, while approving/determining the billing determinants of DVVNL for FY 2020-21, has combined the category-wise billing determinants (i.e., number of consumers, connected load and sales) submitted by DVVNL and DVVNL's Distribution Franchise ("DF") of Agra (i.e., Torrent Power) by holding that: -

(a) DVVNL has considered the Billing Determinants of its DF as one bulk supply consumer which gives an aberrated picture of Billing Determinants of DVVNL and Petitioner as a whole.

(b) The consumer of DF, Agra are part of DVVNL in regulatory perspective and their consumption and load should form part of Billing Determinants of DVVNL to arrive at a true picture of billing determinants of Petitioner.

6.2.5. Further, DVVNL submitted that in terms of the scheme of the Electricity Act, 2003 it is noteworthy that: -

(a) A franchise is an entity authorized by the Distribution Licensee to distribute electricity on its behalf in a particular area within the area of supply of the Distribution Licensee.

(b) In terms of Section 13, the Appropriate Commission has the power to exempt franchises from the requirement of a license under Section 14 for undertaking distribution of electricity within the area of supply of the Distribution Licensee.



(c) A franchisee is a distinct and separate entity from the Distribution Licensee which authorizes such franchisee to undertake distribution of electricity on its behalf.

- 6.2.6. Further, DVVNL submitted that DF of Agra (Torrent) and DVVNL being distinct and separate entities, DVVNL supplies power to DF of Agra on an agreed upon tariff/rate in terms of the DF Agreement executed on 18.05.2009. Pursuant to the same, DF of Agra supplies such power to the retail consumers in the franchisee area at the retail Tariff approved by the Commission. For, distribution and supply of power to the retail consumers in the franchisee area, the DF of Agra incurs both opex, capex and resultant interest, RoE, etc. on its own, and all these costs do not form part of the DVVNL's ARR. Out of this tariff/rate, DF of Agra takes care of its own expenses (O&M, R&M etc.) and earns profit on the power supplied which is not shared with DVVNL. This implies that DF of Agra is merely a bulk consumer of DVVNL who purchases/procures power in bulk for onward supply distribution in as much DVVNL is not privy to the opex and capex incurred by DF of Agra, its infrastructure, expenses. Further, DF of Agra is responsible for entire infrastructure including capex, O&M, loss reduction etc. in its franchisee area.
- 6.2.7. In view of the above, DVVNL submitted that the approach adopted by the Commission to combine the consumers, connected load and sales/ while units supplied determining the ARR/revenue and income of DVVNL is fallacious and contrary to the Commission's own methodology adopted in the past. Accordingly, in its tariff filings before the Commission, DVVNL had submitted the category-wise billing determinants for the power supplied by it and considered DF of Agra as a single bulk supply consumer.
- 6.2.8. Further, DVVNL submitted that the Commission, in the True-up Order for FY 2018-19 has added/combined the number of consumers, connected load and sales booked/submitted by DF of Agra to those submitted by DVVNL. At the same time, the Commission has recognized in the True-up Order for FY 2018-19 that these Billing Determinants of DF of Agra were considered/shown as a single bulk supply consumer of DVVNL in the Tariff Order for FY 2019-20.
- 6.2.9. Further, DVVNL submitted that the Commission has approved sales of 1,619 MU as against 1,975 MU claimed by DVVNL for DF of Agra as a single bulk supply consumer for FY 2020-21. While, the Commission deviated from its previous methodology of considering input energy as bulk supply sales and added the sales of DF of Agra in the respective consumer categories of DVVNL, the reduced energy sales (i.e., 338



MU) approved by Commission has resulted in lower power purchase cost and increased revenue since the sales of DF of Agra have been added to each consumer category of DVVNL at the existing tariff. Whereas, in the normal course, the revenue is determined by considering the Bulk Supply Rate on the input energy supplied by the Distribution Licensee to the franchisee. Further, DVVNL submitted that the Commission has not considered the projected capital expenditure, capitalization and O&M expenses of DF of Agra while determining the projected capital expenditure, capitalization and O&M expenses of DVVNL. Therefore, on one hand the Commission has artificially increased the revenue/income of DVVNL by combining the consumers, connected load and sales of DF of Agra, and on the other the Commission has disallowed the expenses incurred by DF of Agra in the form of capital expenditure, O&M expenses etc. for this revenue realization while determining the expenses of DVVNL. The consideration of DF, Agra energy sales in each consumer category while computing Revenue at Existing Tariff for DVVNL has resulted in increased/inflated revenue. In this regard, DVVNL submitted that the Revenue for DF Area should be considered by multiplying the Energy at Input Level with the Input Rate as per DF Agreement. Further, DVVNL submitted that it is important to consider that Revenue should not be considered on Retail Sales and Retail Tariff, as the Retail Tariff is determined by the Commission after taking into consideration all costs of license area (including O&M Expenses, Capex, Depreciation, Interest, RoE, Bad Debts, etc.). However, in case of DF Area, the cost incurred by the selected Distribution Franchisee is not included in the ARR of the Distribution Licensee. DVVNL also submitted that this methodology has also been followed consistently by Ld. Maharashtra Electricity Regulatory Commission ("MERC") in case of the State Discom, i.e., Maharashtra State Electricity Distribution Company Ltd. (MSEDCL), which has an input-based DF in Bhiwandi Area.

- 6.2.10. Hence, the Petitioner has continued to follow the same approach and considered the distribution franchisee of AGRA as one bulk supply consumer, which has also been approved by the Commission in all of its previous Orders till FY 2020-21.
- 6.2.11. The Category-wise billing determinants claimed by the Petitioner for FY 2021-22 is shown in the Table below:



**TABLE 6-1: BILLING DETERMINANTS AS SUBMITTED BY DVVNL FOR FY 2021-22**

Category	Projected		
	Consumers (No.)	Load (kW)	Sales (MU)
LMV-1 Domestic light fan & power	48,11,625	61,71,395	7,288.00
LMV-2-Non domestic light fan & power	2,44,084	6,11,059	1,034.36
LMV-3 Public lamps	635	11,951	39.93
LMV-4 Light, fan & power for public/private institution	23,037	99,070	291.31
LMV-5 Private tube well/pumping sets	2,83,257	20,97,297	3,613.07
LMV-6 Small & medium power upto 100 hp/75kw	38,299	3,44,880	728.81
LMV-7 Public water works	9,616	97,829	362.40
LMV-8 State tube wells & pumps canal upto 100 hp	7,321	1,50,531	642.34
LMV-9 Temporary supply	2,072	3,947	6.01
LMV- 10 Departmental employees	18,741	88,865	140.48
LMV-11 Electric Vehicles			
HV-1 Non industrial bulk load	556	1,29,897	300.18
HV-2 Large & heavy power above 100 bhp (75 kw)	3,164	10,69,837	3,424.59
HV-3 Railway traction	0	0	0.00
HV-4 Lift irrigation & p. canal above 100 bhp (75kw)	55	39,865	136.93
Bulk supply	1	11,53,729	2,058.67
Extra State Consumers			
<b>Total</b>	<b>54,42,464</b>	<b>1,20,70,152</b>	<b>20,067.07</b>

**TABLE 6-2: BILLING DETERMINANTS AS SUBMITTED BY MVVNL FOR FY 2021-22**

Category	Projected		
	Consumers (No.)	Load (kW)	Sales (MU)
LMV-1 Domestic light fan & power	75,66,175	98,31,474	10,098.39
LMV-2-Non domestic light fan & power	3,88,824	11,12,931	1,532.16
LMV-3 Public lamps	1,479	1,04,698	348.42
LMV-4 Light, fan & power for public/private institution	23,809	1,42,973	270.59
LMV-5 Private tube well/pumping sets	2,44,721	10,74,853	1,974.28
LMV-6 Small & medium power upto 100 hp/75kw	22,107	2,75,164	576.96
LMV-7 Public water works	3,792	1,15,196	490.80
LMV-8 State tube wells & pumps canal upto 100 hp	10,487	1,75,767	876.48
LMV-9 Temporary supply	5,727	19,967	97.35
LMV- 10 Departmental employees	27,749	87,575	166.58
LMV-11 Electric Vehicles		-	
HV-1 Non industrial bulk load	1,215	4,05,860	763.42
HV-2 Large & heavy power above 100 bhp (75 kw)	2,152	8,89,007	1,538.00
HV-3 Railway traction	3	19,000	54.78
HV-4 Lift irrigation & p. canal above 100 bhp (75kw)	11	7,647	82.47



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Category	Projected		
	Consumers (No.)	Load (kW)	Sales (MU)
Bulk supply	-		-
Extra State Consumers	1	5,000	23.77
<b>Total</b>	<b>82,98,250</b>	<b>1,42,67,113</b>	<b>18,894.43</b>

**TABLE 6-3: BILLING DETERMINANTS AS SUBMITTED BY PVVNL FOR FY 2021-22**

Category	Projected		
	Consumers (No.)	Load (kW)	Sales (MU)
LMV-1 Domestic light fan & power	60,95,260	1,16,24,605	11,525.13
LMV-2-Non domestic light fan & power	4,73,249	14,14,641	1,747.31
LMV-3 Public lamps	1,275	57,390	187.56
LMV-4 Light, fan & power for public/private institution	18,185	1,21,195	229.84
LMV-5 Private tube well/pumping sets	4,60,458	33,64,782	6,158.81
LMV-6 Small & medium power upto 100 hp/75kw	61,038	8,95,805	1,220.15
LMV-7 Public water works	3,999	1,36,432	487.94
LMV-8 State tube wells & pumps canal upto 100 hp	4,956	78,141	246.11
LMV-9 Temporary supply	4,668	53,366	102.71
LMV- 10 Departmental employees	20,721	1,38,845	178.53
LMV-11 Electric Vehicles			
HV-1 Non industrial bulk load	2,339	12,84,466	1,942.61
HV-2 Large & heavy power above 100 bhp (75 kw)	5,713	21,17,314	5,587.21
HV-3 Railway traction	5	57,933	80.25
HV-4 Lift irrigation & p. canal above 100 bhp (75kw)	2	317	0.78
Bulk supply			
Extra State Consumers			
<b>Total</b>	<b>71,51,868</b>	<b>2,13,45,233</b>	<b>29,694.93</b>

**TABLE 6-4: BILLING DETERMINANTS AS SUBMITTED BY PUVVNL FOR FY 2021-22**

Category	Projected		
	Consumers (No.)	Load (kW)	Sales (MU)
LMV-1 Domestic light fan & power	81,02,853	1,14,85,410	14,532.14
LMV-2-Non domestic light fan & power	4,46,498	13,72,392	2,072.03
LMV-3 Public lamps	367	45,104	117.41
LMV-4 Light, fan & power for public/private institution	23,179	1,34,113	198.29
LMV-5 Private tube well/pumping sets	3,27,496	14,01,274	2,252.58
LMV-6 Small & medium power upto 100 hp/75kw	31,677	3,54,789	571.66
LMV-7 Public water works	3,528	1,16,616	343.88



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Category	Projected		
	Consumers (No.)	Load (kW)	Sales (MU)
LMV-8 State tube wells & pumps canal upto 100	12,186	2,21,674	1,097.57
LMV-9 Temporary supply	293	3,774	1.47
LMV- 10 Departmental employees	30,595	1,01,591	114.78
LMV-11 Electric Vehicles	0	0	0.00
HV-1 Non industrial bulk load	896	2,71,650	529.33
HV-2 Large & heavy power above 100 bhp (75 kw)	1,207	2,68,877	1,201.09
HV-3 Railway traction	1	10,800	16.85
HV-4 Lift irrigation & p. canal above 100 bhp (75kw)	33	1,42,045	486.48
Bulk supply			
Extra State Consumers	1	770	3.01
<b>Total</b>	<b>89,80,809</b>	<b>1,59,30,879</b>	<b>23,538.56</b>

TABLE 6-5: BILLING DETERMINANTS AS SUBMITTED BY KESCO FOR FY 2021-22

Category	Projected		
	Consumers (No.)	Load (kW)	Sales (MU)
LMV-1 Domestic light fan & power	5,63,552	13,97,847	1,626.16
LMV-2-Non domestic light fan & power	83,814	2,47,834	332.98
LMV-3 Public lamps	20	10,484	36.81
LMV-4 Light, fan & power for public/private institution	1,584	27,965	121.25
LMV-5 Private tube well/pumping sets	14		0.08
LMV-6 Small & medium power upto 100 hp/75kw	14,056	1,05,542	327.28
LMV-7 Public water works	1,135	43,589	111.74
LMV-8 State tube wells & pumps canal upto 100 hp			
LMV-9 Temporary supply	106	447	2.10
LMV- 10 Departmental employees	5,157	20,003	38.26
LMV-11 Electric Vehicles			
HV-1 Non industrial bulk load	287	87,626	214.88
HV-2 Large & heavy power above 100 bhp (75 kw)	630	2,44,304	601.80
HV-3 Railway traction			
HV-4 Lift irrigation & p. canal above 100 bhp (75kw)			
Bulk supply			
Extra State Consumers			
<b>Total</b>	<b>6,70,356</b>	<b>21,85,639</b>	<b>3,413.34</b>



**TABLE 6-6: CONSOLIDATED BILLING DETERMINANTS AS SUBMITTED BY THE STATE DISCOMS FOR FY 2021-22**

Category	Projected		
	Consumers (No.)	Load (kW)	Sales (MU)
LMV-1 Domestic light fan & power	2,71,39,464	4,05,10,731	45,070
LMV-2-Non domestic light fan & power	16,36,470	47,58,857	6,719
LMV-3 Public lamps	3,777	2,29,627	730
LMV-4 Light, fan & power for public/private institution	89,794	5,25,316	1,111
LMV-5 Private tube well/pumping sets	13,15,946	79,38,206	13,999
LMV-6 Small & medium power upto 100 hp/75kw	1,67,176	19,76,179	3,425
LMV-7 Public water works	22,071	5,09,661	1,797
LMV-8 State tube wells & pumps canal upto 100 hp	34,950	6,26,114	2,863
LMV-9 Temporary supply	12,867	81,502	210
LMV- 10 Departmental employees	1,02,963	4,36,879	639
LMV-11 Electric Vehicles	0	0	0
HV-1 Non industrial bulk load	5,293	21,79,498	3,750
HV-2 Large & heavy power above 100 bhp (75 kw)	12,867	45,89,339	12,353
HV-3 Railway traction	9	87,733	152
HV-4 Lift irrigation & p. canal above 100 bhp (75kw)	100	1,89,874	707
Bulk supply	1	11,53,729	2,059
Extra State Consumers	2	5770	27
<b>Total</b>	<b>3,05,43,748</b>	<b>6,58,24,066</b>	<b>95,608</b>

**Commission's Analysis:**

6.2.12. The Commission has already deliberated on the Billing determinants for the Control Period FY 2020-21 to FY 2024-25 and approved the Billing determinants in the Business Plan Order dated 27<sup>th</sup> October 2020. However, while approving the billing determinants in the Business Plan, the Commission had assumed that the things would get back to normal in FY 2021-22 and demand would pick up. Further, taking into consideration that the Covid pandemic impact has prolonged in this year i.e. FY 2021-22 as well, the Commission is of the view that the Licensee's are better aware of the situation at ground and expected consumer and demand addition, and the Business Plan numbers make little sense in these circumstances. Hence, the Commission has considered the Billing determinants as proposed by the Licensees for FY 2021-22.

6.2.13. Further, as regards, Petitioner's submission on the billing determinants of its distribution franchise of AGRA. It is observed that DVVNL has considered the billing determinants of its distribution franchise of AGRA as one bulk supply consumer and



considered 2059 MU input energy & not sales of consumers of DF. The Commission is of the view that this gives an aberrated picture of Billing Determinants of DVVNL and UP State Discoms as a whole. The consumers of Agra Franchisee are part of DVVNL in regulatory perspective and their consumption and load should form part of DVVNL billing determinants to arrive at a true picture of the billing determinants of UP State Discoms. For the purpose of determination of billing determinants, the Commission has combined the billing determinants submitted by DVVNL and DF Agra to arrive at the billing determinants of DVVNL. Accordingly, the Commission has considered the billing determinants of Torrent Power DF projected for FY 2021-22, i.e. No. of consumer 49,2198, Connected Load of 11,78,779 kW & Sales of 1,870.22 MUs.

6.2.14. The Billing Determinants approved for FY 2021-22 are shown in the Table below:

**TABLE 6-7: BILLING DETERMINANTS APPROVED BY THE COMMISSION FOR FY 2021-22 FOR DVVNL (INCLUDING DF OF AGRA)**

Category	Approved		
	Consumers (No.)	Load (kW)	Sales (MU)
LMV-1 Domestic light fan & power	48,11,625	6171395	7288
LMV-2-Non domestic light fan & power	2,44,084	611059	1034.36
LMV-3 Public lamps	635	11951	39.93
LMV-4 Light, fan & power for public/private institution	23,037	99070	291.31
LMV-5 Private tube well/pumping sets	2,83,257	2097297	3613.07
LMV-6 Small & medium power upto 100 hp/75kw	38,299	344880	728.81
LMV-7 Public water works	9,616	97829	362.4
LMV-8 State tube wells & pumps canal upto 100 hp	7,321	150531	642.34
LMV-9 Temporary supply	2,072	3947	6.01
LMV- 10 Departmental employees	18,741	88865	140.48
LMV-11 Electric Vehicles	0	0	0
HV-1 Non industrial bulk load	556	129897	300.18
HV-2 Large & heavy power above 100 bhp (75 kw)	3,164	1069837	3424.59
HV-3 Railway traction	0	0	0
HV-4 Lift irrigation & p. canal above 100 bhp (75kw)	55	39865	136.93
DF of AGRA (Torrent)	4,92,198	11,78,779	1,870
Extra State Consumers	-	-	-
<b>Grand Total*</b>	<b>59,34,661</b>	<b>1,20,95,202</b>	<b>19,879</b>



**TABLE 6-8: BILLING DETERMINANTS APPROVED BY THE COMMISSION FOR FY 2021-22 FOR MVVNL**

Category	Approved		
	Consumers (No.)	Load (kW)	Sales (MU)
LMV-1 Domestic light fan & power	7566175	9831474	10098.39
LMV-2-Non domestic light fan & power	388824	1112931	1532.16
LMV-3 Public lamps	1479	104698	348.42
LMV-4 Light, fan & power for public/private institution	23809	142973	270.59
LMV-5 Private tube well/pumping sets	244721	1074853	1974.28
LMV-6 Small & medium power upto 100 hp/75kW	22107	275164	576.96
LMV-7 Public water works	3792	115196	490.8
LMV-8 State tube wells & pumps canal upto 100 hp	10487	175767	876.48
LMV-9 Temporary supply	5727	19967	97.35
LMV- 10 Departmental employees	27749	87575	166.58
LMV-11 Electric Vehicles	0	0	0
HV-1 Non industrial bulk load	1215	405860	763.42
HV-2 Large & heavy power above 100 bhp (75 kW)	2152	889007	1538
HV-3 Railway traction	3	19000	54.78
HV-4 Lift irrigation & p. canal above 100 bhp (75kW)	11	7647	82.47
Bulk supply	0	0	0
Extra State Consumers	1	5000	23.77
<b>Total</b>	<b>8298250</b>	<b>14267113</b>	<b>18894.43</b>

**TABLE 6-9: BILLING DETERMINANTS APPROVED BY THE COMMISSION FOR FY 2021-22 FOR PVVNL**

Category	Approved		
	Consumers (No.)	Load (kW)	Sales (MU)
LMV-1 Domestic light fan & power	6095260	11624605	11525.13
LMV-2-Non domestic light fan & power	473249	1414641	1747.31
LMV-3 Public lamps	1275	57390	187.56
LMV-4 Light, fan & power for public/private institution	18185	121195	229.84
LMV-5 Private tube well/pumping sets	460458	3364782	6158.81
LMV-6 Small & medium power upto 100 hp/75kW	61038	895805	1220.15
LMV-7 Public water works	3999	136432	487.94
LMV-8 State tube wells & pumps canal upto 100 hp	4956	78141	246.11
LMV-9 Temporary supply	4668	53366	102.71



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Category	Approved		
	Consumers (No.)	Load (kW)	Sales (MU)
LMV- 10 Departmental employees	20721	138845	178.53
LMV-11 Electric Vehicles	0	0	0
HV-1 Non industrial bulk load	2339	1284466	1942.61
HV-2 Large & heavy power above 100 bhp (75 kW)	5713	2117314	5587.21
HV-3 Railway traction	5	57933	80.25
HV-4 Lift irrigation & p. canal above 100 bhp (75kW)	2	317	0.78
Bulk supply	0	0	0
Extra State Consumers	0	0	0
<b>Total</b>	<b>7151868</b>	<b>21345233</b>	<b>29694.93</b>

**TABLE 6-10: BILLING DETERMINANTS APPROVED BY THE COMMISSION FOR FY 2021-22 FOR PUVVNL**

Category	Approved		
	Consumers (No.)	Load (kW)	Sales (MU)
LMV-1 Domestic light fan & power	8102853	11485410	14532.14
LMV-2-Non domestic light fan & power	446498	1372392	2072.03
LMV-3 Public lamps	367	45104	117.41
LMV-4 Light, fan & power for public/private institution	23179	134113	198.29
LMV-5 Private tube well/pumping sets	327496	1401274	2252.58
LMV-6 Small & medium power upto 100 hp/75kW	31677	354789	571.66
LMV-7 Public water works	3528	116616	343.88
LMV-8 State tube wells & pumps canal upto 100 hp	12186	221674	1097.57
LMV-9 Temporary supply	293	3774	1.47
LMV- 10 Departmental employees	30595	101591	114.78
LMV-11 Electric Vehicles	0	0	0
HV-1 Non industrial bulk load	896	271650	529.33
HV-2 Large & heavy power above 100 bhp (75 kW)	1207	268877	1201.09
HV-3 Railway traction	1	10800	16.85
HV-4 Lift irrigation & p. canal above 100 bhp (75kW)	33	142045	486.48
Bulk supply	0	0	0
Extra State Consumers	1	770	3.01
<b>Total</b>	<b>8980809</b>	<b>15930879</b>	<b>23538.57</b>



**TABLE 6-11: BILLING DETERMINANTS APPROVED BY THE COMMISSION FOR FY 2021-22 FOR KESCO**

Category	Approved		
	Consumers (No.)	Load (kW)	Sales (MU)
LMV-1 Domestic light fan & power	563552	1397847	1626.16
LMV-2-Non domestic light fan & power	83814	247834	332.98
LMV-3 Public lamps	20	10484	36.81
LMV-4 Light, fan & power for public/private institution	1584	27965	121.25
LMV-5 Private tube well/pumping sets	14.04	0	0.08
LMV-6 Small & medium power upto 100 hp/75kW	14056	105542	327.28
LMV-7 Public water works	1135	43589	111.74
LMV-8 State tube wells & pumps canal upto 100 hp	0	0	0
LMV-9 Temporary supply	106	447	2.1
LMV- 10 Departmental employees	5157	20003	38.26
LMV-11 Electric Vehicles	0	0	0
HV-1 Non industrial bulk load	287	87626	214.88
HV-2 Large & heavy power above 100 bhp (75 kW)	630	244304	601.8
HV-3 Railway traction	0	0	0
HV-4 Lift irrigation & p. canal above 100 bhp (75kW)	0	0	0
Bulk supply	0	0	0
Extra State Consumers	0	0	0
<b>Grand Total</b>	<b>670356</b>	<b>2185639</b>	<b>3413.34</b>

**TABLE 6-12: CONSOLIDATED BILLING DETERMINANTS (INCLUDING DF OF AGRA) APPROVED FOR FY 2021-22 FOR THE STATE OWNED DISCOMS**

Category	Approved		
	Consumers (No.)	Load (kW)	Sales (MU)
LMV-1 Domestic light fan & power	27139464	40510731.18	45069.82
LMV-2-Non domestic light fan & power	1636469	4758857.11	6718.84
LMV-3 Public lamps	3776	229626.37	730.13
LMV-4 Light, fan & power for public/private institution	89794	525315.4	1111.28
LMV-5 Private tube well/pumping sets	1315946	7938206.38	13998.82
LMV-6 Small & medium power upto 100 hp/75kW	167177	1976179.7	3424.86
LMV-7 Public water works	22070	509661.8	1796.76
LMV-8 State tube wells & pumps canal upto 100 hp	34950	626113.45	2862.50
LMV-9 Temporary supply	12866	81501.28	209.64



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Category	Approved		
	Consumers (No.)	Load (kW)	Sales (MU)
LMV- 10 Departmental employees	102963	436878.83	638.63
LMV-11 Electric Vehicles			
HV-1 Non industrial bulk load	5293	2179498.25	3750.42
HV-2 Large & heavy power above 100 bhp (75 kW)	12866	4589338.54	12352.69
HV-3 Railway traction	9		
HV-4 Lift irrigation & p. canal above 100 bhp (75kW)	101	189874.25	706.66
DF of AGRA (Torrent)	492198	1178778.96	1870.22
Extra State Consumers	2	5770.00	26.78
<b>Grand Total</b>	<b>31035946</b>	<b>65824066</b>	<b>95419.90</b>

**TABLE 6-13: CONSOLIDATED BILLING DETERMINANTS (INCLUDING DF OF AGRA AS CATEGORY WISE CONSUMERS) APPROVED FOR FY 2021-22 FOR THE STATE OWNED DISCOMS**

Category	Approved		
	Consumers (No.)	Load (kW)	Sales (MU)
LMV-1 Domestic light fan & power	2,75,51,094	4,12,63,894.95	46,160.48
LMV-2-Non domestic light fan & power	16,99,324	49,27,648.96	6,950.71
LMV-3 Public lamps	3,858	2,36,670.35	753.40
LMV-4 Light, fan & power for public/private institution	91,874	5,40,887.04	1,142.38
LMV-5 Private tube well/pumping sets	13,16,399	79,41,706	14,006
LMV-6 Small & medium power upto 100 hp/75kW	1,76,389	20,61,322	3,537
LMV-7 Public water works	23,897	5,21,661	1,824
LMV-8 State tube wells & pumps canal upto 100 hp	34,970	6,26,333	2,863
LMV-9 Temporary supply	14,067	85,292	219
LMV- 10 Departmental employees	1,05,319	4,41,829	644
LMV-11 Electric Vehicles			
HV-1 Non industrial bulk load	5,520	22,40,669	3,901
HV-2 Large & heavy power above 100 bhp (75 kW)	13,125	46,52,775	12,534
HV-3 Railway traction	9	87,733	152
HV-4 Lift irrigation & p. canal above 100 bhp (75kW)	100	1,89,874	707
Extra State Consumers	2	5,770	27
<b>Grand Total</b>	<b>31035946</b>	<b>65824066</b>	<b>95419.90</b>



### 6.3. DISTRIBUTION LOSS

6.3.1. The State owned Discoms submitted that the distribution loss trajectory for the period FY 2020-21 to FY 2024-25 was approved by the Commission in its Business Plan Order dated 27.10.2020. Hence, the Commission did not deliberate upon the same in the Tariff Order for FY 2020-21 and merely held that distribution loss trajectory as approved in Order dated 27.10.2020 will be applicable for FY 2020-21.

6.3.2. Further, they submitted that the Commission completely ignoring the present ground realities and the actual distribution losses of the Petitioner has approved a stringent and an unachievable distribution loss trajectory for the MYT control period i.e., FY 2020-21 to FY 2024-25 holding that: -

(a) Petitioner cannot seek distribution loss trajectory higher than what has been allowed by the Commission for the previous MYT control period i.e., FY 2017-2020, since the same would defeat the intent of the MYT framework.

(b) Distribution loss trajectory shall be as per the MOU dated 30.01.2016 signed by Licensees under the UDAY scheme, which is binding.

(c) For the purpose of reduction in distribution losses, adequate capital expenditure has been provided to the Petitioner in the ARR for the control period FY 2017-18 to FY 2019-20. Accordingly, Petitioner have made substantial investments for loss reduction through various State and Central Government schemes and programs. Therefore, now there is no justification for allowing a higher loss trajectory to the Licensees as it will amount to double whammy for the consumers who are paying for the system improvement cost through enhanced tariffs and would also have to bear the cost of increased distribution losses.

6.3.3. Further, the State owned Discoms submitted that the objective of the UDAY scheme was reduction in AT&C losses, while the distribution loss trajectory was linked through collection efficiency. In terms of the applicable regulatory framework the distribution loss trajectory specified in the MoU dated 30.01.2016 (signed by Petitioner pursuant to the UDAY scheme) is not binding for the purpose of tariff determination by the Hon'ble Commission. In this regard reliance is placed upon Regulation 43.2 of MYT Regulations 2019, in terms of which the trajectory committed under UDAY scheme has to be merely considered by the Petitioner while submitting the distribution loss trajectory for approval by the Commission: -

*"43.2 The Distribution Licensee shall submit the Distribution loss trajectory (taking into consideration the distribution loss trajectory committed in UDAY) along with its Business Plan for the Commission's approval."*



6.3.4. In this regard, the State owned Discoms submitted that;

a) Even Assam State Electricity Regulatory Commission by its MYT Order dated 01.03.2019 while approving the distribution losses for the State Discoms for FY 2019-20 has not considered the UDAY loss trajectory and allowed a higher distribution loss of 16% as compared to 14.57% approved under the UDAY Scheme. ASERC had given such relaxation to the State Discom considering the inverse LT:HT ratio and massive electrification under Saubhagya Scheme.

(b) The distribution loss trajectory agreed under the UDAY MoU was based on then existing circumstances i.e., consumer mix, existing LT/HT Network and number of metered/unmetered consumers. However, in the recent past the consumer mix has undergone a significant change with increase in rural consumers and decrease in urban consumers. It is an established fact that distribution loss is more in supply to rural consumers due to the inherent problems like pilferage of electricity, billing and collection related issues, inadequate support from law enforcement agency and large number of unmetered consumers.

(c) Ministry of Power after considering the ground realities which have impacted UP Discom's efforts towards achieving the loss trajectory agreed under the MoU by its letter No.06/01(01)/2020 NEF(U) dated 06.03.2020 has sought for a revised action plan for reduction in distribution losses including AT&C loss trajectory from the Government of U.P. This evinces that the loss trajectory agreed under the UDAY MoU is not sacrosanct, since the same was based on then existing facts and circumstances, which have substantially changed today.

6.3.5. Further, the State owned Discoms submitted that it has been making continuous efforts to ensure reduction of distribution losses in order to achieve the loss trajectory specified under the UDAY MoU. For this purpose, UPPCL and UP Discoms have undertaken various initiatives such as: -

- (a) Development of new infrastructure including strengthening and up-gradation of the existing network.
- (b) Introduction of feeder separation schemes including feeder metering and audit.
- (c) Installation of capacitor banks at various levels across different regions to reduce technical losses.
- (d) Underground cabling and AB cabling has been initiated.



- (e) Installation of more than 45 lakh smart meters for various consumer categories to improve billing and collection efficiency and prepaid meters to reduce distribution and AT&C Losses.
- (f) Audit of CT/PT meters of LT and HT consumers to identify the miscreants.
- (g) Implementation of ERP by FY 2021
- (h) Metering of unmetered connections
- (i) To facilitate timely payment by the consumers; online payment system, spot billing, mobile collection vans and common service centre etc have been introduced recently.
- (j) Constitution of HV Cell to identify high value consumers whose load is more than 10 kW. These consumers are monitored separately for billing, collection efficiency, connection, disconnection and re-connection by HV Cell.
- (k) Energy efficiency schemes viz; Unnat Jyoti by Affordable LEDs and Appliances for All (UJALA), replacement of agriculture pumps with the energy efficient pumps etc.
- (l) Increase in number of raids/inspections to demotivate theft of electricity.

6.3.6. The State Owned Discoms submitted that due to the above-mentioned initiatives and earnest efforts, the distribution losses has reduced considerably. However, the pace of accelerated distribution loss reduction plan has been severely affected in recent times on account of the following uncontrollable factors: -

- (a) During the last three financial years, i.e., FY 2017-18, FY 2018-19 and FY 2019-20, Petitioner have undertaken accelerated electrification of consumers on a large scale pursuant to the mandate of Saubhagya Scheme and the State Government's Har Ghar Bijli Yojana to ensure access of electricity to all households in the State of Uttar Pradesh. Accordingly, a large number of rural consumers (at LT level) have been added to UP Discom's consumer base in the total numbers of rural metered consumers. It is pertinent to note that at LT level and especially in rural areas the length of the feeder is generally longer than usual. Hence, such exponential growth in rural-LT level consumers has directly resulted in increase of distribution losses on the low voltage network and decrease in HT:LT network ratio.
- (b) In the wake of COVID-19 pandemic and resulting economic lockdown, Petitioner have experienced drastic reduction in energy sales during FY 2020-21.



(c) Significant shift in the consumption mix from HT categories and commercial & industrial consumers, is likely to impact the overall distribution loss levels of the Licensees. In fact, it may be possible that the distribution loss levels may actually increase.

6.3.7. Further, the State owned Discoms submitted that it is pertinent to mention that for FY 2018-19 the overall distribution loss sharing component was 2.36% and including incremental sharing of AT&C loss the sharing component was 24.59%. However, provisions relating to sharing of distribution loss and AT&C loss does not exist in the UPERC MYT Regulations, 2019. Hence, Petitioner would not be able to claim any sharing on account of distribution losses during the control period FY 2020-21 to FY 2024-25. Therefore, the only option available with the Discoms was to propose the distribution loss trajectory on the basis of actual loss level of FY 2019-20, and which the Discoms can possibly achieve, otherwise it will result in significant under recovery of power purchase cost. It is important to note that the distribution losses proposed by Petitioner for the MYT period FY 2020-21 to FY 2024-25 are lesser than the total admissible distribution losses as per the erstwhile UPERC MYT Regulations, 2014 (i.e., normative distribution losses + losses as per distribution loss sharing and AT&C Loss sharing).

6.3.8. Further, the State Owned Discoms submitted that considering the abovementioned ground realities and the significant impact of Covid-19 pandemic, Petitioner had sought approval of the distribution loss trajectory for FY 2020-21 at similar level as Audited/actual figures for FY 2019-20. From FY 2021-22 onwards, Petitioner has projected a reducing trend in the distribution loss trajectory. However, the Commission despite being completely aware of the above-mentioned ground realities has approved a stringent and an unachievable distribution loss trajectory for the MYT control period i.e., FY 2020-21 to FY 2024-25: -

Discom	DISTRIBUTION LOSS TRAJECTORY FOR FY 2020-2025									
	FY 2020-21		FY 2021-22		FY 2022-23		FY 2023-24		FY 2024-25	
	Claimed	Allowed	Claimed	Allowed	Claimed	Allowed	Claimed	Allowed	Claimed	Allowed
DVVNL	21.45%	11.80%	20.10%	11.33%	18.05%	10.90%	15.45%	10.52%	14.40%	10.15%
MVVNL	18.65%	11.51%	17.30%	11.04%	15.60%	10.63%	14.00%	10.26%	13.20%	9.90%
PVVNL	14.65%	11.51%	13.55%	11.04%	12.25%	10.63%	11.00%	10.26%	10.35%	9.90%
PuVVNL	19.20%	11.83%	18.00%	11.36%	16.20%	10.93%	14.30%	10.55%	13.65%	10.18%
KESCo	8.50%	8.42%	8.45%	8.25%	8.40%	8.12%	8.35%	8.02%	8.30%	7.94%



6.3.9. The State Owned Discoms submitted that from the above table, the following is noteworthy: -

- (a) As per the projection given by the Petitioner the distribution losses would have significantly decreased in the subsequent years of the MYT period. The increase in Distribution loss is mainly for FY 2020-21 and FY 2021-22 on account of various uncontrollable factors explained above.
- (b) All the five UP Discoms including the Petitioner had projected different distribution loss trajectory considering their own facts specific scenario. However, the Hon'ble Commission has proceeded in a mechanical manner by applying a straight-jacket formula to allow similar reduced trajectory for all Discoms i.e., in the same range.

6.3.10. Further, the Commission has proceeded on an erroneous assumption that Petitioner cannot seek distribution loss trajectory higher than what has been allowed by the Commission for the previous MYT control period i.e., FY 2017-2020. It is submitted that there is no such restriction envisaged in the Tariff Regulations. Moreover, it is a settled position that normative parameters under the MYT Order and Tariff Regulations ought to be fixed considering past performance (i.e., it should be relatable to past performance), actuals of the previous control period and it should be capable of achievement. In this regard the following is noteworthy: -

- (a) Clause 5.11(f) of Tariff Policy 2016 which lays down the framework for determination of operating norms for distribution tariff: -

*“5.11 Tariff policy lays down the following framework for performance based cost of service regulation in respect of aspects common to generation, transmission as well as distribution. These shall not apply to competitively bid projects as referred to in para 6.1 and para 7.1 (6). Sector specific aspects are dealt with in subsequent sections.*

*f) Operating Norms*

*Suitable performance norms of operations together with incentives and disincentives would need to be evolved along with appropriate arrangement for sharing the gains of efficient operations with the consumers. Except for the cases referred to in para 5.11(h)(2), the operating parameters in tariffs should be at “normative levels” only and not at “lower of normative and actuals”. This is essential to encourage better operating performance. The norms should be efficient, relatable to past performance, capable of achievement and progressively reflecting increased efficiencies and may also take into*



*consideration the latest technological advancements, fuel, vintage of equipments, nature of operations, level of service to be provided to consumers etc. Continued and proven inefficiency must be controlled and penalized.”*

- (b) In terms of Clause 8.2 of the Tariff Policy 2016 the Hon’ble Commission is mandated to set an achievable distribution loss trajectory: -

*“8.2 Framework for revenue requirements and costs*

*8.2.1 The following aspects would need to be considered in determining tariffs:*

.....

*(2) AT&C loss reduction should be incentivised by linking returns in a MYT framework to an achievable trajectory. Greater transparency and nurturing of consumer groups would be efficacious.*

6.3.11. Therefore, the State Owned Discoms submitted that the distribution loss trajectory is also a normative parameter for determination of distribution tariff and hence for FY 2020-21 the same ought to have been relatable to past performance of the Discoms and capable of achievement. A table evincing the actual distribution losses of the Petitioner in the previous control period (i.e., FY 2017-2019) vis-à-vis the loss trajectory approved by the Commission is as below: -

Distribution Loss (%)	FY 2017-18			FY 2018-19			FY 2019-20			FY 2020-21	
	As per UDAY Scheme	As per MYT Order	Actual	As per UDAY Scheme	As per MYT Order	Actual	As per UDAY Scheme	As per MYT Order	Actual	Claimed	Approved
DVVNL	20.07%	20.07%	25.09%	16.25%	16.25%	20.96%	12.10%	12.10%	21.27%	21.45%	11.80%
MVVNL	19.16%	19.16%	22.19%	16.09%	16.09%	21.56%	11.80%	11.80%	19.37%	18.65%	11.51%
PVVNL	18.18%	18.18%	17.43%	15.20%	15.20%	14.83%	11.80%	11.80%	14.69%	14.65%	11.51%
PuVVNL	19.73%	19.73%	23.16%	16.43%	16.43%	20.49%	12.20%	12.20%	20.32%	19.20%	11.83%
KESCo	18.91%	15.28%	13.00%	15.13%	15.13%	8.51%	11.80%	11.80%	7.76%	8.50%	8.42%

6.3.12. However, the Commission for FY 2020-21 has fixed a stringent and practically unachievable distribution loss trajectory for the Discoms, which is approximately 50% less than the actuals of the last fiscal (i.e., FY 2019-20) and what was claimed by the Petitioner. There is no possible way that the Petitioner can achieve the loss trajectory approved by the Commission. Further, the State Owned Discoms submitted that they have already been penalised by way of disallowance of power purchase cost in the previous MYT control period, for not achieving the distribution Loss targets approved by the Commission. Further the Aggregate



Revenue Requirement (ARR) of the State Owned Discoms allowed by the Commission at most of the times has been insufficient to meet the Average Cost of Supply (ACOS), with ACS-ARR gap being Rs.0.22 per unit in FY 2018-2019. Even the Commission in its Tariff Order dated 01.08.2016 while acknowledging the aforesaid position stated that the U.P. Discoms are under severe financial distress with cost recovery of only 65.97% in FY 2016-2017. Relevant findings of the Commission in Order dated 01.08.2016 is as under: -

*“The U.P. DISCOMs are under financial distress. As per the MOU signed by the DISCOMs, they had revenue deficit during FY 2013- 14 (Rs. 13,802 Crore) with an expected revenue deficit of Rs. 10,636 Crore in FY 2014-15. The accumulated losses have reached to the level of Rs. 70,738 Crore (approx.) up to March 31, 2015. The outstanding debt level of the U.P. DISCOMs has reached Rs.53,211 Crore (Figures of outstanding loan as on September 30, 2015 are Audited as all lenders are yet to confirm the outstanding loan data as such the amount of loan may change upon confirmation) at the end of September 2015. Also, the interest cost burden of nearly Rs. 0.88 per unit of sales during FY 15 is significantly higher than the national average of Rs 0.44 per unit only. The Aggregate Revenue Requirement (ARR) is insufficient to meet the Average Cost of Supply (ACOS), with a cost recovery of only 65.97 %.”*

6.3.13. Hence, an impossible and impractical distribution loss trajectory would further impact the financial situation of the Licensees as it has a huge long-term impact on the Discoms and would result in severe under recovery of power purchase cost. It is submitted that the Commission while fixing the distribution loss trajectory for FY 2020-21 has followed the UDAY MoU in a selective manner i.e., it has only considered the distribution losses from the UDAY MoU and completely ignored the collection efficiency% which was in the range of 76 % to 96% (i.e., less than what has been considered by the Commission). Therefore, considering practically unachievable UDAY MoU distribution loss trajectory as base is in contradiction to National Tariff Policy 2016 and the Regulation 5.4 of the UPERC MYT Regulations 2019. Hence the State Owned Discoms requests the Commission to consider the Distribution loss trajectory as prayed in the Business Plan Petition for the 2nd Control Period and reconsider its decision of setting an unachievable distribution loss trajectory for the Petitioners.

**Commission’s Analysis:**

6.3.14. The Commission has already deliberated on the Distribution Loss Trajectory of the Licensees for the Control Period FY 2020-21 to FY 2024-25 and approved the



Distribution Loss Trajectory for the Licensees in the Business Plan Order dated October 27, 2020. Accordingly, the distribution loss approved for FY 2021-22 is shown in the Table below:

**TABLE 6-14: DISTRIBUTION LOSS APPROVED BY THE COMMISSION FOR FY 2021-22**

Distribution loss	FY 2021-22	
	Claimed	Approved
DVVNL	20.10%	11.33%
MVVNL	17.10%	11.04%
PVVNL	13.55%	11.04%
PuVVNL	18.00%	11.36%
KESCO	8.43%	8.25%
<b>Consolidated</b>	<b>16.64%</b>	<b>11.08%</b>

#### 6.4. ENERGY BALANCE

6.4.1. The State Owned Discoms namely DVVNL, MVVNL, PVVNL, PuVVNL and KESCO have projected that the Energy Balance for FY 2021-22, as show in the table below:

**TABLE 6-15: ENERGY BALANCE AS SUBMITTED BY THE STATE DISCOMS FOR FY 2021-22**

Particulars	DVVNL	MVVNL	PVVNL	PuVVNL	KESCO	CONSOLIDATED
Retail Sales (MU)	20,067.07	18,894.43	29,694.93	23,538.56	3,413.34	95,608.34
Distribution Losses (%)	20.10%	17.10%	13.55%	18.00%	8.43%	16.64%
Energy at DISCOM Periphery for Retail Sales (MU)	25,115.24	22,791.83	34,349.26	28,705.56	3,727.58	1,14,689.47
Intra-State Transmission Losses %	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%
Energy Available at State periphery for Transmission (MU)	25,980.38	23,576.95	35,532.49	29,694.38	3,855.98	1,18,640.19
Inter State Transmission Losses (MU)	307.22	714.56	420.17	351.14	116.87	1,402.92
Inter-State Transmission Losses % (% computed on Total input energy)	1.17%	2.94%	1.17%	1.17%	2.94%	1.17%
Purchases Required & Billed Energy (MU)	26,287.60	24,291.50	35,952.66	30,045.52	3,972.85	1,20,550.14

6.4.2. The Energy Balance is prepared based on the losses at various level i.e. Distribution Loss and Transmission Losses (Intra-State & Inter-State). The Commission has revised the Distribution Loss Trajectory for each Discom for the entire Control period. The Trajectory of Intra-State Transmission Loss has also been approved for



UPPTCL for the Control Period. In view of the revised trajectories of Distribution and Transmission (intra-state) losses, the whole energy balance for the Control period would change and has been accordingly computed.

6.4.3. Further, it is observed that the Petitioners have claimed different values of total Power purchase Purchases Required & Billed Energy (total Ex Bus) (consolidated basis) in Format 13 L (120043.11 MU) and power Purchase computed by adding all Discoms (120550.14 MU). This may be due to the fact that the Licensees have submitted the Energy Balance by considering inter-state transmission losses on entire power purchase & separate inter-state losses in some Discoms. However, the Commission has prepared Energy Balance by considering inter-state transmission loss only on energy purchase from stations connected to Inter State Transmission network, in line with Regulations. The Commission has been directing the Licensees to prepare energy balance using this approach. The Commission again directs the Licensees to adopt this approach of considering inter-state Transmission loss only on energy purchase from stations connected to Inter State Transmission network in the ARR Petitions for all the years of the Control Period.

6.4.4. The Commission, taking into consideration the billing determinants, distribution loss and intra-state transmission loss approved for the Control period has prepared the energy balance for FY 2021-22 is as follows:

**TABLE 6-16: ENERGY BALANCE APPROVED BY THE COMMISSION FOR FY 2021-22**

Particulars	FY 2021-22						
	Unit	DVVNL	MVVNL	PVVNL	PuVVNL	KESCo	Consolidated
Retail Sales	MU	19,878.63	18,894.43	29,694.93	23,538.56	3,413.34	95,419.90
Distribution Losses	%	11.33%	11.04%	11.04%	11.36%	8.25%	11.08%
Energy at Discom Periphery for Retail Sales	MU	22,417.55	21,240.39	33,381.90	26,555.42	3,720.13	1,07,315.40
Intra-State Transmission Losses	%	3.33%	3.33%	3.33%	3.33%	3.33%	3.33%
Energy Available at State periphery for Transmission	MU	23,189.77	21,972.06	34,531.81	27,470.18	3,848.28	1,11,012.10
Energy Purchase from Stations connected to Intra State Transmission network (UPPTCL)	MU	14,141.86	13,399.26	21,058.59	16,752.19	2,346.80	67,698.69
Energy Purchase from Stations connected to Inter State Transmission network (PGCIL)	MU	9,047.91	8,572.80	13,473.22	10,718.00	1,501.48	43,313.41
Interstate Transmission Loss*	%	2.94%	2.94%	2.94%	2.94%	2.94%	2.94%
Net Energy Received from Stations connected to Inter State Transmission network at UPPTCL Periphery (Ex Bus)	MU	9,322.13	8,832.62	13,881.56	11,042.83	1,546.98	44,626.13



Particulars	FY 2021-22						
	Unit	DVVNL	MVVNL	PVVNL	PuVVNL	KESCO	Consolidated
Purchases Required & Billed Energy (total Ex Bus)	MU	23,463.99	22,231.88	34,940.15	27,795.02	3,893.79	1,12,324.82

*\*This loss is applicable only for energy Purchase from Stations connected to Inter State Transmission network*

## 6.5. POWER PURCHASE COST

6.5.1. The Petitioners, DVVNL, MVVNL, PVVNL, PuVVNL and KESCO have submitted that UPPCL is procuring power on behalf of Discoms at consolidated level. Accordingly, the Power Purchase section represents the consolidated power purchase at UPPCL level. The consolidated energy balance for FY 2021-22 is as follows:

**TABLE 6-17: CONSOLIDATED ENERGY REQUIREMENT FOR FY 2021-22**

Particulars	Consolidated
Retail Sales (MU)	95,608.34
Distribution Losses (%)	16.64%
Energy at DISCOM Periphery for Retail Sales (MU)	1,14,689.47
Intra-State Transmission Losses %	3.33%
Energy Available at State periphery for Transmission (MU)	1,18,640.19
Inter State Losses (MU)	1,402.92
Inter-State Transmission Losses % (computed on Total input energy)	1.17%
Purchases Required & Billed Energy (MU)	1,20,043.11

6.5.2. The Petitioners have submitted that the above power purchase requirement is primarily fulfilled through multiple sources, with whom UPPCL and Discoms have long-term tied-up allocated capacities. The main sources of power procurement are broadly categorised as under:

- A. State Generating Stations – UPRUVNL and UJVNL
- B. Central Generating Stations – NTPC, NHPC, NPCIL, THDC, SJVNL
- C. Independent Power Plants (IPPs) and Joint Ventures (JVs)
- D. Renewable Energy Generating Stations – Solar, Wind, Biomass, Bagasse, MSW, etc.

In addition to the above sources, UPPCL also purchases power from short-term sources including power trading companies, Power Exchanges in case of shortfall from regular sources or to meet the deviation from estimated demand depending on the availability.



- 6.5.3. The Petitioners submitted that the power procurement from different sources is undertaken by adopting Merit Order Despatch (MoD) principle for optimal utilization of the available sources. For projection of availability, the entire power available from all the tied-up sources during the financial year to meet the demand have been considered. Thereafter, the MoD principle has been applied on the generating stations not having must-run status, on monthly basis to arrive at the projected power purchase for the month and accordingly the power purchase cost for the entire FY 2021-22 is computed. While full fixed (capacity) charges have been considered for all the generating stations, in respect of generating stations covered under MoD principles, the variable charges corresponding to the cheaper sources have been considered, whereas no variable charges have been considered in respect of energy not scheduled for power purchase.
- 6.5.4. Petitioners have submitted that based on the capacity available and the demand projection, there is no power procurement projected from short-term sources, i.e. Traders or power exchange during FY 2021-22. This is due to the reason that the MoD principle has been applied on month-on-month basis. However, as the actual power is scheduled on 15-minute slot basis, there are bound to be deviation from the MoD, due to actual availability of long-term sources for these slots. Therefore, the actual power procurement from various sources is bound to vary accordingly. Further, there shall also be requirement to purchase power from short-term sources including power trading companies, Power Exchanges in case of shortfall from regular sources or to meet the deviation from estimated demand depending on the availability. Accordingly, they have requested to consider actual power purchase at the time of True-up and/or computation of Fuel Surcharge Rate, in accordance with the Regulations.
- 6.5.5. The assumptions considered by the Petitioners for projection of power purchase quantum and cost is as follows:

**TABLE 6-18: ASSUMPTIONS CONSIDERED FOR FY 2021-22 BY PETITIONERS**

Sl No.	Generating Company/ Type of Generator	Power Purchase Quantum	Fixed & Variable Charges
<b>Thermal</b>			
1.	UPJVNL	Month wise power purchase quantum for FY 2021-22 is projected based on	For UPRVUNL, NTPC & IPPs the fixed charges have been computed based on the fixed charges
2.	NTPC		



*Approval of ARR and Tariff for State Discoms for FY 2021-22, APR of FY 2020-21 and True-up of FY 2019-20*

SI No.	Generating Company/ Type of Generator	Power Purchase Quantum	Fixed & Variable Charges
3.	IPP/ JV (Thermal)	the monthly average PLF of generating stations from April 2015 to March 2020. For upcoming generating stations of UPRVUNL, 85% PLF is considered.	approved by UPERC vide order dated 11.11.2020 for FY 2020-21 with escalation factor of 10%. For UPRVUNL, NTPC & IPPs, variable charges have been computed based on actual average energy charge for FY 2020-21 (April,2020 to December, 2020) with escalation factor of 2%. For upcoming generating stations, charges of similar units have been considered.
<b>HYDRO</b>			
4.	UPJVNL	Month wise power purchase quantum for FY 2021-22 is projected based on the monthly average PLF of generating stations from April 2015 to March 2020. Further, for upcoming generating stations simple average monthly PLF of all existing NHPC generating stations have been considered for projection of net power purchase quantum for FY 2020-21.	The fixed charges have been computed based on the fixed charges approved by UPERC vide order dated 11.11.2020 for FY 2020-21 with escalation factor of 10%. The variable charges have been computed based on actual average variable charge for the FY 2020-21 (April 2020 to December 2020) with escalation factor of 2%. For upcoming generating stations, average rate of similar generating stations have been considered.
5.	NHPC		
6.	SJVN		
7.	THDC		
8.	IPP/JV (Hydro)		
<b>Nuclear</b>			
9.	NPCIL	The net power purchase quantum for FY 2020-21 is projected in line with generation of FY 2019-20.	Variable charges have been computed based on actual average variable charge for the FY 2020-21 (April 2020 to December 2020) with escalation factor of 2%.
<b>Renewable Energy</b>			
10.	Solar	The net power purchase quantum for FY 2021-22 is estimated based on 19% CUF.	The energy charges have been computed based on the weighted average energy charge rate of solar generating stations.
11.	Wind	The net power purchase quantum for FY 2021-22 is estimated based on 25% CUF.	The energy charges have been computed based on the weighted average energy charge rate of wind generating stations.
12.	MSW	The net power purchase quantum for FY 2021-22 is estimated based on 75% CUF in line with UPERC (Captive and Renewable Energy Generating Plants) Regulations, 2019).	The energy charges have been considered in line with UPERC (Captive and Renewable Energy Generating Plants) Regulations, 2019).
13.	Biomass	The net power purchase quantum for FY 2021-22 is estimated based on 50% CUF.	The energy charges have been computed based on the weighted average energy charge rate of Biomass generating stations.



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SI No.	Generating Company/ Type of Generator	Power Purchase Quantum	Fixed & Variable Charges
14.	Bagasse	The net power purchase quantum for FY 2021-22 is estimated based on 50% CUF.	The energy charges have been computed based on the weighted average energy charge rate of Bagasse generating stations.

6.5.6. To present the impact of MoD on Generating Stations covered under MoD principle, the total per unit cost for all thermal generating stations at 85% PLF are compared with projected despatch under MoD. The Details of power purchase cost from generating stations for FY 21-22 based on above assumptions and per unit total cost at 85% PLF is shown in the table below:

**TABLE 6-19: GENERATING STATION-WISE POWER PURCHASE COST FOR FY 2021-22 SUBMITTED BY PETITIONERS**

Generating Stations	Units (MU)	Fixed Charges (Rs. Crore)	Energy/ Variable Charges (Rs.Crore)	Other Cost (Rs. Crore)	Total Cost (Rs. Crore)
Long term Sources					
Power procured from own Generating Stations (if any)					
From State Generating Stations Thermal					
ANPARA-A	3,622.72	401.14	730.39		1,131.53
ANPARA-B	6,797.77	402.34	1,246.54		1,648.87
PANKI					
PARICHHA					
PARICHHA EXT.	-	436.03	-		436.03
OBRA-A					
OBRA-B	-	320.49	-		320.49
HARDUAGANJ	-	103.21	-		103.21
HARDUAGANJ EXT.	535.23	695.72	190.6		886.32
PARICHHA EXT. STAGE-II	226.21	651.82	84.24		736.05
ANPARA-D	4,541.67	1,422.78	832.05		2,254.83
Panki Extension	-	-	-		-
HARDUAGANJ EXT. Stage II	73.3	788.66	23.46		812.12
OBRA-C	-	-	-		-
Jawaharpur	-	-	-		-
UPRVUNL Consolidated					
<b>Sub-Total</b>	<b>15,796.90</b>	<b>5,222.18</b>	<b>3,107.27</b>	-	<b>8,329.45</b>
From State Generating Stations Hydro					
RIHAND	462.54	42.93	55.15		98.08
OBRA ( H )	217.07	10.37	17.09		27.45
MATATILA	59.57	2.96	4.8		7.76
KHARA	243.64	13.57	12.01		25.58



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Generating Stations	Units (MU)	Fixed Charges (Rs. Crore)	Energy/ Variable Charges (Rs.Crore)	Other Cost (Rs. Crore)	Total Cost (Rs. Crore)
UGC	21.84	-	6.31		6.31
SHEETLA	2.23	-	0.48		0.48
BELKA	1.91	-	0.34		0.34
BABAIL	1.33	0.25	0.6		0.86
<b>Sub-Total</b>	<b>1,010.12</b>	<b>70.08</b>	<b>96.77</b>		<b>166.85</b>
<b>From Central Sector Generating Stations</b>					
Thermal (NTPC)					
ANTA GPS	-	76.22	-		76.22
AURAIYA GPS	-	149.53	-		149.53
DADRI GPS	63.85	159.36	24.36		183.72
JHANOR GPS	-	-	-		-
KAWAS GPS	-	-	-		-
TANDA TPS	537.43	483.48	176.34		659.82
FGUTPS-1	754.55	245.37	235.36		480.73
FGUTPS-2	356.38	123.29	112.49		235.78
FGUTPS-3	118.29	81.2	37.92		119.12
FGUTPS-4	735.13	284.06	222.98		507.04
FSTPS	-	-	-		-
KHTPS-1	-	-	-		-
KHTPS-2	1,605.38	252.69	349.97		602.66
NCTPS-1	90.61	73.81	30.96		104.77
NCTPS-2	153.94	155.43	54.61		210.04
RIHAND-1	2,399.59	263.82	351.32		615.15
RIHAND-2	2,208.96	205.18	321.47		526.65
RIHAND-3	2,604.75	413.44	374.14		787.58
SINGRAULI	5,634.07	469.37	818.36		1,287.73
KORBA-I STPS	-	-	-		-
KORBA-III STPS	-	-	-		-
MAUDA-I STPS	-	-	-		-
MAUDA-II STPS	-	-	-		-
SOLAPUR TPS	-	-	-		-
SIPAT-I	-	-	-		-
SIPAT-II STPS	-	-	-		-
VINDHYACHAL-I STPS	-	-	-		-
VINDHYACHAL-II STPS	-	-	-		-
VINDHYACHAL-III STPS	-	-	-		-
VINDHYACHAL-IV STPS	-	-	-		-
VINDHYACHAL-V STPS	-	-	-		-
Tanda II	6,621.04	1,127.37	1,727.52		2,854.89
Indira Gandhi STPS, Jhajjar	-	-	-		-
URS Power	-	41.82	-		41.82
SINGRAULI STAGE III					
Indira Gandhi STPS, Jhajjar					
GADARWARA STPS-I					
LARA STPS-I					
KHARGONE STPS					
NTPC Consolidated					
<b>Sub-Total</b>	<b>23,883.97</b>	<b>4,605.45</b>	<b>4,837.80</b>	-	<b>9,443.26</b>



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Generating Stations	Units (MU)	Fixed Charges (Rs. Crore)	Energy/ Variable Charges (Rs. Crore)	Other Cost (Rs. Crore)	Total Cost (Rs. Crore)
<b>NPCIL</b>					
KAPS	-	-	-		-
NAPP	1,130.24	-	346.88		346.88
TAPP-3 & 4	-	-	-		-
RAPP-3 & 4	528.56	-	177.08		177.08
RAPP-5 & 6	827.27	-	325.18		325.18
<b>Sub-Total</b>	<b>2,486.07</b>	<b>-</b>	<b>849.14</b>	<b>-</b>	<b>849.14</b>
<b>Hydro (NHPC)</b>					
SALAL	232.4	23.9	15.86		39.76
TANAKPUR	75.97	26.6	13.03		39.63
CHAMERA-I	485.86	54.96	58.99		113.95
URI	576.84	70.22	50.51		120.74
CHAMERA-II	380.54	54.19	46.73		100.91
DHAULIGANGA	274.77	45.14	36.82		81.96
DULHASTI	595.4	180.4	169.56		349.96
SEWA-II	145.23	49.86	39.22		89.09
CHAMERA-III	249.94	81.63	53.16		134.79
URI-II	353.7	135.3	79.75		215.05
PARBATI-III	160.66	121.16	28.62		149.78
KISHANGANGA	382.85	238.7	83.5		322.19
PARBATI-II	126.19	58.65	32.5		91.15
SUBANSIRI LOWER	893.23	-	230.04		230.04
PAKALDUL	983.55	-	253.3		253.3
NHPC Consolidated					
<b>Sub-Total</b>	<b>5,917.11</b>	<b>1,140.71</b>	<b>1,191.59</b>	<b>-</b>	<b>2,332.30</b>
<b>HYDRO (NTPC)</b>					
KOLDAM HPS	664.44	227.52	166.18		393.7
TAPOVAN VISHNUGARH	-	-	-		-
LATA TAPOVAN HEP	-	-	-		-
SINGRAULI SHPS	6.07	-	3.12		3.12
<b>Sub-Total</b>	<b>670.51</b>	<b>227.52</b>	<b>169.3</b>	<b>-</b>	<b>396.82</b>
<b>HYDRO</b>					
TEHRI	1,246.41	428.84	261.76		690.6
KOTESHWAR	511.39	136.21	118.9		255.12
Dhukwan SHP- THDC	119.22	-	59.22		59.22
VISHNUGARH PIPAL KOTHI	-	-	-		-
Thermal					
KHURJA STPP	-	-	-		-
<b>Sub-Total</b>	<b>1,877.02</b>	<b>565.05</b>	<b>439.89</b>	<b>-</b>	<b>1,004.93</b>
<b>SJVN</b>					
RAMPUR	327.22	82.31	53.31		135.63
NATHPA JHAKRI	1,144.29	213.49	92.38		305.87
<b>Sub-Total</b>	<b>1,471.50</b>	<b>295.8</b>	<b>145.7</b>	<b>-</b>	<b>441.5</b>



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Generating Stations	Units (MU)	Fixed Charges (Rs. Crore)	Energy/ Variable Charges (Rs. Crore)	Other Cost (Rs. Crore)	Total Cost (Rs. Crore)
<b>NEEPCO</b>					
Kameng HEP	270.48	-	110.37		110.37
<b>IPP/JV</b>					
<b>HYDRO</b>					
TALA	-	-	-		-
VISHNU PRAYAG	1,724.05	29.67	187.41		217.07
KARCHAM	816.18	186.22	111.36		297.58
TEESTA-III	786.46	227.03	180.05		407.08
SRI NAGAR HEP	1,189.65	424.42	301.25		725.68
Rajghat Hydro	77.84	20.43	20.05		40.48
Hydro (Competitive Bidding)	1,297.05	299.33	425.14		724.47
<b>Thermal</b>					
Meja Thermal Power Plant	7,312.60	1,245.13	1,901.42		3,146.55
LANCO	7,087.69	853.56	1,422.68		2,276.24
BEPL BARKHERA	66.8	144.66	23.44		168.1
BEPL KHAMBHAKHERA	68.94	146.19	24.11		170.3
BEPL KUNDRAKHI	100.22	145.54	32.11		177.65
BEPL MAQSOODAPUR	66.76	145.19	22.54		167.73
BEPL UTRAULA	70.12	149.7	23.86		173.56
KSK MAHANADI	1,583.99	1,047.66	476.69		1,524.35
LALITPUR	4,611.06	4,073.53	1,404.60		5,478.13
M.B.POWER	2,431.10	899.11	484.21		1,383.32
PRAYAGRAJ POWER	5,238.44	1,168.60	1,487.45		2,656.05
R.K.M.POWER	1,588.57	550.01	305.51		855.52
ROSA-1&2	6,235.65	1,658.89	1,595.72		3,254.61
SASAN	3,624.68	72.53	385.81		458.34
TRN ENERGY	2,229.56	521.1	350.07		871.17
NABINAGAR POWER PROJECT	977.87	166.5	208.34		374.84
APCPL					
Ghatampur	-	279.32	-		279.32
<b>Sub-Total</b>	<b>49,185.28</b>	<b>14,454.32</b>	<b>11,373.81</b>		<b>25,828.12</b>
<b>Total</b>	<b>1,02,568.97</b>	<b>26,581.11</b>	<b>22,321.63</b>	-	<b>48,902.74</b>
Medium term Sources					
Short term Sources	-	-	-		-
Medium term Sources	-	-	-		-
Cogen/ Captive					
Baggasse/Cogen/ CPP 1	6,473.95	-	2,081.92		2,081.92
Baggasse/Cogen/ CPP 2	27.5	-	8.84		8.84
Cogen/ Captive	6,501.45	-	<b>2,090.77</b>	-	<b>2,090.77</b>
Bilateral & Others (Power purchased through Trading)	-	-	-		-
Solar (Existing )	3,043.84	-	1,428.86		1,428.86



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Generating Stations	Units (MU)	Fixed Charges (Rs. Crore)	Energy/ Variable Charges (Rs.Crore)	Other Cost (Rs. Crore)	Total Cost (Rs. Crore)
Solar (FY 20)	-	-	-		-
Solar (FY 21)	1,747.62	-	524.29		524.29
Solar (FY 22)	522.28	-	156.68		156.68
Solar (FY 23)	-	-	-		-
SOLAR FY (24)					
SOLAR FY 25					
-	5,313.73	-	2,109.83	-	2,109.83
<b>Non-Solar (Renewable)</b>					
WIND	438	-	150.26		150.26
WIND (FY 20)	963.6	-	330.58		330.58
WIND (FY 21)	3,306.90	-	1,134.47		1,134.47
WIND (FY 22)	416.1	-	142.75		142.75
Biomass Existing	146.73	-	95.45		95.45
Biomass FY 20	-	-	-		-
MSW FY 21	387.63	-	294.99		294.99
Slop based power project					
<b>Sub-Total</b>	<b>5,658.96</b>	<b>-</b>	<b>2,148.49</b>	<b>-</b>	<b>2,148.49</b>
NVVN Thermal					
NVVN Solar					
<b>OTHER SOURCES</b>					
UI Charges					
Reactive Energy Charges					
OA					
Fwd/Rev Banking					
IEX Purchase					
IEX sale					
<b>Sub Total</b>					
<b>PTC Unverified Power Purchase</b>					
REC					
UI Charges					
Open Access Charges					
Banking					
PGCIL Charges		3,311.28	-		3,311.28
WUPPTCL Charges	-	875.68	-		875.68
SEUPPTCL Charges	-	277.5	-		277.5
Reactive Energy Charges	-	-	-		-
Case-I Transmission Charges	-	2,304.71	-		2,304.71
Any other charges					
STU Charges					
Transmission Charges					
Less					
Late Payment Surcharge					
<b>Grand Total</b>	<b>1,20,043.11</b>	<b>33,350.28</b>	<b>28,670.72</b>	<b>-</b>	<b>62,020.99</b>



## BULK SUPPLY TARIFF

6.5.7. For the purpose of allocating the power purchase cost to the Discoms for FY 2021-22 as per Differential Bulk Supply Tariff (DBST) approach, firstly Bulk Supply Tariff (BST) shall be determined based on the consolidated projected power purchase cost for FY 2021-22. The BST for FY 2021-22 on consolidated basis as submitted is shown in the table below:

**TABLE 6-20: BULK SUPPLY TARIFF CLAIMED FOR FY 2021-22**

Particulars	Petitioner`s claim
Power Purchase cost (Rs Crore)	62,020.99
Power Input (MU)	1,20,043.11
Inter-State Trans Losses (%) (% computed on total Input Energy)	1.17%
Inter-State Loss (MU)	1,402.92
Input at Transco End (MU)	118,640.19
Intra-State Trans Losses (%)	3.33%
Input as Discom End (MU)	114,689.47
<b>BST at Discom Periphery (Rs/Kwh)</b>	<b>5.41</b>

## DIFFERENTIAL BULK SUPPLY TARIFF

6.5.8. The Petitioner submitted that it has calculated Differential Bulk Supply Tariff (DBST) based on the Commission's approved methodology and thereafter has worked out the power purchase cost for FY 2021-22 on the basis of same. The Computation of DBST as per the Commission approved methodology is shown in the below table:

**TABLE 6-21: DBST COMPUTATION FOR FY 2021-22 SUBMITTED BY PETITIONERS**

S.No.	Particulars	Formulae	DVVNL	PVVNL	PuVVNL	MVVNL	KESCO	Total
1	Revenue from Tariff including subsidy (Rs Cr)	A	13,690.39	22,012.52	17,843.39	14,522.57	2,768.98	70,837.86
2	Energy Sales (MU)	B	20,067.07	29,694.93	23,538.56	18,894.43	3,413.34	95,608.34
<b>3</b>	<b>Power Procurement Cost</b>							
A1	Power Procurement Cost – Allocated and Unallocated PPAs (Rs Cr)							55,251.83
A2	Inter State Transmission Charges (Rs Cr)							6769.17



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S.No.	Particulars	Formulae	DVVNL	PVVNL	PuVVNL	MVVNL	KESCO	Total	
A1+A2	Total Power Procurement Cost excluding intra state Transmission Charges (In Rs Cr)	C						62020.99	
4	Power Procurement cost of Allocated PPAs (Rs Cr)	D	1895.7	3481.13	2028.51	2028.51	132.8	9,566.64	
5	Total Power Required at Discom Periphery (MU)	E	25,115.24	34,349.26	28,705.56	22,791.83	3,727.58	1,14,689.47	
6	Power at Discom Periphery from allocated PPAs (MU)	F	3770.53	6865.93	4016.29	4016.29	245.75	18,914.78	
7	Other Cost (Intra State Transmission, O&M, Interest, Dep etc.) ( Rs. Cr.)	G	4,329.75	5,120.71	5,358.47	4,363.41	707.91	19,880.25	
8	ABR (Rs/ Unit)	$H=(A/B)*10$	6.82	7.41	7.58	7.69	8.11	7.41	
9	Other Cost (Rs/Unit of Sale)	$I=G*10/B$	2.16	1.72	2.28	2.31	2.07	2.08	
10	Power Purchase Rate								
A	Allocated PPAs per unit of sale (Rs/unit)	$J=D*10/B$	0.94	1.17	0.86	1.07	0.39	1	
B	Unallocated PPAs per unit of sale	$K=(C-\text{Total PP at "D"})*10/\text{Total Sale at "B"}$	5.49						
11	Revenue available for unallocated PPAs (Rs./unit of sale)	$L=H-I-J$	3.72	4.52	4.44	4.3	5.65	4.33	
12	Power Purchase Allocation (per unit of sale) "K" in the ratio of available Revenue "L"	M	4.71	5.72	5.63	5.45	7.16	5.49	
13	Total Power Purchase cost per unit of sale including allocated PPAs	$N=J+M$	5.66	6.9	6.49	6.53	7.55	6.49	
14	Total Power Purchase Cost (Rs Crs)	$O=N*B/10$	11,355.94	20,476.36	15,279.81	12,332.41	2,576.48	62,020.99	
	<b>DBST (Rs/Unit)</b>								
15	DBST Computation of Allocated PPAs	P	5.03	5.07	5.05	5.05	5.4	5.06	
16	DBST Computation of Unallocated PPAs	$Q=M*B/(E-F)$	4.43	6.18	5.37	5.49	7.02	5.48	



S.No.	Particulars	Formulae	DVVNL	PVVNL	PuVVNL	MVVNL	KESCO	Total
17	DBST of total PPAs	$R=O*10/E$	4.52	5.96	5.32	5.41	6.91	5.41

6.5.9. The allowable power purchase cost for FY 2021-22 submitted by the Petitioners is shown in the table below:

**TABLE 6-22: POWER PURCHASE COST FOR FY 2021-22 SUBMITTED BY PETITIONERS**

Particulars	Unit	DVVNL	MVVNL	PVVNL	PuVVNL	KESCO	Consolidated
Allowable Power Purchase	MU	25,115.24	22,791.83	34,349.26	28,705.56	3,727.58	1,14,689.47
DBST Rate	Rs/kWh	4.52	5.41	5.96	5.32	6.91	5.41
<b>Allowable Power Purchase Cost</b>	<b>Rs Crore</b>	11,355.94	12,332.41	20,476.36	15,279.81	2,576.48	62,020.99

### Commission`s Analysis

6.5.10. Regulations 14 “Procurement of Power” of the MYT Regulations 2019 provides as under:

#### Quote

*The Distribution Licensee shall prepare a plan for procurement of power to serve the demand for electricity in its area of supply and submit such plan to the Commission for approval:*

*Provided that such power procurement plan for the full Control Period shall be submitted along with the Petition for Business Plan for the Control Period from April 1, 2020 to March 31, 2025, as stipulated in these Regulations.*

*14.1 The power procurement plan of the Distribution Licensee must follow Regulation 5.4, and be optimized on cost and shall comprise the following:*

- (a) A quantitative forecast of the seasonal variation in unrestricted base load and peak load for electricity within its area of supply;*
- (b) An estimate of the optimum quantities and cost of power supply from the identified sources of power purchase, including own generation if any;*
- (c) Power Purchase Agreements (PPAs) and contracts/ agreements entered to meet the load requirement;*
- (d) An estimate of adequate availability of power to meet the seasonal variation in base load and peak load requirement:*



- (e) *Provided that such estimate of demand and supply shall be on month-wise basis in Mega-Watt (MW) along with the Plant Load factor (PLF) of the plant as well as expressed in Million Units (MU);*
- (f) *Taking into consideration the sufficient long-term capacity PPAs already contracted by the State Discoms with coal based Thermal Power Station to meet the projected demand till FY 2026-2027, no new long term PPA with coal based thermal power plant shall be contracted till December 2022 or until further Orders of the Commission;*
- (g) *Standards to be maintained with regard to quality and reliability of supply, in accordance with the relevant Regulations or Orders of the Commission;*
- (h) *Measures proposed for Energy Conservation, Energy Efficiency, and Demand Side Management;*
- (i) *The requirement for new sources of power procurement, including augmentation of own generation capacity, if any, and identified new sources of supply, based on (a) to (g) above;*
- (j) *The impact of Open Access on load;*
- (k) *Taking into consideration the Transmission and distribution capacities;*
- (l) *Impact of renewables on overall demand/ power procurement;*
- (m) *Impact of Storage Capacities including Batteries, EV Charging Stations etc.;*
- (n) *Any other aspect as required by the Commission:*

*Provided that the forecast or estimates contained in the long-term procurement plan shall be separately stated for peak and off-peak periods, in terms of quantities of power to be procured (in MU) and maximum demand (in MW).*

*14.2 The forecast or estimate shall be prepared using forecasting techniques based on past data and reasonable assumptions regarding the future:*

*Provided that the forecast or estimate shall take into account factors such as overall economic growth of the State, advent of competition in the electricity sector, trends in captive power and Grid migration, impact of loss reduction initiatives and Energy conservation, use of energy efficiency appliances/ equipment, fuel supply and cost, impact of renewables, etc.”*

Unquote

6.5.11. In terms of the above and based on the submissions of the Petitioners, for the purpose of approval of the Power purchase for FY 2021-22, the Commission has analysed the following:

- The station-wise PLFs of last 3 years and last 5 years.



- Plant wise Capacity (MW), UPPCL share and the auxiliary consumption of each plant.
- Energy Generation from each plant computed accordingly considering the PLF, auxiliary consumption and share of UP in the same.
- Fixed charges of each plant for past 5 years and the energy / variable charges of each plant for past 5 years.

6.5.12. Accordingly, the assumptions considered by the Commission for projection of power purchase quantum and Power Purchase cost is as follows:

**TABLE 6-23: ASSUMPTIONS CONSIDERED FOR FY 2021-22 BY THE COMMISSION**

Sl No.	Generating Company/ Type of Generator	Power Purchase Quantum	Fixed & energy/Variable Charges
<b>Thermal</b>			
1.	UPJVNL	Power purchase quantum for FY 2021-22 is projected based on the average PLF of generating stations of last 5 years, i.e. April 2015 to March 2020.  For upcoming generating stations 85% PLF is considered.	For UPRVUNL, NTPC & IPP/ JV (Thermal) : The fixed charges have been computed by considering an escalation of 10% (overall average escalation of last three years ~ 11%) on the fixed charges approved for FY 2020-21 by UPERC vide order dated 11.11.2020. The energy charges have been computed considering an escalation of 2% on actual average energy charge for FY 2020-21 (as submitted by the Petitioner in APR)  For upcoming generating stations, charges as submitted by the Petitioner, have been considered.
2.	NTPC		
3.	IPP/ JV (Thermal)		
<b>HYDRO</b>			
4.	UPJVNL	Power purchase quantum for FY 2021-22 is projected based on the average PLF of generating stations of last 5 years, i.e. April 2015 to March 2020.  For upcoming generating stations 85% PLF is considered.	The fixed charges have been computed by considering an escalation of 10% (overall average escalation of last three years ~ 11%) on the fixed charges approved for FY 2020-21 by UPERC vide order dated 11.11.2020. The energy charges have been computed considering an escalation of 2% on actual average energy charge for FY 2020-21 (as submitted by the Petitioner in APR)  For upcoming generating stations, charges as submitted by the Petitioner, have been considered.
5.	NHPC		
6.	SJVN		
7.	THDC		
8.	IPP/JV (Hydro)		
<b>Nuclear</b>			



SI No.	Generating Company/ Type of Generator	Power Purchase Quantum	Fixed & energy/Variable Charges
9.	NPCIL	Power purchase quantum for FY 2021-22 is projected based on the average PLF of generating stations of last 5 years, i.e. April 2015 to March 2020.	The energy charges have been computed considering an escalation of 2% on actual average energy charge for FY 2020-21 (as submitted by the Petitioner in APR)
<b>Renewable Energy</b>			
10.	Solar	The net power purchase quantum for FY 2021-22 is estimated based on 19% CUF.	The energy charges have been computed based on the weighted average energy charge rate of solar generating stations.
11.	Wind	The net power purchase quantum for FY 2021-22 is estimated based on 25% CUF.	The energy charges have been computed based on the weighted average energy charge rate of wind generating stations.
12.	MSW	The net power purchase quantum for FY 2021-22 is estimated based on 75% CUF in line with UPERC (Captive and Renewable Energy Generating Plants) Regulations, 2019).	The energy charges have been considered in line with UPERC (Captive and Renewable Energy Generating Plants) Regulations, 2019.
13.	Biomass	The net power purchase quantum for FY 2021-22 is estimated based on 50% CUF.	The energy charges have been computed based on the weighted average energy charge rate of Biomass generating stations.
14.	Bagasse	The net power purchase quantum for FY 2021-22 is estimated based on 50% CUF.	The energy charges have been computed based on the weighted average energy charge rate of Bagasse generating stations.

### Renewable Purchase Obligation

6.5.13. The first Amendment to the RPO Regulations, 2010 on 16<sup>th</sup> August 2019, the long-term trajectory of minimum quantum of purchase of Renewable power from various renewable sources as follows:

**TABLE 6-24: RPO TRAJECTORY AS PER UPERC REGULATIONS (%)**

Minimum quantum of purchase from renewable energy sources as % age of total energy consumed (in kWh)				
Financial Year	Non-Solar		Solar	Total
	Other Non-Solar	HPO		
	A	B	C	D = A+B+C
2019-20	5	1	2	8
2020-21	6	2	3	11
2021-22	6	3	4	13
2022-23	6	3	5	14



Minimum quantum of purchase from renewable energy sources as % age of total energy consumed (in kWh)				
Financial Year	Non-Solar		Solar	Total
	Other Non-Solar	HPO		
	A	B	C	D = A+B+C
2023-24	7	3	5	15

6.5.14. The Petitioner submitted the following:

**TABLE 6-25: RPO DETAILS SUBMITTED BY THE PETITIONER**

Type	Parameter	Nomenclature	Units	FY 2019-20	FY 2020-21	FY 2021-22	
Solar	Gross energy consumption	A	MU	1,18,141	1,13,482	1,20,043	
	Hydro Consumption after FY 2016-17	B	MU	14,185	12,808	12,853	
	Net Energy Consumption	C=A-B	MU	1,03,956	1,00,674	1,07,190	
	RPO Target (Solar)	D	%	2.00%	3.00%	4.00%	
	RPO Target (Solar)	E=C*D	MU	2,079	3,020	4,288	
	Solar Energy Purchased	F	MU	2,398	3,787	5,137	
	Total RPO achieved	G=F/E	%	115.33%	125.39%	119.81%	
	Excess RPO Met Carried Forward	H	MU	319	767	849	
	Shortfall RPO Carried forward	I	MU	-	-	-	
	REC Purchased	J	MU				
	Net Status	K=F+H-I+J	MU	2,717	4,554	5,986	
	Penalties, if any	L	Rs. Crore				
	Non-Solar	Other Non-Solar	Gross energy consumption	A	MU	1,18,141	1,13,482
Hydro Consumption			B	MU	14,185	12,808	12,853



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Type	Parameter	Nomenclature	Units	FY 2019-20	FY 2020-21	FY 2021-22
	after FY 2016-17					
	Net Energy Consumption	C=A-B	MU	1,03,956	1,00,674	1,07,190
	RPO Target (Non Solar)	D	%	5.00%	6.00%	6.00%
	RPO Target (Non Solar)	E=C*D	MU	5,198	6,040	6,431
	Non Solar Energy Purchased	F	MU	4,098	9,960	11,960
	Total RPO achieved	G=F/E	%	78.84%	164.88%	185.97%
	Excess RPO Met Carried Forward	H	MU	-	3,919	5,529
	Shortfall RPO Carried forward	I	MU	1,100	-	-
	REC Purchased	J	MU			
	Net Status	k=F+H-I+J	MU	2,999	13,879	17,489
	Penalties, if any	L	Rs. Crore			
<b>Hydro Purchase Obligation</b>	Net energy consumption	A	MU	1,03,956	1,00,674	1,07,190
	HPO Target (Hydro)	B	%	1.00%	2.00%	3.00%
	HPO Target (Hydro)	C=A*B	MU	1,040	2,013	3,216
	Hydro Energy Purchased	D	MU	-	69	3,070
	Total HPO achieved	E=D/C	%	0.00%	3.44%	95.47%
	Excess HPO Met Carried Forward	F	MU	-	-	-
	Shortfall HPO Carried forward	G	MU	1,040	1,944	146
	REC Purchased	H	MU			
	Net Status	I=D+F-G+H	MU	(1,040)	(1,875)	2,924



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Type	Parameter	Nomenclature	Units	FY 2019-20	FY 2020-21	FY 2021-22
	Penalties, if any	J	Rs. Crore			

6.5.15. The Commission directs the Petitioner to follow the RPO Trajectory set by the Commission in its first Amendment to the RPO Regulations, 2010 on 16<sup>th</sup> August 2019.

6.5.16. Based on above, the consolidated Power Purchase computed by the Commission for FY 2021-22 is given as under:

**TABLE 6-26: GENERATING STATION-WISE POWER PURCHASE COST FOR FY 2020-21 APPROVED BY THE COMMISSION**

Sl No	Source	Plant Capacity (MW)	PLF(%) (5 years)	Auxiliary Consumption (%)	UP's Share in %	UP's Share in MW	Total MUs (5 yr. PLF)	Fixed Charges (Rs. Crs)	Energy Charges (Rs/kWh)	Energy Charges (Rs. Crs)	Total cost (Rs Crs.)	Total Cost (Rs/kWh)
A	<b>Long term Sources</b>											
a	<b>Power procured from own Generating Stations (if any)</b>											
b	<b>From State Generating Stations Thermal</b>											
1	ANPARA-A	630	71.73%	8.50%	100.0%	630	3,622.18	401.14	2.02	729.99	1131.12	3.12
2	ANPARA-B	1000	83.07%	6.55%	100.0%	1000	6,800.63	402.34	1.83	1,246.56	1648.90	2.42
3	PANKI											
4	PARICHHA	0	0.00%	0.00%	0.0%	0	-	78.08	0.00	-	78.08	
5	PARICHHA EXT.	420	67.72%	9.00%	100.0%	420	2,267.18	436.03	3.48	788.81	1224.83	5.40
6	OBRA-A											
7	OBRA-B	1000	43.17%	9.70%	100.0%	1000	3,414.94	320.49	2.20	750.78	1071.27	3.14
8	HARDUAGANJ						-	103.21	0.00	-	103.21	
9	HARDUAGANJ EXT.	500	74.78%	9.00%	100.0%	500	2,980.39	695.71	3.56	1,060.91	1756.62	5.89
10	PARICHHA EXT. STAGE-II	660	64.17%	9.00%	75.8%	500	2,557.57	651.82	3.72	952.00	1603.81	6.27
11	ANPARA-D	1000	55.47%	6.25%	100.0%	1000	4,555.37	1422.78	1.83	834.23	2257.00	4.95
12	Panki Extension	660	0.00%	5.75%	100.0%	660						
13	HARDUAGANJ EXT. Stage II	660	85.00%	5.75%	100.0%	660	4,631.78	268.14	3.20	1,481.95	1750.09	3.78
14	OBRA-C	1320	0.00%	5.75%	100.0%	1320						
15	Jawaharpur	1320	0.00%	5.75%	100.0%	1320						
	<b>Sub-Total</b>	<b>9,170.00</b>				<b>9,010.00</b>	<b>30,830.04</b>	<b>4,779.73</b>	<b>2.54</b>	<b>7,845.22</b>	<b>12,624.95</b>	<b>4.10</b>
c	<b>From State Generating Stations Hydro</b>											
1	RIHAND	300	20.93%	1.00%	85.0%	255	462.85	54.06	1.19	55.17	109.23	2.36
2	OBRA ( H )	99	25.30%	1.00%	100.0%	99	217.24	12.28	0.79	17.09	29.37	1.35
3	MATATILA	30	34.43%	1.00%	66.7%	20	59.72	0.80	0.81	4.81	5.61	0.94
4	KHARA	72	48.61%	1.00%	80.0%	57.6	242.81	12.83	0.49	11.96	24.79	1.02
5	UGC	13.7	18.50%	1.00%	100.0%	13.7	21.98	0.00	2.89	6.34	6.34	2.89
6	SHEETLA	3.6	7.28%	1.00%	100.0%	3.6	2.27	0.00	2.13	0.48	0.48	2.13
7	BELKA	3	7.34%	1.00%	100.0%	3	1.91	0.00	1.76	0.34	0.34	1.76
8	BABAIL	3	5.10%	1.00%	100.0%	3	1.33	0.00	4.54	0.60	0.60	4.54
	<b>Sub-Total</b>	<b>524.30</b>				<b>454.90</b>	<b>1,010.10</b>	<b>79.96</b>	<b>0.95</b>	<b>96.20</b>	<b>176.16</b>	<b>1.74</b>
d	<b>From Central Sector Generating Stations</b>											
a	<b>Thermal (NTPC)</b>											
1	ANTA GPS	419	31.94%	2.75%	21.8%	91.2	248.17	76.32	7.43	184.29	260.61	10.50



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FY 2020-21 and True-up of FY 2019-20*

Sl No	Source	Plant Capacity (MW)	PLF (%) (5 years)	Auxiliary Consumption (%)	UP's Share in %	UP's Share in MW	Total MUs (5 yr. PLF)	Fixed Charges (Rs. Crs)	Energy Charges (Rs/kWh)	Energy Charges (Rs. Crs)	Total cost (Rs Crs.)	Total Cost (Rs/k Wh)
2	AURAIYA GPS	663	17.50%	2.75%	32.1%	212.67	317.08	149.54	4.98	157.92	307.46	9.70
3	DADRI GPS	830	34.12%	2.75%	29.6%	245.61	713.96	159.36	3.81	272.31	431.67	6.05
4	JHANOR GPS	657.39										
5	KAWAS GPS	656.2										
6	TANDA TPS	440	74.58%	11.50%	100.0%	440	2,543.93	483.48	3.28	834.39	1317.87	5.18
7	FGUTPS-1	420	71.47%	9.00%	59.5%	250	1,424.32	245.36	3.12	444.10	689.46	4.84
8	FGUTPS-2	420	87.31%	9.80%	30.7%	129	889.99	123.29	3.16	280.81	404.11	4.54
9	FGUTPS-3	210	87.79%	9.00%	30.0%	63	440.89	81.20	3.20	141.28	222.48	5.05
10	FGUTPS-4	500	43.47%	6.25%	44.6%	223	796.15	289.74	3.03	241.39	531.14	6.67
11	FSTPS	1600										
12	KHTPS-1	840										
13	KHTPS-2	1500	130.27%	6.25%	10.0%	150	1,604.73	252.70	2.18	349.69	602.38	3.75
14	NCTPS-1	840	71.61%	8.50%	10.0%	84	482.14	73.81	3.42	164.66	238.46	4.95
15	NCTPS-2	980	81.95%	5.75%	10.0%	98	663.09	155.43	3.55	235.13	390.56	5.89
16	RIHAND-1	1000	91.29%	8.00%	32.6%	326	2,398.55	263.82	1.46	351.03	614.85	2.56
17	RIHAND-2	1000	91.01%	6.25%	29.6%	296	2,212.46	205.18	1.45	321.85	527.03	2.38
18	RIHAND-3	1000	99.19%	6.25%	32.0%	320	2,606.64	454.77	1.44	374.26	829.04	3.18
19	SINGRAULI	2000	91.83%	7.13%	37.7%	754	5,632.71	469.36	1.45	817.84	1287.20	2.29
20	KORBA-I STPS	2100										
21	KORBA-III STPS	500										
22	MAUDA-I STPS	1000										
23	MAUDA-II STPS	1320										
24	SOLAPUR TPS	1320										
25	SIPAT-I	1980										
26	SIPAT-II STPS	1000										
27	VINDHYACHAL-I STPS	1260										
28	VINDHYACHAL-II STPS	1000										
29	VINDHYACHAL-III STPS	1000										
30	VINDHYACHAL-IV STPS	1000										
31	VINDHYACHAL-V STPS	500										
32	Tanda II	1320	85.00%	5.75%	71.5%	943.4568	6,621.04	862.44	2.61	1,726.83	2589.27	3.91
33	NABINAGAR POWER PROJECT	1980	85.00%	5.75%	10.6%	209.01	1,466.80	148.60	2.13	312.38	460.99	3.14
35	SINGRAULI STAGE III											
36	Indira Gandhi STPS, Jhajjar	1500										
	<b>Sub-Total</b>	<b>34,790.59</b>				<b>4,869.95</b>	<b>31,308.29</b>	<b>4,537.07</b>	<b>2.33</b>	<b>7,284.37</b>	<b>11821.44</b>	<b>3.78</b>
<b>e</b>	<b>NPCIL</b>											
1	KAPS	440										
2	NAPP	440	93.48%	0.00%	31.4%	138	1,130.11	0.00	3.07	346.70	346.70	3.07
3	TAPP-3 & 4	1080										
4	RAPP-3 & 4	440	91.35%	0.00%	15.0%	66	528.16	0.00	3.35	176.88	176.88	3.35
5	RAPP-5 & 6	440	109.55%	0.00%	19.5%	86	825.34	0.00	3.93	324.29	324.29	3.93
	<b>Sub-Total</b>	<b>2,840.00</b>				<b>290.00</b>	<b>2,483.61</b>	<b>-</b>	<b>3.41</b>	<b>847.86</b>	<b>847.86</b>	<b>3.41</b>
<b>f</b>	<b>Hydro (NHPC)</b>											
1	SALAL	690	55.69%	1.00%	7.0%	48	231.82	23.90	0.68	15.82	39.72	1.71
2	TANAKPUR	94.2	41.50%	1.20%	22.3%	21	75.42	26.60	1.71	12.93	39.53	5.24
3	CHAMERA-I	540	51.36%	1.20%	20.2%	109	484.49	54.95	1.21	58.80	113.76	2.35
4	URI	480	69.42%	1.20%	20.0%	96	576.78	70.23	0.88	50.49	120.71	2.09
5	CHAMERA-II	300	70.66%	1.20%	20.7%	62	379.18	54.19	1.23	46.54	100.73	2.66
6	DHAULIGANGA	280	56.45%	1.20%	20.0%	56	273.61	45.15	1.34	36.65	81.79	2.99
7	DULHASTI	390	80.71%	1.20%	21.8%	85	593.78	180.40	2.85	169.03	349.43	5.88
8	SEWA-II	120	62.19%	1.20%	22.5%	27	145.33	49.86	2.70	39.24	89.10	6.13
9	CHAMERA-III	231	61.16%	1.20%	20.3%	47	248.79	81.63	2.13	52.89	134.52	5.41
10	URI-II	240	80.10%	1.20%	21.3%	51	353.56	135.30	2.25	79.69	214.99	6.08
11	PARBATI-III	520	17.54%	1.20%	20.2%	105	159.36	123.59	1.78	28.37	151.96	9.54
12	KISHANGANGA	330	32.08%	1.20%	41.7%	137.6	382.04	243.47	2.18	83.29	326.76	8.55
13	PARBATI-II	800	38.63%	1.20%	19.4%	155	518.18	58.65	2.57	133.40	192.05	3.71
14	SUBANSIRI LOWER	2000	56.57%	1.20%	9.1%	182	891.10	0.00	2.57	229.40	229.40	2.57
15	PAKALDUL	1000	56.57%	1.00%	20.0%	200	981.22	0.00	2.57	252.60	252.60	2.57
	<b>Sub-Total</b>	<b>8,015.20</b>				<b>1,381.60</b>	<b>6,294.65</b>	<b>1,147.91</b>	<b>2.05</b>	<b>1,289.13</b>	<b>2,437.04</b>	<b>3.87</b>
<b>g</b>	<b>HYDRO (NTPC)</b>											
1	KOLDAM HPS	800	50.43%	1.00%	18.9%	151.2	661.33	250.28	2.50	165.40	415.68	6.29
2	TAPOVAN VISHNUGARH	520	28.75%	1.20%	19.2%	100	-	0.00	2.54	-	0.00	-



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Sl No	Source	Plant Capacity (MW)	PLF(%) (5 years)	Auxiliary Consumption (%)	UP's Share in %	UP's Share in MW	Total MUs (5 yr. PLF)	Fixed Charges (Rs. Crs)	Energy Charges (Rs/kWh)	Energy Charges (Rs. Crs)	Total cost (Rs Crs.)	Total Cost (Rs/k Wh)
3	LATA TAPOVAN HEP	171	0.00%	1.20%	19.9%	34						
4	SINGRAULI SHPS	8	20.48%	0.00%	42.5%	3.4	6.10	0.00	5.14	3.14	3.14	5.14
	<b>Sub-Total</b>	<b>1,499.00</b>				<b>288.60</b>	<b>667.43</b>	<b>250.28</b>	<b>2.53</b>	<b>168.54</b>	<b>418.81</b>	<b>6.28</b>
h	<b>THDC</b>											
	<b>HYDRO</b>											
1	TEHRI	1000	38.43%	1.20%	37.4%	374	1,244.01	428.83	2.10	261.15	689.98	5.55
2	KOTESHWAR	400	37.98%	1.00%	38.8%	155	510.55	136.22	2.32	118.66	254.88	4.99
3	Dhukwan SHP- THDC	24	56.57%	0.00%	100.0%	24	118.94	0.00	4.97	59.06	59.06	4.97
4	VISHNUGARH PIPAL KOTHI	444	0.00%	1.20%	37.4%	166						
	<b>Thermal</b>	0	0.00%	0.00%	0.0%	0						
1	KHURJA STPP	1320	85.00%	5.75%	30.0%	396						
	<b>Sub-Total</b>	<b>3,188.00</b>				<b>1,115.00</b>	<b>1,873.50</b>	<b>565.05</b>	<b>2.34</b>	<b>438.87</b>	<b>1,003.92</b>	<b>5.36</b>
i	<b>SJVN</b>											
1	RAMPUR	412	66.33%	1.00%	13.8%	56.68	326.04	82.31	1.63	53.10	135.41	4.15
2	NATHPA JHAKRI	1500	66.12%	1.20%	14.7%	221	1,264.77	213.49	0.81	102.07	315.56	2.50
	<b>Sub-Total</b>	<b>1,912.00</b>				<b>277.68</b>	<b>1,590.81</b>	<b>295.80</b>	<b>0.98</b>	<b>155.17</b>	<b>450.97</b>	<b>2.83</b>
j	<b>NEEPCO</b>											
1	Kameng HEP	600	49.10%	1.00%	9.2%	55	234.21	0.00	4.08	95.57	95.57	4.08
k	<b>IPP/JV</b>											
	<b>HYDRO</b>											
1	TALA	1020										
2	VISHNU PRAYAG	400	55.97%	0.50%	88.0%	352	1,717.30	29.67	1.09	186.60	216.27	1.26
3	KARCHAM	1000	46.97%	1.20%	20.0%	200	813.05	186.22	1.36	110.89	297.11	3.65
4	TEESTA-III	1200	48.70%	1.20%	16.7%	200	842.93	227.03	2.29	192.90	419.92	4.98
5	SRI NAGAR HEP	330	47.02%	1.00%	88.0%	290.4	1,184.12	424.42	2.53	299.73	724.15	6.12
6	Rajghat Hydro	45	49.66%	1.00%	40.0%	18	77.53	20.43	2.57	19.96	40.39	5.21
7	Hydro (Competitive Bidding)	0	0.00%	0.00%	0.0%	400	1,297.05	299.33	3.28	424.97	724.30	5.58
	<b>Thermal</b>											
1	Meja Thermal Power Plant	1320	85.00%	5.75%	77.6%	1024	7,186.28	899.60	2.60	1,867.83	2767.43	3.85
2	LANCO	1200	79.49%	7.50%	91.7%	1100	7,085.46	853.56	2.01	1,421.67	2275.22	3.21
3	BEPL BARKHERA	90	34.83%	9.75%	100.0%	90	247.84	144.66	3.51	86.92	231.58	9.34
4	BEPL KHAMBAKHERA	90	34.67%	9.75%	100.0%	90	246.68	146.19	3.50	86.24	232.43	9.42
5	BEPL KUNDRAKHI	90	41.32%	9.75%	100.0%	90	294.00	145.54	3.20	94.15	239.69	8.15
6	BEPL MAQSOODAPUR	90	35.05%	9.75%	100.0%	90	249.40	145.19	3.38	84.18	229.37	9.20
7	BEPL UTRAULA	90	38.56%	9.75%	100.0%	90	274.36	149.69	3.40	93.31	243.00	8.86
8	KSK MAHANADI	3600	39.53%	0.00%	27.8%	1000	3,463.17	1047.66	3.01	1,041.79	2089.45	6.03
9	LALITPUR	1980	33.69%	5.75%	100.0%	1980	5,507.24	4073.53	3.04	1,676.91	5750.44	10.44
10	M.B.POWER	1200	76.92%	0.00%	30.1%	361	2,432.38	899.11	1.99	484.27	1383.38	5.69
11	PRAYAGRAJ POWER	1980	39.25%	7.50%	90.0%	1782	5,667.89	1168.60	2.84	1,608.75	2777.35	4.90
12	R.K.M.POWER	1540	51.75%	0.00%	22.7%	350	1,586.77	550.01	1.92	305.04	855.06	5.39
13	ROSA-1&2	1200	64.83%	8.50%	100.0%	1200	6,235.40	1658.89	2.56	1,595.02	3253.91	5.22
14	SASAN	4000	88.99%	6.00%	12.4%	495	3,627.38	72.54	1.06	385.94	458.48	1.26
15	TRN ENERGY	600	65.20%	0.00%	65.0%	390	2,227.55	521.10	1.57	349.61	870.71	3.91
16	Ghatampur	1980	7.08%	5.75%	85.0%	1683	-	0.00	2.21	-	0.00	
	<b>Sub-Total</b>	<b>25,045.00</b>				<b>13,275.4</b>	<b>52,263.77</b>	<b>13,662.97</b>	<b>2.38</b>	<b>12,416.68</b>	<b>26,079.65</b>	<b>4.99</b>
	<b>Total Long Term</b>	<b>87,584.09</b>				<b>31,018.13</b>	<b>1,28,556.40</b>	<b>25,318.77</b>	<b>2.38</b>	<b>30,637.61</b>	<b>55,956.38</b>	<b>4.35</b>
B	<b>Medium term Sources</b>											
C	<b>Short term Sources</b>											
D	<b>Cogen/ Captive</b>											
	Baggasse/Cogen/ CPP 1	1478.07	50.00%	0.00%	100.0%	1478.07	6,473.95		3.22	2,081.92	2081.92	3.22
	Baggasse/Cogen/ CPP 2	25	16.58%	0.00%	100.0%	25	36.30		3.22	11.67	11.67	3.22
	<b>Sub-Total</b>	<b>1,503.07</b>				<b>1,503.07</b>	<b>6,510.25</b>		<b>3.22</b>	<b>2,093.60</b>	<b>2,093.60</b>	<b>3.22</b>
E	<b>Bilateral &amp; Others (Power purchased through Trading) or Exchange</b>											



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Sl No	Source	Plant Capacity (MW)	PLF(%) (5 years)	Auxiliary Consumption (%)	UP's Share in %	UP's Share in MW	Total MUs (5 yr. PLF)	Fixed Charges (Rs. Crs)	Energy Charges (Rs/kWh)	Energy Charges (Rs. Crs)	Total cost (Rs Crs.)	Total Cost (Rs/kWh)
<b>F</b>	<b>Solar (Renewable)</b>											
1	Solar (Existing)	1837	18.92%	0.00%	100.0%	1837	3,044.09		4.69	1,428.86	1428.86	4.69
2	Solar (FY 20)	0	19.00%	0.00%	100.0%	0	-		0.00	-	0.00	
3	Solar (FY 21)	1050	19.00%	0.00%	100.0%	1050	1,747.62		3.00	524.08	524.08	3.00
4	Solar (FY 22)	397.00	19.00%	0.00%	100.0%	397	522.28		3.00	156.68	156.68	3.00
	<b>Sub-Total</b>	<b>3,284.00</b>				<b>3,284.00</b>	<b>5,313.99</b>		<b>3.97</b>	<b>2,109.62</b>	<b>2,109.62</b>	<b>3.97</b>
										-		
<b>G</b>	<b>Non-Solar (Renewable)</b>											
1	WIND (Existing)	200	25.00%	0.00%	100.0%	200	438.00		3.43	150.26	150.26	3.43
2	WIND (FY 20)	440	25.00%	0.00%	100.0%	440	963.60		3.43	330.58	330.58	3.43
3	WIND (FY 21)	1510	25.00%	0.00%	100.0%	1510	3,306.90		3.43	1,134.47	1134.47	3.43
4	WIND (FY 22)	380	25.00%	0.00%	100.0%	380	416.10		3.43	142.75	142.75	3.43
5	Biomass Existing	33.5	50.00%	0.00%	100.0%	33.5	146.73		6.51	95.45	95.45	6.51
6	Biomass FY 20	0	50.00%	0.00%	100.0%	0	-		0.00	-	0.00	
7	MSW FY 21	59	75.00%	0.00%	100.0%	59	387.63		7.61	294.99	294.99	7.61
	<b>Sub-Total</b>	<b>2,622.50</b>				<b>2,622.50</b>	<b>5,658.96</b>		<b>3.80</b>	<b>2,148.49</b>	<b>2,148.49</b>	<b>3.80</b>
	<b>Grand Total</b>	<b>94,993.66</b>				<b>38,427.7</b>	<b>1,46,039.59</b>	<b>25,318.77</b>	<b>2.53</b>	<b>36,989.31</b>	<b>62,308.08</b>	<b>4.27</b>
	<b>Grand Total after Applying MOD</b>						<b>1,12,324.82</b>	<b>25,318.77</b>	<b>2.30</b>	<b>25,878.84</b>	<b>51,197.61</b>	<b>4.56</b>

### MERIT ORDER DISPATCH

- 6.5.17. Till FY 2020-21, the Merit Order Dispatch was computed on the ex-bus variable cost of the generators.
- 6.5.18. However, the Commission issued the Merit Order Dispatch & Optimization of Power Purchase Regulations 2021 (MoD Regulations 2021) on 3.02.2021. Regulations 4 (2) of the MoD Regulations 2021 provides as under:

*"The Distribution Licensee shall draw up the Merit Order Stack at the State Periphery for Intra-state and Inter-state Generation sources after taking into account the variable cost of each generating stations as submitted by the generating company, along with the inter-state transmission losses and AC-UBC charges as specified under Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations 2020, wherever applicable:*

*Provided that the inter-state transmission loss and inter-state transmission AC-UBC charges for the applicable period corresponding to each generating station shall be considered based on average of (n-1)th month and in case the last month's inter-state transmission loss or charges are not available then the last available loss or charges shall be considered."*

- 6.5.19. As per above, the Merit Order Stack is to be prepared at the State Periphery for Intra-state and Inter-state Generation sources after taking into account the variable cost of each generating stations as submitted by the generating company, along with the inter-state transmission losses and AC-UBC charges. Accordingly,



Commission asked the Licensees to submit generating plant/source wise Transmission loss and charges, the Petitioners submitted that:

*"It is hereby submitted that the data cannot be provided in the requisite format as source wise Transmission energy loss is not available with the Petitioner, considering that power purchase accounting is done on basis of power purchase bills raised by different generators....."*

6.5.20. Further, the Licensee`s in Format F 13C have submitted the MOD Stack on the basis of ex bus variable cost of each plant only.

6.5.21. Hence, the Commission, for the purpose of this Order, computes MOD on ex-bus variable cost of plants, and directs to Petitioners to submit the MOD stack in accordance with MOD Regulation 2021. The same also shall be considered for the Computation of Incremental costs.

6.5.22. The Merit Order Dispatch for computation of power purchase cost as approved by the Commission is given in the Table below:

**TABLE 6-27: MERIT ORDER DESPATCH FOR COMPUTATION OF POWER PURCHASE COST APPROVED BY THE COMMISSION FOR FY 2021-22**

SI No	Source	Status	Energy Charges (Rs/kWh)	Energy Charges (Rs. Crs)
1	KHARA	Must Run	0.49	11.96
2	SALAL	Must Run	0.68	15.82
3	OBRA ( H )	Must Run	0.79	17.09
4	MATATILA	Must Run	0.81	4.81
5	NATHPA JHAKRI	Must Run	0.81	102.07
6	URI	Must Run	0.88	50.49
7	VISHNU PRAYAG	Must Run	1.09	186.60
8	RIHAND	Must Run	1.19	55.17
9	CHAMERA-I	Must Run	1.21	58.80
10	CHAMERA-II	Must Run	1.23	46.54
11	DHAULIGANGA	Must Run	1.34	36.65
12	KARCHAM	Must Run	1.36	110.89
13	RAMPUR	Must Run	1.63	53.10
14	TANAKPUR	Must Run	1.71	12.93
15	BELKA	Must Run	1.76	0.34
16	PARBATI-III	Must Run	1.78	28.37
17	TEHRI	Must Run	2.10	261.15
18	CHAMERA-III	Must Run	2.13	52.89
19	SHEETLA	Must Run	2.13	0.48
20	KISHANGANGA	Must Run	2.18	83.29
21	URI-II	Must Run	2.25	79.69



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SI No	Source	Status	Energy Charges (Rs/kWh)	Energy Charges (Rs. Crs)
22	TEESTA-III	Must Run	2.29	192.90
23	KOTESHWAR	Must Run	2.32	118.66
24	KOLDAM HPS	Must Run	2.50	165.40
25	SRI NAGAR HEP	Must Run	2.53	299.73
26	PARBATI-II	Must Run	2.57	133.40
27	SUBANSIRI LOWER	Must Run	2.57	229.40
28	PAKALDUL	Must Run	2.57	252.60
29	Rajghat Hydro	Must Run	2.57	19.96
30	SEWA-II	Must Run	2.70	39.24
31	DULHASTI	Must Run	2.85	169.03
32	UGC	Must Run	2.89	6.34
33	Solar (FY 21)	Must Run	3.00	524.08
34	Solar (FY 22)	Must Run	3.00	156.62
35	NAPP	Must Run	3.07	346.70
36	Baggasse/Cogen/ CPP 2	Must Run	3.22	11.67
37	Baggasse/Cogen/ CPP 1	Must Run	3.22	2,081.92
38	Hydro (Competitive Bidding)	Must Run	3.28	424.97
39	RAPP-3 & 4	Must Run	3.35	176.88
40	WIND (FY 20)	Must Run	3.43	330.58
10	WIND (FY 21)	Must Run	3.43	1,134.47
11	WIND (FY 22)	Must Run	3.43	142.75
41	WIND (Existing)	Must Run	3.43	150.26
42	RAPP-5 & 6	Must Run	3.93	324.29
43	Kameng HEP	Must Run	4.08	95.57
44	BABAIL	Must Run	4.54	0.60
45	Solar (Existing )	Must Run	4.69	1,428.41
46	Dhukwan SHP- THDC	Must Run	4.97	59.06
47	SINGRAULI SHPS	Must Run	5.14	3.14
48	Biomass Existing	Must Run	6.51	95.45
49	MSW FY 21	Must Run	7.61	294.99
50	KHARA	Must Run	0.49	11.96
51	SALAL	Must Run	0.68	15.82
<b>52</b>	<b>Total (Must-Run)</b>		<b>2.84</b>	<b>10,678.18</b>
1	SASAN	Merit	1.06	385.94
2	RIHAND-3	Merit	1.44	374.26
3	SINGRAULI	Merit	1.45	817.84
4	RIHAND-2	Merit	1.45	321.85
5	RIHAND-1	Merit	1.46	351.03
6	TRN ENERGY	Merit	1.57	349.61
7	ANPARA-D	Merit	1.83	834.23
8	ANPARA-B	Merit	1.83	1,246.56
9	R.K.M.POWER	Merit	1.92	305.04
10	M.B.POWER	Merit	1.99	484.27
11	LANCO	Merit	2.01	1,421.67
12	ANPARA-A	Merit	2.02	729.99
13	NABINAGAR POWER PROJECT	Merit	2.13	312.38



SI No	Source	Status	Energy Charges (Rs/kWh)	Energy Charges (Rs. Crs)
14	KHTPS-2	Merit	2.18	349.69
15	OBRA-B	Merit	2.20	750.78
16	ROSA-1&2	Merit	2.56	1,595.02
17	Meja Thermal Power Plant	Merit	2.60	1,867.83
18	Tanda II	Merit	2.61	1,726.83
19	PRAYAGRAJ POWER	Merit	2.84	975.85
	<b>Total (Merit under MOD)</b>		2.03	<b>15,200.66</b>
	<b>Grand Total (Must Run + Merit) under MOD</b>		2.30	<b>25,878.84</b>
	<b>Plants out of MOD:</b>			
20	KSK MAHANADI	Merit	3.01	
21	URS Power	Merit	3.02	
22	FGUTPS-4	Merit	3.03	
23	LALITPUR	Merit	3.04	
24	FGUTPS-1	Merit	3.12	
25	FGUTPS-2	Merit	3.16	
26	HARDUAGANJ EXT. Stage II	Merit	3.20	
27	BEPL KUNDRAKHI	Merit	3.20	
28	FGUTPS-3	Merit	3.20	
29	TANDA TPS	Merit	3.28	
30	BEPL MAQSOODAPUR	Merit	3.38	
31	BEPL UTRAULA	Merit	3.40	
32	NCTPS-1	Merit	3.42	
33	PARICHHA EXT.	Merit	3.48	
34	BEPL KHAMBHAKHERA	Merit	3.50	
35	BEPL BARKHERA	Merit	3.51	
36	NCTPS-2	Merit	3.55	
37	HARDUAGANJ EXT.	Merit	3.56	
38	PARICHHA EXT. STAGE-II	Merit	3.72	
39	DADRI GPS	Merit	3.81	
40	AURAIYA GPS	Merit	4.98	
41	ANTA GPS	Merit	7.43	

6.5.23. As mentioned in the Business Plan Order, it is again reiterated that that it can be safely inferred that the existing contracts entered into by the Petitioners are adequate for meeting the consolidated connected load and power purchase till 2024-25. Also, the alternative options for purchase of power through exchange during contingency or when the power purchase from exchange is financially viable are there. The Commission in its Order dated 09<sup>th</sup> July, 2019 in Petition No. 1478/2019 has passed directions to the Licensees on power purchase planning as quoted below:

Quote

27. In view of the above, the Commission directs that UPPCL and its Discoms should: -



- a. *Procure/ contract long term renewable power through competitive bidding process to meet their renewable power obligations keeping in view the lead time in setting up different types of renewable power plants. If there is any unmet load demand even after meeting the RPO, it should be met preferable from large Hydro sources, if available.*
- b. *In case the economics justifies and when the battery prices fall below per MW cost of setting up a new TPP with evacuation system. Discoms may consider contracting some capacity from the battery storage- based power plants located near load canters to meet their short duration peak demand.*
- c. *Since sufficient long – term capacity PPAs have already been contracted with coal based TPPs to meet the projected demand till FY2027, no new long term PPA with coal based thermal power plant should be contracted till Dec, 2022 by UPPCL or its Discoms, Commission will review the capacity & energy demand; and its availability status in Dec, 2022 to reassess the need for any new long term PPA with coal based thermal power plant keeping in view 54 months gestation period required.*
- d. *Petitioner will have full liberty to procure short term seasonal peak power from power exchanges or Govt. of India DEEP portal or through bilateral banking arrangement with other States' Discoms.*

Unquote

6.5.24. The power purchase is being done by the Licensees considering the above directions as approval for purchase of power through short term. It is clarified that the above directions are provided from the perspective of taking benefit of low-price prevailing in short term power market (including exchange or bilateral mode). It is pertinent to give clarification that no approval will be required for purchasing power through exchange or to fulfil contingent requirements, however for all other purchases, prior approval of the Commission is required. The Licensees are also required to strictly follow the Central Government Guidelines for Procurement of power for short term (i.e. for a period more than one day to one year) through tariff-based bidding process using National e-bidding portal.

### **BULK SUPPLY TARIFF (BST)**

6.5.25. The PGCIL charges as submitted by the Licensees is Rs. 3311.28 Cr. The Licensees also claimed the WUPPTCL, SUEPPTCL, and Case-I transmission charges of for FY 2021-22 as shown below:



**TABLE 6-28 PROPOSED TRANSMISSION CHARGES FOR FY 2021-22**

Transmission Charges	Claimed
PGCIL Charges	3311.28
WUPPTCL Charges	875.68
SEUPPTCL Charges	277.50
Case-I Transmission Charges	2304.71
<b>Sub-Total</b>	<b>6769.17</b>

6.5.26. The Commission has gone through the submission of the Petitioners and approves the Transmission charges as claimed by the Petitioner for FY 2021-22. The actual inter-State transmission charges for FY 2021-22 would only be allowed as pass through during True-Up, subject to prudence check by the Commission.

6.5.27. The Commission has determined the bulk supply rate by dividing the power purchase cost including PGCIL charges so computed considering the energy input (MU) at transmission-distribution interface. Accordingly, the Commission has approved the bulk power supply tariff for FY 2021-22 as given in the Table below:

**TABLE 6-29: BULK SUPPLY TARIFF FOR STATE OWNED DISCOMS AS APPROVED BY THE COMMISSION FOR FY 2021-22**

Particulars	Derivation	FY 2021-22	
		Claimed	Approved
Purchases Required & Billed Energy (MU) (ex-Bus)	A	1,20,043.11	1,12,324.82
Periphery Loss (Up to inter connection Point) (% computed on Input Energy)	B	1.17%	1.17%
Energy Available at State periphery for Transmission (MU)	$C = A * (1-B)$	118640.19	1,11,012.10
Intra -State Transmission losses %	D	3.33%	3.33%
Energy Input into Transmission-Distribution Interface (MU)	$E = C * (1-D)$	114689.47	1,07,315.40
Power Purchase Cost (Rs. Crore)	F	55251.82	51,197.61
Inter-State transmission charges (Rs. Crore)	G	6769.17	6769.17
PGCIL Charges	G1	3311.28	3311.28
WUPPTCL Charges	G2	875.68	875.68
SEUPPTCL Charges	G3	277.50	277.50
Case-I Transmission Charges	G4	2304.71	2304.71
Total Power Procurement Cost (Rs. Crore)	$H = F + G$	62,020.99	57,966.78
APPC (Rs./Unit)	$I = F/A * 10$	4.60	4.56
APPC (Rs./Unit) (as per CERC i.e. without Renewable)	$J = (F-N)/(A-M) * 10$	4.77	4.73
Bulk Supply Tariff (BST) (Rs./Unit)	$K = (H/E) * 10$	5.41	5.40
BST at State Periphery (Rs./Unit)	$L = ((H-G2-G3)/E) * 10$	5.30	5.29
Power purchase from renewable sources (MU)	M	17613.74	17613.74
Power purchase from renewable sources (Rs. Crs)	N	6415.32	6,415.32



6.5.28. The Commission has considered solar, non-solar (wind, bagasse cogen/captive plant), small hydro plants (Singrauli, Belka, Babail, Sheetla & Dhukwan SHPs) for computation of CERC APPC of Rs. 4.73/unit. Accordingly, BST of Rs. 5.40/unit & APPC of Rs. 4.56/unit is approved for FY 2021-22.

### DIFFERENTIAL BULK SUPPLY TARIFF

6.5.29. The Commission has worked out the power purchase cost for FY 2021-22 based on the approved Differential Bulk Supply Tariff (DBST) methodology as shown in the table below:

**TABLE 6-30: DIFFERENTIAL BULK SUPPLY TARIFF FOR STATE OWNED DISCOMS FOR FY 2021-22**

S. N o.	Particulars	Formulae	DVVNL	PVVNL	PuVVNL	MVVNL	KESCO	Total
1	Revenue from Tariff including subsidy (Rs Cr)	A	14,508.97	22,126.24	18,192.83	14,754.57	2,768.83	72,351.45
2	Energy Sales (MU)	B	19,878.63	29,694.93	23,538.56	18,894.43	3,413.34	95,419.90
<b>3</b>	<b>Power Procurement Cost</b>							
A1	Power Procurement Cost – Allocated and Unallocated PPAs (Rs Cr)							51,197.61
A2	Inter State Transmission Charges (Rs Cr)							6769.17
A1 + A2	Total Power Procurement Cost excluding intra state Transmission Charges (In Rs Cr)	C						57966.78
4	Power Procurement cost of Allocated PPAs (Rs Cr)	D	1895.70	3481.13	2028.51	2028.51	132.80	9,566.64
5	Total Power Required at Discom Periphery (MU)	E	22,417.55	33,381.90	26,555.42	21,240.39	3,720.13	1,07,315.40
6	Power at Discom Periphery from allocated PPAs (MU)	F	3770.53	6865.93	4016.29	4016.29	245.75	18,914.78
7	Other Cost (Intra State Transmission, O&M, Interest, Dep etc.) ( Rs. Cr.)	G	3,331.61	3,300.59	3,692.61	3,148.01	524.31	13,997.12
8	ABR (Rs/ Unit)	$H=(A/B)*10$	7.30	7.45	7.73	7.81	8.11	7.58
9	Other Cost (Rs/Unit of Sale)	$I=G*10/B$	1.68	1.11	1.57	1.67	1.54	1.47
10	Power Purchase Rate							
A	Allocated PPAs per unit of sale (Rs/unit)	$J=D*10/B$	0.95	1.17	0.86	1.07	0.39	1.00
B	Unallocated PPAs per unit of sale	$K=(C\text{-Total PP at}$	5.07					



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S. N o.	Particulars	Formulae	DVVNL	PVVNL	PuVVNL	MVVNL	KESCO	Total
		"D"*10/Total Sale at"B"						
11	Revenue available for unallocated PPAs (Rs./unit of sale)	L=H-I-J	4.67	5.17	5.30	5.07	6.19	5.11
12	Power Purchase Allocation (per unit of sale) "K" in the ratio of available Revenue "L"	M	4.63	5.13	5.26	5.03	6.14	5.07
13	Total Power Purchase cost per unit of sale including allocated PPAs	N=J+M	5.59	6.30	6.12	6.10	6.53	6.07
14	Total Power Purchase Cost (Rs Crs)	O=N*B/10	11,103.63	18,703.77	14,401.15	11,530.48	2,227.75	57,966.78
	<b>DBST (Rs/Unit)</b>							
15	DBST Computation of Allocated PPAs	P	5.03	5.07	5.05	5.05	5.40	5.06
16	DBST Computation of Unallocated PPAs	Q=M*B/(E-F)	4.94	5.74	5.49	5.52	6.03	5.48
17	<b>DBST of total PPAs</b>	<b>R=O*10/E</b>	<b>4.95</b>	<b>5.60</b>	<b>5.42</b>	<b>5.43</b>	<b>5.99</b>	<b>5.40</b>

6.5.30. Based on the DBST above, the allowable power purchase cost for FY 2021-22 approved by the Commission is shown in the table below:

**TABLE 6-31: POWER PURCHASE COST APPROVED BY COMMISSION FOR FY 2021-22**

Particulars	Unit	DVVNL	MVVNL	PVVNL	PuVVNL	KESCO	Consolidated
Allowable Power Purchase (Energy Input into Transmission-Distribution Interface)	MU	22,417.55	21,240.39	33,381.90	26,555.42	3,720.13	1,07,315.40
DBST Rate	Rs/kWh	4.95	5.43	5.60	5.42	5.99	5.40
<b>Allowable Power Purchase Cost</b>	<b>Rs Crore</b>	<b>11,103.63</b>	<b>11,530.48</b>	<b>18,703.77</b>	<b>14,401.15</b>	<b>2,227.75</b>	<b>57,966.78</b>



## MONTHLY APPROPRIATION OF POWER PURCHASE

6.5.31. The State Discoms have submitted the monthly appropriation of power purchase as under

**TABLE 6-32: APPROPRIATION OF POWER PURCHASE FOR FY 2021-22 CLAIMED BY LICENSEES**

Months	Sales*	Power Purchase (Over-All)						Power Purchase (Covered under IC Mechanism)	
		Type	MUs	FC	VC	Others	Total	MUs	VC
				(Rs. Cr)	(Rs. Cr)	(Rs. Cr)	(Rs. Cr)		(Rs. Cr)
April	7,447.46	Long Term	7,904.08	2,166.85	1,699.80	0	3,866.65	6,674.96	1,427.79
		Medium Term	0	0	0	0	0		
		Short Term	0	0	0	0	0		
		RE-Solar (A)	422.1	0	169.21	0	169.21		
		RE-Non-Solar (B)	1,012.18	0.02	354.67	0	354.69		
		RE (A+B)	1,434.28	0.02	523.87	0	523.89	0	0
		<b>Total</b>	<b>9,338.35</b>	<b>2,166.87</b>	<b>2,223.67</b>	<b>0</b>	<b>4,390.54</b>	<b>6,674.96</b>	<b>1,427.79</b>
May	9,545.91	Long Term	10,500.65	2,216.74	2,433.40	0	4,650.13	8,529.23	2,021.80
		Medium Term	0	0	0	0	0		
		Short Term	0	0	0	0	0		
		RE-Solar (A)	436.17	0	174.85	0	174.85		
		RE-Non-Solar (B)	1,048.49	0.02	367.72	0	367.74		
		RE (A+B)	1,484.65	0.02	542.57	0	542.59	0	0
		<b>Total</b>	<b>11,985.31</b>	<b>2,216.76</b>	<b>2,975.96</b>	<b>0</b>	<b>5,192.72</b>	<b>8,529.23</b>	<b>2,021.80</b>
June	9,869.81	Long Term	10,970.63	2,216.74	2,522.03	0	4,738.77	8,527.68	2,012.99
		Medium Term	0	0	0	0	0		
		Short Term	0	0	0	0	0		
		RE-Solar (A)	422.1	0	169.21	0	169.21		
		RE-Non-Solar (B)	1,015.08	0.02	356.16	0	356.19		
		RE (A+B)	1,437.18	0.02	525.37	0	525.39	0	0
		<b>Total</b>	<b>12,407.81</b>	<b>2,216.76</b>	<b>3,047.40</b>	<b>0</b>	<b>5,264.16</b>	<b>8,527.68</b>	<b>2,012.99</b>
July	9,390.31	Long Term	10,335.88	2,216.74	2,277.16	0	4,493.90	7,539.14	1,689.32
		Medium Term	0	0	0	0	0		
		Short Term	0	0	0	0	0		
		RE-Solar (A)	436.17	0	174.85	0	174.85		



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Months	Sales*	Power Purchase (Over-All)						Power Purchase (Covered under IC Mechanism)	
		Type	MUs	FC (Rs. Cr)	VC (Rs. Cr)	Others (Rs. Cr)	Total (Rs. Cr)	MUs	VC (Rs. Cr)
		RE-Non-Solar (B)	1,050.30	0.02	368.75	0	368.77		
		RE (A+B)	1,486.46	0.02	543.59	0	543.61	0	0
		<b>Total</b>	<b>11,822.34</b>	<b>2,216.76</b>	<b>2,820.75</b>	<b>0</b>	<b>5,037.51</b>	<b>7,539.14</b>	<b>1,689.32</b>
August	8,878.31	Long Term	9,691.09	2,216.74	2,077.19	0	4,293.93	6,839.04	1,474.32
		Medium Term	0	0	0	0	0		
		Short Term	0	0	0	0	0		
		RE-Solar (A)	436.17	0	174.85	0	174.85		
		RE-Non-Solar (B)	1,048.61	0.02	367.9	0	367.92		
		RE (A+B)	1,484.78	0.02	542.75	0	542.77	0	0
		<b>Total</b>	<b>11,175.87</b>	<b>2,216.76</b>	<b>2,619.93</b>	<b>0</b>	<b>4,836.69</b>	<b>6,839.04</b>	<b>1,474.32</b>
September	8,349.48	Long Term	9,036.69	2,216.74	1,973.99	0	4,190.73	6,830.30	1,508.65
		Medium Term	0	0	0	0	0		
		Short Term	0	0	0	0	0		
		RE-Solar (A)	449.25	0	177.35	0	177.35		
		RE-Non-Solar (B)	1,010.96	0.02	354.11	0	354.13		
		RE (A+B)	1,460.21	0.02	531.46	0	531.48	0	0
		<b>Total</b>	<b>10,496.90</b>	<b>2,216.76</b>	<b>2,505.45</b>	<b>0</b>	<b>4,722.21</b>	<b>6,830.30</b>	<b>1,508.65</b>
October	8,271.13	Long Term	8,877.14	2,216.74	1,950.70	0	4,167.44	7,384.05	1,628.07
		Medium Term	0	0	0	0	0		
		Short Term	0	0	0	0	0		
		RE-Solar (A)	464.23	0	183.26	0	183.26		
		RE-Non-Solar (B)	1,039.43	0.02	363.5	0	363.52		
		RE (A+B)	1,503.66	0.02	546.76	0	546.78	0	0
		<b>Total</b>	<b>10,380.80</b>	<b>2,216.76</b>	<b>2,497.46</b>	<b>0</b>	<b>4,714.22</b>	<b>7,384.05</b>	<b>1,628.07</b>
November	6,887.48	Long Term	7,184.52	2,222.71	1,497.37	0	3,720.09	6,244.60	1,294.39
		Medium Term	0	0	0	0	0		
		Short Term	0	0	0	0	0		
		RE-Solar (A)	449.25	0	177.35	0	177.35		
		RE-Non-Solar (B)	1,003.70	0.02	350.64	0	350.67		
		RE (A+B)	1,452.95	0.02	528	0	528.02	0	0
		<b>Total</b>	<b>8,637.47</b>	<b>2,222.74</b>	<b>2,025.37</b>	<b>0</b>	<b>4,248.11</b>	<b>6,244.60</b>	<b>1,294.39</b>



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Months	Sales*	Power Purchase (Over-All)						Power Purchase (Covered under IC Mechanism)	
		Type	MUs	FC (Rs. Cr)	VC (Rs. Cr)	Others (Rs. Cr)	Total (Rs. Cr)	MUs	VC (Rs. Cr)
December	6,909.32	Long Term	7,163.95	2,222.71	1,516.86	0	3,739.57	6,317.99	1,324.61
		Medium Term	0	0	0	0	0		
		Short Term	0	0	0	0	0		
		RE-Solar (A)	450.56	0	176.85	0	176.85		
		RE-Non-Solar (B)	1,044.01	0.02	364.28	0	364.3		
		RE (A+B)	1,494.57	0.02	541.13	0	541.15	0	0
		<b>Total</b>	<b>8,658.52</b>	<b>2,222.74</b>	<b>2,057.99</b>	<b>0</b>	<b>4,280.72</b>	<b>6,317.99</b>	<b>1,324.61</b>
January	7,114.49	Long Term	7,403.94	2,222.71	1,561.53	0	3,784.24	6,544.20	1,370.81
		Medium Term	0	0	0	0	0		
		Short Term	0	0	0	0	0		
		RE-Solar (A)	464.23	0	183.26	0	183.26		
		RE-Non-Solar (B)	1,044.93	0.02	364.62	0	364.64		
		RE (A+B)	1,509.16	0.02	547.88	0	547.9	0	0
		<b>Total</b>	<b>8,913.09</b>	<b>2,222.74</b>	<b>2,109.41</b>	<b>0</b>	<b>4,332.14</b>	<b>6,544.20</b>	<b>1,370.81</b>
February	5,945.73	Long Term	6,086.82	2,222.71	1,214.50	0	3,437.21	5,276.93	1,038.34
		Medium Term	0	0	0	0	0		
		Short Term	0	0	0	0	0		
		RE-Solar (A)	419.3	0	165.53	0	165.53		
		RE-Non-Solar (B)	947.13	0.02	330.65	0	330.67		
		RE (A+B)	1,366.43	0.02	496.18	0	496.2	0	0
		<b>Total</b>	<b>7,453.25</b>	<b>2,222.74</b>	<b>1,710.68</b>	<b>0</b>	<b>3,933.41</b>	<b>5,276.93</b>	<b>1,038.34</b>
March	6,998.92	Long Term	7,260.97	2,222.71	1,527.05	0	3,749.76	6,266.81	1,302.54
		Medium Term	0	0	0	0	0		
		Short Term	0	0	0	0	0		
		RE-Solar (A)	464.23	0	183.26	0	183.26		
		RE-Non-Solar (B)	1,048.19	0.02	366.33	0	366.35		
		RE (A+B)	1,512.42	0.02	549.59	0	549.61	0	0
		<b>Total</b>	<b>8,773.39</b>	<b>2,222.74</b>	<b>2,076.64</b>	<b>0</b>	<b>4,299.37</b>	<b>6,266.81</b>	<b>1,302.54</b>
	<b>95,608.34</b>	<b>Grand Total</b>	<b>1,20,043.11</b>	<b>26,581.11</b>	<b>28,670.72</b>	<b>0</b>	<b>55,251.83</b>	<b>82,974.92</b>	<b>18,093.63</b>



6.5.32. The same has been recomputed by the Commission for FY 2021-22 as under:

**TABLE 6-33: APPROPRIATION OF APPROVED POWER PURCHASE FOR FY 2021-22**

Months	Sales*	Power Purchase (Over-All)						Power Purchase (Covered under IC Mechanism)	
		Type	MUs	FC (Rs. Cr)	VC (Rs. Cr)	Others (Rs. Cr)	Total (Rs. Cr)	MUs	VC (Rs. Cr)
April	7,432.78	Long Term	7,395.88	2,063.95	1,534.28		3,598.22	6,245.79	1,288.76
		Medium Term	0	0	0				
		Short Term	0	0	0				
		RE-Solar (A)	394.96	0.00	152.73				
		RE-Non-Solar (B)	947.10	0.02	320.13		320.15		
		RE (A+B)	1,342.06	0.02	472.87		472.89	0	0
		<b>Total</b>	<b>8,737.93</b>	<b>2,063.97</b>	<b>2,007.14</b>		4,071.10	6,245.79	1,288.76
May	9,527.10	Long Term	9,825.50	2,111.47	2,196.44		4,307.91	7,980.83	1,824.92
		Medium Term	0	0	0				
		Short Term	0	0	0				
		RE-Solar (A)	408.13	0.00	157.82				
		RE-Non-Solar (B)	981.08	0.02	331.91		331.93		
		RE (A+B)	1,389.20	0.02	489.74		489.76	0	0
		<b>Total</b>	<b>11,214.70</b>	<b>2,111.49</b>	<b>2,686.17</b>		4,797.66	7,980.83	1,824.92
June	9,850.36	Long Term	10,265.26	2,111.47	2,276.44		4,387.91	7,979.38	1,816.97
		Medium Term	0	0	0				
		Short Term	0	0	0				
		RE-Solar (A)	394.96	0.00	152.73				
		RE-Non-Solar (B)	949.81	0.02	321.48		321.50		
		RE (A+B)	1,344.78	0.02	474.21		474.23	0	0
		<b>Total</b>	<b>11,610.04</b>	<b>2,111.49</b>	<b>2,750.65</b>		4,862.14	7,979.38	1,816.97
July	9,371.80	Long Term	9,671.32	2,111.47	2,055.42		4,166.88	7,054.40	1,524.82



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Months	Sales*	Power Purchase (Over-All)						Power Purchase (Covered under IC Mechanism)	
		Type	MUs	FC (Rs. Cr)	VC (Rs. Cr)	Others (Rs. Cr)	Total (Rs. Cr)	MUs	VC (Rs. Cr)
		Medium Term	0	0	0				
		Short Term	0	0	0				
		RE-Solar (A)	408.13	0.00	157.82				
		RE-Non-Solar (B)	982.77	0.02	332.84		332.86		
		RE (A+B)	1,390.90	0.02	490.67		490.68	0	0
		<b>Total</b>	<b>11,062.21</b>	<b>2,111.49</b>	<b>2,546.07</b>		4,657.56	7,054.40	1,524.82
August	8,860.81	Long Term	9,067.99	2,111.47	1,874.92		3,986.39	6,399.32	1,330.75
		Medium Term	0	0	0				
		Short Term	0	0	0				
		RE-Solar (A)	408.13	0.00	157.82				
		RE-Non-Solar (B)	981.19	0.02	332.07		332.09		
		RE (A+B)	1,389.31	0.02	489.90		489.92	0	0
<b>Total</b>	<b>10,457.31</b>	<b>2,111.49</b>	<b>2,364.81</b>		4,476.29	6,399.32	1,330.75		
September	8,333.02	Long Term	8,455.67	2,111.47	1,781.77		3,893.24	6,391.14	1,361.74
		Medium Term	0	0	0				
		Short Term	0	0	0				
		RE-Solar (A)	420.37	0.00	160.08				
		RE-Non-Solar (B)	945.96	0.02	319.63		319.65		
		RE (A+B)	1,366.32	0.02	479.71		479.73	0	0
<b>Total</b>	<b>9,821.99</b>	<b>2,111.49</b>	<b>2,261.48</b>		4,372.96	6,391.14	1,361.74		
October	8,254.83	Long Term	8,306.38	2,111.47	1,760.75		3,872.21	6,909.29	1,469.53
		Medium Term	0	0	0				
		Short Term	0	0	0				
		RE-Solar (A)	434.38	0.00	165.41				
		RE-Non-Solar (B)	972.60	0.02	328.10		328.12		



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Months	Sales*	Power Purchase (Over-All)						Power Purchase (Covered under IC Mechanism)	
		Type	MUs	FC (Rs. Cr)	VC (Rs. Cr)	Others (Rs. Cr)	Total (Rs. Cr)	MUs	VC (Rs. Cr)
		RE (A+B)	1,406.98	0.02	493.52		493.54	0	0
		<b>Total</b>	<b>9,713.36</b>	<b>2,111.49</b>	<b>2,254.26</b>		4,365.75	6,909.29	1,469.53
November	6,873.90	Long Term	6,722.58	2,117.15	1,351.56		3,468.71	5,843.10	1,168.35
		Medium Term	0	0	0				
		Short Term	0	0	0				
		RE-Solar (A)	420.37	0.00	160.08				
		RE-Non-Solar (B)	939.17	0.02	316.50		316.51		
		RE (A+B)	1,359.53	0.02	476.58		476.59	0	0
		<b>Total</b>	<b>8,082.12</b>	<b>2,117.18</b>	<b>1,828.15</b>		3,945.33	5,843.10	1,168.35
December	6,895.70	Long Term	6,703.34	2,117.15	1,369.15		3,486.31	5,911.77	1,195.62
		Medium Term	0	0	0				
		Short Term	0	0	0				
		RE-Solar (A)	421.59	0.00	159.63				
		RE-Non-Solar (B)	976.88	0.02	328.81		328.83		
		RE (A+B)	1,398.48	0.02	488.44		488.46	0	0
		<b>Total</b>	<b>8,101.81</b>	<b>2,117.18</b>	<b>1,857.59</b>		3,974.77	5,911.77	1,195.62
January	7,100.47	Long Term	6,927.90	2,117.15	1,409.47		3,526.63	6,123.43	1,237.32
		Medium Term	0	0	0				
		Short Term	0	0	0				
		RE-Solar (A)	434.38	0.00	165.41				
		RE-Non-Solar (B)	977.75	0.02	329.11		329.13		
		RE (A+B)	1,412.13	0.02	494.53		494.55	0	0
		<b>Total</b>	<b>8,340.01</b>	<b>2,117.18</b>	<b>1,904.00</b>		4,021.18	6,123.43	1,237.32
February	5,934.01	Long Term	5,695.46	2,117.15	1,096.24		3,213.39	4,937.64	937.23
		Medium Term	0	0	0				



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Months	Sales*	Power Purchase (Over-All)						Power Purchase (Covered under IC Mechanism)	
		Type	MUs	FC (Rs. Cr)	VC (Rs. Cr)	Others (Rs. Cr)	Total (Rs. Cr)	MUs	VC (Rs. Cr)
		Short Term	0	0	0				
		RE-Solar (A)	392.34	0.00	149.41				
		RE-Non-Solar (B)	886.23	0.02	298.45		298.47		
		RE (A+B)	1,278.57	0.02	447.86		447.88	0	0
		<b>Total</b>	<b>6,974.04</b>	<b>2,117.18</b>	<b>1,544.10</b>		3,661.28	4,937.64	937.23
March	6,985.13	Long Term	6,794.12	2,117.15	1,378.35		3,495.50	5,863.88	1,175.70
		Medium Term	0	0	0				
		Short Term	0	0	0				
		RE-Solar (A)	434.38	0.00	165.41				
		RE-Non-Solar (B)	980.80	0.02	330.66		330.68		
		RE (A+B)	1,415.18	0.02	496.07		496.09	0	0
		<b>Total</b>	<b>8,209.30</b>	<b>2,117.18</b>	<b>1,874.42</b>		3,991.60	5,863.88	1,175.70
	<b>95,419.90</b>	<b>Grand Total</b>	<b>1,12,324.82</b>	<b>25,318.77</b>	<b>25,878.84</b>		<b>51,197.61</b>	<b>77,639.96</b>	<b>16,331.72</b>

## 6.6. INTRA STATE TRANSMISSION CHARGES

6.6.1. The State Owned Discoms have submitted the proposed intra State transmission charges that have been computed at the intra-State transmission rate approved by the Commission in the Tariff Order for FY 2020-21 dated November 11, 2020 which is shown in the Tables below:

**TABLE 6-34: TRANSMISSION CHARGES AS SUBMITTED BY STATE DISCOMS FOR FY 2021-22**

Particulars	DVVNL	MVVNL	PVVNL	PuVVNL	KESCO	Consolidated
Units Wheeled	25,115.24	22,791.83	34,349.26	28,705.56	3,727.58	1,14,689.47
Transmission Rate (Approved in the Tariff Order for FY 2020-21 dated 11.11.2020)	0.238	0.238	0.238	0.238	0.238	0.238
Transmission Charges	<b>597.74</b>	<b>542.45</b>	<b>817.51</b>	<b>683.19</b>	<b>88.72</b>	<b>2729.61</b>



6.6.2. The Commission has approved the Intra State transmission charges based on the energy delivered as approved in the Energy balance above. Further, the intra-State transmission rate approved by the Commission in the Tariff Order of UPPTCL for FY 2021-22 has been considered for computation, which is shown in the Tables below:

**TABLE 6-35: TRANSMISSION CHARGES AS APPROVED BY THE COMMISSION FOR FY 2021-22**

Particulars	DVVNL	MVVNL	PVVNL	PuVVNL	KESCO	Consolidated
Units delivered to Discoms (MU)	22,417.55	21,240.39	33,381.90	26,555.42	3,720.13	107315.40
Transmission Rate (Approved in the UPPTCL Tariff Order for FY 2021-22) (Rs./kWh)	0.242	0.242	0.242	0.242	0.242	0.242
<b>Transmission Charges (Rs. Crore)</b>	<b>542.78</b>	<b>514.28</b>	<b>808.25</b>	<b>642.97</b>	<b>90.07</b>	<b>2598.35</b>

## 6.7. O&M EXPENSES

6.7.1. The Operation & Maintenance (O&M) Expenses comprises of Employee Expenses, Repair & Maintenance (R&M) Expenses and Administrative and General (A&G) Expenses. Regulation 45 of UPERC (Multi Year Tariff for Distribution & Transmission) Regulations, 2019, stipulates the detailed methodology for determination of Operation & Maintenance (O&M) Expenses for the Control Period from FY 2020-21 to FY 2024-25. The detailed methodology as stated in Regulation 45 is reproduced as under:

### Quote

*“45 Operation and Maintenance Expenses*

*a) The Operation and Maintenance expenses for the Distribution Business shall be computed as stipulated in with these Regulations.*

*b) The Operation and Maintenance expenses shall be derived on the basis of the average of the Trued-Up values (without efficiency gain / loss) for the last five (5) financial years ending March 31, 2019 subject to prudence check by the Commission. However, if Trued-Up values (without efficiency gain / loss) are not available for FY 2018-19, then last five (5) available Trued-Up values (without efficiency gain / loss) will be considered and subsequently when the same are available the base year value (i.e. FY 2019-20) will be recomputed*

*c) The average of such operation and maintenance expenses shall be considered as Operation and Maintenance expenses for the middle year and shall be escalated*



year on year with the escalation factor considering CPI and WPI of respective years in the ratio of 60:40, for subsequent years up to FY 2019-20.

d) The One-time expenses such as expense due to change in accounting policy, arrears paid due to Pay Commissions, etc., and the expenses beyond the control of the Distribution Licensee such as dearness allowance, terminal benefits, etc., in Employee cost, shall be allowed by the Commission over and above normative Operation & Maintenance Expenses after prudence check.

(e) At the time of Truing-up of the O&M expenses, the actual point to point inflation over Wholesale Price Index numbers as per Office of Economic Advisor of Government of India and the actual Consumer Price Index for Industrial Workers (all India) as per Labour Bureau, Government of India, in the concerned year shall be considered.

#### 45.1 Employee Cost

Employee cost shall be computed as per the following formula escalated by consumer price index (CPI), adjusted by provisions for expenses beyond the control of the Licensee and one-time expected expenses, such as recovery / adjustment of terminal benefits, implications of Pay Commission, arrears, Interim Relief, etc.:

$$EMP_n = EMP_{n-1} \times (1 + \text{CPI inflation})$$

Where:

$EMP_n$ : Employee expense for the  $n$ th year;

$EMP_{n-1}$ : Employee expense for the  $(n-1)$ th year;

CPI inflation is the average of Consumer Price Index (CPI) for immediately preceding three Financial Years.

#### 45.2 Repairs and Maintenance Expense

Repairs and Maintenance expense shall be calculated by following formula:

$$R\&M_n = R\&M_{n-1} (1 + \text{WPI inflation})$$

Where:

$R\&M_n$ : Repairs & Maintenance expense for the  $n$ th year;

$R\&M_{n-1}$ : Repairs & Maintenance expense for the  $(n-1)$ th year;

WPI inflation is the average of Wholesale Price Index (WPI) for immediately preceding three Financial Years.



### 45.3 Administrative and General Expense

A&G expense shall be computed as per the following formula escalated by wholesale price index (WPI) and adjusted by provisions for confirmed initiatives (IT etc. initiatives as proposed by the Distribution Licensee and validated by the Commission) or other expected one-time expenses:

$$A\&G_n = A\&G_{n-1} (1 + \text{WPI inflation})$$

Where:

A&G<sub>n</sub>: A&G expense for the nth year;

A&G<sub>n-1</sub>: A&G expense for the (n-1)th year;

WPI inflation is the average of Wholesale Price Index (WPI) for immediately preceding three Financial Years:

Provided that Interest and Finance charges such as Credit Rating charges, collection facilitation charges, financing cost of Delayed Payment Surcharge and other finance charges shall be a part of A&G expenses.

Illustration: For FY 2020-21, (n-1) th year will be FY 2019-20 which is also the base year.

Unquote

6.7.2. The Petitioners submitted that the Commission has disallowed the O&M expenses claimed by Petitioner in FY 2020-21 owing to the following: -

(a) The Commission arrived at the mid-year (FY 2016-17) value of each component of O&M expenses based on the average of last 5 trued-up values of FY 2014-15 to FY 2018-19. The mid-year value of each component of O&M expenses has been escalated year on year with the escalation factor considering Consumer Price Index (CPI) and Whole-sale Price Index (WPI) of respective years in the ratio 60:40, for subsequent years upto FY 2019-20.

(b) Accordingly, the Commission computed the O&M expenses of the base year which shall be escalated at Inflation/Escalation rate notified by Labour Bureau, Govt. of India ([http://labourbureau.gov.in/LBO\\_indexes.htm](http://labourbureau.gov.in/LBO_indexes.htm)) and Economic Advisor Govt. of India (<https://eaindustry.nic.in/>) respectively for different years. Accordingly, the Commission has computed the average WPI and CPI inflation of the last 3 years (average) at 2.96% and 5.35%, respectively.

(c) In terms of this methodology: -



(i) Employee Expenses for FY 2020-21 have been computed by escalating the base year (FY 2019-20) employee expenses by average CPI inflation of last 3 years.

(ii) The A&G Expenses (including Finance Charges) and R&M Expenses for FY 2020-21 have been computed by escalating the base year (FY 2019-20) by average WPI inflation of last 3 years.

(iii) Employee Expense capitalization has been computed by considering the average of last three years or claimed, whichever is higher.

6.7.3. The Petitioners have submitted that O&M expenses comprise of employee related costs, A&G expenses and R&M expenditure. Further, they intend to recover their legitimate actual O&M Expenses and do not intend to get any additional benefit out of the same. The Petitioners submitted that the total O&M expenses allowed by the Commission for ARR and tariff of FY 2020-21 is even lower than the net O&M expenses approved by the Commission while truing-up of tariff for FY 2018-19. Hence, the O&M expenses being allowed by the Commission are insufficient to cover the actual cost/impact of O&M expenses likely to be incurred by the Petitioners and the methodology adopted by the Commission will lead considerable loss to the Petitioner whose financial condition is already precarious and stressed.

6.7.4. The Petitioners further submitted that O&M expenses are computed on normative basis in terms of the norms prescribed under the Tariff Regulations. The methodology prescribed by the Commission for computation of normative O&M expenses is significantly different in MYT Regulations, 2019 as compared to the methodology provided under the erstwhile regime i.e., MYT Regulations, 2014. In the erstwhile UPERC MYT (Distribution & Transmission) Regulations, 2014, the O&M Expenses computation is based on the trajectory of norms derived on average five years audited figures. Whereas the draft MYT Regulations, 2019 issued by the Commission also had similar provisions for computation of O&M expenses. However, subsequently the Commission, while finalising the UPERC MYT (Distribution & Transmission) Regulations, 2019 has completely changed the methodology and shifted to a new approach of escalation factor considering CPI and WPI based on the average of last 5 years True Up values (without efficiency gain / loss), without giving any opportunity to the State Discoms to give its suggestions on the same. This new approach adopted by the Hon'ble Commission will result in substantial losses to the Petitioners as it is likely that the Petitioners will not be able to meet its regular expenses including employee costs, R&M and A&G expenses.



- 6.7.5. Further, the Petitioners submitted that owing to the implementation of the Government's Saubhagya Scheme in the last three financial years (i.e., FY 2017-18 onwards), the Petitioner has added a significant consumer base leading to an increase in load, extension of LT Network and backbone distribution infrastructure. Accordingly, due to the resultant significant increase in the O&M expenses, it is submitted that it was a fit case for the Commission to exercise its powers and consider the average of last three financial years in the computation of O&M expenses as this would represent the right base and trend for applying in the next Control Period instead of considering a five years' average.
- 6.7.6. In view of the above circumstances, the Petitioners have submitted that in the present case the Commission under its inherent powers ought to grant the necessary relief even if the Regulations does not provide for relaxing the norms under the Regulations. It is settled that ERCs have wide regulatory powers conferred on them by the Electricity Act to be suitably exercised depending upon the facts and circumstances of each case and especially when the Regulations and/or guidelines are silent. Further, the Petitioners submitted that existence of an enabling provision in the Regulation is not a pre-requisite for the Commission to exercise its powers to grant the relief sought by the Petitioner.
- 6.7.7. Further, the Petitioner submitted that the Commission is specialised body having specific jurisdiction under Section 86 of the Electricity Act and with ancillary powers to give effect to the legislative intent behind the Electricity Act. In view of the above, the Petitioner submitted that the Commission may consider to have granted the relief sought by the Petitioner and allow O&M expenses based on the average trued-up values of the last three financial years failing which it is likely that the Petitioner will not be able to meet its basic expenses for continuing supply of power, employee expenses, R&M and A&G expenses.
- 6.7.8. Further, the Petitioners submitted that the Commission has not addressed the Discoms submissions in its Tariff Order for FY 2020-21 dated 11 November 2020 and completely ignored the pleadings in this regard. The Petitioner once again requests the Commission to exercise its authority under 'powers to remove difficulties' under clause 56 of UPERC (Multi Year Tariff for Distribution and Transmission) Regulations, 2019 to consider the approach suggested by the Petitioner.
- 6.7.9. The Petitioners requested the Commission to allow the O&M Expenses by considering the actual audited O&M Expenses for FY 2018-19 (separately for Employee Expenses, R&M Expenses and A&G Expenses) as base and escalating



these expenses with applicable CPI escalation factors (Employee Expenses) and WPI escalation factors (R&M Expenses and A&G Expenses) for FY 2019-20, FY 2020-21 and FY 2020-21. Further, the Petitioners submitted that the R&M Expenses are significantly impacted by increase in Gross Fixed Asset base, and presently it is proposed based on escalating the audited figures of FY 2018-19 and thus only takes into consideration the existing fixed asset base. Therefore, at the time of true-up, the Commission should also consider the increased fixed asset base. Accordingly, the computation of O&M expenses based on the proposed methodology is shown in subsequent sections.

6.7.10. The Petitioners submitted that the inflation index as approved by the Commission in its Tariff Order for FY 2020-21 dated 11 November 2020 has been considered. Further, the Petitioners submitted that the Employee Expenses for FY 2020-21 derived in APR chapter is escalated by CPI escalation factors to arrive at the projected Employee Expenses for FY 2021-22. Similarly, R&M Expenses and A&G Expenses for FY 2020-21 derived in APR chapter escalated by WPI escalation factors to arrive at the projected R&M Expenses and A&G Expenses for FY 2021-22. Accordingly, the component wise O&M Expenses projected for FY 2021-22 is summarised as under:

#### EMPLOYEE EXPENSE

6.7.11. The Petitioner submitted that it has projected the Employee Expenses based on the above said methodology. The capitalisation figure has been considered as same as per audited figure for FY 2019-20.

**TABLE 6-36: EMPLOYEE EXPENSE AS SUBMITTED BY DVVNL FOR FY 2021-22 (RS. CRORE)**

S. No	Particular	Projected
1	Gross Employee Expenses after escalation	489.13
2	Less: Employee Expenses capitalized	220.38
<b>3</b>	<b>Net Employee Expenses</b>	<b>268.75</b>

**TABLE 6-37: EMPLOYEE EXPENSE AS SUBMITTED BY MVVNL FOR FY 2021-22 (RS. CRORE)**

S. No	Particular	Projected
1	Gross Employee Expenses	728.84
2	Less: Employee Expenses capitalized	433.04
<b>3</b>	<b>Net Employee Expenses</b>	<b>295.80</b>



**TABLE 6-38: EMPLOYEE EXPENSE AS SUBMITTED BY PVVNL FOR FY 2021-22 (RS. CRORE)**

S. No	Particulars	Projected
1	Gross Employee Expenses	660.12
2	Employee Expenses Capitalised	158.26
3	<b>Net Employee Expenses</b>	<b>501.86</b>

**TABLE 6-39: EMPLOYEE EXPENSE AS SUBMITTED BY PUVVNL FOR FY 2021-22 (RS. CRORE)**

S. No	Particular	Projected
1	Gross Employee Expenses	729.77
2	Less: Employee Expenses capitalized	460.33
3	<b>Net Employee Expenses</b>	<b>269.44</b>

**TABLE 6-40: EMPLOYEE EXPENSE AS SUBMITTED BY KESCO FOR FY 2021-22 (RS. CRORE)**

S. No.	Particular	Projected
1	Gross Employee Expenses	149.96
2	Less: Employee Expenses capitalized	11.83
3	<b>Net Employee Expenses</b>	<b>138.13</b>

**TABLE 6-41: CONSOLIDATED EMPLOYEE EXPENSE AS SUBMITTED BY THE STATE DISCOMS FOR FY 2021-22 (RS. CRORE)**

S. No.	Particular	Projected
1	Gross Employee Expenses	2757.82
2	Less: Employee Expenses capitalized	1283.85
3	<b>Net Employee Expenses</b>	<b>1473.97</b>

#### ADMINISTRATIVE & GENERAL EXPENSES

6.7.12. The State Discoms submitted that it has projected their A&G Expenses for FY 2021-22 as shown in table below:

**OTABLE 6-42: A&G EXPENSES AS SUBMITTED BY DVVNL FOR FY 2021-22 (RS. CRORE)**

S. No.	Particulars	Projected
1	Gross A&G Expenses after escalation	354.74
2	Less: A&G expenses capitalized	0
3	<b>Net A&amp;G expenses</b>	<b>354.74</b>



**TABLE 6-43: A&G EXPENSES AS SUBMITTED BY MVVNL FOR FY 2021-22 (RS. CRORE)**

S. No.	Particulars	Projected
1	Gross A&G Expenses	443.58
2	Less: A&G expenses capitalized	0.00
<b>3</b>	<b>Net A&amp;G expenses</b>	<b>443.58</b>

**TABLE 6-44: A&G EXPENSES AS SUBMITTED BY PVVNL FOR FY 2021-22**

Sr. No.	Particulars	Projected
1	Gross A&G Expenses	517.91
2	Less: A&G expenses capitalized	0
<b>3</b>	<b>Net A&amp;G expenses</b>	<b>517.91</b>

**TABLE 6-45: A&G EXPENSES AS SUBMITTED BY PUVVNL FOR FY 2021-22 (RS. CRORE)**

Sr. No.	Particulars	Projected
1	Gross A&G Expenses	348.32
2	Less: A&G expenses capitalized	0
<b>3</b>	<b>Net A&amp;G expenses</b>	<b>348.32</b>

**TABLE 6-46: A&G EXPENSES AS SUBMITTED BY KESCO FOR FY 2021-22 (RS. CRORE)**

Sr. No.	Particulars	Projected
1	Gross A&G Expenses	98.85
2	Less: A&G expenses capitalized	0
<b>3</b>	<b>Net A&amp;G expenses</b>	<b>98.85</b>

**TABLE 6-47: CONSOLIDATED A&G EXPENSES AS SUBMITTED BY THE STATE DISCOMS FOR FY 2021-22 (RS. CRORE)**

Sr. No.	Particulars	Projected
1	Gross A&G Expenses	1763.41
2	Less: A&G expenses capitalized	0
<b>3</b>	<b>Net A&amp;G expenses</b>	<b>1763.41</b>



## REPAIR AND MAINTENANCE EXPENSES

6.7.13. The State Discoms submitted that it has projected their R&M Expenses for FY 2021-22 as shown in table below:

**TABLE 6-48: R&M EXPENSES AS SUBMITTED BY DVVNL FOR FY 2021-22 (RS. CRORE)**

S. No.	Particulars	Projected
1	Repair & Maintenance (R&M)	1078.94

**TABLE 6-49: R&M EXPENSES AS SUBMITTED BY MVVNL FOR FY 2021-22 (RS. CRORE)**

S. No.	Particulars	Projected
1	Repair & Maintenance (R&M)	1055.66

**TABLE 6-50: R&M EXPENSES AS SUBMITTED BY PVVNL FOR FY 2021-22 (RS. CRORE)**

S. No.	Particulars	Projected
1	Repair & Maintenance (R&M)	1133.81

**TABLE 6-51: R&M EXPENSES AS SUBMITTED BY PUVVNL FOR FY 2021-22 (RS. CRORE)**

S. No.	Particulars	Projected
1	Repair & Maintenance (R&M)	1717.03

**TABLE 6-52: R&M EXPENSES AS SUBMITTED BY KESCO FOR FY 2021-22 (RS. CRORE)**

S. No.	Particulars	Projected
1	Repair & Maintenance (R&M)	173.38

**TABLE 6-53: CONSOLIDATED R&M EXPENSES AS SUBMITTED BY THE STATE DISCOMS FOR FY 2021-22 (RS. CRORE)**

S. No.	Particulars	Projected
1	Repair & Maintenance (R&M)	5158.82



### **Additional O&M for Smart metering OPEX**

6.7.14. The Petitioners have submitted that the Commission disallowed the OPEX cost incurred by Petitioners on account of implementation of Smart Meter Rollout scheme holding that: -

(a) Smart Meter Rollout scheme is a self-sustaining model since the billing and collection efficiency of Discoms will increase thereby reducing the commercial losses and overall O&M cost of the Discoms.

(b) MYT Distribution and Transmission Regulations, 2014 provide for O&M expenses on normative basis, hence the same cannot be allowed as additional O&M expense.

6.7.15. The Petitioners submitted that they have been mandated to implement the Smart Meter Rollout Scheme pursuant to statutory mandate and directions of the Commission. In this regard, the Petitioner submitted that the following is noteworthy: -

(a) In terms of Clause 8.4(3) of Tariff Policy 2016, Smart Meters had to be provided to consumers with monthly consumption of 500 units and more by 31.12.2017 and consumers with monthly consumption above 200 units by 31.12.2019: -

*“8.4 Definition of tariff components and their applicability*

*....*

*3. The Appropriate Commission may provide incentives to encourage metering and billing based on metered tariffs, particularly for consumer categories that are presently unmetered to a large extent. The metered tariffs and the incentives should be given wide publicity. Smart meters have the advantages of remote metering and billing, implementation of peak and off-peak tariff and demand side management through demand response. These would become essential in future for load generation balancing due to increasing penetration of intermittent type of generation like wind and solar power.*

*Appropriate Commission shall, therefore, mandate smart meters for:*

*(a) Consumers with monthly consumption of 500 units and more at the earliest but not later than 31.12.2017;*

*(b) Consumers with monthly consumption above 200 units by 31.12.2019.*

*Further, two-way smart meters shall be provided to all prosumers, who also sell back electricity to the grid as and when they require.”*



(b) On 08.09.2016 Ministry of Power referring to clause 8.4(3) of the Tariff Policy 2016 wrote to Forum of Regulators (FOR) qua the strategy for roll out of advance metering infrastructure in the States.

(c) Pursuant to the above, Central Electricity Authority (CEA) intimated the Power Secretaries of all the States including State of Uttar Pradesh about technical specification of smart meters. CEA also asked the States to prepare a detailed plan for installation of smart meters and submit the same to respective State Regulatory Commissions for approval.

(d) On 16.05.2018, the Hon'ble Commission directed UPPCL to submit the detailed roll out plan of installation of smart meters by Petitioner for approval.

(e) On 06.08.2018, UPPCL submitted to The Hon'ble Commission the smart meter roll out plan under OPEX Model. In terms of the rollout plan, Efficiency Services Limited (EESL) will make the upfront capital investment during the built-up phase and will recover its investment out of gains of the project on OPEX basis. Accordingly, Petitioner are required to pay monthly fee on OPEX basis as O&M expenditure to EESL on per meter per month basis. The per meter per month cost is calculated as total project cost spread over the actual recovery period, post integration of meters on per meter basis.

(f) On 15.11.2018, the Hon'ble Commission by its Order approved the Smart Meter rollout plan for State Discoms of Uttar Pradesh: -

*"DISCOM will pay EESL on OPEX basis as O&M expenditure. The assets will be in the books of EESL till the transfer of assets at the end of project at zero value.*

[..]

*Since installation of Smart Meters is a national programme and has produced very encouraging financial returns in private Discoms, the Commission approves the proposed roll out plan of UPPCL and Discoms submitted before the Commission....."*

6.7.16. Further, the Petitioner submitted that the amount claimed by them as 'Additional A&G Expenses' for smart metering is payable to EESL as O&M expenses to cover the cost towards smart meter and box installation, AMI software cost, consumer indexing, training, integration and commissioning of AMI solution. This cost was proposed to be recovered under Opex model based on per meter per month basis. Further, there will be no additional burden of depreciation, interest and return on equity on the end-consumer. Further, the Petitioners submitted that the Commission in Order dated 15.11.2018, directed the Petitioners to implement the Smart Meter rollout plan. As a result, thereof UP Discoms have incurred and will



continue to incur substantial additional expenditure. Further, the Opex incurred by the Petitioners for implementation of Smart Meter rollout plan is not part of the normative O&M expenses provided to the Discoms under the Multi-Year Tariff Order dated 22.01.2019 and Tariff Regulations 2019 since: -

(a) The same was not envisaged during projection of MYT O&M norms for FY 2017-18 to FY 2019-20 and for the control period 2019-24.

(b) The normative O&M norms approved by the Commission are based on previous five-year Audited Accounts, which does not include any O&M expenses towards smart metering.

6.7.17. The Petitioners further submitted that the Opex cost being incurred by the Petitioner on account of implementation of Smart Meter Rollout Plan pursuant to the mandate of Tariff Policy 2016 qualifies as an uncontrollable expense. In view of the above, the Petitioners submitted that the Opex cost towards Smart Meter Rollout Plan was not envisaged by the Petitioner and the Commission while fixing the normative O&M cost allowed for the MYT period 2020-25. Hence, the same being uncontrollable in nature ought to be allowed on actuals, over and above the normative O&M. The Petitioners submitted that the Commission completely being aware of the cost implication qua implementation of Smart Metering Rollout Plan has approved/allowed the same by its Order dated 15.11.2018. Further, the Commission's observation that the smart meter roll out project is a self-sustaining model since the Opex cost to be paid by the Petitioners will be compensated by overall reduction in O&M cost due to improved billing and collection efficiency on account of installation of smart meters is not correct since: -

(a) It is an attempt to compensate the present additional O&M expenses on account of smart meters Opex with future probable reduction in O&M cost, which may or may not happen. The Commission in its Order dated 15.11.2018 has itself noted that the Petitioners would incur substantial Opex cost (to be paid to EESL) towards implementation of Smart Metering Rollout Plans. Hence, there is no reason to now disallow the said cost.

(b) The approach of compensating the Opex cost with likely savings in billing and collection efficiency is conceptually erroneous. Presently, the tariff is already being determined based on 100% collection efficiency, despite the actual percentage being substantially lower. Therefore, even if billing and collection efficiency increases by installation of smart meters, the same will not have any impact on the tariff of the Petitioner.



6.7.18. Further, the Petitioners submitted that based on the cost-benefit analysis of smart meter roll-out plan under Opex model vis-à-vis the Capex model, the Opex model is beneficial for the consumers since it would not entail the additional burden of depreciation, interest and return on equity, as compared to the Capex model. The smart meter roll out plan on Opex model was submitted to the Commission well before its implementation. The Commission while approving the roll-out plan never stated that the cost envisaged under the Opex model would not be allowed to be passed on in the ARR. Moreover, the Commission in its Tariff Order dated 03.09.2019 stated that it will carry out detailed analysis of the additional O&M expenses (on account of implementation of smart meter roll out plan) for FY 2018-19 at the time of truing-up.

6.7.19. Therefore, the Petitioner requested the Commission to allow the smart meter Opex estimated for FY 2021-22:

**TABLE 6-54: SMART METERING OPEX OF DVVNL FOR FY 2021-22**

Particulars	Smart Meters installed till March 2021	Smart Meters to be installed till March 2022	Rate (Rs. /meter/month including GST @18%)	OPEX (Rs. Crore)
FY 2021-22	353000	628686	101.421	59.74

**TABLE 6-55: SMART METERING OPEX OF MVVNL FOR FY 2021-22**

Particulars	Smart Meters installed till March 2021	Smart Meters to be installed till March 2022	Rate (Rs. /meter/month including GST @18%)	OPEX (Rs. Crore)
FY 2021-22	5,98,000	9,04,000	101.421	91.40

**TABLE 6-56: SMART METERING OPEX OF PVVNL FOR FY 2021-22**

Particulars	Smart Meters installed till March 2021	Smart Meters to be installed till March 2022	Rate (Rs. /meter/month including GST @18%)	OPEX (Rs. Crore)
FY 2021-22	632000	858191	101.421	90.68



**TABLE 6-57: SMART METERING OPEX OF PUVVNL FOR FY 2021-22**

Particulars	Smart Meters installed till March 2021	Smart Meters to be installed till March 2022	Rate (Rs. /meter/month including GST @18%)	OPEX (Rs. Crore)
FY 2021-22	6,85,000	11,47,000	101.421	111.48

**TABLE 6-58: SMART METERING OPEX OF KESCO FOR FY 2021-22**

Particulars	Smart Meters installed till March 2021	Smart Meters to be installed till March 2022	Rate (Rs. /meter/month including GST @18%)	OPEX (Rs. Crore)
FY 2021-22	1,21,000	1,57,000	101.421	16.92

#### **O&M cost of UPPCL**

6.7.20. The Petitioners submitted that the Commission in the True-up Order for FY 2018-19 had disallowed O&M expenses to UPPCL. While disallowing the same, the Commission held that the procurement of power is the responsibility of Petitioners for which the Commission allows considerable amount of O&M expenses and interest on working capital. Since the expenses incurred by UPPCL are on account of procuring power for the Petitioners, Petitioners shall take care of such expenses incurred by UPPCL from the O&M expenses allowed to it. The Petitioners submitted that it is pertinent to note that:

(a) The Commission has never considered UPPCL's O&M expenses while approving the power purchase costs for the Discoms.

(b) While determining the O&M expenses applicable to the Discoms, the Commission did not consider UPPCL's O&M expenses.

6.7.21. Further, the Petitioners submitted that having adopted such an approach in the past, the Commission ought not to have disallowed the expenses incurred by UPPCL for procuring power for the Discoms which is a part of O&M expenses for UPPCL.

6.7.22. Further, the Petitioners submitted that the MYT Regulations, 2014 provided for the methodology for consideration of O&M expenses. Regulation 25 of the MYT Regulations, 2014, inter-alia, provides that the Commission shall stipulate a trajectory for each of the components of the O&M expenses viz. Employee Cost, Repairs and Maintenance (R&M) expense and Administrative and General Expense



(A&G) expense. Further, the Commission shall take into account any escalation on account of inflation etc. The relevant extract is reproduced below:-

*“25. Operation & Maintenance Expenses*

*(a) The Commission shall stipulate a separate trajectory of norms for each of the components of O&M expenses viz., Employee cost, Repairs and maintenance (R&M) expense and Administrative and General Expense (A&G) expense. Provided that such norms may be specified for a specific Distribution Licensee or a class of Distribution Licensees.*

*(b) Norms shall be defined in terms of combination of number of personnel per 1000 consumers and number of personnel per substation along with annual expenses per personnel for Employee cost; combination of A&G expense per personnel and A&G expense per 1000 consumers for A&G expenses and R&M expense as percentage of gross fixed assets for estimation of R&M expenses:*

*(c) One-time expenses such as expense due to change in accounting policy, arrears paid due to pay commissions etc., shall be excluded from the norms in the trajectory.*

*(d) The expenses beyond the control of the Distribution Licensee such as dearness allowance, terminal benefits etc. in Employee cost etc., shall be excluded from the norms in the trajectory.*

*(e) The One-time expenses and the expenses beyond the control of the Distribution Licensee shall be allowed by the Commission over and above normative Operation & Maintenance Expenses after prudence check.*

*(f) The norms in the trajectory shall be specified over the control period with due consideration to productivity improvements.*

*(g) The norms shall be determined at constant prices of base year and escalation on account of inflation shall be over and above the baseline.*

*(h) The Distribution Licensee specific trajectory of norms shall be identified by the Commission on the basis of simple average of previous five years audited figures, duly normalized for any abnormal variation.*

*(i) For new Distribution Licensee whose date of commercial operation is within the tariff period (i.e. April 1, 2015 to March 31, 2020), detailed project report shall be used by the Commission to estimate values of norms.”*



6.7.23. From the above, the Petitioners submitted that it is evident that the extant Regulations provide for detailed norms for consideration/utilization of the O&M expenses that are allowed by the Commission. It is submitted that the O&M expenses allowed to the Discoms are to be mandatorily utilized in terms of the prevailing norms and take into account various factors. Therefore, the observation of the Commission that the Discoms are allowed adequate O&M expenses which should be further utilized to meet the expenses incurred by UPPCL in procuring power for the Discoms is not correct. Further, UPPCL itself has to take into account various factors while utilizing the O&M expenses allowed to it. The same has to be utilized in terms of the norms laid down in the Regulations framed by the Commission. Disallowance of the same by the Commission would have an adverse impact on the financial health of UPPCL as well as UP Discoms, including the Petitioners. The Petitioners submitted that the treatment of holding company O&M expenses in other States has been allowed in their Tariff Orders by the respective SERCs.

6.7.24. Bihar Electricity Regulatory Commission (BERC) has approved the expenses of Bihar State Power (Holding) Company Limited (BSPHCL) in its Tariff order. South/North Bihar Power Distribution Corporation Limited submitted the following:

Quote

*“SBPDCL has submitted that BSPHCL provides common services to all the segregated entities and as per the Transfer Scheme “operating expenses incurred by the Holding Company like administration and general expenses, legal and consulting fees, etc. would be shared by the BSPGCL, BSPTCL, SBPDCL and NBPDCCL in the ratio of their respective equity”.*

Unquote

6.7.25. Treatment of Madhya Pradesh Power Management Company Limited (MPPMCL) expenses by Madhya Pradesh Regulatory Commission (MPERC) in Retail Tariff Order for FY 2018-19 dated 3<sup>rd</sup> May 2018 is reproduced below:

Quote

*3.77 The Petitioners have filed Rs. 197 Crore as MPPMCL expenses for FY 2018-19. The Commission has observed that most of the expenses included in MPPMCL cost relate to the expenses proposed to be incurred for the power purchase. The Commission is of the opinion that such expenses should have been included under power purchase cost. Further, the Commission has admitted expenses of Rs. 116 Crore towards O&M expenses only and Rs. 596 Crore as other income, as filed by*



*the Petitioners. Net MPPMCL cost admitted in this Order is Rs. (-) 480 Crore has been allocated among the Discoms. The expenses related to power purchase, if any, incurred by MPPMCL would be appropriately considered at the time of truing up for FY 2018-19, after prudence check.*

Unquote

6.7.26. Gujarat Electricity Regulatory Commission (GERC) in Tariff Order for FY 2019-20 dated 24th April 2019 has approved the expenses of Gujarat Urja Vikas Nigam Limited (GUVNL) the relevant portion of the order is reproduced below:

Quote

*5.8.3.2 PGVCL has submitted that GUVNL is entrusted with the function of Bulk Power Purchase on behalf of four Distribution Companies and Bulk Supply of power to Distribution Companies for onwards retail supply to consumers, trading of surplus power on behalf of Distribution Companies and activities related to overall coordination between the subsidiary companies. GUVNL is procuring power on behalf of all four DISCOMs to have economical and optimized power purchase cost. It also undertakes the function of raising and managing overall loan portfolio of GUVNL and its subsidiaries. GUVNL is charging Rs.0.04 for every transaction of the unit. The total cost has been arrived at after considering the total dispatchable units required to be served to all the four DISCOMs during FY 2019-20 to FY 2020-21.*

Unquote

6.7.27. Further, the Petitioners submitted that the UPPCL has started to allocate its O&M expenses to all of its subsidiary State Government Distribution Licensees, in a rational and transparent manner in the books of accounts wef FY 2019-20. As the UPPCL O&M expenses are not forming part of claimed normative O&M expenses, therefore the Petitioner has considered a nominal 5% escalation every year in the FY 2018-19 figures of UPPCL O&M expenses till FY 2021-22 and allocated the same in proportion to the energy drawl by respective Discoms. DVVNL's, MVVNL's, PVVNL's, PuVVNL's & KESCO's share as per the above-mentioned approach works out to Rs. 74.02 Crore, Rs. 69.63 Crore, Rs. 99.74 Crore, Rs. 82.76 Crore and Rs. 10.36 Crore respectively, which has been claimed under the A&G Expenses head. Further, at the time of truing-up of FY 2021-22, the UPPCL O&M Expenses shall form part of the Petitioner's O&M Expenses, in line with the UPPCL OM issued, therefore, it shall not be claimed separately in true-up.



6.7.28. Further, the Petitioner mentioned that, both expenses i.e., Smart metering OPEX and UPPCL O&M Expenses, were not covered under the A&G Expense head in the past periods and therefore, do not form part of the base year's O&M Expenses also. Therefore, these expenses shall be allowed in full, over and above the usual A&G Expenses proposed by the Petitioners. Based on the above submission, the summary of the Operation & Maintenance expenses (O&M) projected for FY 2021-22 are shown in the table below:

**TABLE 6-59: OPERATION & MAINTENANCE EXPENSES OF DVVNL FOR FY 2021-22 (RS CRORE)**

Particulars	Projected
Employee Expenses	489.13
Administrative and General Expenses	354.74
Repair & Maintenance Expenses	1,078.94
Gross O&M Expenses	1,922.81
Less:	
Employee Expenses capitalized	220.38
Administrative and General Expenses capitalized	0
Expenses Capitalized	220.38
Net O&M Expenses	1,702.43
Add: Additional Expenses under the head A&G Expenses	
Smart Meter OPEX	59.74
UPPCL O&M Expenses	74.02
<b>Total O&amp;M Expenses</b>	<b>1,836.19</b>

**TABLE 6-60: OPERATION & MAINTENANCE EXPENSES OF MVVNL FOR FY 2021-22 (RS CRORE)**

Particulars	Projected
Employee Expenses	728.84
Administrative and General Expenses	443.58
Repair & Maintenance Expenses	1,055.66
Gross O&M Expenses	2,228.08
Less:	
Employee Expenses capitalized	433.04
Administrative and General Expenses capitalized	0
Expenses Capitalized	433.04
Net O&M Expenses	1,795.04



Particulars	Projected
Add: Additional Expenses under the head A&G Expenses	
Smart Meter OPEX	91.4
UPPCL O&M Expenses	69.63
<b>Total O&amp;M Expenses</b>	<b>1,956.07</b>

**TABLE 6-61: OPERATION & MAINTENANCE EXPENSES OF PVVNL FOR FY 2021-22 (RS CRORE)**

Particulars	Projected
Employee Expenses	660.12
Administrative and General Expenses	517.91
Repair & Maintenance Expenses	1,133.81
Gross O&M Expenses	2,311.85
Less:	
Employee Expenses capitalized	158.26
Administrative and General Expenses capitalized	
Expenses Capitalized	158.26
Net O&M Expenses	2,153.58
Add: Additional Expenses under the head A&G Expenses	
Smart Meter OPEX	90.68
UPPCL O&M Expenses	99.74
<b>Total O&amp;M Expenses *</b>	<b>2,344.01</b>

\*The Petitioner (PVVNL) has claimed net O&M of 2344.01 Crs in Table 4.15 of Petition, however, in Table 4.32 of Petition, wherein they have shown total ARR table, Petitioner has considered Total O&M expenses as Rs. 2319.28 Crs.

**TABLE 6-62: OPERATION & MAINTENANCE EXPENSES OF PUVVNL FOR FY 2021-22 (RS CRORE)**

Particulars	Projected
Employee Expenses	729.77
Administrative and General Expenses	348.32
Repair & Maintenance Expenses	1,717.03
Gross O&M Expenses	2,795.12
Less:	
Employee Expenses capitalized	460.33
Administrative and General Expenses capitalized	0
Expenses Capitalized	460.3322



Particulars	Projected
Net O&M Expenses	2,334.78
Add: Additional Expenses under the head A&G Expenses	
Smart Meter OPEX	111.48
UPPCL O&M Expenses	82.76
<b>Total O&amp;M Expenses</b>	<b>2,529.03</b>

**TABLE 6-63: OPERATION & MAINTENANCE EXPENSES OF KESCO FOR FY 2021-22 (RS CRORE)**

Particulars	Projected
Employee Expenses	149.96
Administrative and General Expenses	98.85
Repair & Maintenance Expenses	173.38
Gross O&M Expenses	422.19
Less:	
Employee Expenses capitalized	11.83
Administrative and General Expenses capitalized	
Expenses Capitalized	11.8333
Net O&M Expenses	410.36
Add: Additional Expenses under the head A&G Expenses	
Smart Meter OPEX	16.92
UPPCL O&M Expenses	10.36
<b>Total O&amp;M Expenses</b>	<b>437.63</b>

**TABLE 6-64: OPERATION & MAINTENANCE EXPENSES OF CONSOLIDATED (5 DISCOMS) FOR FY 2021-22 (RS CRORE)**

Particulars	Projected
Employee Expenses	2757.82
Administrative and General Expenses	1763.41
Repair & Maintenance Expenses	5158.82
Gross O&M Expenses	9680.05
Less:	0
Employee Expenses capitalized	1283.84
Administrative and General Expenses capitalized	0
Expenses Capitalized	1283.85
Net O&M Expenses	8396.19



Particulars	Projected
Add: Additional Expenses under the head A&G Expenses	0
Smart Meter OPEX	370.22
UPPCL O&M Expenses	336.51
<b>Total O&amp;M Expenses</b>	<b>9102.93</b>

## Commission's Analysis

### Additional O&M for Smart Metering Opex

6.7.29. As regard to additional O&M for smart metering opex, it is noted that under the OPEX model, Petitioners have mentioned that the cost of Rs 86 (+ taxes) per meter per month will be charged by EESL from UPPCL as Interest & PMC (project management consulting) cost. The Petitioner have submitted that the overall benefits of the rollout will be two folds:

(i) Tangible benefits i.e. Bill quality improvement and savings due to AT&C loss reduction via increase in billing efficiency and reduction of theft (UPPCL submitted that there would be increase in Billing efficiency by 5% to 7% and Collection Efficiency will be 100%)

(ii) Intangible benefits would be consumer satisfaction, Data Analytics, MIS and monitoring of exceptions and savings on faster detection of defective meters leading to reduction in assessed bills.

6.7.30. The Commission approved the Roll Out plan for Smart Meters vide its Order dated 15th Nov. 2018. The Commission in its Order observed as follows:

#### Quote

*Acknowledging the advantages of smart metering the Commission has noted that the UPPCL has proposed in improvement in billing efficiency by 5-7% and in the data submitted for 40 lakh meters the maximum billing efficiency has been projected at 85%. In smart metering the meter data has to flow on line in the billing system and if the system works efficiently, why not 100% billing can be ensured. It appears that this important aspect has not been looked into with enough seriousness while giving the projections to the Commission. The smart metering system is a costly solution and unless the value addition is commensurate with the investment the initiation of programme cannot be justified. The Commission feels that at 98% billing efficiency should be ensured in cases where the smart meters have been put up (emphasis added).*



## Unquote

6.7.31. The Commission approved the roll out plan subject to following conditions:

- The Billing efficiency of the consumers having smart meters is not less than 98%
- Since the smart meters have remote disconnection features, the collection efficiency of target consumers shall not be less than 95%.

6.7.32. Keeping the above in view, since the net improvement in Collection and Billing Efficiency has been envisaged keeping the net consumer tariff (ABR) constant and the Net benefit/gain to the Discoms is without any increase in the consumer tariffs, and the above scheme would be in OPEX mode, it means the scheme is self-sustaining and hence the total cost should stay out of the ARR.

6.7.33. In past, the Commission has approved several schemes for theft reduction and power quality improved like replacement of LT lines with ABC conductor, whose CAPEX was allowed in the ARR considering the merit of the schemes and benefits to both Discoms and also considering the fact that the Commission approves a Distribution Loss trajectory in the ARR, which is lower than the actual losses of the Discoms and such schemes like ABC cables should be allowed to encourage and support the Discoms /utilities efforts to reduce the losses and meet the Commission target.

6.7.34. However, the Smart Meter Rollout scheme is OPEX model and not CAPEX model. With roll out of Smart Meters, the billing and collection efficiency of Discoms will increase thereby reducing the commercial losses. It is expected that the overall O&M cost of the Discoms would also decrease due to improved billing & collection efficiency which would be compensated by the charges paid in OPEX model. Further, since the MYT Distribution and Transmission Regulations, 2019 provide for the O&M expenses on the normative basis, hence the same cannot be allowed as additional O&M expense.

## O&M Expenses for UPPCL

6.7.35. As regard to O&M Expenses for UPPCL the Commission in Tariff Order dated October 1, 2014, in the matter of Determination of ARR and Tariff for FY 2015-16 and True up for FY 2012-13 had directed the State Discoms to manage the O&M Expenses incurred by UPPCL (for procuring the power) from the O&M Expenses allowed to them. The relevant extract of the Commission's Order dated October 1, 2014 of DVVNL is quoted below:



Quote

*The Commission has verified the above amount from the Audited Accounts of UPPCL and has allowed such expenses based on actual for FY 2014-15. As the above expenses have been incurred by UPPCL, which is mostly for procuring the power for the Discoms, the above expenses for the purpose of Truing up has been considered as a part of Bulk Supply Tariff. It may further be noted that the procurement of power is the responsibility of the Distribution Licensee for which the Commission allows considerable amount of O&M Expenses and interest on working capital to the Licensee.*

*The Commission has allowed such expenses for the past years, however, for future years, i.e., from FY 2014-15 onwards, the Licensee is directed to manage such O&M Expenses for procuring the power from the O&M Expenses allowed to it.*

Unquote

- 6.7.36. Thus, regarding UPPCL O&M Expenses, it is clear that the Commission had allowed such expenses in the previous orders giving clear directions that from FY 2014-15 onwards the Licensees should manage such O&M Expenses for procuring the power from the O&M Expenses allowed to them. Accordingly, the O&M expenses of Rs. 336.51 Crore claimed by the State Discoms towards allocation of O&M Expenses of UPPCL are not allowed. The Commission again reiterates that the procurement of power is the responsibility of the Distribution Licensees for which the Commission allows considerable amount of O&M Expenses and interest on working capital to the Licensees.

**O&M Expenses for State Owned Discoms**

- 6.7.37. Further, the Regulations 45 (b) of MYT Regulations, 2019 provides as follows:

Quote

*b) The Operation and Maintenance expenses shall be derived on the basis of the average of the Trued-Up values (without efficiency gain / loss) for the last five (5) financial years ending March 31, 2019 subject to prudence check by the Commission. However, if Trued-Up values (without efficiency gain / loss) are not available for FY 2018-19, then last five (5) available Trued-Up values (without efficiency gain / loss) will be considered and subsequently when the same are available the base year value (i.e. FY 2019-20) will be recomputed.*

Unquote



6.7.38. As per the above, the Commission in this Tariff Order has carried out the true-up of FY 2019-20, therefore the average of trued-up values from FY 2015-16 to FY 2019-20 are considered for the computation.

### Finance Charges

6.7.39. Further, first proviso of Regulation 45.3 of Uttar Pradesh Electricity Regulatory Commission (Multi Year Tariff for Distribution & Transmission) Regulations, 2019 stipulates that the Interest and Finance charges such as Credit Rating charges, collection facilitation charges, financing cost of Delayed Payment Surcharge and other finance charges have been considered a part of A&G expenses. The relevant extract is provided below:

#### Quote

#### *45.3 Administrative and General Expenses*

*A&G expense shall be computed as per the following formula escalated by the Wholesale Price Index (WPI) and adjusted by provisions for confirmed initiatives (IT, etc., initiatives as proposed by the Transmission Licensee and validated by the Commission) or other expected one-time expenses:*

$$A\&G_n = A\&G_{n-1} (1 + \text{WPI inflation})$$

*Where:*

*A&G<sub>n</sub>: A&G expense for the nth year;*

*A&G<sub>n-1</sub>: A&G expense for the (n-1)th year;*

*WPI inflation is the average of Wholesale Price Index (WPI) for immediately preceding three Financial Years:*

*Provided that Interest and Finance charges such as Credit Rating charges, collection facilitation charges, financing cost of Delayed Payment Surcharge and other finance charges shall be a part of A&G expenses.*

*Illustration: For FY 2020-21, (n-1)th year will be FY 2019-20 which is also the base year.*

#### Unquote

6.7.40. The Finance charges have been considered as part of the A&G expenses as per the above said Regulation.



## Total O&M Expenses

6.7.41. The Commission has first arrived at the mid-year i.e. FY 2017-18 value of each component of the O&M Expenses based on the average of last 5 Trued-Up values of FY 2015-16 to FY 2019-20 and the Computation of Norms for O&M Expenses of FY 2021-22 is provided in the table below: (owing to the details provided and size of the Table it is split into two):

**TABLE 6-65: O&M EXPENSES FOR FY 2020-21 AS APPROVED BY THE COMMISSION FOR DVVNL (RS. CRORE) (A)**

Sr. No.	Particulars	Derivation	Trued-Up O&M Expenses (Without Efficiency Gains/Loss)					FY 2017-18 (Average of last 5-year Gross O&M expenses)
			FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	
			(a)	(b)	(c)	(d)	(e)	
1	Employee Expenses	A	395.35	408.20	374.36	454.89	524.11	431.38
2	A&G Expenses	B	64.22	69.19	78.81	112.74	120.38	
a	Finance Charges* (FC)	C	4.12	2.02	2.22	2.05	3.08	
b	A&G Expenses (with FC)	D=B+C	68.34	71.21	81.03	114.79	123.46	91.77
4	R & M Expenses	E	235.73	246.00	493.89	504.67	545.49	405.16
5	Gross O&M Expenses	F=A+D+E	699.42	725.41	949.28	1,074.35	1,193.06	928.30
6	Employee Expenses Capitalisation	G	196.30	203.34	242.83	285.50	220.38	
7	A&G Expenses Capitalisation	H	-	-	-	-	-	
8	Total Capitalisation	I=G+H	196.30	203.34	242.83	285.50	220.38	
9	<b>Net O&amp;M Expenses</b>	<b>J=F-I</b>	503.12	522.07	706.45	788.85	972.68	

6.7.42. Further, the average of past 5 years, provides a Mid-Year value (FY 2017-18) of each component of O&M expenses as shown in above table. The same is escalated year on year with the escalation factor considering CPI and WPI of respective years in the ratio of 60:40, for subsequent years up to FY 2019-20. Accordingly, the Commission, has computed the O&M expenses of the base year which shall be escalated at Inflation/Escalation rate notified by Labour Bureau, Govt. of India ([http://labourbureau.gov.in/LBO\\_indexes.htm](http://labourbureau.gov.in/LBO_indexes.htm)) and Economic Advisor Govt. of India (<https://eaindustry.nic.in/>) respectively for different years. It is noted that the GoI has notified new base for CPI on 31.05.2021, the same has been used for calculation of employee expenses for FY 2021-22. The Commission has computed the WPI, CPI inflation rate as follows:



**TABLE 6-66: INFLATION INDEX FOR FY 2021-22 CONSIDERED BY THE COMMISSION**

FY	INDEX		INFLATION RATE		60:40 Index	60:40 Index Inflation	Average if Last 3 Years	
	WPI	CPI	WPI	CPI			WPI	CPI
FY 2013-14	112.46	236.00	5.20%	9.68%	186.58	8.57%		
FY 2014-15	113.88	250.83	1.26%	6.29%	196.05	5.07%		
FY 2015-16	109.72	265.00	-3.65%	5.65%	202.89	3.49%		
FY 2016-17	111.62	275.92	1.73%	4.12%	210.20	3.60%		
FY 2017-18	114.88	284.42	2.92%	3.08%	216.60	3.05%		
FY 2018-19	119.79	299.92	4.28%	5.45%	227.87	5.20%		
FY 2019-20	121.80	322.50	1.68%	7.53%	242.22	6.30%	2.38%	6.00%
FY 2020-21	123.26	338.69	1.20%	5.02%	252.52	4.25%		

6.7.43. Accordingly, in terms of Regulations, the Employee Expenses for FY 2021-22 are computed by escalating the base year (FY 2020-21) employee expenses by average CPI inflation of last 3 years. The A&G Expenses (including Finance Charges) and R&M Expenses for FY 2021-22 are computed by escalating the base year (FY 2020-21) by average WPI inflation of last 3 years. The Commission for FY 2021-22, has considered the Employee Expense capitalisation same as proposed by the Licensees.

6.7.44. Further, the Commission has noted that the Licensees have successfully completed a pilot implementation of peer to peer (P2P) trading of electricity in renewable energy using Blockchain technology. The Commission encourages the Licensee implement more of such projects including battery storage etc.

6.7.45. Further, the Commission has directed the Licensees to strictly comply with the SoP regulations. Hence, for the first year of implementation, they would need additional support over and above the norms, to carry out the work and comply with the SoP Regulations and better consumer satisfaction. Hence, 50% of R&M expenses allowed for the year (as per norms) has been provided as additional one-time R&M expenses for proper execution of work in these difficult Covid time and to provide better services to the consumers also. The same shall be reviewed at the time of True-Up wrt to the actuals to the satisfaction of the Commission.

6.7.46. The O&M expenses approved for State Owned Discoms for FY 2021-22 are shown as under:



**TABLE 6-67: O&M EXPENSES FOR FY 2021-22 AS APPROVED BY THE COMMISSION FOR DVVNL (RS. CRORE) (B)**

S.No.	Particulars	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	Average of previous 3 years CPI and WPI escalation factor		FY 2021-22
		(f) (Average of last 5-year Gross O&M expenses)	g = f*(1+escalation factor for FY 2018-19)	h= g*(1+escalation factor FY 2019-20)	Normative j= i*(1+average of 3 previous years escalation factor)	WPI	CPI	Normative k= j*(1+average of 3 previous years escalation factor)
1	Employee Expenses	431.38	453.82	482.41	508.23		6.00%	538.73
2	A&G Expenses (with FC)	91.77	96.54	102.62	105.66	2.38%		108.18
3	R & M Expenses	405.16	426.23	453.08	466.48	2.38%		477.61
4	Gross O&M Expenses	928.30	976.59	1,038.11	1,080.37			1,124.51
5	Employee Expenses Capitalisation				220.38			220.38
6	A&G Expenses Capitalisation							
7	Total Capitalisation				220.38			220.38
8	Net O&M Expenses				859.99			904.13
9	Additional R&M (one-time)							238.80
10	<b>Total</b>							<b>1142.93</b>

**TABLE 6-68: O&M EXPENSES FOR FY 2021-22 AS APPROVED BY THE COMMISSION FOR MVVNL (RS. CRORE) (A)**

Sr. No.	Particulars	Derivation	Trued-Up O&M Expenses (Without Efficiency Gains/Loss)					FY 2017-18
			FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	(f) = (Average of last 5-year Gross O&M expenses)
			(a)	(b)	(c)	(d)	(e)	
1	Employee Expenses	A	512.66	533.39	553.11	624.70	760.12	596.80
2	A&G Expenses	B	101.16	105.06	236.66	303.01	306.12	
A	Finance Charges* (FC)	C	2.83	17.19	24.08	1.40	0.00	
B	A&G Expenses (with FC)	D=B+C	103.99	122.25	260.74	304.41	306.12	220.12
4	R & M Expenses	E	173.33	177.38	370.13	444.65	367.33	306.56
5	Gross O&M Expenses	F=A+D+E	789.98	833.02	1,183.98	1,373.76	1,436.65	1,123.48



Approval of ARR and Tariff for State Discoms for FY 2021-22, APR of FY 2020-21 and True-up of FY 2019-20

Sr. No.	Particulars	Derivation	Trued-Up O&M Expenses (Without Efficiency Gains/Loss)					FY 2017-18
			FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	(f) =
			(a)	(b)	(c)	(d)	(e)	(Average of last 5-year Gross O&M expenses)
6	Employee Expenses Capitalisation	G	236.74	230.03	214.15	327.29	433.04	
7	A&G Expenses Capitalisation	H	-	-	-	-	-	
8	Total Capitalisation	I=G+H	236.74	230.03	214.15	327.29	433.04	
9	<b>Net O&amp;M Expenses</b>	<b>J=F-I</b>	553.24	602.99	969.83	1,046.47	1,003.61	

**TABLE 6-69: O&M EXPENSES FOR FY 2021-22 AS APPROVED BY THE COMMISSION FOR MVVNL (RS. CRORE) (B)**

S.N o.	Particulars	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	Average of previous 3 years CPI and WPI escalation factor		FY 2021-22
		(f) (Average of last 5-year Gross O&M expenses)	g = f*(1+escalation factor for FY 2018-19)	h = g*(1+escalation factor FY 2019-20)	Normative j = i*(1+average of 3 previous years escalation factor)	WPI	CPI	Normative k = j*(1+average of 3 previous years escalation factor)
1	Employee Expenses	596.80	627.84	667.39	703.12		6.00%	745.30
2	A&G Expenses (with FC)	220.12	231.57	246.15	253.44	2.38%		259.48
3	R & M Expenses	306.56	322.51	342.82	352.97	2.38%		361.38
4	Gross O&M Expenses	1,123.48	1,181.92	1,256.37	1,309.52			1,366.17
5	Employee Expenses Capitalisation				433.04			433.04
6	A&G Expenses Capitalisation				-			-
7	Total Capitalisation				433.04			433.04
8	Net O&M Expenses				876.48			933.13
9	Additional R&M (one-time)							180.70
10	<b>Total</b>							<b>1113.82</b>



Approval of ARR and Tariff for State Discoms for FY 2021-22, APR of  
FY 2020-21 and True-up of FY 2019-20

**TABLE 6-70: O&M EXPENSES FOR FY 2021-22 AS APPROVED BY THE COMMISSION FOR PVVNL (RS. CRORE) (A)**

Sr. No.	Particulars	Derivation	Trued-Up O&M Expenses (Without Efficiency Gains/Loss)					FY 2017-18 (f) = (Average of last 5-year Gross O&M expenses)
			FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	
			(a)	(b)	(a)	(b)	(a)	
1	Employee Expenses	A	448.90	469.49	523.79	604.50	604.50	514.65
2	A&G Expenses	B	62.46	70.04	94.31	123.74	123.74	
a	Finance Charges* (FC)	C	47.88	27.63	30.37	40.23	40.23	
b	A&G Expenses (with FC)	D=B+C	110.34	97.67	124.68	163.97	163.97	119.74
4	R & M Expenses	E	200.48	210.30	403.97	592.19	592.19	364.66
5	Gross O&M Expenses	F=A+D+E	759.72	777.46	1,052.44	1,360.66	1,360.66	999.05
6	Employee Expenses Capitalisation	G	201.90	228.73	276.72	158.26	158.26	
7	A&G Expenses Capitalisation	H	-	-	-	-	-	
8	Total Capitalisation	I=G+H	201.90	228.73	276.72	158.26	158.26	
9	<b>Net O&amp;M Expenses</b>	<b>J=F-I</b>	<b>557.82</b>	<b>548.73</b>	<b>775.72</b>	<b>1,202.40</b>	<b>1,202.40</b>	

**TABLE 6-71: O&M EXPENSES FOR FY 2020-21 AS APPROVED BY THE COMMISSION FOR PVVNL (RS. CRORE) (B)**

S.No.	Particulars	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	Average of previous 3 years CPI and WPI escalation factor		FY 2021-22
		(f) (Average of last 5-year Gross O&M expenses)	g = f*(1+escalation factor for FY 2018-19)	h = g*(1+escalation factor FY 2019-20)	Normative j = i*(1+average of 3 previous years escalation factor)	WPI	CPI	Normative k = j*(1+average of 3 previous years escalation factor)
1	Employee Expenses	514.65	541.42	575.53	606.34		6.00%	642.72
2	A&G Expenses (with FC)	119.74	125.97	133.90	137.86	2.38%		141.15
3	R & M Expenses	364.66	383.63	407.79	419.86	2.38%		429.87
4	Gross O&M Expenses	999.05	1,051.02	1,117.22	1,164.06			1,213.74
5	Employee Expenses Capitalisation				158.26			158.26
6	A&G Expenses Capitalisation							
7	Total Capitalisation				158.26			158.26
8	Net O&M Expenses				1005.80			1,055.48



Approval of ARR and Tariff for State Discoms for FY 2021-22, APR of FY 2020-21 and True-up of FY 2019-20

S.No.	Particulars	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	Average of previous 3 years CPI and WPI escalation factor		FY 2021-22
		(f) (Average of last 5-year Gross O&M expenses)	g = f*(1+escalation factor for FY 2018-19)	h = g*(1+escalation factor FY 2019-20)	Normative j = i*(1+average of 3 previous years escalation factor)	WPI	CPI	Normative k = j*(1+average of 3 previous years escalation factor)
9	Additional R&M (one-time)							214.93
10	<b>Total</b>							<b>1270.41</b>

**TABLE 6-72: O&M EXPENSES FOR FY 2021-22 AS APPROVED BY THE COMMISSION FOR PUVVNL (RS. CRORE) (A)**

Sr. No.	Particulars	Derivation	Trued-Up O&M Expenses (Without Efficiency Gains/Loss)					FY 2017-18
			FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	(f) = (Average of last 5-year Gross O&M expenses)
			(a)	(b)	(c)	(d)	(e)	
1	Employee Expenses	A	533.00	806.55	592.87	648.53	769.55	670.10
2	A&G Expenses	B	120.32	68.85	118.06	151.75	164.93	
a	Finance Charges* (FC)	C	0.03	17.41	32.26	8.66	-	
b	A&G Expenses (with FC)	D=B+C	120.35	86.26	150.32	160.41	164.93	136.36
4	R & M Expenses	E	372.37	217.76	569.40	773.34	869.83	560.54
5	Gross O&M Expenses	F=A+D+E	1,025.72	1,110.57	1,312.59	1,582.29	1,804.30	1,367.09
6	Employee Expenses Capitalisation	G	379.96	194.37	265.97	360.19	460.33	
7	A&G Expenses Capitalisation	H						-
8	Total Capitalisation	I=G+H	379.96	194.37	265.97	360.19	460.33	
9	<b>Net O&amp;M Expenses</b>	<b>J=F-I</b>	<b>645.76</b>	<b>916.20</b>	<b>1046.62</b>	<b>1222.10</b>	<b>1343.97</b>	



**TABLE 6-73: O&M EXPENSES FOR FY 2021-22 APPROVED BY THE COMMISSION FOR PUVVNL (RS. CRORE) (B)**

S. No.	Particulars	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	Average of previous 3 years CPI and WPI escalation factor		FY 2021-22
		(f) (Average of last 5-year Gross O&M expenses)	g = f*(1+escalation factor for FY 2018-19)	h= g*(1+escalation factor FY 2019-20)	Normative j= i*(1+average of 3 previous years escalation factor)	WPI	CPI	Normative k= j*(1+average of 3 previous years escalation factor)
1	Employee Expenses	670.10	704.95	749.36	789.48		6.00%	836.85
2	A&G Expenses (with FC)	136.45	143.55	152.59	157.11	2.38%		160.86
3	R & M Expenses	560.54	589.70	626.84	645.39	2.38%		660.78
4	Gross O&M Expenses	1,367.09	1,438.20	1,528.80	1,591.97			1,658.48
5	Employee Expenses Capitalisation				460.33			460.33
6	A&G Expenses Capitalisation							
7	Total Capitalisation				460.33			460.33
8	Net O&M Expenses				1,131.64			1198.15
9	Additional R&M (one-time)							330.39
10	<b>Total</b>							<b>1528.54</b>

**TABLE 6-74: O&M EXPENSES FOR FY 2021-22 AS APPROVED BY THE COMMISSION FOR KESCO (RS. CRORE) (A)**

Sr. No.	Particulars	Derivation	Trued-Up O&M Expenses (Without Efficiency Gains/Loss)					FY 2017-18
			FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	(f) = (Average of last 5 year Gross O&M expenses)
			(a)	(b)	(c)	(d)	(e)	
1	Employee Expenses	A	131.51	136.97	118.27	121.13	136.65	128.91
2	A&G Expenses	B	6.68	7.15	20.37	20.92	21.54	
a	Finance Charges* (FC)	C	6.39	18.72	3.37	6.66	4.56	
b	A&G Expenses (with FC)	D=B+C	13.07	25.87	23.74	27.58	26.09	23.27
4	R & M Expenses	E	54.19	56.49	46.45	68.52	83.69	61.87
5	Gross O&M Expenses	F=A+D+E	198.77	219.33	188.46	217.22	246.44	214.04
6	Employee Expenses Capitalisation	G	3.07	2.49	11.68	42.74	11.83	
7	A&G Expenses Capitalisation	H	-	-	-	-	-	
8	Total Capitalisation	I=G+H	3.07	2.49	11.68	42.74	11.83	
9	<b>Net O&amp;M Expenses</b>	<b>J=F-I</b>	<b>195.70</b>	<b>216.84</b>	<b>176.78</b>	<b>174.48</b>	<b>234.60</b>	



**TABLE 6-75: O&M EXPENSES FOR FY 2021-22 AS APPROVED BY THE COMMISSION FOR KESCO (RS. CRORE) (B)**

S.N o.	Particulars	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	Average of previous 3 years CPI and WPI escalation factor		FY 2021-22
		(f) (Average of last 5-year Gross O&M expenses)	g = f*(1+escalation factor for FY 2018-19)	h= g*(1+escalation factor FY 2019-20)	Normative j= i*(1+average of 3 previous years escalation factor)	WPI	CPI	Normative k= j*(1+average of 3 previous years escalation factor)
1	Employee Expenses	128.91	135.61	144.15	151.87		6.00%	160.98
2	A&G Expenses (with FC)	23.27	24.48	26.02	26.79	2.38%		27.43
3	R & M Expenses	61.87	65.09	69.19	71.23	2.38%		72.93
4	Gross O&M Expenses	214.04	225.18	239.36	249.90			261.35
5	Employee Expenses Capitalisation				11.83			11.83
6	A&G Expenses Capitalisation							-
7	Total Capitalisation				11.83			11.83
8	Net O&M Expenses				238.06			249.51
9	Additional R&M (one-time)							36.47
10	<b>Total</b>							<b>285.98</b>

**TABLE 6-76: CONSOLIDATED O&M EXPENSES APPROVED BY THE COMMISSION FOR FY 2020-21 (RS. CRORE)**

Particular	Claimed in ARR Petition	Approved for ARR
Employee Expenses	2757.82	2924.58
Repair & Maintenance Expenses	5158.82	2002.57
Administrative and General Expenses	1763.41	697.09
Gross O&M Expenses	9680.05	5624.25
Less: Employee Expense Capitalisation	1283.85	1283.85
Add: UPPCL O&M Expenses	336.51	0.00
Add: Smart Meter OPEX	370.22	0.00
Net O&M Expenses	9102.93	4340.40
Additional R&M (one-time)	-	1001.29
<b>Total</b>	<b>9102.93*</b>	<b>5341.68</b>

\*The Petitioner (PVVNL) has claimed net O&M of Rs. 2344.01 Crs in Table 4.15 of Petition, however, in Table 4.32 of the Petition, wherein they have shown total ARR table, Petitioner has considered Total O&M expenses as Rs. 2319.28 Crs. Hence, their claim of total O&M Rs. 9077 Crs has been considered as Rs. 9102.93 Crs.



## 6.8. GFA BALANCES AND CAPITAL FORMATION ASSUMPTIONS

6.8.1. The Petitioners have submitted that the details of the scheme-wise Capex and capitalisation based on business Plan Petition filed for the 2nd Control Period from FY 2020-21 to FY 2024-25 dated 27 October 2020 and Regulation 44 of UPERC (Multi Year Tariff for Distribution & Transmission) Regulations, 2019 provides for consideration of capital expenditure for the purpose of determination of ARR for FY 2021-22. The details of proposed Capital Expenditure for FY 2021-22 are depicted in the tables below:

**TABLE 6-77: CAPITAL EXPENDITURE DETAILS AS SUBMITTED BY DVVNL FOR FY 2021-22 (RS. CRORE)**

Sr. No.	Project Title (M)	FY 2021-22					
		Physical	Capex	Financing Plan			
				Grant	Consumer Contribution	Debt	Equity/Internal Accrual
1	Installation of LT AB cable in urban areas	150	25	20.71	-	3	1.29
2	Extended program for feeder separation for balance agricultural feeders	No. of Feeders 227	300.77	-	-	300.77	-
3	Replacement of bare conductors with LT AB cable in remaining rural habitations		226	226	-	-	-
	<i>Target Kms</i>	<i>4,890</i>					
4	Installation of new Capacitor banks		26.9	18.83	-	-	8.07
	<i>1.98 MVAR</i>	<i>106</i>					
	<i>3.96 MVAR</i>	<i>20</i>					
5	Construction of New 33KV lines will be to utilize bays for new transmission Sub-stations or connecting two or more sub-stations		52.92	52.92	-	-	-
	<i>Rural-33 KV Line (11 meter ST Pole)-CKM</i>	<i>627</i>	<i>45.14</i>				
	<i>Urban-33 KV Line (11 meter ST Pole)-CKM</i>	<i>108</i>	<i>7.78</i>				
6	New 33/11 KV Substation and capacity augmentation		67.76	67.76	-	-	-



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Sr. No.	Project Title (M)	FY 2021-22					
				Financing Plan			
		Physical	Capex	Grant	Consumer Contribution	Debt	Equity/Internal Accrual
	Rural-33/11 KV Sub-station (1x5 MVA-Nos.	15+17	53.9				
	Urban-33/11 KV Sub-station (1x5 MVA-Nos.	3+6	13.86				
7	Replacement of HT LT line by Underground cable in additional 11 districts	4 District	875	875	-	-	-
Total			1,574.35	1,261.22	-	303.77	9.36
B	Discom Business Plan		208.6				208.6
8	IT Infrastructure		74.98	-	-	-	74.98
C	Deposit Works		294.55	-	294.55	-	-
<b>DVVNL Total</b>			<b>2,152.48</b>	<b>1,261.22</b>	<b>294.55</b>	<b>303.77</b>	<b>292.93</b>

TABLE 6-78: CAPITAL EXPENDITURE DETAILS AS SUBMITTED BY MVVNL FOR FY 2021-22 (RS. CRORE)

FY 2021-22 (Rs. Crore)							
Sr.No	Name of Scheme	Project cost	Debt (I)	Equity (II)	Consumer contribution (III)	Grant (IV)	Total (I+II+III+IV)
	<b>Central Scheme</b>						
1	Replacement of bare conductors with LT AB cable in rural habitations having more than 1000 population (Km)						
2	Installation of LT AB cable in urban areas-(Km)	25	3	1.29		20.71	25
3	Extended program for feeder separation for balance agricultural feeders	326				326	326
4	Replacement of bare conductors with LT AB cable in remaining rural habitations	298				298	298
5	Installation of new Capacitor banks (Nos)						



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FY 2021-22 (Rs. Crore)							
Sr.No	Name of Scheme	Project cost	Debt (I)	Equity (II)	Consumer contribution (III)	Grant (IV)	Total (I+II+III+IV)
6	New 33/11 KV Substation and capacity augumentation	58.52				58.52	58.52
7	Construction of New 33KV lines to utilize bays for new transmission Sub-stations	45.65				45.65	45.65
8	Replacement of HT LT line by Underground cable in additional 12 districts	700				700	700
	Sub-total	1,453.17	3	1.29	-	1,448.88	1,453.17
	Discom's Plan						
9	11/0.4 KV Work						
	11/0.4 KV Substation (No)	37.7		37.7			37.7
	11/0.4 KV Substation Increasing capacity (CKm)	18.9		18.9			18.9
	Strengthening of 11 KV line (KM)	10.2		10.2			10.2
	Replacement of 11KV Switchgears (No)	0.7		0.7			0.7
	Rural-11 KV Line (8.5 metre PCC Pole)-CKM	4.95		4.95			4.95
	Urban-11 KV Line (11 metre ST Pole)-CKM	0.76		0.76			0.76
	Strengthening of L.T. line. (Replacement of damages conductor/pole, Additional pole in long span & other access etc.(Km)	10.2		10.2			10.2
	Distribution Transformers Metering (Nos)	3.4		3.4			3.4
	Guarding of 11 KV Lines (Km)	0.78		0.78			0.78



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FY 2021-22 (Rs. Crore)							
Sr.No	Name of Scheme	Project cost	Debt (I)	Equity (II)	Consumer contribution (III)	Grant (IV)	Total (I+II+III+IV)
	Energisation of PTW Connection (Under Normal Scheme) (Nos)	102		102			102
	Civil Works	150		150			150
	IT Infrastructure	66.48		66.48			66.48
	Sub-total	406.06	-	406.06		-	406.06
	<b>MVVNL Grand Total</b>	<b>1,859.23</b>	<b>3</b>	<b>407.35</b>	<b>-</b>	<b>1,448.88</b>	<b>1,859.23</b>

TABLE 6-79: CAPITAL EXPENDITURE DETAILS AS SUBMITTED BY PVVNL FOR FY 2021-22 (RS. CRORE)

Sr.No.	Name of Scheme	FY 2021-22 (Projected)					
		Physical Status	Debt (Rs Cr)	Equity/Internal Accrual (Rs Cr)	Consumer Contribution (Rs Cr)	Grant (Rs Cr)	Total (Rs Cr)
			(i)	(ii)	(iii)	(iii)	(i+ii+iii+iv)
1	Replacement of bare conductors with LT AB cable in rural habitations having more than 1000 population	-	-	-	-	-	-
	Target Kms	-	-	-	-	-	-
2	Installation of LT AB cable in urban areas	149.5	3	1.29		20.71	25
3	Installation of Capacitor banks	-	-	-		-	-
4	Extended program for feeder separation for balance agricultural feeders	-	-	-		-	-
5	Replacement of bare conductors with LT AB cable in remaining rural habitations	-	-	-		174	174
	Target Kms	3,765.00	-	-		-	-
6	Installation of new Capacitor banks	-	-	-		-	-
	1.98 MVAR	-	-	-		-	-
	3.96 MVAR	-	-	-		-	-
7	New 33/11 KV Substation and capacity augmentation	-	-	-		69.3	69.3
	Rural-33/11 KV Sub-station (1x5 MVA-Nos.	36	-	-		-	-



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Sr.No.	Name of Scheme	FY 2021-22 (Projected)					
		Physical Status	Debt (Rs Cr)	Equity/Internal Accrual (Rs Cr)	Consumer Contribution (Rs Cr)	Grant (Rs Cr)	Total (Rs Cr)
			(i)	(ii)	(iii)	(iii)	(i+ii+iii+iv)
	Urban-33/11 KV Sub-station (1x5 MVA-Nos.	9	-	-		-	-
8	Construction of New 33KV lines to utilize bays for new transmission Sub-stations	-	-	-		54.29	54.29
	Rural-33 KV Line (9 metre PCC Pole)-CKM	643	-	-		-	-
	Urban-33 KV Line (11 metre ST Pole)-CKM	111	-	-		-	-
9	Replacement of HT LT line by Underground cable in additional 10 districts	-	-	-		590	590
	Total-UPPCL		3	1.29	-	908.3	912.59
B	Discom Business Plan (Technical)						
1	11/0.4 KV Work						
	11/0.4 KV Substation	1,150.00		32		-	32
	11/0.4 KV Substation Increasing capacity (CKM)	1,200.00		19		-	19
	Strengthening of 11 KV line (KM)	1,000.00		22		-	22
	Replacement of 11KV Switchgears	200		9		-	9
	Installation of New 11KV Switchgears	50		2.5		-	2.5
	Strengthening of 11/0.4 KV Substation	1,000.00		10		-	10
	Rural-11 KV Line (8.5 metre PCC Pole)-CKM	179		5.91		-	5.91
	Urban-11 KV Line (11 metre ST Pole)-CKM	28		0.92		-	0.92
2	Strengthening of L.T. line. (Replacement of damages conductor/pole, Additional pole in long span & other access etc.	1,000.00		21		-	21



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Sr.No.	Name of Scheme	Physical Status	FY 2021-22 (Projected)				
			Debt (Rs Cr)	Equity/Internal Accrual (Rs Cr)	Consumer Contribution (Rs Cr)	Grant (Rs Cr)	Total (Rs Cr)
			(i)	(ii)	(iii)	(iii)	(i+ii+iii+iv)
3	Distribution Transformers Metering	50,000.00		60		-	60
4	Guarding of 11 KV Lines	-		0.7		-	0.7
5	Energisation of PTW Connection (Under Normal Scheme)	15,000.00		102		-	102
6	Civil Works	-		-		-	-
	Total Discom (Technical)		-	285.03		-	285.03
2	Discom Business Plan (IT)						
	Cloud/Portal Consolidation		-	1.08		-	1.08
	DC-DR Refresh (For Other Applications)		-	1.3		-	1.3
	Cyber Security Operation Center		-	1.73		-	1.73
	Windows & Microsoft Office 365 License Cost (five year)		-	1.59		-	1.59
	Substation Computer Procurement		-	6.8		-	6.8
	ERP (HR, FIN, MM, PS)		-	-		-	-
	ERP Additional Module (Plant Maintenance, Treasury, File Management)		-	5.11		-	5.11
	Desktop/Printer Procurement for ERP and Laptop for Officers/JE		-	5.05		-	5.05
	RURAL RTDAS		-	8.26		-	8.26
	RAPDRP Town GIS Survey & Change Management		-	0.82		-	0.82
	Rural GIS Survey		-	3.34		-	3.34
	GIS System Augmentation (For Rural-SW/HW)		-	0.69		-	0.69
	GIS Consumer Indexing		-	5.84		-	5.84
	CCC Updation		-	1.8		-	1.8
	Feeder Metering and Modem installation/ system		-	3.67		-	3.67



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Sr.No.	Name of Scheme	Physical Status	FY 2021-22 (Projected)				
			Debt (Rs Cr)	Equity/Internal Accrual (Rs Cr)	Consumer Contribution (Rs Cr)	Grant (Rs Cr)	Total (Rs Cr)
			(i)	(ii)	(iii)	(iii)	(i+ii+iii+iv)
	DT Metering & modem/ DT Smart Meter installation for RAPDRP		-	18.4	-	-	18.4
	ERP Data Digitization		-	-	-	-	-
	SCADA Advanced DMS system		-	61.66	-	-	61.66
	P2P Trading Platform		-	0.5	-	-	0.5
	Total Discom (IT)		-	127.64	-	-	127.64
D	Consumer Contribution				296.42		296.42
E	<b>Grand Total</b>		<b>3</b>	<b>413.96</b>	<b>296.42</b>	<b>908.3</b>	<b>1,621.68</b>

TABLE 6-80: CAPITAL EXPENDITURE DETAILS AS SUBMITTED BY PUVVNL FOR FY 2021-22 (RS CRORE)

Sr. No.	Project Title (M)	FY 2021-22					
		Physical	Finance	Grant	Consumer Contribution	Debt	Equity/Internal Accrual
1	Replacement of bare conductors with LT AB cable in rural habitations having more than 1000 population		256.94			179.86	77.08
	Target Kms	7,667					
2	Installation of LT AB cable in urban areas	150	25	20.71		3	1.29
3	Extended program for feeder separation for balance agricultural feeders	453	917	917			
4	Replacement of bare conductors with LT AB cable in remaining rural habitations		328	328			
	Target Kms	7,097					
5	Installation of new Capacitor banks						
	1.98 MVAR						
	3.96 MVAR						



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Sr. No.	Project Title (M)	FY 2021-22					
		Physical	Finance	Grant	Consumer Contribution	Debt	Equity/Internal Accrual
6	New 33/11 KV Substation and capacity augmentation						
	Rural-33/11 KV Sub-station (1x5 MVA-Nos.)	34	52.36			36.65	15.71
	Urban-33/11 KV Sub-station (1x5 MVA-Nos.)	9	13.86			9.7	4.16
7	Construction of New 33KV lines to utilize bays for new transmission Sub-stations						
	Rural-33 KV Line (9 metre PCC Pole)-CKM	643	46.3			32.41	13.89
	Urban-33 KV Line (11 metre ST Pole)-CKM	111	7.99			5.59	2.4
8	Replacement of HT LT line by Underground cable in additional 15 districts		1,277.00	1,277.00			
9	Strengthening of 11 kv & LT Line and Replacement of damaged pole, providing additional pole in long span - CKM		22				22
10	Saubhagya Phase-3						
	Service Connection (Nos)						
11	IT INFRASTRUCTURE		93.99			65.79	28.2
<b>Total</b>			<b>3,040.44</b>	<b>2,542.71</b>	-	<b>333.01</b>	<b>164.72</b>

**TABLE 6-81: CAPITAL EXPENDITURE DETAILS AS SUBMITTED BY KESCO FOR FY 2021-22 (RS. CRORE)**

Sr. No.	Name of Scheme	FY 2021-22					
		Project Cost	Debt	Equity	Consumer Contribution	Grant	Total
1	33 kV Sub-Station Augmentation	2	0	2	0	0	2
2	Urban 33 kV Line	27.4	0	27.4	0	0	27.4
3	Replacement of HT/LT line by underground cable	58	0	0	0	58	58
4	11/0.4 kV Works	10.75	0	10.75	0	0	10.75
5	Strengthening of L.T. line. (Replacement of damages conductor/pole, Additional pole in long span & other access etc.	1	0	1	0	0	1
6	Guarding of 11 kV lines	0.1	0	0.1	0	0	0.1



Sr. No.	Name of Scheme	FY 2021-22					
		Project Cost	Debt	Equity	Consumer Contribution	Grant	Total
7	Laying of AB Cable	5	0	5	0	0	5
8	Distribution Transformers Metering	0	0	0	0	0	0
9	IT Infrastructure	6.06	0	6.06	0	0	6.06
10	SCADA/ADMS/GIS	44					
	<b>Total</b>	<b>154.31</b>	<b>-</b>	<b>52.31</b>	<b>-</b>	<b>58</b>	<b>110.31</b>

6.8.2. The Petitioners submitted that the Commission has directed the Petitioners to segregate the identified Project (scheme) wise capex plan along with tentative cost under the following categories:

- to meet the requirement of load growth (new / augmentation)
- refurbishment and replacement of equipment
- reduction in distribution losses
- improvement of voltage profile
- improvement in quality of supply
- system reliability
- metering
- communication and computerization
- any other category (please specify)

6.8.3. The Petitioner projected the capital expenditure to be funded in a debt equity mix of 70:30, which is also in line with the MYT Regulations, 2019 and established philosophy of the Commission.

6.8.4. Out of the total capital expenditure mentioned above and the opening balance of Capital Work in Progress (CWIP), the capitalization during the financial year is projected as per following assumptions:

- 40% of the opening CWIP and the investment made during the financial year has been assumed to get capitalized during the year.
- Investment through “deposit work” has been taken as per Audited Accounts for FY 2019-20. However, depreciation thereon has not been charged to the ARR in line with the policy adopted by the Commission in its previous Tariff Orders.



- Employee and Interest capitalization has been considered as approved by the Commission for FY 2020-21 in Tariff Order for FY 2020-21 dated 11 November 2020.
- The capital investment plan (net of deposit works and Grants) has been projected to be funded in the ratio of 70:30 (debt to equity).

### Commission's Analysis:

6.8.5. The MYT Regulations, 2019 provide as under:

Quote

*" 18 Capital Expenditure/ Cost and Capital Structure*

*Capital cost for a capital investment Project shall include:*

*the expenditure incurred or projected to be incurred, including interest during construction and financing charges, as admitted by the Commission after prudence check;*

*capitalised initial spares subject to the ceiling rates stipulated in these Regulations;*

*expenses incurred by the Licensee on obtaining right of way, as admitted by the Commission after prudence check;*

*additional capital expenditure determined under Regulation 19;*

*Incidental expenditure during construction including apportioned expenditure on relevant components of O&M:*

*Provided that the assets forming part of the project, but not in use shall be taken out of the capital cost;*

*any gain or loss on account of foreign exchange risk variation pertaining to the loan amount availed up to the date of commercial operation, as admitted by the Commission after prudence check:*

*Provided that any gain or loss on account of foreign exchange risk variation pertaining to the loan amount availed up to the date of commercial operation shall be adjusted only against the debt component of the capital cost:*

*Provided further that the capital cost of the assets forming part of the Project but not put to use or not in use, shall be excluded from the capital cost:*



*Provided also that the Licensee shall submit documentary evidence in support of its claim of assets being put to use;*

*The capital cost admitted by the Commission after prudence check shall form the basis for determination of Tariff.*

*The capital cost admitted by the Commission after prudence check shall form the basis for determination of Tariff.*

*The actual capital expenditure on a scheme as on COD for the original scope of work based on audited accounts of the Licensee or Project, as the case may be, shall be considered subject to prudence check by the Commission.*

*Capital cost to be allowed by the Commission for the purpose of determination of Tariff will be based on the capital investment plan prepared by the Licensee and approved by the Commission, prior to the Petition for determination of ARR / Tariff filing*

.....

#### *19 Additional Capitalisation*

*19.1 The capital expenditure, actually incurred or projected to be incurred, on the following counts within the original scope of work, after the date of commercial operation and up to the cut-off date, may be admitted by the Commission subject to prudence check:*

- (i) Undischarged liabilities recognized to be payable at a future date;*
- (ii) Works deferred for execution;*
- (iii) Procurement of initial capital spares within the original scope of work, in accordance with the provisions of Regulation 18;*
- (iv) Liabilities to meet award of arbitration or for compliance of the Order or decree of a court of law; and*
- (v) Change in law or compliance of any existing law*

*Provided that the details of works included in the original scope of work along with estimates of expenditure, liabilities recognized to be payable at a future date and the works deferred for execution shall be submitted along with the Petition for determination of final Tariff after the date of commercial operation.*



19.2 The capital expenditure, incurred or projected to be incurred on the following counts after the cut-off date, may be admitted by the Commission, subject to prudence check:

(i) Liabilities to meet award of arbitration or for compliance of the Order or decree of a court of law;

(ii) Change in law or compliance of any existing law;

(iii) Any liability for works executed prior to the cut-off date, after prudence check of the details of such undischarged liability, total estimated cost of package, reasons for such withholding of payment and release of such payments, etc.;

(iv) Any liability for works admitted by the Commission after the cut-off date to the extent of discharge of such liabilities by actual payments;

(v) Any additional capital expenditure which has become necessary for efficient operation

Provided that the claim shall be substantiated with the technical justification duly supported by documentary evidence like test results carried out by an independent agency in case of deterioration of assets, damage caused by natural calamities, obsolescence of technology, up-gradation of capacity for the technical reason such as increase in fault level;

(vi) Any additional expenditure on items such as relays, control and instrumentation, computer system, power line carrier communication, batteries, tower strengthening, communication equipment, emergency restoration system, insulators cleaning infrastructure, which has become necessary for successful and efficient operation of Transmission System; and

(vii) Any capital expenditure found justified after prudence check necessitated on account of modifications required:

Provided that any expenditure, which has been claimed under Renovation and Modernisation or repairs and maintenance under O&M expenses, shall not be claimed under Additional Capitalisation.

19.3 Impact of additional capitalisation on Tariff, if any, shall be considered during Tariff determination proceedings.

.....

44 Capital Investment Plan



*44.1 The Distribution Licensee shall submit a detailed Capital Investment Plan, financing plan and physical targets for each year of the Control Period for meeting the requirement of growth in number of consumers, strengthening and augmentation of its distribution network, meeting the requirement of load growth, reduction in distribution losses, improvement in quality of supply, reliability, metering, reduction in congestion, etc., to the Commission for approval, as a part of the Business Plan:*

*Provided that in case of non-submission of the Capital Investment plan by the Distribution Licensee for a year of the Control Period, the Commission may disallow the Capital expenditure for that year.*

*44.2 The Capital Investment Plan shall be a least cost plan for undertaking investments. However, all capital expenditure projects of value exceeding Rs. Ten Crore and must have prior approval of the Commission on quarterly basis, and will be subject to prudence check.*

*44.3 The Capital Investment Plan shall be accompanied by such information, particulars and documents as may be required including but not limited to the information such as number of distribution sub-stations, consumer sub-stations, transformation capacity in MVA and details of distribution transformers of different capacities, HT:LT ratio as well as distribution line length showing the need for the proposed investments, alternatives considered, cost / benefit analysis and other aspects that may have a bearing on the Tariff for retail supply of electricity and the Wheeling Charges:*

*Provided that the Distribution Licensee shall submit separate details of Capital Investment Plan for each Distribution Franchisee area within its Licence area.*

#### Unquote

- 6.8.6. The Commission asked the Petitioner to submit the detailed capital expenditure cost of the projects above Rs. 10 Cr for FY 2021-22 and take prior approval of projects in line with Regulations 44.2 of MYT Regulations 2019. Further, it was directed that the Licensee should submit the CAPEX & Capitalization details along with documentary proof and explain why prior approval was not taken from Commission. In response to that the licensee submitted that the DPR's for FY 2021-22 are under preparation.
- 6.8.7. It was further directed that the Petitioner should submit the FAR with all details, the licensee submitted that FAR is under preparation



- 6.8.8. The Commission has noted that due to outbreak of COVID-19 pandemic, the Petitioners have faced certain hardships of manpower and office working since last year, however, the Commission opines that Petitioners should do all efforts to ensure that it informs the Commission about the status of each scheme and takes approval of the Commission as per Regulation 44.2 of the MYT Regulations, 2019.
- 6.8.9. However, keeping in mind the hardships faced by Licensees at ground, the Commission has considered 100% of the claimed capital investments for FY 2021-22 and same proportion of capitalization of total investments which includes opening CWIP, Employee capitalisation, A&G capitalisation, Interest capitalisation and investments during the year as claimed by the Petitioner. It is to be noted that if the State Owned Discoms fails to submit the capital investment plan and does not take separate approval(s) for projects above 10 Crores on quarterly basis in terms of the Regulations, the Commission would be forced to disallow the same.
- 6.8.10. Accordingly, the projected Capital Investment and Capital Work in Progress and GFA allowed for FY 2021-22 is presented below:

**TABLE 6-82: CAPITAL INVESTMENT DETAILS FOR DVVNL FOR FY 2021-22 (RS. CRORE)**

Particulars	Derivation	Claimed	Approved
Opening WIP as on 1st April 2020	A	2165.66	2165.66
Investments/CAPEX	B	2152.48	2152.48
Employee Expenses capitalization	C	220.38	220.38
A&G Expenses Capitalisation	D	0.00	0.00
Interest Capitalisation on Interest on long term loans	E	105.01	105.01
Total Investments / CAPEX	F= A+B+C+D+E	4643.53	4643.53
Transferred to GFA (Total Capitalisation)	G	2052.65	2052.64
<b>Closing WIP</b>	<b>H=F-G</b>	<b>2590.89</b>	<b>2590.88</b>

**TABLE 6-83: CAPITAL INVESTMENT DETAILS FOR MVVNL FOR FY 2021-22 (RS. CRORE)**

Particulars	Derivation	Claimed	Approved
Opening WIP as on 1st April 2020	A	5404.46	5404.46
Investments/CAPEX	B	1859.23	1859.23
Employee Expenses capitalization	C	433.04	433.04
A&G Expenses Capitalisation	D	0.00	0.00
Interest Capitalisation on Interest on long term loans	E	93.91	93.91
Total Investments/CAPEX	F= A+B+C+D+E	7790.64	7790.64



Particulars	Derivation	Claimed	Approved
Transferred to GFA (Total Capitalisation)	G	3432.42	3432.42
<b>Closing WIP</b>	<b>H=F-G</b>	<b>4358.21</b>	<b>4358.21</b>

**TABLE 6-84: CAPITAL INVESTMENT DETAILS FOR PUVNL FOR FY 2021-22 (RS. CRORE)**

Particulars	Derivation	Claimed	Approved
Opening WIP as on 1st April 2020	A	1644.95	1644.95
Investments/CAPEX	B	1621.68	1621.68
Employee Expenses capitalization	C	158.26	158.26
A&G Expenses Capitalisation	D	0.00	0.00
Interest Capitalisation on Interest on long term loans	E	215.65	215.65
Total Investments/CAPEX	F= A+B+C+D+E	3640.55	3640.55
Transferred to GFA (Total Capitalisation)	G	1680.57	1680.57
<b>Closing WIP</b>	<b>H=F-G</b>	<b>1959.98</b>	<b>1959.98</b>

**TABLE 6-85: CAPITAL INVESTMENT DETAILS FOR PUVVNL FOR FY 2021-22 (RS. CRORE)**

Particulars	Derivation	Claimed	Approved
Opening WIP as on 1st April 2020	A	3320.89	3320.89
Investments/CAPEX	B	3040.44	3040.44
Employee Expenses capitalization	C	460.33	460.33
A&G Expenses Capitalisation	D	0.00	0.00
Interest Capitalisation on Interest on long term loans	E	225.36	225.36
Total Investments / CAPEX	F= A+B+C+D+E	7047.02	7047.02
Transferred to GFA (Total Capitalisation)	G	3230.23	3230.23
<b>Closing WIP</b>	<b>H=F-G</b>	<b>3816.80</b>	<b>3816.80</b>

**TABLE 6-86: CAPITAL INVESTMENT DETAILS FOR KESCO FOR FY 2021-22 (RS. CRORE)**

Particulars	Derivation	Claimed	Approved
Opening WIP as on 1st April 2020	A	295.27	295.27
Investments/CAPEX	B	154.31	154.31
Employee Expenses capitalization	C	11.83	11.83
A&G Expenses Capitalisation	D	0.00	0.00
Interest Capitalisation on Interest on long term loans	E	0.00	0.00
Total Investments / CAPEX	F= A+B+C+D+E	461.42	461.42



Particulars	Derivation	Claimed	Approved
Transferred to GFA (Total Capitalisation)	G	191.67	191.67
<b>Closing WIP</b>	<b>H=F-G</b>	<b>269.75</b>	<b>269.75</b>

**TABLE 6-87: CONSOLIDATED CAPITAL INVESTMENT OF STATE OWNED DISCOMS FOR FY 2021-22 (RS. CRORE)**

Particulars	Derivation	Claimed	Approved
Opening WIP as on 1st April 2020	A	12831.24	12831.24
Investments/CAPEX	B	8828.14	8828.14
Employee Expenses capitalization	C	1283.85	1283.85
A&G Expenses Capitalisation	D	0.00	0.00
Interest Capitalisation on Interest on long term loans	E	639.93	639.93
<b>Total Investments / CAPEX</b>	<b>F= A+B+C+D+E</b>	<b>23583.16</b>	<b>23583.16</b>
Transferred to GFA (Total Capitalisation)	G	10587.53	10587.53
<b>Closing WIP</b>	<b>H=F-G</b>	<b>12995.62</b>	<b>12995.62</b>

## 6.9. FINANCING OF CAPITAL INVESTMENT

6.9.1. The Petitioners have considered a normative debt: equity ratio of 70:30. Considering this approach, 70% of the capital expenditure (excluding consumer contribution and grants) undertaken in FY 2021-22 has been considered to be financed through loan and balance 30% has been considered to be financed through equity contributions. The portion of capital expenditure financed through consumer contribution, capital subsidies and grants has been deducted as the depreciation and interest thereon would not be charged to the beneficiaries.

6.9.2. The Regulation 20 of the UPERC MYT Regulations, 2019 is as follows:

Quote

### *20 Debt-Equity Ratio*

*20.1 For a capital investment Scheme declared under commercial operation on or after April 1, 2020, debt-equity ratio as on the date of commercial operation shall be 70:30 of the amount of capital cost approved by the Commission under Regulation 18, after making appropriate adjustment of Assets funded by Consumer Contribution/ Deposit Works/ Capital Subsidies/ Grant subject to prudence check for determination of Tariff:*



*Provided that if the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan for the Licensee for determination of Tariff:*

*Provided further that the Licensee shall submit documentary evidence for the actual deployment of equity and explain the source of funds for the equity:*

*Provided also that where equity actually deployed is less than 30% of the capital cost of the capitalised asset, the actual equity shall be considered for determination of Tariff:*

*Provided also that the equity invested in foreign currency shall be designated on the date of each investment.*

*20.2 In case of the Licensee, for the fixed assets capitalised on account of Capital Expenditure Scheme prior to April 1, 2020, the debt-equity ratio allowed by the Commission for determination of ARR / Tariff for the period ending March 31, 2020 shall be considered:*

*Provided that in case of retirement or replacement or de-capitalisation of the assets, the equity capital approved as mentioned above, shall be reduced to the extent of 30% (or actual equity component based on documentary evidence, if it is lower than 30%) of the original cost of such assets:*

*Provided further that in case of retirement or replacement or de-capitalisation of the assets, the debt capital approved as mentioned above, shall be reduced to the extent of outstanding debt component based on documentary evidence, or the normative loan component, as the case may be, of the original cost of such assets.*

*20.3 Any expenditure incurred or projected to be incurred on or after April 1, 2020, as may be admitted by the Commission as additional capital expenditure for determination of Tariff, and Renovation and Modernisation expenditure for life extension, shall be serviced in the manner stipulated in these Regulations.*

#### Unquote

- 6.9.3. For the purpose of arriving at the opening values of FY 2021-22, the Commission has computed the values for FY 2020-21. For APR of FY 2020-21, the State Owned Discoms has claimed an investment of Rs. 8828.14 Crore and GFA addition of Rs. 10587.53 Crore. The employee expenses capitalisation has been considered the same as claimed by the Petitioner. The projected Capital formation and Capital



Work in Progress and GFA computed for State owned Discoms for FY 2020-21 is as shown in table below:

**TABLE 6-88: CAPITAL INVESTMENT FOR FY 2020-21 FOR DVVNL (RS. CRORE)**

Particulars	Derivation	Tariff Order dt. 11.11.2020	Claimed in APR	Computed (provisional)
Opening WIP as on 1st April	A	4318.95	2059.59	2059.59
Investments (during the year)	B	1549.85	1549.85	1549.85
Employee expenses capitalisation (during the year)	C	289.38	220.38	220.38
A&G expenses capitalisation (during the year)	D	0.00	0.00	0.00
Interest capitalisation in Interest on long term loans (during the year)	E	104.80	105.01	105.01
Total Investments	F=A+B+C+D+E	6262.97	3934.83	3934.83
Transferred to GFA (total capitalisation) (during the year)	G=F*40%	2505.19	1769.16	1769.16
<b>Closing WIP</b>	<b>H=F-G</b>	<b>3757.78</b>	<b>2165.66</b>	<b>2165.66</b>

**TABLE 6-89: CAPITAL INVESTMENT FOR FY 2020-21 FOR MVVNL (RS. CRORE)**

Particulars	Derivation	Tariff Order dt. 11.11.2020	Claimed in APR	Computed (provisional)
Opening WIP as on 1st April	A	6811.99	6508.25	6508.25
Investments (during the year)	B	2429.40	2429.40	2429.40
Employee expenses capitalisation (during the year)	C	327.29	433.04	433.04
A&G expenses capitalisation (during the year)	D	-	0.00	-
Interest capitalisation in Interest on long term loans (during the year)	E	19.76	93.91	93.91
Total Investments	F=A+B+C+D+E	9588.44	9464.60	9464.60
Transferred to GFA (total capitalisation) (during the year)	G=F*40%	3835.38	4060.14	4060.14
<b>Closing WIP</b>	<b>H=F-G</b>	<b>5753.06</b>	<b>5404.46</b>	<b>5404.46</b>

**TABLE 6-90: CAPITAL INVESTMENT FOR FY 2020-21 FOR PVVNL (RS. CRORE)**

Particulars	Derivation	Tariff Order dt. 11.11.2020	Claimed in APR	Computed (provisional)
Opening WIP as on 1st April	A	1110.09	167.78	167.78
Investments (during the year)	B	2573.80	2573.80	2573.80



Approval of ARR and Tariff for State Discoms for FY 2021-22, APR of FY 2020-21 and True-up of FY 2019-20

Particulars	Derivation	Tariff Order dt. 11.11.2020	Claimed in APR	Computed (provisional)
Employee expenses capitalisation (during the year)	C	327.29	158.26	158.26
A&G expenses capitalisation (during the year)	D	0.00	0.00	0.00
Interest capitalisation in Interest on long term loans (during the year)	E	61.11	215.65	215.65
Total Investments	F=A+B+C+D+E	4072.30	3115.51	3115.51
Transferred to GFA (total capitalisation) (during the year)	G=F*40%	1840.16	1470.55	1470.55
<b>Closing WIP</b>	<b>H=F-G</b>	<b>2232.14</b>	<b>1644.95</b>	<b>1644.95</b>

**TABLE 6-91: CAPITAL INVESTMENT FOR FY 2020-21 FOR PUVVNL (RS. CRORE)**

Particulars	Derivation	Tariff Order dt. 11.11.2020	Claimed in APR	Computed (provisional)
Opening WIP as on 1st April	A	4805.89	2285.66	2285.66
Investments (during the year)	B	3249.16	3249.16	3249.16
Employee expenses capitalisation (during the year)	C	386.41	460.33	460.33
A&G expenses capitalisation (during the year)	D		0.00	-
Interest capitalisation in Interest on long term loans (during the year)	E	208.28	225.36	225.36
Total Investments	F=A+B+C+D+E	8649.74	6220.51	6220.51
Transferred to GFA (total capitalisation) (during the year)	G=F*40%	3464.42	2899.62	2,899.62
<b>Closing WIP</b>	<b>H=F-G</b>	<b>5185.31</b>	<b>3320.89</b>	<b>3,320.89</b>

**TABLE 6-92: CAPITAL INVESTMENT FOR FY 2020-21 FOR KESCO (RS. CRORE)**

Particulars	Derivation	Tariff Order dt. 11.11.2020	Claimed in APR	Computed (provisional)
Opening WIP as on 1st April	A	182.14	233.62	233.62
Investments (during the year)	B	258.50	258.50	258.50
Employee expenses capitalisation (during the year)	C	42.74	11.83	11.83
A&G expenses capitalisation (during the year)	D	-	0.00	-
Interest capitalisation in Interest on long term loans (during the year)	E	-	0.00	-
Total Investments	F=A+B+C+D+E	483.38	503.96	503.96



Particulars	Derivation	Tariff Order dt. 11.11.2020	Claimed in APR	Computed (provisional)
Transferred to GFA (total capitalisation) (during the year)	G=F*40%	193.35	208.68	208.68
<b>Closing WIP</b>	<b>H=F-G</b>	<b>290.03</b>	<b>295.27</b>	<b>295.27</b>

**TABLE 6-93: CONSOLIDATED CAPITAL INVESTMENT OF STATE DISCOMS FOR FY 2020-21**

Particulars	Derivation	Tariff Order dt. 11.11.2020	Claimed in APR	Computed (provisional)
Opening WIP as on 1st April 2020	A	17229.06	11254.9	11254.9
Investments	B	10060.71	10060.71	10060.71
Employee Expenses capitalization	C	1373.11	1283.84	1283.84
A&G Expenses Capitalisation	D	0	0	0
Interest Capitalisation on Interest on long term loans	E	393.95	639.93	639.93
Total Investments	F= A+B+C+D+E	29056.83	23239.41	23239.41
Transferred to GFA (Total Capitalisation)	G	11838.5	10408.15	10408.15
<b>Closing WIP</b>	<b>H=F-G</b>	<b>17218.32</b>	<b>12831.23</b>	<b>12831.23</b>

6.9.4. The Commission has observed that there are large number of errors / discrepancies and inconsistencies in the data of the Petitioners in regard to GFA related to Grant, consumer contribution opening and closing, and corresponding computations of loan and equity. The Commission has considered the true-up closing GFA of FY 2019-20 as the opening GFA of FY 2020-21. The computation is shown in tables below:

**TABLE 6-94: PROJECTIONS OF GROSS FIXED ASSETS OF DVVNL FOR FY 2020-21 (RS. CRORE)**

Particulars	Derivation	Claimed	Computed (Provisional)
Opening GFA	A	9001.26	8579.75
Addition to GFA during the year	B	1769.16	1769.16
Decapitalisation / deduction	C		-
Deduction to grants	D	80.75	80.75
Closing GFA	E=A+B-C-D	10689.67	10268.17



**TABLE 6-95: PROJECTIONS OF GROSS FIXED ASSETS OF MVVNL FOR FY 2020-21 (RS. CRORE)**

Particulars	Derivation	Claimed	Computed (Provisional)
Opening GFA	A	5295.79	5054.61
Addition to GFA during the year	B	4060.14	4060.14
Decapitalisation / deduction	C	0.00	-
Deduction to grants	D	485.49	485.49
Closing GFA	E=A+B-C-D	8870.44	8629.26

**TABLE 6-96: PROJECTIONS OF GROSS FIXED ASSETS OF PVVNL FOR FY 2020-21 (RS. CRORE)**

Particulars	Derivation	Claimed	Computed (Provisional)
Opening GFA	A	9,507.10	9107.85
Addition to GFA during the year	B	1,470.55	1470.55
Decapitalisation / deduction	C		-
Deduction to grants	D	294.17	294.17
Closing GFA	E=A+B-C-D	10683.48	10,284.23

**TABLE 6-97: PROJECTIONS OF GROSS FIXED ASSETS OF PUVVNL FOR FY 2020-21 (RS. CRORE)**

Particulars	Derivation	Claimed	Computed (Provisional)
Opening GFA	A	8051.59	7,747.37
Addition to GFA during the year	B	2899.62	2899.62
Decapitalisation / deduction	C		
Deduction to grants	D	171.83	944.77
Closing GFA	E=A+B-C-D	10779.39	9702.22

**TABLE 6-98: PROJECTIONS OF GROSS FIXED ASSETS OF KESCO FOR FY 2020-21 (RS. CRORE)**

Particulars	Derivation	Claimed	Computed (Provisional)
Opening GFA	A	800.70	764.54
Addition to GFA during the year	B	208.68	208.68
Decapitalisation / deduction	C		
Deduction to grants	D	40.80	40.80
Closing GFA	E=A+B-C-D	968.58	932.42

6.9.5. The Table below summarises the amounts considered towards Consumer Contributions, capital grants and subsidies for FY 2020-21:



**TABLE 6-99: CONSUMER CONTRIBUTION, GRANT & CAPITAL SUBSIDIES OF DVVNL COMPUTED FOR FY 2020-21 (RS. CRORE)**

Particulars	Claimed	Computed (Provisional)
Opening Balance of Consumer Contributions, Grants and Subsidies towards Cost of Capital Assets	4793.81	4560.11
Additions during the year	356.36	356.36
Less: Deductions	70.68	72.79
Closing Balance	<b>5079.48</b>	<b>4843.68</b>

**TABLE 6-100: CONSUMER CONTRIBUTION, GRANT & CAPITAL SUBSIDIES OF MVVNL COMPUTED FOR FY 2020-21 (RS. CRORE)**

Particulars	Claimed	Computed
Opening Balance of Consumer Contributions, Grants and Subsidies towards Cost of Capital Assets	5475.27	5,343.99
Additions during the year	1202.59	1,202.59
Less: Deductions	55.79	68.48
Closing Balance	<b>6622.07</b>	<b>6478.10</b>

**TABLE 6-101: CONSUMER CONTRIBUTION, GRANT & CAPITAL SUBSIDIES OF PVVNL COMPUTED FOR FY 2020-21 (RS. CRORE)**

Particulars	Claimed	Computed
Opening Balance of Consumer Contributions, Grants and Subsidies towards Cost of Capital Assets	4416.48	5443.30
Additions during the year	262.97*	1212.28
Less: Deductions	160.76	168.45
Closing Balance	<b>4518.69</b>	<b>6487.13</b>

\*Petitioner has not considered the grant portion

**TABLE 6-102: CONSUMER CONTRIBUTION, GRANT & CAPITAL SUBSIDIES OF PUVVNL COMPUTED FOR FY 2020-21 (RS. CRORE)**

Particulars	Claimed	Computed
Opening Balance of Consumer Contributions, Grants and Subsidies towards Cost of Capital Assets	4820.81	4,686.57
Additions during the year	2361.91	2,361.91
Less: Deductions	112.27	137.14
Closing Balance	<b>7070.45</b>	<b>6911.34</b>



**TABLE 6-103: CONSUMER CONTRIBUTION, GRANT & CAPITAL SUBSIDIES OF KESCO COMPUTED FOR FY 2020-21 (RS. CRORE)**

Particulars	Claimed	Computed
Opening Balance of Consumer Contributions, Grants and Subsidies towards Cost of Capital Assets	410.65	401.72
Additions during the year	102.00	102.00
Less: Deductions	6.30	8.97
Closing Balance	<b>506.35</b>	<b>494.75</b>

**TABLE 6-104: CONSOLIDATED CONSUMER CONTRIBUTION, GRANT & CAPITAL SUBSIDIES OF STATE DISCOMS COMPUTED FOR FY 2020-21 (RS. CRORE)**

Particulars	Claimed	Computed
Opening Balance of Consumer Contributions, Grants and Subsidies towards Cost of Capital Assets	19917.01	20435.70
Additions during the year	4285.83	5235.14
Less: Deductions	405.80	455.83
Closing Balance	<b>23797.04</b>	<b>25215.01</b>

6.9.6. The closing GFA and consumer contribution of FY 2020-21, as computed above, has been considered as the opening GFA and consumer contribution of FY 2021-22 as shown in table below:

**TABLE 6-105: GFA, DEBT: EQUITY AS ON 01.04.2021 OF DVVNL (RS. CRORE)**

Particulars	Derivation	Claimed	Approved
Opening GFA	A	10689.67	10268.17
Opening Balance of Consumer Contributions, and Subsidies towards Cost of Capital Assets	B	4013.58	3056.94
Net Opening GFA	C=A-B	6676.09	7211.23
Opening Equity	D=C*30%	2002.83	2163.37
Opening Debt	E=C*70%	4673.27	5047.86

**TABLE 6-106: PROJECTIONS OF GROSS FIXED ASSETS OF MVVNL FOR FY 2021-22 (RS. CRORE)**

Particulars	Derivation	Claimed	Approved
Opening GFA	A	8870.43	8629.26
Opening Balance of Consumer Contributions, and Subsidies towards Cost of Capital Assets	B	5873.72	1873.62
Net Opening GFA	C=A-B	2996.70	6755.64
Opening Equity	D=C*30%	899.01	2026.69
Opening Debt	E=C*70%	2097.69	4728.95



**TABLE 6-107: PROJECTIONS OF GROSS FIXED ASSETS OF PVVNL FOR FY 2021-22 (RS. CRORE)**

Particulars	Derivation	Claimed	Approved
Opening GFA	A	10683.47	10284.23
Opening Balance of Consumer Contributions, and Subsidies towards Cost of Capital Assets	B	4360.91	3089.34
Net Opening GFA	C=A-B	6322.56	7194.90
Opening Equity	D=C*30%	1896.77	2158.47
Opening Debt	E=C*70%	4425.79	5036.43

**TABLE 6-108: PROJECTIONS OF GROSS FIXED ASSETS OF PUVVNL FOR FY 2021-22 (RS. CRORE)**

Particulars	Derivation	Claimed	Approved
Opening GFA	A	10779.39	9702.22
Opening Balance of Consumer Contributions, and Subsidies towards Cost of Capital Assets	B	1839.52	1773.14
Net Opening GFA	C=A-B	8939.86	7929.08
Opening Equity	D=C*30%	2681.96	2378.72
Opening Debt	E=C*70%	6257.90	5550.36

**TABLE 6-109: PROJECTIONS OF GROSS FIXED ASSETS OF KESCO FOR FY 2021-22 (RS. CRORE)**

Particulars	Derivation	Claimed	Approved
Opening GFA	A	968.58	932.42
Opening Balance of Consumer Contributions, and Subsidies towards Cost of Capital Assets	B	404.35	218.23
Net Opening GFA	C=A-B	564.23	714.19
Opening Equity	D=C*30%	169.27	214.26
Opening Debt	E=C*70%	394.96	499.93

**TABLE 6-110: CONSOLIDATED PROJECTIONS OF GROSS FIXED ASSETS OF STATE DISCOMS FOR FY 2021-22 (RS. CRORE)**

Particulars	Derivation	Claimed	Approved
Opening GFA	A	41991.54	39816.31
Opening Balance of Consumer Contributions, and Subsidies towards Cost of Capital Assets	B	16492.08	10011.27
Net Opening GFA	C=A-B	25499.46	29805.03
Opening Equity	D=C*30%	7649.84	8941.51
Opening Debt	E=C*70%	17849.62	20863.52



- 6.9.7. As per Regulation 20.2 of MYT Regulations, 2019, the fixed asset base (in which the retirement or replacement or de-capitalisation of the assets is accounted for) shall be computed as on 31.03.2021(taking into consideration the trued-up values for FY 2019-20 and APR of FY 2020-21). The equity capital as on 1.4.2021, has been computed to the extent of 30% of such fixed asset base and the debt capital has been computed to the extent of 70% of such fixed asset base.
- 6.9.8. Accordingly, the Debt and equity for assets capitalised for FY 2021-22 is shown below:

**TABLE 6-111: DEBT: EQUITY ADDITION OF DVVNL FOR FY 2021-22 (RS. CRORE)**

Particulars	Derivation	Approved
Transferred to GFA (Total Capitalisation)	A	2052.64
Consumer Contribution	B	117.82
Grant	C	541.57
Assets De-Capitalised	D	0.00
<b>Net Assets Capitalised</b>	<b>E=A-B-C-D</b>	<b>1393.25</b>
<b>Debt</b>	<b>F=70%*E</b>	<b>975.28</b>
<b>Equity</b>	<b>G=30%*E</b>	<b>417.98</b>

**TABLE 6-112: DEBT: EQUITY ADDITION OF MVVNL FOR FY 2021-22 (RS. CRORE)**

Particulars	Derivation	Approved
Transferred to GFA (Total Capitalisation)	A	3432.42
Consumer Contribution	B	0.00
Grant	C	1263.42
Assets De-Capitalised	D	-
<b>Net Assets Capitalised</b>	<b>E=A-B-C-D</b>	<b>2169.00</b>
<b>Debt</b>	<b>F=70%*E</b>	<b>1518.30</b>
<b>Equity</b>	<b>G=30%*E</b>	<b>650.70</b>

**TABLE 6-113: DEBT: EQUITY ADDITION OF PVVNL FOR FY 2021-22 (RS. CRORE)**

Particulars	Derivation	Approved
Transferred to GFA (Total Capitalisation)	A	1680.57
Consumer Contribution	B	105.19
Grant	C	932.90
Assets De-Capitalised	D	-
<b>Net Assets Capitalised</b>	<b>E=A-B-C-D</b>	<b>642.48</b>



Particulars	Derivation	Approved
Debt	$F=70\%*E$	449.73
Equity	$G=30\%*E$	192.74

**TABLE 6-114: DEBT: EQUITY ADDITION OF PUVVNL FOR FY 2021-22 (RS. CRORE)**

Particulars	Derivation	Approved
Transferred to GFA (Total Capitalisation)	A	3230.23
Consumer Contribution	B	0.00
Grant	C	2172.54
Assets De-Capitalised	D	0.00
<b>Net Assets Capitalised</b>	<b><math>E=A-B-C-D</math></b>	<b>1057.68</b>
<b>Debt</b>	<b><math>F=70\%*E</math></b>	<b>740.38</b>
<b>Equity</b>	<b><math>G=30\%*E</math></b>	<b>317.31</b>

**TABLE 6-115: DEBT: EQUITY ADDITION OF KESCO FOR FY 2021-22 (RS. CRORE)**

Particulars	Derivation	Approved
Transferred to GFA (Total Capitalisation)	A	191.67
Consumer Contribution	B	0.00
Grant	C	84.40
Assets De-Capitalised	D	0.00
<b>Net Assets Capitalised</b>	<b><math>E=A-B-C-D</math></b>	<b>107.27</b>
<b>Debt</b>	<b><math>F=70\%*E</math></b>	<b>75.09</b>
<b>Equity</b>	<b><math>G=30\%*E</math></b>	<b>32.18</b>

**TABLE 6-116: CONSOLIDATED DEBT: EQUITY ADDITION OF STATE DISCOMS FOR FY 2021-22 (RS. CRORE)**

Particulars	Derivation	Approved
Transferred to GFA (Total Capitalisation)	A	10587.53
Consumer Contribution	B	223.01
Grant	C	4994.83
Assets De-Capitalised	D	0
<b>Net Assets Capitalised</b>	<b><math>E=A-B-C-D</math></b>	<b>5369.68</b>
<b>Debt</b>	<b><math>F=70\%*E</math></b>	<b>3758.78</b>
<b>Equity</b>	<b><math>G=30\%*E</math></b>	<b>1610.91</b>

6.9.9. As per Regulation 20.1 of MYT Regulations, 2019, debt-equity ratio shall be 70:30 of the amount of capital cost approved by the Commission under Regulation 18, after



making appropriate adjustment of Assets funded by Consumer Contribution/ Deposit Works/ Capital Subsidies/ Grant subject to prudence check for determination of Tariff.

6.9.10. Accordingly, the closing GFA for FY 2021-22 has been computed after considering Net addition to the GFA during the year as shown in table below:

**TABLE 6-117: PROJECTIONS OF GROSS FIXED ASSETS OF DVVNL FOR FY 2021-22 (RS. CRORE)**

Particulars	Derivation	Claimed	Computed
Opening GFA	A	10689.67	10268.17
Addition to GFA during the year	B	2052.65	2052.64
Decapitalisation/ deduction	C	0.00	-
Deduction due to Grant	D	541.57	541.57
<b>Closing GFA</b>	<b>E=A+B-C-D</b>	<b>12200.74</b>	<b>11779.24</b>

**TABLE 6-118: PROJECTIONS OF GROSS FIXED ASSETS OF MVVNL FOR FY 2021-22 (RS. CRORE)**

Particulars	Derivation	Claimed	Computed
Opening GFA	A	8870.43	8629.26
Addition to GFA during the year	B	3432.42	3432.42
Decapitalisation/ deduction	C	0.00	-
Deduction due to Grant	D	1263.42	1,263.42
<b>Closing GFA</b>	<b>E=A+B-C-D</b>	<b>11039.43</b>	<b>10,798.26</b>

**TABLE 6-119: PROJECTIONS OF GROSS FIXED ASSETS OF PVVNL FOR FY 2021-22 (RS. CRORE)**

Particulars	Derivation	Claimed	Computed
Opening GFA	A	10683.47	10284.23
Addition to GFA during the year	B	1680.57	1680.57
Decapitalisation/ deduction	C		-
Deduction due to Grant	D	932.90	932.90
<b>Closing GFA</b>	<b>E=A+B-C-D</b>	<b>11,431.14</b>	<b>11,031.90</b>

**TABLE 6-120: PROJECTIONS OF GROSS FIXED ASSETS OF PUVVNL FOR FY 2021-22 (RS. CRORE)**

Particulars	Derivation	Claimed	Computed
Opening GFA	A	10779.39	9702.22
Addition to GFA during the year	B	3230.23	3230.23
Decapitalisation/ deduction	C	0.00	-
Deduction due to Grant	D	2172.54	2,172.54
<b>Closing GFA</b>	<b>E=A+B-C-D</b>	<b>11837.07</b>	<b>10759.91</b>



**TABLE 6-121: PROJECTIONS OF GROSS FIXED ASSETS OF KESCO FOR FY 2021-22 (RS. CRORE)**

Particulars	Derivation	Claimed	Computed
Opening GFA	A	968.58	932.42
Addition to GFA during the year	B	191.67	191.67
Decapitalisation/ deduction	C	0.00	-
Deduction due to Grant	D	84.40	84.40
<b>Closing GFA</b>	<b>E=A+B-C-D</b>	<b>1075.85</b>	<b>1039.69</b>

**TABLE 6-122: CONSOLIDATED PROJECTIONS OF GROSS FIXED ASSETS OF STATE DISCOMS FOR FY 2021-22 (RS. CRORE)**

Particulars	Derivation	Claimed	Computed
Opening GFA	A	41991.54	39816.3
Addition to GFA during the year	B	10587.54	10587.53
Decapitalisation/ deduction	C	0	0
Deduction due to Grant	D	4994.83	4994.83
<b>Closing GFA</b>	<b>E=A+B-C-D</b>	<b>47584.23</b>	<b>45409</b>

6.9.11. The consumer contributions base for FY 2021-22 is as under:

**TABLE 6-123: CONSUMER CONTRIBUTION, CAPITAL GRANTS & SUBSIDIES FROM GOUP CONSIDERED FOR DVVNL IN FY 2021-22 (RS. CRORE)**

Particulars	Claimed	Approved
Opening Balance of Consumer Contributions, Grants and Subsidies towards Cost of Capital Assets	5079.48	4843.68
Additions during the year includes consumer contribution	1555.77	1555.77
Less: Amortisation on consumer contribution part only	70.68	84.86
<b>Closing Balance</b>	<b>6564.57</b>	<b>6314.59</b>

**TABLE 6-124: CONSUMER CONTRIBUTION & SUBSIDIES FROM GOUP CONSIDERED FOR MVVNL IN FY 2021-22 (RS. CRORE)**

Particulars	Claimed	Approved
Opening Balance of Consumer Contributions, and Subsidies towards Cost of Capital Assets	6622.07	6,478.10
Additions during the year includes consumer contribution	1448.88	1,448.88
Less: Amortisation on consumer contribution part only	55.79	88.83
<b>Closing Balance</b>	<b>8015.16</b>	<b>7838.15</b>



**TABLE 6-125: CONSUMER CONTRIBUTION & SUBSIDIES FROM GOUP CONSIDERED FOR PVVNL IN FY 2021-22 (RS. CRORE)**

Particulars	Claimed	Approved
Opening Balance of Consumer Contributions, and Subsidies towards Cost of Capital Assets	4518.69	6487.13
Additions during the year includes consumer contribution	1171.27	1171.27
Less: Amortisation on consumer contribution part only	160.76	169.56
<b>Closing Balance</b>	<b>5529.20</b>	<b>7488.84</b>

**TABLE 6-126: CONSUMER CONTRIBUTION & SUBSIDIES FROM GOUP CONSIDERED FOR PUVVNL IN FY 2021-22 (RS. CRORE)**

Particulars	Claimed	Approved
Opening Balance of Consumer Contributions and Subsidies towards Cost of Capital Assets	7070.45	6,911.34
Additions during the year includes consumer contribution	2542.71	2,542.71
Less: Amortisation on consumer contribution part only	112.27	169.45
<b>Closing Balance</b>	<b>9500.89</b>	<b>9284.60</b>

**TABLE 6-127: CONSUMER CONTRIBUTION & SUBSIDIES FROM GOUP CONSIDERED FOR KESCO IN FY 2021-22 (RS. CRORE)**

Particulars	Claimed	Approved
Opening Balance of Consumer Contributions, Grants and Subsidies towards Cost of Capital Assets	506.35	494.75
Additions during the year includes consumer contribution and grants	58.00	58.00
Less: Amortisation on consumer contribution part only	6.30	8.51
<b>Closing Balance</b>	<b>558.05</b>	<b>544.24</b>

**TABLE 6-128: CONSUMER CONTRIBUTION & SUBSIDIES FROM GOUP CONSIDERED FOR THE STATE DISCOMS IN FY 2021-22 (RS. CRORE)**

Particulars	Claimed	Approved
Opening Balance of Consumer Contributions, and Subsidies towards Cost of Capital Assets	23797.04	25215.01
Additions during the year includes consumer contribution	6776.63	6776.63
Less: Amortisation on consumer contribution part only	405.80	521.21
<b>Closing Balance</b>	<b>30167.87</b>	<b>31470.43</b>



## 6.10. DEPRECIATION

6.10.1. The basis of determination of depreciation is stated in Regulation 21.1 of UPERC MYT Regulations, 2019. The Regulation 21.1 as quoted below:

### Quote

*“21.1 The Licensee, shall be permitted to recover Depreciation on the value of fixed assets used in their respective businesses, computed in the following manner:*

*(a) The approved original cost of the fixed assets shall be the value base for calculation of Depreciation:*

*Provided that the Depreciation shall be allowed on the entire capitalised amount of the new assets after reducing the approved original cost of the retired or replaced or de-capitalised assets.*

*(b) Depreciation shall be computed annually based on the Straight- Line Method at the rates stipulated in the Annexure- A to these Regulations.*

*Provided that the Licensee shall ensure that once the individual asset is depreciated to the extent of seventy percent, remaining depreciable value as on 31st March of the year closing shall be spread over the balance Useful Life of the asset including the Extended Life, as per submission of the Licensee and approved by the Commission.*

*b) The salvage value of the asset shall be considered at 10% of the allowable capital cost and Depreciation shall be allowed up to a maximum of 90% of the allowable capital cost of the asset:*

*Provided that land owned shall not be treated as a Depreciable asset and shall be excluded while computing Depreciation*

*Provided further that Depreciation shall be chargeable from the first year of commercial operation.*

*(d) Depreciation shall not be allowed on assets funded by Consumer Contributions or Subsidies/ Grants/ Deposit works.*

### Unquote

6.10.2. The Petitioners have submitted that the Commission has considered the written down depreciation method for the assets capitalized before 1.4.2020 and straight-line depreciation method for assets capitalized after 1.4.2020.



6.10.3. The Petitioner has computed the allowable depreciation expense on the GFA base based on the Commission approach approved in Tariff Order for FY 2020-21 and at the rates approved by the Commission in MYT (Distribution and Transmission) Regulations, 2019. The Petitioner has computed the depreciation only on the depreciable asset base and has excluded the non-depreciable assets such as land, land rights, etc. Further, the Petitioner has reduced the depreciation/amortization on assets created out of consumer contributions, capital grants and subsidies from allowable depreciation for FY 2021-22. The Petitioner has considered the amortisation of Consumer contribution as considered in APR for FY 2020-21.

6.10.4. Accordingly, the Petitioners have computed depreciation for FY 2020-21 as shown in table below:

**TABLE 6-129: GROSS ALLOWABLE DEPRECIATION FOR ASSETS UPTO 31.03.2020 AS SUBMITTED BY DVVNL FOR FY 2021-22 (RS CRORE)**

Sr. No	Particulars	Closing Written down GFA (as on 31.3.2021)	Gross Depreciation during 2020-21	Balance Depreciable Value as on 1.4.2021 (Opening GFA)	Addition to GFA	Average % of Deductions of Last 3 true-Ups	Deduction to GFA	Closing GFA	Average GFA	Depreciation Rate	Allowable Gross Depreciation
1	Land & Land Rights	1.12	0	1.12				1.12	1.12	0.00%	0
2	Buildings	210.08	7.02	203.06				203.06	203.06	3.34%	6.78
3	Plant & Machinery	1,423.24	75.15	1,348.09				1,348.09	1,348.09	5.28%	71.18
4	Lines, Cables, Network etc.	7,351.07	388.14	6,962.93				6,962.93	6,962.93	5.28%	367.64
5	Vehicles	0.69	0.04	0.65				0.65	0.65	6.33%	0.04
6	Furniture & Fixtures	10.61	0.67	9.94				9.94	9.94	6.33%	0.63
7	Office Equipments	4.44	0.28	4.16				4.16	4.16	6.33%	0.26
8	Total Fixed Assets	9,001.26	471.3	8,529.96				8,529.96	8,765.61		446.54
9	Non depreciable assets (Land & Land Rights)	1.12	0	1.12				1.12	1.12	0	
10	Depreciable assets	9,000.13	471.3	8,528.84				8,528.84	8,764.48	5.09%	446.54



**TABLE 6-130: GROSS ALLOWABLE DEPRECIATION FOR ASSETS AFTER 1.04.2020 AS SUBMITTED BY DVVNL FOR FY 2021-22 (RS. CRORE)**

S.No.	Particulars	Opening GFA net of Grant as on 1.4.2021	Addition to GFA	Deduction to GFA	Deduction of Grants	Closing GFA	Average GFA	Depreciation Rate	Allowable Gross Depreciation
1	Land & Land Rights	0		0	-	-	0	0.00%	0
2	Buildings	39.41	48.87	0	12.89	75.39	57.4	3.34%	1.92
3	Plant & Machinery	267	324.45	0	85.6	505.84	386.42	5.28%	20.4
4	Lines, Cables, Network etc.	1,379.05	1,675.78	0	442.14	2,612.69	1,995.87	5.28%	105.38
5	Vehicles	0.13	0.16	0	0.04	0.24	0.19	6.33%	0.01
6	Furniture & Fixtures	1.99	2.39	0	0.63	3.75	2.87	6.33%	0.18
7	Office Equipment's	0.83	1	0	0.26	1.57	1.2	6.33%	0.08
8	Total Fixed Assets	<b>1,688.42</b>	<b>2,052.65</b>	<b>0</b>	<b>541.57</b>	<b>3,199.49</b>	<b>2,443.95</b>		<b>127.97</b>
9	Non depreciable assets (Land & Land Rights)	0	0	0	0	0	0	0	0
10	Depreciable assets	<b>1,688.42</b>	<b>2,052.65</b>	<b>0</b>	<b>541.57</b>	<b>3,199.49</b>	<b>2,443.95</b>	<b>5.24%</b>	<b>127.97</b>

**TABLE 6-131: GROSS ALLOWABLE DEPRECIATION FOR ASSETS UPTO 31.03.2020 AS SUBMITTED BY MVVNL FOR 2021-22 (RS CRORE)**

Sr. No	Particulars	Closing Written down GFA (as on 31.3.2021)	Gross Depreciation during 2020-21	Balance Depreciable Value as on 1.4.2021 (Opening GFA)	Addition to GFA	Average % of Deductions of Last 3 true-Ups	Deduction to GFA	Closing GFA	Average GFA	Depreciation Rate	Allowable Gross Depreciation
1	Land & Land Rights	0.62	0	0.62				0.62	0.62	0.00%	0
2	Buildings	71.56	2.39	69.17				69.17	69.17	3.34%	2.31
3	Other Civil Works	4.39	0.15	4.24				4.24	4.24	3.34%	0.14
4	Plant & Machinery	1160.73	61.29	1099.45				1099.45	1099.45	5.28%	58.05
5	Lines, Cables, Network etc.	4021.6	212.34	3809.26				3809.26	3809.26	5.28%	201.13
6	Vehicles	1.8	0.11	1.69				1.69	1.69	6.33%	0.11
7	Furniture & Fixtures	3.75	0.24	3.51				3.51	3.51	6.33%	0.22
8	Office Equipments	31.32	1.98	29.34				29.34	29.34	6.33%	1.86
9	Total Fixed Assets	<b>5295.78</b>	<b>278.5</b>	<b>5017.28</b>				<b>5017.28</b>	<b>5156.53</b>	<b>0.00%</b>	<b>263.82</b>



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Sr. No	Particulars	Closing Written down GFA (as on 31.3.2021)	Gross Depreciation during 2020-21	Balance Depreciable Value as on 1.4.2021 (Opening GFA)	Addition to GFA	Average % of Deductions of Last 3 true-Ups	Deduction to GFA	Closing GFA	Average GFA	Depreciation Rate	Allowable Gross Depreciation
10	Non depreciable assets (Land & Land Rights)	0.62	0	0.62				0.62	0.62	0.00%	0
11	Depreciable assets	5295.15	278.5	5016.66				5016.66	5155.9	5.12%	263.82

**TABLE 6-132: GROSS ALLOWABLE DEPRECIATION FOR ASSETS AFTER 1.04.2020 AS SUBMITTED BY MVVNL FOR 2021-22 (RS CRORE)**

S.No.	Particulars	Opening GFA net of Grant as on 1.4.2021	Addition to GFA	Deduction to GFA	Deduction of Grants	Closing GFA	Average GFA	Depreciation Rate	Allowable Gross Depreciation
1	Land & Land Rights	0	0	0	0	0	0	0.00%	0
2	Buildings	48.31	47.33	0	17.42	78.22	63.26	3.34%	2.11
3	Other Civil Works	2.96	2.9	0	1.07	4.8	3.88	3.34%	0.13
4	Plant & Machinery	783.59	752.25	0	276.89	1258.94	1021.26	5.28%	53.92
5	Lines, Cables, Network etc.	2714.9	2606.32	0	959.35	4361.87	3538.38	5.28%	186.83
6	Vehicles	1.22	1.16	0	0.43	1.95	1.58	6.33%	0.1
7	Furniture & Fixtures	2.53	2.4	0	0.88	4.05	3.29	6.33%	0.21
8	Office Equipments	21.14	20.07	0	7.39	33.83	27.49	6.33%	1.74
9	Total Fixed Assets	3574.65	3432.42	0	1263.42	5743.65	4659.15	0.00%	245.04
10	Non depreciable assets (Land & Land Rights)	0	0	0	0	0	0	0.00%	0
11	Depreciable assets	3574.65	3432.42	0	1263.42	5743.65	4659.15	5.26%	245.04



**TABLE 6-133: GROSS ALLOWABLE DEPRECIATION FOR ASSETS UPTO 31.03.2020 AS SUBMITTED BY PVVNL FOR 2021-22 (RS CRORE)**

Sr. No	Particulars	Closing Written down GFA (as on 31.3.2021)	Gross Depreciation during 2020-21	Balance Depreciable Value as on 1.4.2021 (Opening GFA)	Addition to GFA	Average % of Deductions of Last 3 true-Ups	Deduction to GFA	Closing GFA	Average GFA	Depreciation Rate	Allowable Gross Depreciation
1	Land & Land Rights	2.3	-	2.3	-	-	-	2.3	2.3	0.00%	-
2	Buildings	254.41	8.5	245.91	-	-	-	245.91	245.91	3.34%	8.21
3	Plant & Machinery	1,982.23	104.66	1,877.57	-	-	-	1,877.57	1,877.57	5.28%	99.14
4	Lines, Cables, Network etc.	7,238.89	382.21	6,856.68	-	-	-	6,856.68	6,856.68	5.28%	362.03
5	Vehicles	1.11	0.07	1.04	-	-	-	1.04	1.04	6.33%	0.07
6	Furniture & Fixtures	6.54	0.41	6.13	-	-	-	6.13	6.13	6.33%	0.39
7	Office Equipments	21.61	1.37	20.24	-	-	-	20.24	20.24	6.33%	1.28
8	Total Fixed Assets	9,507.09	497.22	9,009.87	-	-	-	9,009.87	9,258.48	0.00%	471.12
9	Non depreciable assets (Land & Land Rights)	2.3	-	2.3	-	-	-	2.3	2.3	0.00%	-
10	Depreciable assets	9,504.79	497.22	9,007.56	-	-	-	9,007.56	9,256.17	5.09%	471.12

**TABLE 6-134: GROSS ALLOWABLE DEPRECIATION FOR ASSETS AFTER 1.04.2020 AS SUBMITTED BY PVVNL FOR 2021-22 (RS CRORE)**

S.No.	Particulars	Opening GFA net of Grant as on 1.4.2021	Addition to GFA	Deduction to GFA	Deduction of Grants	Closing GFA	Average GFA	Depreciation Rate	Allowable Gross Depreciation
1	Land & Land Rights	-	-	-	-	-	-	0.00%	-
2	Buildings	31.49	45.88	-	25.47	51.9	41.69	3.34%	1.39
3	Plant & Machinery	245.33	350.3	-	194.46	401.18	323.26	5.28%	17.07
4	Lines, Cables, Network etc.	895.94	1,279.27	-	710.14	1,465.07	1,180.50	5.28%	62.33
5	Vehicles	0.14	0.19	-	0.11	0.22	0.18	6.33%	0.01
6	Furniture & Fixtures	0.81	1.14	-	0.63	1.32	1.06	6.33%	0.07
7	Office Equipment's	2.67	3.78	-	2.1	4.36	3.52	6.33%	0.22
8	Total Fixed Assets	1,176.38	1,680.57	-	932.9	1,924.05	1,550.22	0.00%	81.09
9	Non depreciable assets (Land & Land Rights)	-	-	-	-	-	-	0.00%	-
10	Depreciable assets	1,176.38	1,680.57	-	932.9	1,924.05	1,550.22	5.23%	81.09



**TABLE 6-135: GROSS ALLOWABLE DEPRECIATION FOR ASSETS UPTO 31.03.2020 AS SUBMITTED BY PUVVNL FOR 2021-22 (RS CRORE)**

Sr. No	Particulars	Closing Written down GFA (as on 31.3.2021)	Gross Depreciation during 2020-21	Balance Depreciable Value as on 1.4.2021 (Opening GFA)	Addition to GFA	Average % of Deductions of Last 3 true-Ups	Deduction to GFA	Closing GFA	Average GFA	Depreciation Rate	Allowable Gross Depreciation
1	Land & Land Rights	0.72	0	0.72				0.72	0.72	0.00%	0
2	Buildings	96.27	3.22	93.05				93.05	93.05	3.34%	3.11
3	Plant & Machinery	3573.94	188.7	3,385.24				3,385.24	3,385.24	5.28%	178.74
4	Lines, Cables, Network etc.	4323.48	228.28	4,095.20				4,095.20	4,095.20	5.28%	216.23
5	Vehicles	55.32	3.5	51.82				51.82	51.82	6.33%	3.28
6	Furniture & Fixtures	1.22	0.08	1.15				1.15	1.15	6.33%	0.07
7	Office Equipments	0.64	0.04	0.6				0.6	0.6	6.33%	0.04
8	Total Fixed Assets	8051.59	423.82	7,627.77				7,627.77	7,839.68		401.47
9	Non depreciable assets (Land & Land Rights)	0.72	0	0.72				0.72	0.72	0	
10	Depreciable assets	8050.88	423.82	7,627.06				7,627.06	7,838.97	5.12%	401.47

**TABLE 6-136: GROSS ALLOWABLE DEPRECIATION FOR ASSETS AFTER 1.04.2020 AS SUBMITTED BY PUVVNL FOR 2021-22 (RS CRORE)**

S. No.	Particulars	Opening GFA net of Grant as on 1.4.2021	Addition to GFA	Deduction to GFA	Deduction of Grants	Closing GFA	Average GFA	Depreciation Rate	Allowable Gross Depreciation
1	Land & Land Rights	0		0	-	-	0	0.00%	0
2	Buildings	32.62	39.41	0	26.51	45.52	39.07	3.34%	1.3
3	Plant & Machinery	1,210.92	1,433.72	0	964.27	1,680.37	1,445.65	5.28%	76.33
4	Lines, Cables, Network etc.	1,464.88	1,734.41	0	1,166.50	2,032.78	1,748.83	5.28%	92.34
5	Vehicles	18.74	21.95	0	14.76	25.93	22.34	6.33%	1.41
6	Furniture & Fixtures	0.41	0.49	0	0.33	0.57	0.49	6.33%	0.03
7	Office Equipment's	0.22	0.25	0	0.17	0.3	0.26	6.33%	0.02
8	Total Fixed Assets	2,727.79	3,230.23	0	2,172.54	3,785.48	3,256.64		171.43
9	Non depreciable assets (Land & Land Rights)	0	0	0	0	0	0	0	0
10	Depreciable assets	2,727.79	3,230.23	0	2,172.54	3,785.48	3,256.64	5.26%	171.43



**TABLE 6-137: GROSS ALLOWABLE DEPRECIATION FOR ASSETS UPTO 31.03.2020 AS SUBMITTED BY KESCO FOR 2021-22 (RS CRORE)**

Sr. No	Particulars	Closing Written down GFA (as on 31.3.2021)	Gross Depreciation during 2020-21	Balance Depreciable Value as on 1.4.2021 (Opening GFA)	Addition to GFA	Average % of Deductions of Last 3 true-Ups	Deduction to GFA	Closing GFA	Average GFA	Depreciation Rate	Allowable Gross Depreciation
1	Land & Land Rights	0	0	0				0	0	0.00%	0
2	Buildings	25.86	0.86	24.99				24.99	24.99	3.34%	0.83
3	Plant & Machinery	268.27	14.16	254.1				254.1	254.1	5.28%	13.42
4	Lines, Cables, Network etc.	493.13	26.04	467.09				467.09	467.09	5.28%	24.66
5	Vehicles	10.28	0.65	9.63				9.63	9.63	6.33%	0.61
6	Furniture & Fixtures	1.2	0.08	1.13				1.13	1.13	6.33%	0.07
7	Office Equipments	1.98	0.13	1.85				1.85	1.85	6.33%	0.12
8	<b>Total Fixed Assets</b>	<b>800.7</b>	<b>41.92</b>	<b>758.78</b>				<b>758.78</b>	<b>779.74</b>		<b>39.71</b>
9	Non depreciable assets (Land & Land Rights)	0	0	0				0	0		0
10	<b>Depreciable assets</b>	<b>800.7</b>	<b>41.92</b>	<b>758.78</b>				<b>758.78</b>	<b>779.74</b>		<b>39.71</b>

**TABLE 6-138: GROSS ALLOWABLE DEPRECIATION FOR ASSETS AFTER 1.04.2020 AS SUBMITTED BY KESCO FOR 2021-22 (RS CRORE)**

S. No.	Particulars	Opening GFA net of Grant as on 1.4.2021	Addition to GFA	Deduction to GFA	Deduction of Grants	Closing GFA	Average GFA	Depreciation Rate	Allowable Gross Depreciation
1	Land & Land Rights	0	0	0	0	0	0	0.00%	0
2	Buildings	5.42	6.31	0	2.78	8.95	7.19	3.34%	0.24
3	Plant & Machinery	56.25	64.19	0	28.26	92.17	74.21	5.28%	3.92
4	Lines, Cables, Network etc.	103.39	117.99	0	51.95	169.43	136.41	5.28%	7.2
5	Vehicles	2.16	2.43	0	1.07	3.52	2.84	6.33%	0.18
6	Furniture & Fixtures	0.25	0.28	0	0.13	0.41	0.33	6.33%	0.02
7	Office Equipment's	0.41	0.47	0	0.21	0.68	0.54	6.33%	0.03
8	<b>Total Fixed Assets</b>	<b>167.88</b>	<b>191.67</b>	<b>0</b>	<b>84.4</b>	<b>275.15</b>	<b>221.52</b>		<b>11.6</b>
9	Non depreciable assets (Land & Land Rights)	0	0	0	0	0	0		0
10	<b>Depreciable assets</b>	<b>167.88</b>	<b>191.67</b>	<b>0</b>	<b>84.4</b>	<b>275.15</b>	<b>221.52</b>		<b>11.60</b>



6.10.5. The Regulation 21 of the MYT Regulations, 2019 provides that:

Quote

*“21 Depreciation:*

*21.1 The Licensee, shall be permitted to recover Depreciation on the value of fixed assets used in their respective businesses, computed in the following manner:*

*a) The approved original cost of the fixed assets shall be the value base for calculation of Depreciation:*

*Provided that the Depreciation shall be allowed on the entire capitalised amount of the new assets after reducing the approved original cost of the retired or replaced or decapitalised assets.*

*b) Depreciation shall be computed annually based on the Straight- Line Method at the rates stipulated in the Annexure- A of the Uttar Pradesh Electricity Regulatory Commission (Multi Year Tariff for Distribution & Transmission) Regulations, 2019.*

*Provided that the Licensee shall ensure that once the individual asset is depreciated to the extent of seventy percent, remaining depreciable value as on 31st March of the year closing shall be spread over the balance Useful Life of the asset including the Extended Life, as per submission of the Licensee and approved by the Commission.*

*c) The salvage value of the asset shall be considered at 10% of the allowable capital cost and Depreciation shall be allowed up to a maximum of 90% of the allowable capital cost of the asset:*

*Provided that land owned shall not be treated as a Depreciable asset and shall be excluded while computing Depreciation:*

*Provided further that Depreciation shall be chargeable from the first year of commercial operation.*

*d) Depreciation shall not be allowed on assets funded by Consumer Contributions or Subsidies/ Grants/ Deposit works.*

*21.2 In case of existing assets, the balance depreciable value as on April 01, 2020, shall be worked out taking into consideration the life of the asset, and by deducting the cumulative Depreciation as admitted by the Commission up to March 31, 2020, from the gross depreciable value of the assets.*

*21.3 In case of projected commercial operation of the assets for part of the year, depreciation shall be computed based on the average of opening and closing value of assets.*



21.4 Depreciation shall be re-computed for assets capitalised at the time of Truing-Up, based on Audited Accounts and documentary evidence of assets capitalised by the Petitioner, subject to the prudence check of the Commission.

Unquote

6.10.6. The Commission directed the Petitioners to maintain a separate individual asset wise FAR for assets capitalized after 1.4.2020 and the Gross Block and Depreciation may be computed separately from the Gross Block before 1.4.2020. Accordingly, from FY 2020-21 onwards the State Owned Discoms to maintain two separate Gross Blocks (one for assets upto 31.3.2020 (Part-A) and second for assets after 1.4.2020 (Part B) and two separate FAR's depicting addition of Assets details from 01.04.2020 onwards for the purpose of depreciation computation for Regulatory Accounts.

6.10.7. As per above, the Commission has computed the depreciation. The written down closing of FY 2020-21 is considered as Opening for FY 2021-22, the gross allowable depreciation for each component is totalled and the equivalent depreciation on assets created out of Consumer Contributions, capital grants and subsidies are deducted as shown under:

**TABLE 6-139: GROSS ALLOWABLE DEPRECIATION FOR ASSETS UPTO 31.03.2020 OF DVVNL FOR FY 2021-22 (RS. CRORE)**

For assets upto 31.3.2020 (Part A)		Depreciation						
S. N o.	Particulars	Opening GFA	Addition to GFA	Deduction to GFA	Closing GFA	Average GFA	Depreciation Rate	Allowable Gross Depreciation
1	Land & Land Rights	1.25			1.25	1.25	0.00%	0.00
2	Buildings	210.15			210.15	210.15	3.34%	7.02
3	Plant & Machinery	1398.48			1398.48	1398.48	5.28%	73.84
4	Lines, Cables, Network etc.	6958.06			6958.06	6958.06	5.28%	367.39
5	Vehicles	3.16			3.16	3.16	6.33%	0.20
6	Furniture & Fixtures	8.19			8.19	8.19	6.33%	0.52
7	Office Equipment	0.47			0.47	0.47	6.33%	0.03
8	<b>Total Fixed Assets</b>	<b>8579.75</b>	<b>0.00</b>		<b>8579.75</b>	<b>8579.75</b>	<b>0.33</b>	<b>448.99</b>
9	Non depreciable assets (Land & Land Rights)	1.25	0.00		1.25	1.25	0.00	0.00
10	<b>Depreciable assets</b>	<b>8578.50</b>			<b>8578.50</b>	<b>8578.50</b>	<b>5.23%</b>	<b>448.99</b>



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**TABLE 6-140: GROSS ALLOWABLE DEPRECIATION FOR ASSETS AS 01.04.2020 ONWARDS OF DVVNL FOR FY 2021-22 (RS. CRORE)**

For assets from 1.4.2020 onwards (Part B)		Depreciation							
S.No.	Particulars	Opening GFA	Addition to GFA	Deduction to GFA	Deduction of Grants	Closing GFA	Average GFA	Depreciation Rate	Allowable Gross Depreciation
1	Land & Land Rights	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00
2	Buildings	39.41	48.87	0.00	12.89	75.39	57.40	3.34%	1.92
3	Plant & Machinery	267.00	324.45	0.00	85.60	505.84	386.42	5.28%	20.40
4	Lines, Cables, Network etc.	1379.05	1675.78	0.00	442.14	2612.69	1995.87	5.28%	105.38
5	Vehicles	0.13	0.16	0.00	0.04	0.24	0.19	6.33%	0.01
6	Furniture & Fixtures	1.99	2.39	0.00	0.63	3.75	2.87	6.33%	0.18
7	Office Equipments	0.83	1.00	0.00	0.26	1.57	1.20	6.33%	0.08
8	<b>Total Fixed Assets</b>	<b>1688.42</b>	<b>2052.64</b>	<b>0.00</b>	<b>541.57</b>	<b>3199.49</b>	<b>2443.95</b>		<b>127.97</b>
9	Non depreciable assets (Land & Land Rights)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	<b>Depreciable assets</b>	<b>1688.42</b>	<b>2052.64</b>	<b>0.00</b>	<b>541.57</b>	<b>3199.49</b>	<b>2443.95</b>	<b>5.24%</b>	<b>127.97</b>

**TABLE 6-141: GROSS ALLOWABLE DEPRECIATION FOR ASSETS UPTO 31.03.2020 OF MVVNL FOR FY 2021-22 (RS. CRORE)**

For assets upto 31.3.2020 (Part A)		Depreciation							
S.No.	Particulars	Opening GFA	Addition to GFA	Deduction to GFA	Closing GFA	Average GFA	Depreciation Rate	Allowable Gross Depreciation	
1	Land on lease	1.07			1.07	1.07	0.00%	0.00	
2	Buildings	182.32			182.32	182.32	3.34%	6.09	
3	Other Civil Works	14.27			14.27	14.27	3.34%	0.48	
4	Plants & Machinery	740.04			740.04	740.04	5.28%	39.07	
5	Lines, Cables, Networks etc.	4025.40			4025.40	4025.40	5.28%	212.54	
6	Office Equipments	5.57			5.57	5.57	6.33%	0.35	
7	Furniture & Fixtures	9.59			9.59	9.59	6.33%	0.61	
8	Vehicles	76.35			76.35	76.35	6.33%	4.83	
9	<b>Total Fixed Assets</b>	<b>5054.61</b>			<b>5054.61</b>	<b>5054.61</b>		<b>263.97</b>	
10	Non depreciable assets (Land & Land Rights)	1.07			1.07	1.07	0.00	0.00	
11	<b>Depreciable assets</b>	<b>5053.54</b>			<b>5053.54</b>	<b>5053.54</b>	<b>5.22%</b>	<b>263.97</b>	

**TABLE 6-142: GROSS ALLOWABLE DEPRECIATION FOR ASSETS AS ON 01.04.2020 OF MVVNL FOR FY 2021-22 (RS. CRORE)**

For assets from 1.4.2020 onwards (Part B)		Depreciation							
S.No.	Particulars	Opening GFA	Addition to GFA	Deduction to GFA	Deduction of Grants	Closing GFA	Average GFA	Depreciation Rate	Allowable Gross Depreciation
1	Land on lease	0.00	0.00	0.00	0.00	0.00	0.00		0.00



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For assets from 1.4.2020 onwards (Part B)		Depreciation							
S.No.	Particulars	Opening GFA	Addition to GFA	Deduction to GFA	Deduction of Grants	Closing GFA	Average GFA	Depreciation Rate	Allowable Gross Depreciation
2	Buildings	123.88	118.95	0.00	43.78	199.05	161.47	3.34%	5.39
3	Other Civil Works	9.99	9.59	0.00	3.53	16.05	13.02	3.34%	0.43
4	Plants & Machinery	367.73	353.10	0.00	129.97	590.86	479.29	5.28%	25.31
5	Lines, Cables, Networks etc.	2993.16	2874.07	0.00	1057.90	4809.32	3901.24	5.28%	205.99
6	Office Equipments	5.28	5.07	0.00	1.87	8.49	6.89	6.33%	0.44
7	Furniture & Fixtures	7.59	7.28	0.00	2.68	12.19	9.89	6.33%	0.63
8	Vehicles	67.03	64.36	0.00	23.69	107.69	87.36	6.33%	5.53
9	<b>Total Fixed Assets</b>	<b>3574.65</b>	<b>3432.42</b>	<b>0.00</b>	<b>1263.42</b>	<b>5743.65</b>	<b>4659.15</b>		
10	Non depreciable assets (Land & Land Rights)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	<b>Depreciable assets</b>	<b>3574.65</b>	<b>3432.42</b>	<b>0.00</b>	<b>1263.42</b>	<b>5743.65</b>	<b>4659.15</b>	<b>5.23%</b>	<b>243.71</b>

**TABLE 6-143: GROSS ALLOWABLE DEPRECIATION FOR ASSETS UPTO 31.03.2020 OF PVVNL FOR FY 2020-21 (RS. CRORE)**

For assets upto 31.3.2020 (Part A)		Depreciation						
S.No.	Particulars	Opening GFA	Addition to GFA	Deduction to GFA	Closing GFA	Average GFA	Depreciation Rate	Allowable Gross Depreciation
1	Land on lease	2.67			2.67	2.67	0.00%	0.00
2	Buildings	275.93			275.93	275.93	3.34%	9.22
3	Other Civil Works	0.00			0.00	0.00	3.34%	0.00
4	Plants & Machinery	3054.24			3054.24	3054.24	5.28%	161.26
5	Lines, Cables, Networks etc.	5806.66			5806.66	5806.66	5.28%	306.59
6	Office Equipment's							
7	Furniture & Fixtures	5.63			5.63	5.63	6.33%	0.36
8	Vehicles	20.65			20.65	20.65	6.33%	1.31
9	<b>Total Fixed Assets</b>	<b>9107.85</b>			<b>9107.85</b>	<b>9107.85</b>		
10	Non depreciable assets (Land & Land Rights)	2.67			2.67	2.67	0.00	0.00
11	<b>Depreciable assets</b>	<b>9105.19</b>			<b>9105.19</b>	<b>9105.19</b>	<b>5.22%</b>	<b>475.07</b>

**TABLE 6-144: GROSS ALLOWABLE DEPRECIATION FOR ASSETS AS ON 01.04.2020 OF PVVNL FOR FY 2020-21 (RS. CRORE)**

For assets from 1.4.2020 onwards (Part B)		Depreciation							
S.No.	Particulars	Opening GFA	Addition to GFA	Deduction to GFA	Deduction of Grants	Closing GFA	Average GFA	Depreciation Rate	Allowable Gross Depreciation
1	Land on lease	0.00	0.00		0.00	0.00	0.00		0.00
2	Buildings	31.49	44.98		9.00	67.47	49.48	3.34%	1.65
3	Other Civil Works	0.00	0.00		0.00	0.00	0.00	3.34%	0.00
4	Plants & Machinery	245.33	350.48		70.11	525.71	385.52	5.28%	20.36



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For assets from 1.4.2020 onwards (Part B)		Depreciation							
S.No.	Particulars	Opening GFA	Addition to GFA	Deduction to GFA	Deduction of Grants	Closing GFA	Average GFA	Depreciation Rate	Allowable Gross Depreciation
5	Lines, Cables, Networks etc.	895.94	1279.93		256.04	1919.83	1407.88	5.28%	74.34
6	Office Equipments	0.14	0.20		0.04	0.29	0.22	6.33%	0.01
7	Furniture & Fixtures	0.81	1.16		0.23	1.73	1.27	6.33%	0.08
8	Vehicles	2.67	3.82		0.76	5.73	4.20	6.33%	0.27
9	<b>Total Fixed Assets</b>	<b>1176.38</b>	<b>1680.57</b>		<b>932.90</b>	<b>2520.77</b>	<b>1848.58</b>		
10	Non depreciable assets (Land & Land Rights)	0.00	0.00		0.00	0.00	0.00	0.00	0.00
11	<b>Depreciable assets</b>	<b>1176.38</b>	<b>1680.57</b>		<b>932.90</b>	<b>2520.77</b>	<b>1848.58</b>	<b>5.23%</b>	<b>96.70</b>

**TABLE 6-145: GROSS ALLOWABLE DEPRECIATION FOR ASSETS UPTO 31.03.2020 OF PUVVNL FOR FY 2020-21 (RS. CRORE)**

For assets upto 31.3.2020 (Part A)		Depreciation							
S.No.	Particulars	Opening GFA	Addition to GFA	Deduction to GFA	Closing GFA	Average GFA	Depreciation Rate	Allowable Gross Depreciation	
1	Land & Land Rights	2.32			2.32	2.32	0.00%	0.00	
2	Buildings	148.58			148.58	148.58	3.34%	4.96	
3	Plant & Machinery	2141.88			2141.88	2141.88	5.28%	113.09	
4	Lines, Cables, Network etc.	5390.75			5390.75	5390.75	5.28%	284.63	
5	Vehicles	0.43			0.43	0.43	6.33%	0.03	
6	Furniture & Fixtures	4.49			4.49	4.49	6.33%	0.28	
7	Office Equipment	58.91			58.91	58.91	6.33%	3.73	
8	<b>Total Fixed Assets</b>	<b>7747.37</b>			<b>7747.37</b>	<b>7747.37</b>		<b>406.73</b>	
9	Non depreciable assets (Land & Land Rights)				2.32	2.32			
10	<b>Depreciable assets</b>	<b>7747.37</b>	<b>0.00</b>		<b>7745.05</b>	<b>7745.05</b>	<b>5.25%</b>	<b>406.73</b>	

**TABLE 6-146: GROSS ALLOWABLE DEPRECIATION FOR ASSETS AS ON 01.04.2020 OF PUVVNL FOR FY 2020-21 (RS. CRORE)**

For assets from 1.4.2020 onwards (Part B)		Depreciation							
S.No.	Particulars	Opening GFA	Addition to GFA	Deduction to GFA	Deduction of Grants	Closing GFA	Average GFA	Depreciation Rate	Allowable Gross Depreciation
1	Land & Land Rights	0.00	0.00		0.00	0.00	0.00	0.00%	0.00
2	Buildings	23.37	39.41		26.51	36.28	29.83	3.34%	1.00
3	Plant & Machinery	867.80	1433.72		964.27	1337.25	1102.52	5.28%	58.21
4	Lines, Cables, Network etc.	1049.80	1734.41		1166.50	1617.70	1333.75	5.28%	70.42
5	Vehicles	13.43	21.95		14.76	20.62	17.03	6.33%	1.08
6	Furniture & Fixtures	0.30	0.49		0.33	0.46	0.38	6.33%	0.02
7	Office Equipments	0.15	0.25		0.17	0.24	0.20	6.33%	0.01



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For assets from 1.4.2020 onwards (Part B)		Depreciation							
S.No.	Particulars	Opening GFA	Addition to GFA	Deduction to GFA	Deduction of Grants	Closing GFA	Average GFA	Depreciation Rate	Allowable Gross Depreciation
8	<b>Total Fixed Assets</b>	<b>1954.85</b>	<b>3230.23</b>			<b>2172.54</b>	<b>3012.54</b>	<b>2483.70</b>	<b>130.75</b>
9	Non depreciable assets (Land & Land Rights)	0.00			0.00				
10	<b>Depreciable assets</b>	<b>1954.85</b>	<b>3230.23</b>			<b>2172.54</b>	<b>3012.54</b>	<b>2483.70</b>	<b>5.26%</b> <b>130.75</b>

**TABLE 6-147: GROSS ALLOWABLE DEPRECIATION FOR ASSETS UPTO 31.03.2020 OF KESCO FOR FY 2020-21 (RS. CRORE)**

For assets upto 31.3.2020 (Part A)		Depreciation							Allowable Gross Depreciation
S.No.	Particulars	Opening GFA	Addition to GFA	Deduction to GFA	Closing GFA	Average GFA	Depreciation Rate	Allowable Gross Depreciation	
1	Land & Land Rights	0.00			0.00	0.00	0.00%	0.00	
2	Buildings	34.59			34.59	34.59	3.34%	1.16	
3	Plant & Machinery	233.88			233.88	233.88	5.28%	12.35	
4	Lines, Cables, Network etc.	479.85			479.85	479.85	5.28%	25.34	
5	Vehicles	1.87			1.87	1.87	6.33%	0.12	
6	Furniture & Fixtures	1.64			1.64	1.64	6.33%	0.10	
7	Office Equipment	12.71			12.71	12.71	6.33%	0.80	
8	<b>Total Fixed Assets</b>	<b>764.54</b>	<b>0.00</b>		<b>764.54</b>	<b>764.54</b>		<b>39.87</b>	
9	Non depreciable assets (Land & Land Rights)	0.00	0.00		0.00	0.00	0.00	0.00	
10	<b>Depreciable assets</b>	<b>764.54</b>			<b>764.54</b>	<b>764.54</b>	<b>5.21%</b>	<b>39.87</b>	

**TABLE 6-148: GROSS ALLOWABLE DEPRECIATION FOR ASSETS AS ON 01.04.2020 OF KESCO FOR FY 2020-21 (RS. CRORE)**

For assets from 1.4.2020 onwards (Part B)		Depreciation							
S.No.	Particulars	Opening GFA	Addition to GFA	Deduction to GFA	Deduction of Grants	Closing GFA	Average GFA	Depreciation Rate	Allowable Gross Depreciation
1	Land & Land Rights	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00
2	Buildings	3.45	6.31	0.00	2.78	6.98	5.21	3.34%	0.17
3	Plant & Machinery	35.74	64.19	0.00	28.26	71.67	53.70	5.28%	2.84
4	Lines, Cables, Network etc.	65.70	117.99	0.00	51.95	131.74	98.72	5.28%	5.21
5	Vehicles	1.37	2.43	0.00	1.07	2.73	2.05	6.33%	0.13
6	Furniture & Fixtures	0.16	0.28	0.00	0.13	0.32	0.24	6.33%	0.02
7	Office Equipments	0.26	0.47	0.00	0.21	0.52	0.39	6.33%	0.02
8	<b>Total Fixed Assets</b>	<b>106.69</b>	<b>191.67</b>	<b>0.00</b>	<b>84.40</b>	<b>213.96</b>	<b>160.32</b>	<b>0.33</b>	<b>8.39</b>
9	Non depreciable assets (Land & Land Rights)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	<b>Depreciable assets</b>	<b>106.69</b>	<b>191.67</b>	<b>0.00</b>	<b>84.40</b>	<b>213.96</b>	<b>160.32</b>	<b>5.23%</b>	<b>8.39</b>



6.10.8. The State Discoms have reduced the equivalent depreciation on the assets created out of consumer contributions, capital grants and subsidies from the gross allowable depreciation for FY 2021-22.

6.10.9. Thus, the allowable depreciation for FY 2021-22 is as shown in the tables below:

**TABLE 6-149: NET APPROVED DEPRECIATION FOR ASSETS OF DVVNL FOR FY 2021-22 (RS. CRORE)**

Particulars	Claimed	Approved
Gross Allowable Depreciation on Assets up to 31.3.2020 (Part A)	446.54	448.99
Gross Allowable Depreciation on Assets after 1.4.2020 (Part B)	127.97	127.97
Gross Allowable Depreciation	574.51	576.96
Less: Equivalent amount of depreciation on assets acquired out of the Consumer Contribution	70.68	70.68
<b>Net Allowable Depreciation</b>	<b>503.83</b>	<b>506.28</b>

**TABLE 6-150: NET APPROVED DEPRECIATION FOR ASSETS OF MVVNL FOR FY 2021-22 (RS. CRORE)**

Particulars	Claimed	Approved
Gross Allowable Depreciation on Assets up to 31.3.2020	263.82	263.97
Gross Allowable Depreciation on Assets after 1.4.2020	245.04	243.71
Gross Allowable Depreciation	508.86	507.69
Less: Equivalent amount of depreciation on assets acquired out of the Consumer Contribution	55.79	55.79
<b>Net Allowable Depreciation</b>	<b>453.07</b>	<b>451.90</b>

**TABLE 6-151: NET APPROVED DEPRECIATION FOR ASSETS OF PVVNL FOR FY 2021-22 (RS. CRORE)**

Particulars	Claimed	Approved
Gross Allowable Depreciation on Assets up to 31.3.2020	471.12	475.07
Gross Allowable Depreciation on Assets after 1.4.2020	81.09	96.70
Gross Allowable Depreciation	552.21	571.77
Less: Equivalent amount of depreciation on assets acquired out of the Consumer Contribution	160.76	160.76
<b>Net Allowable Depreciation</b>	<b>391.45</b>	<b>411.01</b>

**TABLE 6-152: NET APPROVED DEPRECIATION FOR ASSETS OF PUVVNL FOR FY 2021-22 (RS. CRORE)**

Particulars	Claimed	Approved
Gross Allowable Depreciation on Assets up to 31.3.2020	401.47	406.73
Gross Allowable Depreciation on Assets after 1.4.2020	171.43	130.75
Gross Allowable Depreciation	572.90	537.47
Less: Equivalent amount of depreciation on assets acquired out of the Consumer Contribution	112.27	112.27
<b>Net Allowable Depreciation</b>	<b>460.63</b>	<b>425.20</b>



**TABLE 6-153: NET APPROVED DEPRECIATION FOR ASSETS OF KESCO FOR FY 2021-22 (RS. CRORE)**

Particulars	Claimed	Approved
Gross Allowable Depreciation on Assets up to 31.3.2020	39.71	39.87
Gross Allowable Depreciation on Assets after 1.4.2020	11.60	8.39
Gross Allowable Depreciation	51.31	48.26
Less: Equivalent amount of depreciation on assets acquired out of the Consumer Contribution	6.30	6.30
<b>Net Allowable Depreciation</b>	<b>45.01</b>	<b>41.96</b>

**TABLE 6-154: CONSOLIDATED NET APPROVED DEPRECIATION FOR ASSETS OF STATE DISCOMS FOR FY 2021-22 (RS. CRORE)**

Particulars	Claimed	Approved
Gross Allowable Depreciation on Assets up to 31.3.2020	1622.66	1634.63
Gross Allowable Depreciation on Assets after 1.4.2020	637.13	607.52
Gross Allowable Depreciation	2259.79	2242.15
Less: Equivalent amount of depreciation on assets acquired out of the Consumer Contribution	405.8	405.8
<b>Net Allowable Depreciation</b>	<b>1853.98</b>	<b>1836.35</b>

## 6.11. INTEREST CHARGES

### INTEREST ON LONG TERM LOANS

6.11.1. The State Owned Discoms has submitted that it has considered a normative approach with a debt equity ratio of 70:30. The portion of capital expenditure financed through consumer contributions, capital subsidies and grants are separated and the depreciation, interest and return on equity thereon was not charged to the consumers. The amounts received as consumer contributions, capital subsidies and grants were traced from the audited accounts. Subsequently, the financing of the capital investment was worked out based on the debt equity ratio of 70:30 and allowable depreciation was considered as normative loan repayment.

6.11.2. The State Owned Discoms have submitted that the allowable depreciation for the year has been considered as normative loan repayment. The actual weighted average interest rate for FY 2019-20 has been considered for computing the eligible interest expenses.



6.11.3. The Commission has considered debt equity ratio for the assets capitalized of 70:30 in line with the MYT Regulations, 2019. In case the equity is less than 30%, the actual equity shall be considered and if equity is more than 30%, the amount of equity shall be limited to 30%. Therefore, the balance asset capitalized shall be treated as normative loan for determination of tariff. The same approach has been considered for FY 2020-21 & FY 2021-22. Further, as per the Regulation 23.5, the rate of interest on long term loan is considered as the weighted average rate of interest of the actual long term loan portfolio of the year. The relevant extract is provided in the following:

Quote

23 *Interest on Long- Term Loan*

23.1 *The long- term loans arrived at in the manner indicated in these Regulations on the assets put to use shall be considered as gross normative loan for calculation of interest on loan:*

*Provided that in case of retirement or replacement or de-capitalisation of assets, the loan capital approved as mentioned above, shall be reduced to the extent of outstanding loan component of the original cost of such assets based on documentary evidence.*

23.2 *The normative long- term loan outstanding as on April 1, 2020, shall be worked out by deducting the cumulative repayment as admitted by the Commission up to March 31, 2020, from the gross normative loan.*

23.3 *The repayment for each year shall be deemed to be equal to the Depreciation allowed for that year.*

23.4 *Notwithstanding any moratorium period availed, the repayment of loan shall be considered from the first year of commercial operation of the asset.*

23.5 *The rate of interest shall be the weighted average rate of interest computed on the basis of the actual long- term loan portfolio at the beginning of each year:*

*Provided that at the time of Truing- Up, the weighted average rate of interest of the actual long- term loan portfolio during the concerned year shall be considered as the rate of interest:*



*Provided further that if there is no actual long- term loan for a particular year but normative loan is still outstanding, the last available weighted average rate of interest for actual loan shall be considered:*

*Provided also that if the Licensee, does not have actual long- term loan even in the past, the weighted average rate of interest of its other Businesses regulated by the Commission shall be considered:*

*Provided also that if the Licensee does not have actual long- term loan, and its other Businesses regulated by the Commission also do not have actual loan even in the past, then the weighted average rate of interest of the entity as a whole shall be considered:*

*Provided also that if the entity as a whole does not have actual long-term loan because of which interest rate is not available, then the rate of interest for the purpose of allowing the interest on the normative long- term loan should be the weighted average SBI MCLR (1 Year) prevailing during the concerned year.*

*23.6 The interest on long- term loan shall be computed on the normative average long- term loan of the year by applying the weighted average rate of interest:*

*Provided that at the time of Truing-Up, the normative average loan of the concerned year shall be considered on the basis of the actual asset capitalisation approved by the Commission for the year.*

*23.7 The excess interest during construction on account of time and / or cost overrun as compared to the approved completion schedule and capital cost or on account of excess drawal of the debt funds disproportionate to the actual requirement based on Scheme completion status, shall be allowed or disallowed partly or fully on a case to case basis, after prudence check by the Commission:*

*Provided that where the excess interest during construction is on account of delay attributable to an agency or contractor or supplier engaged by the Licensee, any liquidated damages recovered from such agency or contractor or supplier shall be taken into account for computation of capital cost:*

*Provided further that the extent of liquidated damages to be considered shall depend on the amount of excess interest during construction that has been allowed by the Commission.*

Unquote



- 6.11.4. As per Regulation 20.2, for FY 2020-21, the debt capital i.e. opening loan base as on 1.4.2020 shall be reduced to the extent of outstanding debt component of the fixed asset base computed as on 31.03.2020 or the normative closing loan base of FY 2019-20, whichever is lower, similar approach has been considered for FY 2021-22.
- 6.11.5. Capital expenditure financed through Consumer Contributions and grants has been separated as the depreciation thereon would not be charged to the consumers. Further, the allowable depreciation for the year has been considered for normative loan repayment.
- 6.11.6. Following similar approach as considered during the last tariff Order, for the purpose of arriving at the opening values of FY 2021-22, the Commission has computed the values for FY 2020-21. Loan addition during the year is 70% of net investment after reducing consumer contribution. The closing loan base as on 31.03.2021 computed by the Commission for FY 2020-21 is as shown in the Table below:

**TABLE 6-155: INTEREST ON LONG TERM LOAN OF DVVNL COMPUTED BY COMMISSION FOR 2020-21 (RS CRORE)**

Particulars	Tariff Order dt. 11.11.2020	Petitioner's Claim	Computed (Provisional)
Opening Loan	4902.71	3955.47	2829.97*
Loan Additions (70% of Capitalisation) #	838.04	835.44	1099.42
Less: Repayments (Depreciation allowable for the year)	656.27	444.82	422.52
Closing Loan Balance	5084.48	4346.09	3506.87

\*Opening changes as per Regulations, # Petitioner has claimed 70% of Investment not capitalization

**TABLE 6-156: INTEREST ON LONG TERM LOAN OF MVVNL COMPUTED BY THE COMMISSION FOR 2020-21 (RS CRORE)**

Particulars	Tariff Order dt. 11.11.2020	Petitioner's Claim	Computed (Provisional)
Opening Loan	121.71	4501.63	1193.70
Loan Additions (70% of Capitalisation)#	1594.06	858.77	2502.25
Less: Repayments (Depreciation allowable for the year)	208.23	316.71	301.68
Closing Loan Balance	1507.53	5043.68	3394.28

\*Opening changes as per Regulations, # Petitioner has claimed 70% of Investment not capitalization



**TABLE 6-157: INTEREST ON LONG TERM LOAN OF PVVNL COMPUTED BY THE COMMISSION FOR 2020-21 (RS CRORE)**

Particulars	Tariff Order dt. 11.11.2020	Petitioner's Claim	Computed (Provisional)
Opening Loan	3671.05	5069.63	2539.93
Loan Additions (70% of Capitalisation)#	929.65	1617.58	749.84
Less: Repayments (Depreciation allowable for the year)	619.02	367.23	345.08
Closing Loan Balance	3981.68	6319.98	2944.69

\*Opening changes as per Regulations, # Petitioner has claimed 70% of Investment not capitalization

**TABLE 6-158: INTEREST ON LONG TERM LOAN OF PUVVNL COMPUTED BY THE COMMISSION FOR FY 2020-21 (RS CRORE)**

Particulars	Tariff Order dt. 11.11.2020	Petitioner's Claim	Computed (Provisional)
Opening Loan	2538.88	6404.64	2669.74
Loan Additions (70% of Capitalisation)	573.31	621.07	1368.40
Less: Repayments (Depreciation allowable for the year)	317.80	383.35	345.91
Closing Loan Balance	2794.40	6642.37	3692.23

\*Opening changes as per Regulations, # Petitioner has claimed 70% of Investment not capitalization

**TABLE 6-159: INTEREST ON LONG TERM LOAN OF KESCO COMPUTED BY THE COMMISSION FOR 2020-21 (RS CRORE)**

Particulars	Tariff Order dt. 11.11.2020	Petitioner's Claim	Computed (Provisional)
Opening Loan	14.03	110.97	101.23
Loan Additions (70% of Capitalisation)#	89.45	109.55	117.52
Less: Repayments (Depreciation allowable for the year)	55.80	40.01	36.36
Closing Loan Balance	47.68	180.51	182.39

# Petitioner has claimed 70% of Investment not capitalization

**TABLE 6-160: CONSOLIDATED INTEREST ON LONG TERM LOAN OF STATE DISCOMS COMPUTED FOR 2020-21 (RS CRORE)**

Particulars	Tariff Order dt. 11.11.2020	Petitioner's Claim	Computed (Provisional)
Opening Loan	11248.38	20042.35	9334.56
Loan Additions (70% of Capitalisation)#	4024.51	4042.41	5837.42



Particulars	Tariff Order dt. 11.11.2020	Petitioner's Claim	Computed (Provisional)
Less: Repayments (Depreciation allowable for the year)	1857.12	1552.12	1451.54
Closing Loan Balance	13415.77	22532.64	13720.45

# Petitioner has claimed 70% of Investment not capitalization

6.11.7. As per the Regulation 23.2, the normative long-term loan outstanding as on April 1, 2021, shall be worked out by deducting the cumulative repayment as admitted by the Commission up to March 31, 2021, from the gross normative loan. Further, as per Regulation 20.2, the debt capital i.e. opening loan base as on 1.4.2021 shall be reduced to the extent of outstanding debt component of the fixed asset base computed as on 31.03.2021 or the normative closing loan base of FY 2021-22, whichever is lower. The portion of capital expenditure financed through Consumer Contributions and grants has been separated as the depreciation thereon would not be charged to the consumers. Further, the allowable depreciation for the year has been considered for normative loan repayment. Further, the Commission has considered the capitalization of interest expenses same as claimed by the Petitioners. The computations for interest on long term loan are shown in tables below:

**TABLE 6-161: INTEREST ON LONG TERM LOAN OF DVVNL FOR 2021-22 (RS CRORE)**

Particulars	Projected	Approved
Opening Loan	4346.09	3506.87
Loan Additions (70% of Capitalisation)#	417.69	975.28
Less: Repayments (Depreciation allowable for the year)	503.83	506.28
Closing Loan Balance	4259.96	3975.86
Weighted Average Rate of Interest	11.21%	11.21%
Interest on long term loan	482.57	419.58
Less: Interest Capitalized	105.01	105.01
<b>Net Interest on long term loans</b>	<b>377.56</b>	<b>314.57</b>

\*As per the Regulation 23.1 of UPERC MYT Regulations, 2019, the assets put to use shall be considered as gross normative loan for calculation of interest on loan, # Petitioner has claimed 70% of Investment not capitalization

**TABLE 6-162: INTEREST ON LONG TERM LOAN OF MVVNL FOR 2021-22 (RS CRORE)**

Particulars	Projected	Approved
Opening Loan	5043.68	3394.28
Loan Additions (70% of Capitalisation)#	287.25	1518.30
Less: Repayments (Depreciation allowable for the year)	453.07	451.90
Closing Loan Balance	4877.86	4460.68



Particulars	Projected	Approved
Weighted Average Rate of Interest	10.91%	10.91%
Interest on long term loan	541.42	428.65
Less: Interest Capitalized	93.91	93.91
<b>Net Interest on long term loans</b>	<b>447.51</b>	<b>334.74</b>

\*As per the Regulation 23.1 of UPERC MYT Regulations, 2019, the assets put to use shall be considered as gross normative loan for calculation of interest on loan, # Petitioner has claimed 70% of Investment not capitalization

**TABLE 6-163: INTEREST ON LONG TERM LOAN OF PUVNL FOR 2021-22 (RS CRORE)**

Particulars	Projected	Approved
Opening Loan	6319.98	2944.69
Loan Additions (70% of Capitalisation)#	315.28	449.73
Less: Repayments (Depreciation allowable for the year)	391.45	411.01
Closing Loan Balance	6243.82	2983.41
Weighted Average Rate of Interest	8.40%	8.40%
Interest on long term loan	527.86	249.06
Less: Interest Capitalized	215.65	215.65
<b>Net Interest Charged</b>	<b>312.20</b>	<b>33.41</b>

\*As per the Regulation 23.1 of UPERC MYT Regulations, 2019, the assets put to use shall be considered as gross normative loan for calculation of interest on loan, # Petitioner has claimed 70% of Investment not capitalization

**TABLE 6-164: INTEREST ON LONG TERM LOAN OF PUVVNL FOR 2021-22 (RS CRORE)**

Particulars	Projected	Approved
Opening Loan	6642.37	3692.23
Loan Additions (70% of Capitalisation)#	348.41	740.38
Less: Repayments (Depreciation allowable for the year)	460.63	425.20
Closing Loan Balance	6530.15	4007.41
Weighted Average Rate of Interest	10.24%	10.24%
Gross Interest on long term loan	674.31	394.15
Less: Interest Capitalized	225.36	225.36
<b>Net Interest on long term loans</b>	<b>448.95</b>	<b>168.79</b>

\*As per the Regulation 23.1 of UPERC MYT Regulations, 2019, the assets put to use shall be considered as gross normative loan for calculation of interest on loan, # Petitioner has claimed 70% of Investment not capitalization

**TABLE 6-165: INTEREST ON LONG TERM LOAN OF KESCO FOR 2021-22 (RS CRORE)**

Particulars	Projected	Approved
Opening Loan	180.51	182.39
Loan Additions (70% of Capitalisation)#	67.42	75.09
Less: Repayments (Depreciation allowable for the year)	45.01	41.96
Closing Loan Balance	202.92	215.51



Particulars	Projected	Approved
Weighted Average Rate of Interest	10.63%	10.63%
Gross Interest on long term loan	20.38	21.15
Less: Interest Capitalized	0.00	0.00
<b>Net Interest on long term loans</b>	<b>20.38</b>	<b>21.15</b>

\*As per the Regulation 23.1 of UPERC MYT Regulations, 2019, the assets put to use shall be considered as gross normative loan for calculation of interest on loan, # Petitioner has claimed 70% of Investment not capitalization

**TABLE 6-166: CONSOLIDATED INTEREST ON LONG TERM LOAN OF THE STATE DISCOMS FOR 2021-22 (RS CRORE)**

Particulars	Projected	Approved
Opening Loan	22532.64	13720.45
Loan Additions (70% of Capitalization)	1436.05	3758.78
Less: Repayments (Depreciation allowable for the year)	1853.98	1836.35
Closing Loan Balance	22114.71	15642.88
Gross Interest on long term loan	2246.53	1512.59
Less: Interest Capitalized	639.93	639.93
<b>Net Interest on long term loans</b>	<b>1606.60</b>	<b>872.66</b>

#### INTEREST ON WORKING CAPITAL

6.11.8. The State Discoms have determined Interest on Working Capital for FY 2021-22 as per Regulation 25.2 (a) & 25.2 (b) of MYT Regulations, 2019. The Regulation 25.2 (a) & 25.2 (b) is quoted below:

*Quote*

*“(a) The working capital requirement of the Distribution Business shall cover:*

*(i) Operation and maintenance expenses for one month;*

*(ii) Maintenance spares at 40% of the R&M expenses for two months; and*

*(iii) One and half month equivalent of the expected revenue from charges for use of Distribution system at the prevailing Tariff (excluding Electricity Duty);*

*minus*

*(iv) Amount held as security deposits from Distribution System Users:*

*Provided that for the purpose of Truing-Up for any year, the working capital requirement shall be re-computed on the basis of the values of components of working capital approved by the Commission in the Truing- Up;*



(b) Rate of interest on working capital shall be simple interest and shall be equal to the SBI MCLR (1 Year) on October 01, 2019 plus 250 basis points:

Provided that for the purpose of Truing-Up for any year, simple interest on working capital shall be allowed at a rate equal to the weighted average SBI MCLR (1 Year) prevailing during the concerned Year plus 250 basis points.

Unquote

6.11.9. The Commission observed the petitioner while calculating the interest rate has considered interest rate on working capital requirement at 9.50%. However, the Commission has allowed the interest rate in accordance with the MYT Regulations, 2019, which states that the Rate of interest on working capital shall be simple interest and shall be equal to the SBI MCLR (1 Year) on October 01, 2019 plus 250 basis points. Accordingly, the Commission has considered the interest rate on working capital requirement at 10.65%. The link for the same is: <https://www.sbi.co.in/web/interest-rates/interest-rates/mclr-historical-data>. The same will be revisited at the time of True-up in line with the Regulations.

6.11.10. The Interest on Working Capital as per MYT Regulations, 2019, is determined in the tables below:

**TABLE 6-167: INTEREST ON WORKING CAPITAL OF DVVNL FOR 2021-22 (RS CRORE)**

Particulars	Derivation	Projected	Approved
One Month's O&M Expenses	A	153.02	95.24
One and half month's equivalent of expected revenue	B	1711.30	1503.89
Maintenance spares @ 40% of R&M expenses for two months	C	71.93	47.76
Gross Total	D=A+B+C	1936.24	1646.89
Less: Total Security Deposits by the Consumers reduced by Security Deposits under section 47(1)(b) of the Electricity Act 2003	E	640.33	640.33
Total Working Capital Requirement	F = D-E	1295.91	1006.56
Interest rate	G	9.50%	10.65%
<b>Interest on working capital</b>	<b>H = F x G</b>	<b>123.11</b>	<b>107.20</b>

**TABLE 6-168: INTEREST ON WORKING CAPITAL OF MVVNL FOR 2021-22 (RS CRORE)**

Particulars	Derivation	Projected	Approved
One Month's O&M expenses	A	163.01	92.82



Particulars	Derivation	Projected	Approved
One and half month's equivalent of expected revenue	B	1815.32	1548.68
Maintenance spares @ 40% of R&M expenses for two months	C	70.38	36.14
Gross Total	D=A+B+C	2048.71	1677.63
Less: Total Security Deposits by the Consumers reduced by Security Deposits under section 47(1)(b) of the Electricity Act, 2003	E	745.30	745.30
Total Working Capital Requirement	F =D-E	1303.41	932.33
Interest rate	G	9.50%	10.65%
<b>Interest on working capital</b>	<b>H = F x G</b>	<b>123.82</b>	<b>99.29</b>

**TABLE 6-169: INTEREST ON WORKING CAPITAL OF PVVNL FOR 2021-22 (RS CRORE)**

Particulars	Derivation	Projected	Approved
One Month's O&M Expenses	A	193.19	105.87
One and half month's equivalent of expected revenue	B	2751.57	2387.27
Maintenance spares @ 40% of R&M expenses for two months	C	75.59	42.99
Gross Total	D=A+B+C	3020.34	2536.13
Less: Total Security Deposits by the Consumers reduced by Security Deposits under section 47(1)(b) of the Electricity Act 2003	E	1647.21	1647.21
Total Working Capital Requirement	F =D-E	1373.13	888.92
Interest rate	G	9.50%	10.65%
<b>Interest on working capital</b>	<b>H = F x G</b>	<b>130.45</b>	<b>94.67</b>

**TABLE 6-170: INTEREST ON WORKING CAPITAL OF PUVVNL FOR 2021-22 (RS CRORE)**

Particulars	Derivation	Projected	Approved
One Month's O&M Expenses	A	210.75	127.38
One and half month's equivalent of expected revenue	B	2230.42	1801.74
Maintenance spares @ 40% of R&M expenses for two months	C	114.47	66.08
Gross Total	D=A+B+C	2555.64	1995.19
Less: Security Deposit from consumers, if any	E	487.72	487.72
Total Working Capital Requirement	F =D-E	2067.92	1507.47



Particulars	Derivation	Projected	Approved
Interest rate (SBI MCLR (1 Year) on Oct 01, 2019 Plus 250 basis points)	G	9.50%	10.65%
<b>Interest on working capital</b>	<b>H = F x G</b>	<b>196.45</b>	<b>160.55</b>

**TABLE 6-171: INTEREST ON WORKING CAPITAL OF KESCO FOR 2021-22 (RS CRORE)**

Particulars	Derivation	Projected	Approved
One Month's O&M Expenses	A	36.47	24.82
One and half month's equivalent of expected revenue	B	346.12	346.10
Maintenance spares @ 40% of R&M expenses for two months	C	11.56	7.29
Gross Total	D=A+B+C	394.15	378.21
Less: Security Deposit from consumers, if any	E	145.18	145.18
Total Working Capital Requirement	F =D-E	248.97	233.03
Interest rate (SBI MCLR (1 Year) on Oct 01, 2019 Plus 250 basis points)	G	9.50%	10.65%
<b>Interest on working capital</b>	<b>H = F x G</b>	<b>23.65</b>	<b>24.82</b>

**TABLE 6-172: CONSOLIDATED INTEREST ON WORKING CAPITAL OF THE STATE DISCOMS FOR 2021-22 (RS CRORE)**

Particulars	Derivation	Projected	Approved
One Month's O&M Expenses	A	756.43	446.13
One and half month's equivalent of expected revenue	B	8854.73	7587.68
Maintenance spares @ 40% of R&M expenses for two months	C	343.92	200.26
Gross Total	D=A+B+C	9955.09	8234.06
Less: Security Deposit from consumers, if any	E	3665.74	3665.74
Total Working Capital Requirement	F =D-E	6289.35	4568.32
Interest rate (SBI MCLR (1 Year) on Oct 01, 2019 Plus 250 basis points)	G	9.50%	10.65%
<b>Interest on working capital</b>	<b>H = F x G</b>	<b>597.49</b>	<b>486.53</b>



## INTEREST ON CONSUMER SECURITY DEPOSIT

6.11.11. The State Owned Discoms submitted that as per Regulation 25.2 (c) of UPERC (Multi Year Tariff for Distribution & Transmission) Regulations, 2019, Interest shall be allowed on consumer security deposits as per the provisions of the Electricity Supply Code, 2005 and its subsequent amendments/ addendums and the new Regulations made after repeal of the same.

The Petitioner submitted that the opening balances of security deposits have been considered as per closing figures of FY 2020-21 and no additions during the year FY 2021-22 is considered. Accordingly, Petitioner has computed the interest on security deposit for FY 2021-22. The Commission has considered the projections of the Petitioners. Accordingly, Commission has computed and approved the interest on security deposit for FY 2021-22, which is shown in the Tables below.

**TABLE 6-173: INTEREST ON SECURITY DEPOSITS FOR DVVNL FOR FY 2021-22 (RS. CRORE)**

Particulars	Claimed	Approved
Interest on Security Deposits	29.78	29.78

**TABLE 6-174: INTEREST ON SECURITY DEPOSITS FOR MVVNL FOR FY 2021-22 (RS. CRORE)**

Particulars	Claimed	Approved
Interest on Security Deposits	34.66	34.66

**TABLE 6-175: INTEREST ON SECURITY DEPOSITS FOR PVVNL FOR FY 2021-22 (RS. CRORE)**

Particulars	Claimed	Approved
Interest on Security Deposits	76.60	76.60

**TABLE 6-176: INTEREST ON SECURITY DEPOSITS FOR PUVVNL FOR FY 2021-22 (RS. CRORE)**

Particulars	Claimed	Approved
Interest on Security Deposits	22.68	22.68

**TABLE 6-177: INTEREST ON SECURITY DEPOSITS FOR KESCO FOR FY 2021-22 (RS. CRORE)**

Particulars	Claimed	Approved
Interest on Security Deposits	6.75	6.75

**TABLE 6-178: CONSOLIDATED INTEREST ON CONSUMER SECURITY DEPOSIT OF THE STATE DISCOMS FOR 2021-22 (RS CRORE)**

Particulars	Claimed	Approved
Interest on Security Deposits	170.46	170.46



Particulars	DVVNL	MVVNL	PVVNL	PuVVNL	KESCO	CONSOLIDATED
Interest on Security Deposits	29.78	34.66	76.60	22.68	6.75	170.46

## 6.12. RETURN ON EQUITY

6.12.1. The State Owned Discoms submitted that the Regulation 22 of the MYT (Distribution and Transmission) Regulations, 2019 provides for return on equity @15% post-tax per annum for Distribution Licensee as specified below:

Quote

*“22 Return on equity*

*22.1 Return on equity shall be computed in Rs. terms on equity base at the rate of 14.5% post-tax per annum for the Transmission Licensee and at the rate of 15% post-tax per annum for Distribution Licensee respectively as determined in accordance with Regulation 20:*

*Provided that assets funded by Consumer Contribution / Deposit works, Capital Subsidies / Grants and corresponding Depreciation shall not form part of the Capital Cost. Actual Equity infused by the Licensee as per book value shall be considered and shall be used for computation in these Regulations.”*

Unquote

6.12.2. The State Owned Discoms submitted that it has closing equity in APR for FY 2020-21 as opening for FY 2021-22. Equity addition during the year has been considered 30% of GFA addition during the year net of consumer contribution, capital subsidies/ grants. The Return on Equity claimed by the State Owned Discoms is Rs. 2551.51Crore.

6.12.3. The Commission has considered debt equity ratio for the assets capitalized of 70:30 in line with the MYT Regulations, 2019. In case the equity is less than 30%, the actual equity shall be considered and if equity is more than 30%, the amount of equity shall be limited to 30%. Therefore, the balance asset capitalized shall be treated as normative loan for determination of tariff. The same approach has been considered for FY 2020-21 & FY 2021-22 both.

6.12.4. For the purpose of arriving at the opening values of FY 2020-21, the Commission has computed the values for FY 2019-20. 100% of the investment claimed by Petitioner



during the year (FY 2020-21) has been considered and accordingly the GFA addition of has been computed. Further equity addition during the year is 30% of the net capitalisation (after reducing consumer contribution and grants). The closing equity base as on 31.03.2020 computed by the Commission for FY 2020-21 is as shown in the Table below:

**TABLE 6-179: RETURN ON EQUITY OF DVVNL FOR 2020-21 (RS CRORE)**

Particulars	Tariff Order dt. 11.11.2020	Claimed	Computed (Provisional)
Opening Equity	2744.20	3448.26	2917.47
Additions (30% of Capitalization)	751.56	530.75	530.75
Less: Consumer Contribution	88.37	35.35	35.35
Less: Grants	18.54	24.22	24.22
Closing Equity	3388.85	3919.44	3388.65
Rate of Return on Equity (%)	15.00%	15.00%	15.00%
<b>Return on Equity</b>	<b>459.98</b>	<b>552.58</b>	<b>472.96</b>

\*Opening changes as per Regulations

**TABLE 6-180: RETURN ON EQUITY OF MVVNL FOR 2020-21 (RS CRORE)**

Particulars	Tariff Order dt. 11.11.2020	Claimed	Computed (Provisional)
Opening Equity	1411.39	2269.64	1898.12
Additions (30% of Capitalization)	1150.61	1218.04	1218.04
Less: Consumer Contribution	106.67	0.00	0.00
Less: Grants	360.78	145.65	145.65
Closing Equity	2094.56	3342.03	2970.51
Rate of Return on Equity (%)	15.00%	15.00%	15.00%
<b>Return on Equity</b>	<b>262.95</b>	<b>420.88</b>	<b>365.15</b>

\*Opening changes as per Regulations

**TABLE 6-181: RETURN ON EQUITY OF PVVNL FOR 2020-21 (RS CRORE)**

Particulars	Tariff Order dt. 11.11.2020	Claimed	Computed (Provisional)
Opening Equity	3374.03	3931.57	3441.15
Additions (30% of Capitalization)	552.05	321.36	441.17
Less: Consumer Contribution	88.93	0.00	31.56
Less: Grants	284.79	0.00	88.25



Particulars	Tariff Order dt. 11.11.2020	Claimed	Computed (Provisional)
Closing Equity	3552.36	4252.93	3762.51
Rate of Return on Equity (%)	15.00%	15.00%	15.00%
<b>Return on Equity</b>	<b>519.48</b>	<b>613.84</b>	<b>540.27</b>

\*Opening changes as per Regulations

**TABLE 6-182: RETURN ON EQUITY OF PUVVNL FOR 2020-21 (RS CRORE)**

Particulars	Tariff Order dt. 11.11.2020	Claimed	Computed (Provisional)
Opening Equity	2875.91	3515.13	2936.20
Additions (30% of Capitalization)	1,039.33	869.89	869.89
Less: Consumer Contribution	85.05	0.00	-
Less: Grants	708.57	51.55	283.43
Closing Equity	3,121.61	4333.47	3,522.65
Rate of Return on Equity (%)	15.00%	15.00%	15.00%
<b>Return on Equity</b>	<b>449.81</b>	<b>588.65</b>	<b>484.41</b>

\*Opening changes as per Regulations

**TABLE 6-183: RETURN ON EQUITY OF KESCO FOR 2020-21 (RS CRORE)**

Particulars	Tariff Order dt. 11.11.2020	Claimed	Computed (Provisional)
Opening Equity	297.21	306.37	306.37
Additions (30% of Capitalization)	58.01	62.60	62.60
Less: Consumer Contribution	8.61	0.00	0.00
Less: Grants	30.60	12.24	12.24
Closing Equity	316.01	356.74	356.73
Rate of Return on Equity (%)	0.15	0.15	0.15
<b>Return on Equity</b>	<b>45.99</b>	<b>49.73</b>	<b>49.73</b>

**TABLE 6-184: CONSOLIDATED RETURN ON EQUITY OF STATE DISCOMS FOR 2020-21 (RS CRORE)**

Particulars	Tariff Order dt. 11.11.2020	Claimed	Computed (Provisional)
Opening Equity	10702.74	13470.98	11499.31
Additions (30% of Capitalization)	3551.56	3002.64	3122.45



Particulars	Tariff Order dt. 11.11.2020	Claimed	Computed (Provisional)
Less: Consumer Contribution	377.63	35.35	66.90
Less: Grants	1403.28	233.66	553.79
Closing Equity	12473.40	16204.61	14001.06
Rate of Return on Equity (%)	0.75	0.75	0.75
<b>Return on Equity</b>	<b>1738.21</b>	<b>2225.67</b>	<b>1912.53</b>

6.12.5. As per Regulation 20.2 of MYT Regulations, 2019, For FY 2020-21 the opening equity base, shall be reduced to the extent of 30% of the fixed asset base approved as on 31.03.2021 or the closing equity base of FY 2020-21 on 31.03.2020, whichever is lower. Similar approach has been taken for FY 2021-22. Accordingly, the Opening equity base as computed in the section "Financing of Capital Investment", has been considered. The opening equity as on 1.4.2021 for whichever Licensees is lower than the closing equity base of FY 2020-21 as computed above, has been considered. Further, 30% of Net GFA addition (after considering deduction / de-capitalization and consumer contribution in GFA) has been considered as equity addition during the year. Accordingly, the Return on Equity computed is as shown in the Table below:

6.12.6. The Return on Equity (RoE) for FY 2021-22 is shown in the Tables below:

**TABLE 6-185: RETURN ON EQUITY OF DVVNL FOR 2021-22 (RS CRORE)**

Particulars	Projected	Allowed
Opening Equity	3919.44	3388.65
Additions (30% of Capitalization)		615.79
Less: Consumer Contribution	417.98	35.35
Less: Grants		162.47
Closing Equity	4337.42	3806.62
Return on Equity	15.00%	15.00%
<b>Allowable RoE</b>	<b>619.26</b>	<b>539.65</b>

**TABLE 6-186: RETURN ON EQUITY OF MVVNL FOR 2021-22 (RS CRORE)**

Particulars	Projected	Allowed
Opening Equity	3342.03	2970.51



Particulars	Projected	Allowed
Additions (30% of Capitalization)		1029.73
Less: Consumer Contribution	650.70	0.00
Less: Grants		379.03
Closing Equity	3992.73	3621.21
Return on Equity	15.00%	15.00%
<b>Allowable RoE</b>	<b>550.11</b>	<b>494.38</b>

**TABLE 6-187: RETURN ON EQUITY OF PVVNL FOR 2021-22 (RS CRORE)**

Particulars	Projected	Allowed
Opening Equity	4252.93	3762.51
Additions (30% of Capitalization)		504.17
Less: Consumer Contribution	192.74	31.56
Less: Grants		279.87
Closing Equity	4445.67	3955.25
Return on Equity	15.00%	15.00%
<b>Allowable RoE</b>	<b>652.39</b>	<b>578.83</b>

**TABLE 6-188: RETURN ON EQUITY OF PUVVNL FOR 2021-22 (RS CRORE)**

Particulars	Projected	Allowed
Opening Equity	4333.47	3522.65
Additions (30% of Capitalization)		969.07
Less: Consumer Contribution	317.31	0.00
Less: Grants		651.76
Closing Equity	4650.78	3839.96
Return on Equity	15.00%	15.00%
<b>Allowable RoE</b>	<b>673.82</b>	<b>552.20</b>

**TABLE 6-189: RETURN ON EQUITY OF KESCO FOR 2020-21 (RS CRORE)**

Particulars	Projected	Allowed
Opening Equity	356.74	352.91
Additions (30% of Capitalization)		57.50
Less: Consumer Contribution	32.18	0.00
Less: Grants		25.32
Closing Equity	388.92	385.09
Return on Equity	15.00%	15.00%
<b>Allowable RoE</b>	<b>55.92</b>	<b>55.35</b>

\*Opening changes as per Regulations



**TABLE 6-190: CONSOLIDATED RETURN ON EQUITY OF THE STATE DISCOMS FOR 2020-21 (RS CRORE)**

Particulars	Projected	Allowed
Opening Equity	16204.61	13997.23
Additions (30% of Capitalization)		3176.26
Less: Consumer Contribution	1610.90	66.90
Less: Grants		1498.45
<b>Closing Equity</b>	<b>17815.51</b>	<b>15608.14</b>
Return on Equity	15.00%	15.00%
<b>Allowable RoE</b>	<b>2551.51</b>	<b>2220.40</b>

### 6.13. PROVISION ON BAD AND DOUBTFULL DEBT

6.13.1. The State Owned Discoms namely DVVNL, MVVNL, PVVNL, PuVVNL and KESCO have claimed Rs. 273.81 Crore, Rs. 290.45 Crore, Rs. 440.25 Crore, Rs. 356.87 Crore and Rs. 55.38 Crore respectively towards provision for bad and doubtful debts for FY 2021-22.

6.13.2. The Regulation 46 of UPERC (Multi Year Tariff for Distribution & Transmission) Regulations, 2019 provides for expenses under bad and doubtful Debts to the extent of 2% of the revenue receivables as specified below:

Quote

*46.1 For any Year, the Commission may allow a provision for write off of bad and doubtful debts up to 2% of the amount shown as Revenue Receivables from sale of electricity in the audited accounts of the Distribution Licensee for that Year or the actual write off of bad debts, whichever is less:*

*Provided further that such provision allowed by the Commission for any Year shall not exceed the actual provision for write off of bad and doubtful debts made by the Distribution Licensee in the audited accounts of that Year:*

*Provided that the Commission, in its ARR / Tariff Order, may provisionally approve provision for write off of bad and doubtful debts based on the actual provision for write off of bad and doubtful debts made by the Distribution Licensee in the latest Audited Accounts available for the Petitioner, and as allowed by the Commission:*

*Provided further that if subsequent to the write off of a particular bad debt, revenue is realised from such bad debt, the same shall be included under the Non-Tariff Income of the year in which such revenue is realised.*

Unquote



- 6.13.3. The State Owned Discoms has claimed Provision for bad and doubtful debt for FY 2021-22 considering the revenue from the Tariff with the subsidy. The Regulations also provides that the Commission in the ARR / Tariff Order may provisionally approve provision for write off of bad debt based on the actual provision for write off of bad and doubtful debt made by the Distribution Licensee in the latest audited accounts.
- 6.13.4. The Commission, for approval of provision for bad and doubtful debt has considered has considered the actual percentage of bad debts approved in True Up of FY 2019-20 i.e. for 1.50% for DVVNL, 1.13% for MVVNL, 0.24% for PVVNL, 1.42% for PuVVNL and 0.86% for KESCO of revenue as provision for bad and doubtful debt
- 6.13.5. The Commission will carry out the truing up of bad debts subject to actual writing off of the bad debts during the year. The provision of bad and doubtful debts allowed for FY 2021-22 is depicted in the tables below:

**TABLE 6-191: CONSOLIDATED BAD AND DOUBTFUL DEBT FOR 2021-22 (RS CRORE)**

Particulars	Projected	Approved
	A	B
DVVNL	273.81	179.94
MVVNL	290.45	139.68
PVVNL	440.25	45.83
PuVVNL	356.87	204.84
KESCO	55.38	23.77
<b>Consolidated (5 Discoms)</b>	<b>1416.76</b>	<b>594.06</b>
<b>Consolidated Revenue of 5 Discoms</b>	<b>60587.86</b>	<b>60701.44</b>
<b>% Bad Debt</b>	<b>2%</b>	<b>0.98%</b>

- 6.13.6. Further, any variation on this account would be taken up at the time of True-up based on the audited accounts.

#### **6.14. NON-TARIFF INCOME**

- 6.14.1. The State Owned Discoms submitted that the non-tariff income for FY 2021-22 has been projected on the basis of FY 2020-21 other income (excluding DPS) submitted in APR for FY 2020-21. Further, the State Owned Discoms submitted that non-tariff income includes incomes such as interest on loans & advances to employees, income from fixed rate investment deposits and other miscellaneous income from retail sources. Regulation 47 of the UPERC (Multi Year Tariff for Distribution & -



Transmission) Regulations, 2019, provides for treatment of non-tariff income, which is as follows:

Quote

47 *Non-Tariff Income*

47.1 *The amount of Non-Tariff Income relating to the Distribution Business as approved by the Commission shall be deducted from the ARR in determining the Tariff for retail supply and Wheeling Charges of the Distribution Business:*

*Provided that the Distribution Licensee shall submit full details of its forecast of Non-Tariff Income to the Commission in such form as may be stipulated by the Commission.*

47.2 *The Non-Tariff Income shall include:*

- a) *Income from rent of land or buildings;*
- b) *Income from sale of scrap;*
- c) *Income from investments;*
- d) *Interest income on advances to suppliers/contractors;*
- e) *Interest income on loans / advances to employees;*
- f) *Income from rental from staff quarters;*
- g) *Income from rental from contractors;*
- h) *Income from hire charges from contactors and others;*
- i) *Income from delayed payment surcharge, supervision charges, etc.;*
- j) *Supervision charges for capital works;*
- k) *Income from recovery against theft and/or pilferage of electricity;*
- l) *Income from advertisements;*
- m) *Income from sale of tender documents;*
- n) *Excess found on physical verification;*
- o) *Prior Period Income;*
- p) *Miscellaneous receipts; and*
- q) *Any other Non-Tariff Income:*

*Provided that the interest earned from investments made out of Return on Equity corresponding to the regulated Business of the Distribution Business shall not be included in Non-Tariff Income.*

Unquote



6.14.2. Accordingly, the Commission approves Non-Tariff Income as claimed by the Licensees for FY 2021-22 as shown in the Table below:

**TABLE 6-192: NON-TARIFF INCOME OF THE STATE DISCOMS FOR 2021-22 (RS CRORE)**

Particulars	Projected	Approved
DVVNL	24.60	24.60
MVVNL	34.73	34.73
PVVNL	17.79	17.79
PuVVNL	12.57	12.57
KESCO	25.54	25.54
<b>Consolidated (5 Discoms)</b>	<b>115.23</b>	<b>115.23</b>

6.14.3. Further, any variation on this account would be taken up at the time of True-up based on the audited accounts.

#### 6.15. GOUP SUBSIDY

6.15.1. The State Owned Discoms submitted that it has considered revenue subsidy for FY 2021-22 as informed by Govt. of Uttar Pradesh shown in the table below:

**TABLE 6-193: GOUP SUBSIDY AS SUBMITTED BY THE STATE DISCOMS FOR 2021-22 (RS CRORE)**

Particulars	Projected
DVVNL	2477.86
MVVNL	2365.16
PVVNL	3028.07
PuVVNL	3778.92
KESCO	0.00
<b>Consolidated (5 Discoms)</b>	<b>11650.01</b>

Further, the Commission has also been informed by the Government of Uttar Pradesh that a total subsidy of Rs. 11650.00 Crore has been provided for various categories of the consumers as under:

Type of Charge (CONSOLIDATED ALL DISCOMS)	As per GoUP Letter No. 833/24-1-21-1307/2020 Dated 13.5.2021
<b>LMV-1: Domestic Light, Fan &amp; Power</b>	<b>Subsidy amount (Rs. Crs)</b>
<b>Dom: Rural Schedule (unmetered)</b>	<b>743</b>
Dom Rural : Load up to 2 kW	
Dom Rural : Load above 2 kW	
<b>Dom: Rural Schedule (metered) other than BPL</b>	<b>4226</b>
Dom: 0-100	3448



Type of Charge (CONSOLIDATED ALL DISCOMS)	As per GoUP Letter No. 833/24-1-21-1307/2020 Dated 13.5.2021
Dom: 101 – 150	778
Dom: 151 – 300	-
Dom: 301 – 500	-
Dom: > 500	-
<b>BPL (both Rural and Urban)</b>	<b>483</b>
<b>SUBTOTAL (LMV-1)</b>	<b>5452</b>
<b>LMV-5: Private Tube Wells/ Pumping Sets</b>	
PTW: Rural Schedule (unmetered)	<b>6198</b>
PTW: Rural Schedule (metered)	
<b>SUBTOTAL (LMV-5)</b>	<b>6198</b>
<b>Total Subsidy (LMV1 + LMV 5)</b>	<b>11650</b>

6.15.2. GoUP & the State owned Discoms submitted that they are considering to prepare the consumer electricity bills on “tariff without subsidy” and the “amount of subsidy per unit” shall be mentioned separately in the bill. Accordingly, for this purpose for each category/sub-category/slab wise “tariff without subsidy” and “subsidy per unit” will be required.

6.15.3. The transfer of subsidy to consumers to consumers should be done through DBT mechanism. With reference to direct benefit transfer (DBT), the Commission in its Tariff Order dated 11 November 2020 has directed the Petitioner as under:

*“10.2.1. The State Government is providing annual subsidy of Rs. 10250 Crores for FY 2020-21. The Petitioners have not developed any transparent mechanism for proper utilization of this subsidy only for the directed class of consumers namely, agricultural, lifeline, rural domestic etc. In view of ensuring transparent utilization of public resources by way of subsidy, the Petitioners are directed to prepare a scheme for transfer of subsidy in a transparent manner with the approval of the State Government to be implemented with effect from 1st April 2022. For introduction of DBT, the Petitioners will need to achieve 100% metering of all consumers and also computerise the details of all those consumers who are to be benefitted with subsidy under DBT including agricultural consumers. The Petitioners shall submit the roadmap for DBT in their next ARR filing for year 2021-22.”*

6.15.4. The Commission reiterates the above reasoning and directs the Petitioners to submit the roadmap for DBT in their next ARR filing for its consideration subject to



meeting the provisions under Section 65 of the Electricity Act, 2003, wherein the subsidy amount is to be provided in advance.

6.15.5. The Commission approves the subsidy amount as submitted by the state owned DISCOMs.

## 6.16. AGGREGATE REVENUE REQUIREMENT (ARR) FY 2021-22

6.16.1. The ARR projected by the State Owned Discoms and approved for FY 2021-22 is as shown in the tables below:

**TABLE 6-194: ARR SUMMARY FOR DVVNL FOR 2021-22 (RS CRORE)**

Particulars	FY 2021-22	
	Claimed in ARR Petition	Approved
Cost of Power Procurement (including Inter State Transmission)	11355.94	11,103.63
Transmission and Load Dispatch Charges (Intra-State Transmission Charges)	597.74	542.78
<b>Gross O&amp;M Expenses</b>	1922.81	1,363.31
Employee expenses	489.13	538.73
A&G expenses	354.74	108.18
R&M expenses	1078.94	716.41
UPPCL O&M Expenses	74.02	0.00
Smart Meter Opex	59.74	0.00
Arrears (7th Pay Commission)	0.00	0.00
Interest on Loan Capital	482.57	419.58
Interest on Security Deposit from Consumers and Distribution system Users	29.78	29.78
Interest on Working Capital	123.11	107.20
Depreciation	503.83	506.28
<b>Gross expenditure</b>	15149.53	14,072.56
Less: Employee expenses capitalised	220.38	220.38
Less: Interest expenses capitalised	105.01	105.01
<b>Net expenditure</b>	14824.14	13,747.17
Bad Debts & Provisions	273.81	179.94
<b>Net expenditure with provisions</b>	15097.95	13,927.12
Add: Return on Equity	619.26	539.65
Less: Non-Tariff Income	24.60	24.60
Less: Cross Subsidy surcharge (STOA)	6.92	6.92
<b>Aggregate Revenue Requirement (before subsidy)</b>	<b>15685.69</b>	<b>14,435.24</b>
Less: GoUP Subsidy	2477.86	2,477.86
<b>Net Aggregate Revenue Requirement (after subsidy)</b>	<b>13207.83</b>	<b>11,957.38</b>



**TABLE 6-195: ARR SUMMARY FOR MVVNL FOR 2021-22 (RS. CRORE)**

Particulars	FY 2021-22	
	Claimed in ARR Petition	Approved
Cost of Power Procurement (including Inter State Transmission)	12332.41	11,530.48
Transmission and Load Dispatch Charges (Intra-State Transmission Charges)	542.45	514.28
<b>Gross O&amp;M Expenses</b>	2228.08	1,546.86
Employee expenses	728.84	745.30
A&G expenses	443.58	259.48
R&M expenses	1055.66	542.08
UPPCL O&M Expenses	69.63	0.00
Smart Meter Opex	91.40	0.00
Interest on Loan Capital	541.42	428.65
Interest on Security Deposit from Consumers and Distribution system Users	34.66	34.66
Interest on Working Capital	123.82	99.29
Depreciation	453.07	451.90
<b>Gross expenditure</b>	16416.94	14,606.11
Less: Employee expenses capitalised	433.04	433.04
Less: Interest expenses capitalised	93.91	93.91
<b>Net expenditure</b>	15889.99	14,079.16
Bad Debts & Provisions	290.45	139.68
<b>Net expenditure with provisions</b>	<b>16180.44</b>	<b>14,218.84</b>
Add: Return on Equity ***	550.11	494.38
Less: Non Tariff Income	34.73	34.73
<b>Aggregate Revenue Requirement (before subsidy)</b>	<b>16695.82</b>	<b>14,678.49</b>
Less: GoUP Subsidy	2365.16	2365.16
<b>Net Aggregate Revenue Requirement (after subsidy)</b>	<b>14330.66</b>	<b>12,313.33</b>

**TABLE 6-196: ARR SUMMARY FOR PVVNL FOR 2021-22 (RS. CRORE)**

Particulars	FY 2021-22	
	Claimed in ARR Submission	Approved
Cost of Power Procurement (including Inter State Transmission)	20476.36	18,703.77
Transmission and Load Dispatch Charges (Intra-State Transmission Charges)	817.51	808.25
<b>Gross O&amp;M Expenses</b>	2311.85	1428.68
Employee expenses	660.12	642.72
A&G expenses	517.91	141.15
R&M expenses	1133.81	644.80



Approval of ARR and Tariff for State Discoms for FY 2021-22, APR of FY 2020-21 and True-up of FY 2019-20

Particulars	FY 2021-22	
	Claimed in ARR Submission	Approved
UPPCL O&M Expenses	74.02*	0.00
Smart Meter Opex	90.68	0.00
Arrears (7th Pay Commission)	0.00	0.00
Interest on Loan Capital	527.86	249.06
Interest on Security Deposit from Consumers and Distribution system Users	76.60	76.60
Interest on Working Capital	130.45	94.67
Depreciation	391.45	411.01
<b>Gross expenditure</b>	<b>24896.76</b>	<b>21,772.04</b>
Less: Employee expenses capitalised	158.26	158.26
Less: Interest expenses capitalised	215.65	215.65
<b>Net expenditure</b>	<b>24522.85</b>	<b>21,398.12</b>
Bad Debts & Provisions	440.25	45.83
<b>Net expenditure with provisions</b>	<b>24963.10</b>	<b>21,443.95</b>
Add: Return on Equity	652.39	578.83
Less: Non-Tariff Income	17.79	17.79
Less: Cross Subsidy surcharge (STOA)	0.64	0.64
<b>Aggregate Revenue Requirement (before subsidy)</b>	<b>25597.06</b>	<b>22,004.36</b>
Less: GoUP Subsidy	3028.07	3,028.07
<b>Net Aggregate Revenue Requirement (after subsidy)</b>	<b>22568.99</b>	<b>18,976.29</b>

\*The Petitioner (PVVNL) has claimed O&M (net of capitalization) of Rs. 2344.01 Crs in Table 4.15 of Petition, however, in Table 4.32 of the Petition, wherein they have shown total ARR table, Petitioner has considered Total O&M expenses as Rs. 2319.28 Crs. This is due to incorrect claim of UPPCL O&M expenses of Rs. 74.02 Crores of DVVNL in PVVNL (which as per formats is Rs. 99.74 Crs).

**TABLE 6-197: ARR SUMMARY FOR PUVVNL FOR 2021-22 (RS. CRORE)**

Particulars	FY 2021-22	
	Claimed in ARR Submission	Approved
Cost of Power Procurement (including Inter State Transmission)	15279.81	14,401.15
Transmission and Load Dispatch Charges (Intra-State Transmission Charges)	683.19	642.97
<b>Gross O&amp;M Expenses</b>	<b>2795.12</b>	<b>1988.87</b>
Employee expenses	729.77	836.85
A&G expenses	348.32	160.86
R&M expenses	1717.03	991.17
UPPCL O&M Expenses	82.76	-
Smart Meter Opex	111.48	-
Arrears (7th Pay Commission)	0.00	-
Interest on Loan Capital	674.31	394.15
Interest on Security Deposit from Consumers and Distribution system Users	22.68	22.68



Approval of ARR and Tariff for State Discoms for FY 2021-22, APR of FY 2020-21 and True-up of FY 2019-20

Particulars	FY 2021-22	
	Claimed in ARR Submission	Approved
Interest on Working Capital	196.45	160.55
Depreciation	460.63	425.20
<b>Gross expenditure</b>	<b>20306.43</b>	<b>18,035.56</b>
Less: Employee expenses capitalised	460.33	460.33
Less: Interest expenses capitalised	225.36	225.36
<b>Net expenditure</b>	<b>19620.74</b>	<b>17,349.87</b>
Bad Debts & Provisions	356.87	204.88
<b>Net expenditure with provisions</b>	<b>19977.60</b>	<b>17,554.71</b>
Add: Return on Equity	673.82	552.20
Less: Non-Tariff Income	12.57	12.57
Less: Cross Subsidy surcharge (STOA)	0.57	0.57
<b>Aggregate Revenue Requirement (before subsidy)</b>	<b>20638.28</b>	<b>18,093.76</b>
Less: GoUP Subsidy	3778.92	3778.92
<b>Net Aggregate Revenue Requirement (after subsidy)</b>	<b>16859.36</b>	<b>14,314.84</b>

TABLE 6-198: ARR SUMMARY FOR KESCO FOR 2021-22 (RS. CRORE)

Particulars	FY 2021-22	
	Claimed in ARR Petition	Approved
Cost of Power Procurement (including Inter State Transmission)	2576.48	2,227.75
Transmission and Load Dispatch Charges (Intra-State Transmission Charges)	88.72	90.07
<b>Gross O&amp;M Expenses</b>	<b>422.19</b>	<b>297.81</b>
Employee expenses	149.96	160.98
A&G expenses	98.85	27.43
R&M expenses	173.38	109.40
UPPCL O&M Expenses	10.36	0.00
Smart Meter Opex	16.92	0.00
Arrears (7th Pay Commission)	0.00	
Interest on Loan Capital	20.38	21.15
Interest on Security Deposit from Consumers and Distribution system Users	6.75	6.75
Interest on Working Capital	23.65	24.82
Depreciation	45.01	41.96
<b>Gross expenditure</b>	<b>3210.46</b>	<b>2,710.31</b>
Less: Employee expenses capitalised	11.83	11.83
<b>Net expenditure</b>	<b>3198.62</b>	<b>2,698.48</b>
Bad Debts & Provisions	55.38	23.77
<b>Net expenditure with provisions</b>	<b>3254.00</b>	<b>2,722.24</b>
Add: Return on Equity	55.92	55.35



Approval of ARR and Tariff for State Discoms for FY 2021-22, APR of FY 2020-21 and True-up of FY 2019-20

Particulars	FY 2021-22	
	Claimed in ARR Petition	Approved
Less: Non Tariff Income	25.54	25.54
<b>Aggregate Revenue Requirement (before subsidy)</b>	<b>3284.39</b>	<b>2,752.05</b>
Less: GoUP Subsidy	-	-
<b>Net Aggregate Revenue Requirement (after subsidy)</b>	<b>3284.39</b>	<b>2,752.05</b>

**TABLE 6-199: CONSOLIDATED ARR SUMMARY FOR STATE OWNED DISCOMS FOR 2021-22 (RS. CRORE)**

Particulars	FY 2021-22	
	Claimed in ARR Submission	Approved
Cost of Power Procurement (including Inter State Transmission)	62,020.99	57,966.78
Transmission and Load Dispatch Charges (Intra-State Transmission Charges)	2,729.61	2,598.35
<b>Gross O&amp;M Expenses</b>	<b>9,680.05</b>	<b>6,625.53</b>
Employee expenses	2,757.82	2,924.58
A&G expenses	1,763.41	697.09
R&M expenses	5,158.82	3,003.86
UPPCL O&M Expenses	310.79*	-
Smart Meter Opex	370.22	-
Arrears (7th Pay Commission)	-	-
Interest on Loan Capital	2,246.53	1,512.59
Interest on Security Deposit from Consumers	170.46	170.46
Interest on Working Capital	597.49	486.53
Depreciation	1,853.98	1,836.35
<b>Gross expenditure</b>	<b>79,980.12</b>	<b>71,196.59</b>
Less: Employee expenses capitalised	1,283.85	1,283.85
Less: Interest expenses capitalised	639.93	639.93
<b>Net expenditure</b>	<b>78,056.34</b>	<b>69,272.80</b>
Bad Debts & Provisions	1,416.76	594.06
<b>Net expenditure with provisions</b>	<b>79,473.09</b>	<b>69,866.86</b>
Add: Return on Equity	2,551.51	2,220.40
Less: Non-Tariff Income	115.23	115.23
Less: Cross Subsidy surcharge (STOA)	8.13	8.13
<b>Aggregate Revenue Requirement (before subsidy)</b>	<b>81,901.24</b>	<b>71,963.91</b>
Less: GoUP Subsidy	11,650.01	11,650.01
<b>Net Aggregate Revenue Requirement (after subsidy)</b>	<b>70,251.23</b>	<b>60,313.90</b>

\*The Petitioner (PVVNL) has claimed O&M (net of capitalization) of Rs. 2344.01 Crs in Table 4.15 of Petition, however, in Table 4.32 of the Petition, wherein they have shown total ARR table, Petitioner has considered Total O&M expenses as Rs. 2319.28 Crs. This is due to incorrect claim of UPPCL O&M expenses of Rs. 74.02 Crores of DVVNL in PVVNL (which as per formats is Rs. 99.74 Crs).



## 7. REGULATORY ASSETS

7.1.1. In the Tariff Order dated 03.09.2019 for True-up of FY 2017-18, APR of FY 2018-19 & ARR of FY 2019-20, regulatory treatment for funds received under UDAY was done by the Commission. The relevant portion of the Order is quoted below:

Quote

9.3.4 Further, the Commission recomputed the exact impact of UDAY on Balance sheets of the Discoms, which gives the Net Regulatory Assets/ (Surplus) left after UDAY for FY 2015-16 will be Rs. 6,994.16 Crore as compared to discussion paper figure of Rs. 4,721.14 Crore and Net Regulatory Assets/(Surplus) left after UDAY for FY 2016-17 will be Rs. (10,793.21) Crore as compared to discussion paper figure of Rs. (11,851.82) Crore.

9.3.5 Thus, from the above it can be seen that Rs. (11,851.82) Crore is now revised to be Rs. (10,793.21) Crore as per Licensee's submission. Hence, the final table approved by the Commission is as follows:

**TABLE-9-14 TREATMENT OF REGULATORY ASSETS WITH CARRYING COST & UDAY IN FY 2015-16 (RS. CRORE)**

Description	DVVNL	MVVNL	PVVNL	PuVVNL	KESCo	Total
True Up of 2000-01 to 2007-08 & its Regulatory Assets/(Surplus) as on 31.03.16 (A)	964.35	247.61	446.36	1,805.35	(273.29)	3,190.39
True Up of 2008-09 to 2011-12 & its Regulatory Assets/(Surplus) as on 31.03.16 (B)	4,563.00	4,375.37	1,767.72	4,970.79	683.11	16,359.99
True Up of 2012-13 & its Regulatory Assets/(Surplus) as on 31.03.16 (C)	2,329.44	2,425.86	1,493.98	2,383.93	464.42	9,097.63
True Up of 2013-14 & its Regulatory Assets/(Surplus) as on 31.03.16 (D)	2,661.25	1,769.23	563.24	1,586.58	(127.48)	6,452.82
True Up of 2014-15 & its Regulatory Assets/(Surplus) as on 31.03.16 (E)	(1,412.38)	59.48	(663.03)	480.08	141.49	(1,394.35)
True Up of 2015-16 & its Regulatory Assets/(Surplus) as on 31.03.16 (F)	466.37	(217.31)	(1,899.05)	(523.45)	(206.40)	(2,379.84)
Total Regulatory Assets till Trued Up FY 2015-16 (G=A+B+C+D+E+F)	9,572.04	8,660.25	1,709.22	10,703.28	681.85	31,326.64
%age of Discom RA to total RA (H)	31%	28%	5%	34%	2%	100%
Allocation of UDAY Debt takeover as on 30.09.2015 based on H (I)	16,258.94	14,710.18	2,903.26	18,180.44	1,158.19	53,211.00
50% of Discom Debt Takenover in as per UDAY (J=50%*I)	(8,199.48)	(4,517.29)	(4,701.73)	(5,505.80)	(1,408.18)	(24,332.48)
Net Regulatory Assets/(Surplus) Left after UDAY (J=G-I)	1,372.56	4,142.96	(2,992.51)	5,197.48	(726.33)	6,994.16



**TABLE -9-15 TREATMENT OF REGULATORY ASSETS WITH CARRYING COST & UDAY IN FY 2016-17 (RS. CRORE)**

Description	DVVNL	MVVNL	PVVNL	PuVVNL	KESCo	Total
<b>Regulatory Assets/(Surplus) from FY 2015-16 (A)</b>	1,372.56	4,142.96	(2,992.51)	5,197.48	(726.33)	6,994.16
<b>Carrying Cost on A @ 12.50% for the FY 2016-17 (B)</b>	171.57	517.87	(374.06)	649.68	(90.79)	874.27
<b>Regulatory Asset/(Surplus) of FY 2016-17 in True Up (C)</b>	-	(265.48)	(2,295.81)	(947.96)	(351.11)	(3,860.36)
<b>Total Regulatory Assets till Trued Up FY 2016-17 (D=A+B+C)</b>	1,544.13	4,395.35	(5,662.39)	4,899.20	(1,168.22)	4,008.07
<b>Allocation of UDAY Debt takeover as on 30.09.2015 (E)</b>	16,258.94	14,710.18	2,903.26	18,180.44	1,158.19	53,211.00
<b>25% of Discom Debt Takeover as per UDAY (F=25%*E)</b>	(5,152.44)	(3,056.75)	(2,843.85)	(3,087.93)	(660.31)	(14,801.28)
<b>Net Regulatory Assets/(Surplus) Left after UDAY (F=D-E)</b>	(3,608.31)	1,338.60	(8,506.24)	1,811.27	(1,828.53)	(10,793.21)

**Note:**

1. Upto FY 2011-12, carrying cost is calculated from the year in which true up was done.
2. FY 2012-13 onwards, carrying cost is calculated from the year concerned.
3. The working capital interest rate, allowed in ARR for the year in which true up was done, is applied.
4. Upto FY 2007-08, gap is treated as opening & thereafter as addition during the year.
5. In FY 2015-16, Regulatory Assets/(Surplus) of the various years includes the carrying cost till FY 2015-16.
6. In FY 2016-17, Regulatory Assets/(Surplus) of the various years includes the carrying cost till FY 2016-17.

9.3.6 Based on the above and the submissions of the stakeholders, the Commission approves the following:

The Regulatory Surcharge is being abolished with effect from the implementation of the Tariffs for FY 2019-20.

The Commission will use this surplus, of Rs. 10,793.21 Crore as existing at the end of FY 2016-17, to be adjusted in future for the purposes of meeting the gaps of FY 2017-18 & onwards and also if required, for meeting uncertainties as mentioned in para 9.3.8 below:

9.3.7 The Commission has approved the True up for FY 2017-18 in this Order and accordingly, the table for Regulatory Asset till FY 2017-18 stands as follows:

**TABLE 9-16: REGULATORY ASSET/ (SURPLUS) TILL FY 2017-18**

Description	DVVNL	MVVNL	PVVNL	PuVVNL	KESCo	Total
<b>Regulatory Assets/(Surplus) from FY 2016-17 (A)</b>	(3,608.31)	1,338.60	(8,506.24)	1,811.27	(1,828.53)	(10,793.21)
<b>Carrying Cost on A @ 13.75% for the FY 2017-18 (B)</b>	(496.14)	184.06	(1,169.61)	249.05	(251.42)	(1,484.07)



Description	DVVNL	MVVNL	PVVNL	PuVVNL	KESCo	Total
<b>Regulatory Asset/(Surplus) of FY 2017-18 in True Up (C) with Carrying Cost for FY 2017-18</b>	0.00	(334.01)	0.00	0.00	(657.71)	(991.72)
<b>Carrying Cost on C @ 13.75% for FY 2017-18 (D)</b>	0.00	(22.96)	0.00	0.00	(45.22)	(68.18)
<b>Total Net Regulatory Assets/ (Surplus) till Trued Up FY 2017-18 (E=A+B+C+D)</b>	<b>(4,104.45)</b>	<b>1,165.69</b>	<b>(9,675.84)</b>	<b>2,060.32</b>	<b>(2,782.88)</b>	<b>(13,337.17)</b>

9.3.8 It is also pertinent to mention that due to the following reasons immediate treatment of this surplus is not being undertaken:

- I. The additional subsidy as approved by the Commission in the previous Tariff Orders has not been received by the licensee from GoUP. In the Section 4.19.4 the computation and treatment of additional subsidy has been provided. Accordingly, against the computed value of additional subsidy of Rs. 6,861.91 Crore for FY 2017-18 the additional subsidy allowed by the Commission is Rs. 3,678.12 Crore. Hence, the additional subsidy as approved by the Commission is Rs. 3,678.12 Crore for FY 2017-18, Rs. 8,587.38 Crore approx. for FY 2018-19 (computed as per their submissions) and Rs. 2,823.50 Crore approx. for FY 2019-20 respectively. Therefore, the total outstanding additional subsidy from GoUP to the licensees stands at Rs. 15,089.00 Crores due for the entire control period i.e. from FY 2017-18 to FY 2019-20.
- II. The Gaps (because of variation in ACoS & ABR) needs to be addressed for FY 2018-19 and FY 2019-20.

9.3.9 From the above, it is observed that the Commission has computed the impact of UDAY on Regulatory Asset till FY 2017-18 (True Up) as Rs. 13,337.17 Crore. While this surplus appears to be an option for meeting the ARR gap, however, the Commission is also conscious of the fact this includes mainly the additional subsidy for FY 2017-18 onwards totalling to Rs. 15,089.00 Crore which has actually been not paid by the State Government to the UPPCL/Discoms. Therefore, adjusting this notional surplus in the ARR of UPPCL/Discoms will squeeze out liquidity in operation and thereby cause financial disruption. Further, the interest of consumer is being protected by giving carrying cost on this surplus which may be used to meet any eventuality in future thereby minimizing the need for major tariff hike in future.

Unquote



7.1.2. The Licensees have filed an appeal with Hon'ble APTEL challenging the said Tariff Order of the Commission, inter alia, for the regulatory treatment of fund received by the Licensees under UDAY, which is still subjudice.

7.1.3. Subsequently in the Tariff Order dated 11.11.2020 for True Up of FY 2018-19, APR of FY 2019-20 & ARR, Tariff of FY 2020-21, no further adjustment for revenue surplus of Rs. 13,337.17 Crores, as determined in the Tariff Order dated 03.09.2019, was done by the Commission. The relevant paras of the said Tariff Order are quoted below:

Quote

**TABLE 9-7: CONSOLIDATED ESTIMATION OF ARR GAP/SURPLUS OF STATE DISCOMS FOR FY 2020-21 (RS. CRORE)**

Particular	FY 2018-19		FY 2019-20		FY 2020-21	
	Claimed (True-UP)	Approved (True-UP)	Claimed (APR)	Computed (APR)	Claimed	Approved
Opening (i.e. closing of last year)		0.00	12,233.10	62.65	17200.52	3803.08
Gap/(surplus)during the year	11,430.13	62.65	3,279.25	3,279.25	4,523.11	(4,592.15)
Closing GAP/(Surplus)	11,430.13	62.65	15,512.35	3,341.90	21,723.63	(789.07)
carrying cost rate (%) @IWC	14.05%	14.05%	13.80%	13.80%	10.65%	10.65%
Carrying cost (Rs. Crore) for the year	802.97	-	1,688.17	461.18	741.31	0.00
<b>Cumulative Gap/(Surplus)</b>	<b>12,233.10</b>	<b>62.65</b>	<b>17,200.52</b>	<b>3,803.08</b>	<b>22,464.94</b>	<b>(789.07)</b>

15.1.1 The carrying cost for FY 2018-19 gap has not been allowed, due to delay in filing of the Petitions by the Petitioners.

15.1.2 The surplus of Rs. 789.07 Crore at existing / approved revenue will be treated appropriately at the time of next tariff proceedings. The computations of ARR and Revenue for FY 2020-21 in the Order are estimated figures and may vary and so the projected gap / surplus will also undergo change correspondingly. The Commission will analyse these points in future tariff proceedings.

15.1.3 Further, the Commission had approved a surplus of Rs. 13,337.17 Crores as determined in the Tariff Order for FY 2019-20 dated 03.09.2019. In regards to the same, the Commission is aware that the matter is sub-judice in the Hon'ble APTEL and as the outcome of the matter will have a big impact, hence it is decided to treat the same in future tariff proceedings at appropriate time otherwise it may cause volatility in tariff. Further, the actual transfer of the additional subsidy from State Government to the Discoms is yet to take place. The Licensees too, have not proposed the



*treatment of the same due to the above reason. Further, the interest of consumer is being protected by giving carrying cost on this surplus.*

#### Unquote

- 7.1.4. Subsequently, a Letter No. 445/24-1-21-731 (Budget)/2020 dated 5.03.2021 has been received (F/1) from GoUP, vide which the details have been provided on the treatment of funds disbursed under UDAY.
- 7.1.5. Subsequent to GoUP letter, the Licensees (State Owned Discoms) vide Letter No. 139/RAU/Subsidy dated 01.04.2021, requested to take into consideration the GOUP Letter and approve appropriate adjustment. Further, the Licensees (State Owned Discoms) sent Letters dated 13.5.2020 in which they submitted the following:
- The Government of India, Government of Uttar Pradesh and UP Power Corporation Limited on behalf of UP DISCOMs entered into a Tripartite MoU (UDAY MoU) dated January 30, 2016 in order to improve the operational and financial efficiency of the U.P. DISCOMs, thereby enabling the financial turnaround of the DISCOMs. Under the said scheme, the Government of Uttar Pradesh was required to take over 75% of the outstanding debt of the UP DISCOMs as on 30.09.2015 by the end of FY 2016-17.
  - As per the provisions of the UDAY scheme, GoUP took over total loans of Rs. 39,133.76 Crore in two tranches of Rs. 24,332.48 Core and Rs. 14,801.28 Crore. The Hon'ble UPERC in its tariff order dated 03.09.2019 adjusted the above amount against the regulatory assets approved by this Commission in the previous tariff orders and accordingly determined a revenue surplus of Rs. 13,337.17 Crore till FY 2017-18. In para 9.3.8 of the said Tariff Order, the Hon'ble UPERC also quoted that additional subsidy approved by UPERC in the previous Tariff Orders has not been received by the licensee from GoUP.
  - Accordingly, the Regulatory Surcharge was abolished by UPERC vide Tariff Order dated 03.09.2019, by adjusting the value of Regulatory Asset against the Loans taken over by UP Govt. under the Ujjawal Discom Assurance Yojna (UDAY) Scheme notified by Ministry of Power, Govt. of India for financial turnaround of State Discoms.
  - Subsequently GoUP vide letter dated 05.03.2021, reduced the grant paid under the UDAY scheme to Nil and adjusted the same against the dues payable by State Govt. towards electricity bills due from some State Govt. Departments and additional subsidy payable by GOUP as determined by UPERC in its various Tariff /True-up Orders. Further GoUP has also committed to pay Rs. 14,661.54 Cr. to UP



Discoms in next 10 years starting from FY 2021-22, against the total un-adjusted additional subsidy determined by UPERC up to FY 2018-19.

- Therefore, taking into consideration of the GoUP letter, the loans taken over by State Govt. cannot be adjusted against the Regulatory Assets approved by UPERC, as the same has been adjusted by State Govt. against the additional subsidy payable by GoUP approved by UPERC in tariff orders.
- Thus, the Regulatory Asset computations in UPERC tariff order dated 03.09.2019 have to be revised accordingly. The revised computations of cumulative regulatory asset up to FY 2020-21 for this purpose (other than gap proposed for FY 2019-20, FY 2020-21 and FY 2021-22):

Description	Total
<b>True Up of 2000-01 to 2007-08 &amp; its Regulatory Assets/(Surplus) as on 31.03.16</b>	3,190.39
<b>True Up of 2008-09 to 2011-12 &amp; its Regulatory Assets/(Surplus) as on 31.03.16</b>	16,359.99
<b>True Up of 2012-13 &amp; its Regulatory Assets/(Surplus) as on 31.03.16</b>	9,097.63
<b>True Up of 2013-14 &amp; its Regulatory Assets/(Surplus) as on 31.03.16</b>	6,452.82
<b>True Up of 2014-15 &amp; its Regulatory Assets/(Surplus) as on 31.03.16</b>	(1,394.35)
<b>True Up of 2015-16 &amp; its Regulatory Assets/(Surplus) as on 31.03.16</b>	(2,379.84)
<b>Total Regulatory Assets till Trued Up FY 2015-16</b>	31,326.64
<b>50% of Discom Debt taken over in as per UDAY</b>	-
<b>Net Regulatory Assets/(Surplus) Left after UDAY</b>	31,326.64
Carrying Cost @ 12.50% for the FY 2016-17	3915.82
Regulatory Asset/(Surplus) of FY 2016-17 in True Up	(3860.36)
<b>Total Regulatory Assets till Trued Up FY 2016-17</b>	31,382.08
<b>25% of Discom Debt taken over as per UDAY</b>	-
<b>Net Regulatory Assets/(Surplus) Left after UDAY</b>	<b>31,382.08</b>
Carrying Cost @ 13.75% for FY 2017-18	4,315.04
Regulatory Assets/(Surplus) in True Up with carrying cost for FY 2017-18	(991.72)
carrying cost @ 13.75% for FY 2017-18	(68.18)
<b>Total Net RA / (Surplus) till trued up for FY 2017-18</b>	<b>34,637.22</b>
Carrying cost @ 14.05% for FY 2018-19	4866.53
Net Revenue gap / (surplus) after True up of FY 2018-19	62.65
Carrying cost @ 14.05% for FY 2018-19	4.40
<b>Total Net RA / (Surplus) trued up till FY 2018-19</b>	<b>39,570.80</b>
Carrying cost @ 13.80% for FY 2019-20	5,460.76
<b>Total Net RA / (Surplus) trued up till FY 2019-20</b>	<b>45,031.55</b>
Carrying cost @ 10.65% for FY 2020-21	4,795.86
<b>Total Net RA / (Surplus) trued up till FY 2020-21</b>	<b>49,827.41</b>



- 7.1.6. Accordingly, the Licensee`s requested the Commission to approve the above Regulatory Asset on the basis of GoUP letter and provide a roadmap for recovery of the same in line with the provisions of National Tariff Policy, 2016 and UPERC MYT Distribution Regulations, 2019.
- 7.1.7. They further apprised that as per clause 1.2(i) of the UP UDAY MOU, the State Government has given the commitment for taking over the future losses of Discoms in a graded manner. The total liability of State Government on this account was Rs. 12,049.49 Crore upto FY 2019 against which the Govt. has already provided support of Rs. 5771.02 Crore and for the remaining balance of Rs. 6278.47 crore, the State Govt. has committed that the same will be provided in next 10 years. The subsidy support from Govt. mentioned in point 5 of the letter is towards the cash losses incurred by the Petitioner due to lower collection efficiency and thus is not related to Regulatory Assets and ARR/Tariff approval procedure.
- 7.1.8. The Commission has gone through the letter dated 5.3.2021 received from GOUP and the submissions of the Licensees. At the outset, it is pertinent to mention that the UDAY agreement (MOU) was a tri-partite agreement between GoUP, Central Govt (GOI) and Discoms, wherein GOI facilitated GoUP to take over 75% of the outstanding debt of the Discoms, and facilitated Banks/FIs not to levy any prepayment charges on the Discom debt and waived off any unpaid overdue interest and penal interest on Discom debt. The same was done by the GoUP and Banks/FIs. However, the above letter changes the provisions of the tri-partite UDAY agreement and now the GoUP is unilaterally backing out from its obligations from a retrospective date and changing its share to 'debt' instead of 'taking over the debt'.
- 7.1.9. Since, the Commission had also approved the UDAY MoU, the Commission is of the view that giving effect to such arrangement in the manner as provided in the letter by the GOUP will have retrospective implication and will affect all the Tariff Orders (which have already been Trued-up) in which the treatment of UDAY has already been done. Also, such treatment of the funds would affect the interest of public at large and will lead to huge 'tariff-shock'. The same was also discussed in the State Advisory Committee (SAC). The Commission has taken note of the strong opposition by the SAC member, stakeholder and public at large against the revision in computation of Regulatory Assets approved by the Commission as proposed by the Discoms.



- 7.1.10. The Commission cannot decide the matter unilaterally under these ARR proceedings and without taking in consideration the outcome of the legal matter pending before Hon`ble APTEL in this respect.
- 7.1.11. Therefore, it would not be prudent to accept this change unilaterally on the advice of State Government from the retrospective date, and accordingly, is not accepted.



## 8. TARIFF PHILOSOPHY

### 8.1. CONSIDERATIONS IN TARIFF DESIGN

- 8.1.1. Section 62 of the Electricity Act 2003, read with Section 24 of the Uttar Pradesh Electricity Reforms Act, 1999 sets out the overall principles for the Commission to determine the final tariffs for all categories of consumers defined and differentiated according to consumer's load factor, power factor, voltage, total consumption of energy during any specified period or the time at which supply is required or the geographical position of any area, nature of supply and the purpose for which the supply is required. The overall mandate of the statutory legislations to the Commission is to adopt factors that will encourage efficiency, economical use of the resources, good performance, optimum investments and observance of the conditions of the License.
- 8.1.2. The linkage of tariffs to cost of service and gradual elimination of cross-subsidization is an important feature of the Electricity Act, 2003. Section 61 (g) of the Electricity Act, 2003 states that the tariffs should progressively reflect the cost of supply and it also requires the Commission to reduce cross subsidies within a timeframe specified by it. The need for progressive reduction of cross subsidies has also been underlined in Sections 39, 40 and 42 of the Electricity Act, 2003. The Tariff Policy, 2016 also advocates that the tariff should progressively reflect the efficient and prudent cost of supply.
- 8.1.3. The Commission has approved the retail tariff for FY 2021-22 taking into consideration the Electricity Act, 2003, Tariff Policy and UPERC (MYT for Distribution and Transmission) Regulations, 2019. The Commission in its earlier Tariff Orders during determination of ARR/Tariff has been allowing tariff hikes to the Licensees in view of gaps.
- 8.1.4. The Commission has also considered the suggestions and objections of the stakeholders and public at large while fixation of the tariffs. The Commission in its past Orders had laid emphasis on adoption of factors that encourages economy, efficiency, effective performance, autonomy, regulatory discipline and improved conditions of supply & services. On these lines, the Commission, in this Order too, has applied similar principles keeping in view the ground realities.
- 8.1.5. As regards to the linkage of Tariff with the Cost of Supply, the Regulations 53 of UPERC (MYT for Distribution and Transmission) Regulations, 2019 states as follows:

***53 Determination of Retail Supply Tariff***



53.1 *The Commission may categorize consumers on the basis of their Load Factor, Power Factor, Voltage, total consumption of electricity during any specified period, or the time at which the supply is required or the geographical position of any area, the nature of supply and the purpose for which the supply is required.*

53.2 *The retail supply Tariff for different consumer categories shall be determined on the basis of the Average Cost of Supply. While determining the Tariff, the Commission shall also keep in view the cost of supply at different voltage levels and the need to minimise Tariff shock to consumers.*

53.3 *It would be endeavoured to rationalize the number of consumer categories and Tariff structure. The Fixed / Demand Charges will be gradually aligned over a period upto the Fixed Cost of the ARR which would comprise of Fixed Charges of Generating Stations, Transmission Charges, Return on Equity, Interest on Loan, Depreciation, O&M & other fixed costs. The Energy Charge will be gradually aligned to the remaining ARR, i.e., the Variable Cost of the ARR, which would comprise the Fuel Cost of the Generating Stations & other variable costs.*

- 8.1.6. In terms of the UPERC (MYT for Distribution and Transmission) Regulations, 2019, Tariff Policy 2016 and the Electricity Act, 2003, the Commission opines that in the ideal scenario, the retail tariff of any category should be linked to the cost incurred by the system for the said category. However, as these details are not available, the Commission while determining the tariff for each category, has looked into the relationship between the tariff and the overall average cost of supply for FY 2021-22. Efforts are made as far as possible, to move the tariff of appropriate consumer categories, towards the band of +/- 20% to meet the declared objectives of the UPERC (MYT for Distribution and Transmission) Regulations, 2019, Tariff Policy, 2016 and the Electricity Act, 2003.
- 8.1.7. It has been observed that in general, there are many issues in the figures of billing determinants and hence, the Petitioners are directed to check and verify the billing determinants properly and report the same to the Commission in next tariff filing.
- 8.1.8. The State owned Discoms in the Petition submitted a proposal for tariff rationalisation for consumer category / sub-category / slab simplification under uniform tariff for Discoms, thereby reducing the number of categories. However, the Licensees, even after repeated directions of the Commission, did not submit the revised rates & revenue proposed after rationalization. Further, after consideration of suggestions & objections of various stakeholders, public at large and SAC Committee members, who have strongly opposed the above proposal. Taking in consideration the same, the Commission has decided not to approve the proposal



for Tariff rationalisation as the said proposal needs more deliberations from the stakeholders and public at large.

- 8.1.9. Further, the Commission determines the retail tariff keeping in the mind the guiding principles as stated in Section 61 and 62 of the Electricity Act, 2003. The Commission in its Tariff Order dated September 03, 2019, had revised the tariff considering the huge amount of revenue gap and high cost of supply and resultant poor cost coverage in the absence of cost reflective tariff. Further, taking into consideration the revenue surplus in FY 2020-21, the Commission did not approve any tariff increase. Further, in FY 2021-22, after considering the position of gap/(surplus) of various Discoms. The Commission taking into consideration the Gap/(Surplus) position as detailed in subsequent chapter has not approved any tariff revision in FY 2021-22 and has considered the same 'Rate Schedule' as approved in Tariff Order for FY 2020-21 dated November 11, 2020 for all 5 State Discoms.
- 8.1.10. Further the Letter of GoUP with Ref: 998/24-P-3-2021-969/2021 dated 26.3.2021 regarding subsidy has been received by the Commission, which mentions of a direction under Section 108 of Electricity Act, 2003 regarding category/sub-category/slab wise "tariff without subsidy" and "subsidy per unit" to be provided by the Commission. The Commission's view on the same was given in its Tariff Order for FY 2020-21 dated 11 November 2020. Relevant portion of the concerned para is reproduced as below:
- "10.2.1. The Petitioners have not developed any transparent mechanism for proper utilization of this subsidy only for the directed class of consumers namely, agricultural, lifeline, rural domestic etc. In view of ensuring transparent utilization of public resources by way of subsidy, the Petitioners are directed to prepare a scheme for transfer of subsidy in a transparent manner with the approval of the State Government to be implemented with effect from 1st April 2022. For introduction of DBT, the Petitioners will need to achieve 100% metering of all consumers and also computerise the details of all those consumers who are to be benefitted with subsidy under DBT including agricultural consumers. The Petitioners shall submit the roadmap for DBT in their next ARR filing for year 2021-22."
- 8.1.11. The Commission reiterates the above reasoning and directs the Petitioners to submit the roadmap for DBT in their next ARR filing for its consideration subject to meeting the provisions under Section 65 of the Electricity Act, 2003, wherein the subsidy amount is to be provided in advance.



- 8.1.12. Further, the Commission is in receipt of a GoUP letter with Ref: 707/24-P-1/2021 dated 25.3.2021 under Section 108 of EA 2003, wherein GoUP mentioned that since majority of the rural LMV-5 consumers are unmetered, and taking into consideration the impact of Covid pandemic, GoUP has decided that tariff rates of rural LMV-5 unmetered consumers may be levied on LMV-5 metered consumers tariff and has directed the Commission to consider the same.
- 8.1.13. Subsequently, GoUP again sent a letter with Ref: 812/24-1-21-1307/2020 dated 12.5.2021 for billing LMV-5 rural metered as unmetered, however metering of unmetered consumers will also be done and the meter reading will be used for the purpose of energy accounting and subsidy computation. The difference between the revenue at unmetered rates & revenue as per metered energy & rates, would be provided to the Licensees by GoUP.
- 8.1.14. Although, this provision is not in conformity of Section 65 of Electricity Act, 2003, in regard to advance subsidy, however, in view of the State Government's commitment to provide additional subsidy in regards to the above arrangement, **the Commission accepts this proposal and the additional subsidy amount, which will be computed at the time of True-up shall be payable by the State Government in conformity to Section 65 of Electricity Act, 2003.**

## 8.2. APPLICABILITY OF TARIFF CATEGORY & RATES

- 8.2.1. The applicability, character and point of supply and other terms & conditions of different consumer categories have been defined in the Rate Schedule annexed to this Tariff Order. In case of any inconformity, the Rate Schedule shall prevail over the details given in the various sections of this Order.



## 9. REVENUE & REVENUE GAP

### 9.1. REVENUE FROM SALE OF ELECTRICITY AT EXISTING TARIFF

9.1.1. The State Owned Discoms submitted that for projecting the Fixed Charges for FY 2021-22, the average load of March 2021 and March 2022 has been considered as the consumer and the corresponding load has been added during the FY 2021-22. They have submitted that for HV category consumers, the Petitioner has considered the billable load/Demand at 75% of the contracted load/demand considering it to be as maximum load/demand.

9.1.2. The State Owned Discoms namely DVVNL, MVVNL, PVVNL, PuVVNL & KESCO projected their revenue from sale of power for the FY 2021-22 to be Rs. 11,510.31 Crore, Rs. 12,441.64 Crore, Rs. 19,348.34 Crore, Rs. 14,518.59 Crore and Rs. 2,768.98 Crore respectively.

9.1.3. Category-wise revenue worked-out based on above assumptions and projected billing determinants claimed by the Petitioners are shown in the Table below:

**TABLE 9-1: CATEGORY WISE REVENUE OF DVVNL CLAIMED FOR FY 2021-22**

Category	Fixed Charges	Energy Charges	Total Revenue
LMV-1 Domestic light fan & power	690.33	3,253.43	3,943.76
LMV-2-Non domestic light fan & power	254.72	804.34	1,059.06
LMV-3 Public lamps	3.49	32.39	35.89
LMV-4 Light, fan & power for public/private institution	37.83	246.93	284.76
LMV-5 Private tube well/pumping sets	547.94	28.34	576.28
LMV-6 Small & medium power upto 100 hp/75kw	88.43	538.44	626.86
LMV-7 Public water works	41.62	301.42	343.05
LMV-8 State tube wells & pumps canal upto 100 hp (lmv-8)	79.71	545.99	625.70
Lmv-9 Temporary supply	1.30	5.32	6.62
LMV- 10 Departmental employees	76.02	-	76.02
LMV-11 Electric Vehicle	-	-	-
HV-1 Non industrial bulk load	44.79	246.85	291.65
HV-2 Large & heavy power above 100 bhp (75 kw)	278.60	2,370.25	2,648.85



Category	Fixed Charges	Energy Charges	Total Revenue
HV-3 Railway traction	-	-	-
HV-4 Lift irrigation & p. canal above 100 bhp (75kw)	12.28	116.15	128.43
Bulk supply	-	863.38	863.38
<b>Total</b>	<b>2,157.06</b>	<b>9,353.25</b>	<b>11,510.31</b>

**TABLE 9-2: CATEGORY WISE REVENUE OF MVVNL CLAIMED FOR FY 2021-22**

Category	Fixed Charges	Energy Charges	Total Revenue
LMV-1 Domestic light fan & power	1,092.28	4,660.62	5,752.90
LMV-2-Non domestic light fan & power	460.63	1,087.98	1,548.60
LMV-3 Public lamps	30.28	288.70	318.98
LMV-4 Light, fan & power for public/private institution	55.09	230.89	285.98
LMV-5 Private tube well/pumping sets	279.59	62.34	341.93
LMV-6 Small & medium power upto 100 hp/75kw	69.58	426.21	495.79
LMV-7 Public water works	50.07	413.88	463.95
LMV-8 State tube wells & pumps canal upto 100 hp	91.08	745.00	836.09
Lmv-9 Temporary supply	7.07	87.41	94.49
LMV- 10 Departmental employees	94.90	-	94.90
LMV-11 Electric Vehicle	-	-	-
HV-1 Non industrial bulk load	141.93	630.49	772.42
HV-2 Large & heavy power above 100 bhp (75 kw)	229.53	1,070.62	1,300.15
HV-3 Railway traction	4.62	39.99	44.60
HV-4 Lift irrigation & p. canal above 100 bhp (75kw)	2.35	69.92	72.27
Bulk supply	-	-	-
Extra State Consumers	-	18.61	18.61
<b>Total</b>	<b>2,608.98</b>	<b>9,832.66</b>	<b>12,441.64</b>



**TABLE 9-3: CATEGORY WISE REVENUE OF PVVNL CLAIMED FOR FY 2021-22**

Category	Fixed Charges	Energy Charges	Total Revenue
LMV-1 Domestic light fan & power	1,366.08	6,032.56	7,398.63
LMV-2-Non domestic light fan & power	584.26	1,319.52	1,903.78
LMV-3 Public lamps	16.66	155.68	172.34
LMV-4 Light, fan & power for public/private institution	46.67	195.27	241.93
LMV-5 Private tube well/pumping sets	913.01	13.48	926.49
LMV-6 Small & medium power upto 100 hp/75kw	228.86	925.39	1,154.25
LMV-7 Public water works	59.87	415.30	475.17
LMV-8 State tube wells & pumps canal upto 100 hp	40.96	209.19	250.15
Lmv-9 Temporary supply	17.84	91.98	109.82
LMV- 10 Departmental employees	114.61	-	114.61
LMV-11 Electric Vehicle	-	-	-
HV-1 Non industrial bulk load	439.21	1,602.66	2,041.87
HV-2 Large & heavy power above 100 bhp (75 kw)	556.84	3,924.14	4,480.97
HV-3 Railway traction	16.55	61.02	77.57
HV-4 Lift irrigation & p. canal above 100 bhp (75kw)	0.10	0.66	0.76
Bulk supply	-	-	-
Extra State Consumers	-	-	-
<b>Total</b>	<b>4,401.51</b>	<b>14,946.84</b>	<b>19,348.34</b>

**TABLE 9-4: CATEGORY WISE REVENUE OF PUVVNL CLAIMED FOR FY 2021-22**

Category	Fixed Charges	Energy Charges	Total Revenue
LMV-1 Domestic light fan & power	1,265.26	6,497.97	7,763.23
LMV-2-Non domestic light fan & power	544.92	1,592.77	2,137.70
LMV-3 Public lamps	13.14	96.66	109.80
LMV-4 Light, fan & power for public/private institution	50.52	168.08	218.60
LMV-5 Private tube well/pumping sets	363.55	53.60	417.15
LMV-6 Small & medium power upto 100 hp/75kw	87.75	427.52	515.27



Category	Fixed Charges	Energy Charges	Total Revenue
LMV-7 Public water works	50.36	286.77	337.13
LMV-8 State tube wells & pumps canal upto 100 hp	114.87	932.93	1,047.80
Lmv-9 Temporary supply	1.30	1.18	2.48
LMV- 10 Departmental employees	61.32	-	61.32
LMV-11 Electric Vehicle	-	-	-
HV-1 Non industrial bulk load	94.28	436.72	530.99
HV-2 Large & heavy power above 100 bhp (75 kw)	69.33	832.97	902.30
HV-3 Railway traction	3.89	14.32	18.21
HV-4 Lift irrigation & p. canal above 100 bhp (75kw)	43.47	410.79	454.26
Bulk supply	-	-	-
Extra State Consumers	-	2.36	2.36
<b>Total</b>	<b>2,763.95</b>	<b>11,754.64</b>	<b>14,518.59</b>

**TABLE 9-5: CATEGORY WISE REVENUE OF KESCO CLAIMED FOR FY 2021-22**

Category	Fixed Charges	Energy Charges	Total Revenue
LMV-1 Domestic light fan & power	180.25	949.92	1,130.17
LMV-2-Non domestic light fan & power	110.25	265.20	375.45
LMV-3 Public lamps	3.11	31.29	34.40
LMV-4 Light, fan & power for public/private institution	10.96	106.18	117.14
LMV-5 Private tube well/pumping sets	-	0.05	0.05
LMV-6 Small & medium power upto 100 hp/75kw	26.89	251.48	278.37
LMV-7 Public water works	19.52	96.10	115.61
LMV-8 State tube wells & pumps canal upto 100 hp	-	-	-
Lmv-9 Temporary supply	0.11	1.89	2.00
LMV- 10 Departmental employees	26.59	-	26.59
LMV-11 Electric Vehicle	-	-	-
HV-1 Non industrial bulk load	31.47	177.95	209.42
HV-2 Large & heavy power above 100 bhp (75 kw)	65.32	414.46	479.77
HV-3 Railway traction	-	-	-



Category	Fixed Charges	Energy Charges	Total Revenue
HV-4 Lift irrigation & p. canal above 100 bhp (75kw)	-	-	-
Bulk supply	-	-	-
Extra State Consumers	-	-	-
<b>Total</b>	<b>474.47</b>	<b>2,294.51</b>	<b>2,768.98</b>

**TABLE 9-6: CONSOLIDATED CATEGORY WISE REVENUE OF 5 STATE DISCOMS CLAIMED FOR FY 2021-22**

Category	Fixed Charges	Energy Charges	Total Revenue
LMV-1 Domestic light fan & power	4,594.20	21,394.50	25,988.69
LMV-2-Non domestic light fan & power	1,954.78	5,069.81	7,024.59
LMV-3 Public lamps	66.68	604.72	671.41
LMV-4 Light, fan & power for public/private institution	201.07	947.35	1,148.41
LMV-5 Private tube well/pumping sets	2,104.09	157.81	2,261.90
LMV-6 Small & medium power upto 100 hp/75kw	501.51	2,569.04	3,070.54
LMV-7 Public water works	221.44	1,513.47	1,734.91
LMV-8 State tube wells & pumps canal upto 100 hp	326.62	2,433.11	2,759.74
Lmv-9 Temporary supply	27.62	187.78	215.41
LMV- 10 Departmental employees	373.44	0.00	373.44
LMV-11 Electric Vehicle	0.00	0.00	0.00
HV-1 Non industrial bulk load	751.68	3,094.67	3,846.35
HV-2 Large & heavy power above 100 bhp (75 kw)	1,199.62	8,612.44	9,812.04
HV-3 Railway traction	25.06	115.33	140.38
HV-4 Lift irrigation & p. canal above 100 bhp (75kw)	58.20	597.52	655.72
Bulk supply	0.00	863.38	863.38
Extra State Consumers	0.00	20.97	20.97
<b>Total</b>	<b>12,405.97</b>	<b>48,181.90</b>	<b>60,587.86</b>

9.1.4. Category-wise consolidated sales, revenue and Average Billing Rate (ABR) are shown in the Table below:



**TABLE 9-7: CONSOLIDATED SUBCATEGORY WISE SALES, REVENUE AND ABR OF 5 STATE DISCOMS FOR FY 2021-22 CLAIMED BY PETITIONERS**

Consolidated (all 5 Discoms)	Projected Sales (MU)	Estimated Revenue (Rs Cr)	Average Billing Rate (Rs/Unit)
<b>LMV-1: Domestic Light, Fan &amp; Power</b>			
Life Line Consumers (both Rural and Urban) (up to 100 kWh/month)	1,484.70	549.39	3.7
Dom: Rural Schedule (unmetered)	-	-	-
Dom: Rural Schedule (metered) other than BPL	23,490.08	11,391.95	4.85
Dom: Supply at Single Point for Bulk Load	1,100.04	796.87	7.24
Other Metered Domestic Consumers other than BPL	18,995.00	13,250.48	6.98
<b>Sub-Total</b>	<b>45,069.82</b>	<b>25,988.70</b>	<b>5.77</b>
<b>LMV-2: Non Domestic Light, Fan &amp; Power</b>			
Non Dom: Rural Schedule (unmetered)	-	-	-
Non Dom: Rural Schedule (metered)	921.59	570.73	6.19
Non Dom: Private Advertising /Sign Post/Sign Board/Glow Sign	5.56	10.01	18
Non Dom: Other Metered Non-Domestic Supply	5,791.68	6,443.86	11.13
<b>Sub-Total</b>	<b>6,718.83</b>	<b>7,024.60</b>	<b>10.46</b>
<b>LMV-3: Public Lamps</b>			
<b>Unmetered</b>	-	-	-
Unmetered - Gram Panchayat	-	-	-
Unmetered - Nagar Palika & Nagar Panchayat	-	-	-
Unmetered - Nagar Nigam	-	-	-
<b>Metered</b>	730.13	671.4	9.2
Metered - Gram Panchayat	43.89	36.14	8.23
Metered - Nagar Palika & Nagar Panchayat	230.13	210.81	9.16
Metered - Nagar Nigam	456.1	424.45	9.31
<b>Sub-Total</b>	<b>730.13</b>	<b>671.4</b>	<b>9.2</b>
<b>LMV-4: Light, fan &amp; Power for Institutions</b>			
Inst: Public	906.35	894.17	9.87
Inst: Private	204.92	254.24	12.41
<b>Sub-Total</b>	<b>1,111.27</b>	<b>1,148.41</b>	<b>10.33</b>
<b>LMV-5: Private Tube Wells/ Pumping Sets</b>			



Approval of ARR and Tariff for State Discoms for FY 2021-22, APR of FY 2020-21 and True-up of FY 2019-20

Consolidated (all 5 Discoms)	Projected Sales (MU)	Estimated Revenue (Rs Cr)	Average Billing Rate (Rs/Unit)
<b>Consumers getting supply as per "Rural Schedule"</b>	13,840.16	2,151.23	1.55
PTW: Rural Schedule (unmetered) (Total)	13,527.06	2,067.51	1.53
PTW: Rural Schedule (metered) (Total)	313.1	83.72	2.67
<b>Consumers getting supply as per "Urban Schedule (Metered Supply)"</b>	158.66	110.67	6.98
PTW: Urban Schedule (metered)	158.66	110.67	6.98
<b>Sub-Total</b>	13,998.82	2,261.90	1.62
<b>LMV 6: Small and Medium Power upto 100 HP (75 kW)</b>			
Consumers getting supply as per "Rural Schedule"	407.28	366.41	9
Consumers getting supply other than "Rural Schedule"	3,017.57	2,704.13	8.96
<b>Sub-Total</b>	3,424.85	3,070.54	8.97
<b>LMV-7: Public Water Works</b>			
Consumers getting supply as per "Rural Schedule"	492.12	441.33	8.97
Consumers getting supply other than "Rural Schedule"	1,304.63	1,293.58	9.92
<b>Sub-Total</b>	1,796.75	1,734.91	9.66
<b>LMV-8: State Tube Wells &amp; Pump Canals upto 100 HP</b>			
<b>Metered</b>	2,862.50	2,759.74	9.64
Metered STW	2,862.50	2,759.74	9.64
<b>Unmetered</b>	-	-	-
Unmetered:STW/Panch.Raj/WB/ID/P. Canals/LI upto 100 BHP	-	-	-
Unmetered: Laghu Dal Nahar above 100 BHP	-	-	-
<b>Sub-Total</b>	2,862.50	2,759.74	9.64
<b>LMV-9: Temporary Supply</b>			
<b>Metered</b>	209.64	215.14	10.26
Metered TS: Individual residential consumers	9.02	10.31	11.43
Metered TS: Others	200.62	204.83	10.21
<b>Unmetered</b>	-	0.26	-
Unmetered TS: Ceremonies	-	-	-



Approval of ARR and Tariff for State Discoms for FY 2021-22, APR of FY 2020-21 and True-up of FY 2019-20

Consolidated (all 5 Discoms)	Projected Sales (MU)	Estimated Revenue (Rs Cr)	Average Billing Rate (Rs/Unit)
Unmetered TS: Temp shops	-	0.26	-
<b>Sub-Total</b>	209.64	215.4	10.27
<b>LMV-10: Departmental Employees</b>	638.62	373.42	5.85
<b>LMV-11: Electrical Vehicles</b>			
<b>Multi Story Buildings</b>	-	-	-
LMV-1b	-	-	-
HV-1b	-	-	-
<b>Public Charging Station</b>	-	-	-
<b>LT</b>	-	-	-
<b>HT</b>	-	-	-
<b>Sub-Total</b>	-	-	-
<b>HV-1: Non-Industrial Bulk Loads</b>			
<b>Commercial Loads / Private Institutions / Non-Domestic Bulk Power with contracted Load 75 kW &amp; above and getting supply at single point on 11 kV &amp; above voltage level.</b>	1,875.21	1,958.96	10.45
Supply at 11 kV	1,599.03	1,599.15	10
Supply above 11 kV	276.19	359.81	13.03
<b>Public Institutions, Registered Societies, Residential Colonies / Townships, Residential Multi-Storied Buildings including Residential Multi-Storied Buildings with contracted load 75 kW &amp; above and getting supply at Single Point on 11 kV &amp; above voltage levels</b>	1,875.21	1,887.40	10.06
Supply at 11 kV	1,599.03	1,530.52	9.57
Supply above 11 kV	276.19	356.87	12.92
<b>Sub-Total</b>	3,750.43	3,846.35	10.26
<b>HV-2: Large and Heavy Power above 100 BHP (75 kW)</b>			
HV2 Urban Schedule: Supply at 11 kV	8,616.09	6,971.70	8.09
HV2 Urban Schedule: Supply above 11 kV & upto 66 kV	2,736.44	2,088.16	7.63
HV2 Urban Schedule: Supply above 66 kV & upto 132 kV	752.14	561.2	7.46
HV2 Urban Schedule: Supply above 132 kV	93.55	61.46	6.57
HV2 Rural Schedule: Supply at 11 kV	154.46	129.53	8.39



Approval of ARR and Tariff for State Discoms for FY 2021-22, APR of FY 2020-21 and True-up of FY 2019-20

Consolidated (all 5 Discoms)	Projected Sales (MU)	Estimated Revenue (Rs Cr)	Average Billing Rate (Rs/Unit)
<b>Sub-Total</b>	12,352.68	9,812.04	7.94
<b>HV-3: Railway Traction</b>			
HV3 Supply at and above 132 kV	16.85	18.21	10.81
HV3 Supply below 132 kV	16.21	18.16	11.2
HV3 For Metro traction	118.82	104.02	8.75
<b>Sub-Total</b>	151.88	140.38	9.24
<b>HV-4: Lift Irrigation &amp; P. Canals above 100 BHP (75 kW)</b>			
HV4 Supply at 11kV	407.68	365.42	8.96
HV4 Supply above 11kV & upto 66kV	289.65	279.68	9.66
HV4 Supply above 66 kV & upto 132kV	9.32	10.63	11.4
<b>Sub-Total</b>	706.65	655.72	9.28
<b>Extra State Consumer</b>	26.78	20.97	7.83
<b>Bulk Supply Consumer</b>	2,058.67	863.38	4.19
<b>Grand Total</b>	<b>95,608.34</b>	<b>60,587.86</b>	<b>6.34</b>

9.1.5. The Commission has computed the revenue as per the tariff rates approved in Tariff Order dated November 11, 2020 and the approved billing determinants for FY 2021-22. The category / sub-category wise details of the revenue at existing tariff for FY 2021-22 are annexed in this Order. The following tables summarize the revenue approved by Commission for FY 2021-22 at existing tariff:

**TABLE 9-8: APPROVED TARIFF REVENUE FOR DVVNL (INCLUDING DF OF AGRA) (RS. CRORE)**

Consumer Categories (DVVNL+ DF of Agra)	FY 2021-22
	Approved
LMV-1: Domestic	4,696.13
LMV-2: Non-Domestic	1,314.43
LMV-3: Public Lamps	57.80
LMV-4: Institutions	310.05
LMV-5: Private Tube Wells	471.62
LMV 6: Small and Medium Power	738.71
LMV-7: Public Water Works	362.40
LMV-8: State Tube Wells	610.20
LMV-9: Temporary Supply	16.41
LMV-10: Departmental Employees	111.56
LMV-11: Electric Vehicles	0.00
HV-1: Non-Industrial Bulk Loads	426.86



Consumer Categories (DVVNL+ DF of Agra)	FY 2021-22
	Approved
HV-2: Large and Heavy Power	2,792.25
HV-3: Railway Traction	0.00
HV-4: Lift Irrigation	122.70
Extra State Consumer	0.00
<b>Total*</b>	<b>12,031.11</b>

**TABLE 9-9: APPROVED TARIFF REVENUE FOR MVVNL (RS. CRORE)**

Consumer Categories (MVVNL)	FY 2021-22
	Approved
LMV-1: Domestic	5,752.90
LMV-2: Non-Domestic	1,550.75
LMV-3: Public Lamps	341.79
LMV-4: Institutions	274.96
LMV-5: Private Tube Wells	285.98
LMV 6: Small and Medium Power	499.34
LMV-7: Public Water Works	453.94
LMV-8: State Tube Wells	817.87
LMV-9: Temporary Supply	94.26
LMV-10: Departmental Employees	125.76
LMV-11: Electric Vehicles	0.00
HV-1: Non-Industrial Bulk Loads	762.53
HV-2: Large and Heavy Power	1,294.64
HV-3: Railway Traction	44.91
HV-4: Lift Irrigation	71.18
Extra State Consumer	18.61
<b>Total</b>	<b>12,389.41</b>

**TABLE 9-10: APPROVED TARIFF REVENUE FOR PVVNL (RS. CRORE)**

Consumer Categories (PVVNL)	FY 2021-22
	Approved
LMV-1: Domestic	7,398.63
LMV-2: Non-Domestic	1,905.09
LMV-3: Public Lamps	184.57
LMV-4: Institutions	232.61
LMV-5: Private Tube Wells	743.89
LMV 6: Small and Medium Power	1,166.82
LMV-7: Public Water Works	463.20
LMV-8: State Tube Wells	241.96



Consumer Categories (PVVNL)	FY 2021-22
	Approved
LMV-9: Temporary Supply	109.82
LMV-10: Departmental Employees	139.42
LMV-11: Electric Vehicles	0.00
HV-1: Non-Industrial Bulk Loads	1,954.24
HV-2: Large and Heavy Power	4,480.62
HV-3: Railway Traction	76.60
HV-4: Lift Irrigation	0.71
Extra State Consumer	0.00
<b>Total</b>	<b>19,098.17</b>

**TABLE 9-11: APPROVED TARIFF REVENUE FOR PUVVNL (RS. CRORE)**

Consumer Categories (PuVVNL)	FY 2021-22
	Approved
LMV-1: Domestic	7,763.23
LMV-2: Non-Domestic	2,146.53
LMV-3: Public Lamps	116.83
LMV-4: Institutions	208.49
LMV-5: Private Tube Wells	344.44
LMV 6: Small and Medium Power	521.88
LMV-7: Public Water Works	327.05
LMV-8: State Tube Wells	1,024.83
LMV-9: Temporary Supply	2.48
LMV-10: Departmental Employees	90.97
LMV-11: Electric Vehicles	0.00
HV-1: Non-Industrial Bulk Loads	512.01
HV-2: Large and Heavy Power	901.92
HV-3: Railway Traction	16.92
HV-4: Lift Irrigation	433.97
Extra State Consumer	2.36
<b>Total</b>	<b>14,413.91</b>

**TABLE 9-12: APPROVED TARIFF REVENUE FOR KESCO (RS. CRORE)**

Consumer Categories (KESCO)	FY 2021-22
	Approved
LMV-1: Domestic	1,130.17
LMV-2: Non-Domestic	375.45
LMV-3: Public Lamps	36.91
LMV-4: Institutions	114.95
LMV-5: Private Tube Wells	0.05



Consumer Categories (KESCo)	FY 2021-22
	Approved
LMV 6: Small and Medium Power	279.71
LMV-7: Public Water Works	111.71
LMV-8: State Tube Wells	0.00
LMV-9: Temporary Supply	1.79
LMV-10: Departmental Employees	28.89
LMV-11: Electric Vehicles	0.00
HV-1: Non-Industrial Bulk Loads	209.42
HV-2: Large and Heavy Power	479.77
HV-3: Railway Traction	0.00
HV-4: Lift Irrigation	0.00
Extra State Consumer	0.00
<b>Total</b>	<b>2,768.83</b>

**TABLE 9-13: APPROVED TARIFF REVENUE FOR ALL STATE OWNED DISCOMS (INCLUDING DF OF AGRA)  
(RS. CRORE)**

Consumer Categories (Consolidated)	FY 2021-22
	Approved
LMV-1: Domestic	26,741.06
LMV-2: Non-Domestic	7,292.25
LMV-3: Public Lamps	737.91
LMV-4: Institutions	1,141.06
LMV-5: Private Tube Wells	1,845.99
LMV 6: Small and Medium Power	3,206.46
LMV-7: Public Water Works	1,718.30
LMV-8: State Tube Wells	2,694.86
LMV-9: Temporary Supply	224.74
LMV-10: Departmental Employees	496.59
LMV-11: Electric Vehicles	0.00
HV-1: Non-Industrial Bulk Loads	3,865.06
HV-2: Large and Heavy Power	9,949.20
HV-3: Railway Traction	138.43
HV-4: Lift Irrigation	628.56
Extra State Consumer	20.97
<b>Total</b>	<b>60,701.44</b>



## 9.2. REVENUE FROM SALE OF POWER AT APPROVED TARIFF

9.2.1. As discussed above, the Commission has continued with the same retail tariff as approved for FY 2020-21. Thus, the Tariff so published shall become the notified Tariff applicable in the area of supply and shall come into force after seven days from the date of such publication of the Tariff approved in this Order, and unless amended or revoked, shall continue to be in force till issuance of the next Tariff Order.

## 9.3. REVENUE GAP

9.3.1. Taking into considered the ARR & revenue at existing Tariff approved for FY 2021-22. The estimated gap / surplus for FY 2021-22 of State owned Discoms is as given in the Table below:

**TABLE 9-14: ESTIMATION OF ARR GAP/SURPLUS FOR DVVNL FOR FY 2021-22 (RS. CRORE)**

DVVNL	Claimed	Approved
<b>Net Aggregate Revenue Requirement (after subsidy)</b>	13,207.83	11,955.51
Revenue at Existing Tariff	11,510.31	12,031.11
Impact of Tariff Revision	-	-
<b>Revised Gap/ (Surplus)</b>	1,697.53	<b>(75.60)</b>

**TABLE 9-15: ESTIMATION OF ARR GAP/SURPLUS FOR MVVNL FOR FY 2021-22 (RS. CRORE)**

MVVNL	Claimed	Approved
<b>Net Aggregate Revenue Requirement (after subsidy)</b>	14,330.66	12,312.56
Revenue at Existing Tariff	12,441.64	12,389.41
Impact of Tariff Revision	-	-
<b>Revised Gap/ (Surplus)</b>	1,889.01	<b>(76.86)</b>

**TABLE 9-16: ESTIMATION OF ARR GAP/SURPLUS FOR PVVNL FOR FY 2021-22 (RS. CRORE)**

PVVNL	Claimed	Approved
<b>Net Aggregate Revenue Requirement (after subsidy)</b>	22,594.72	18,979.46
Revenue at Existing Tariff	19,348.34	19,098.17
Impact of Tariff Revision	-	-
<b>Revised Gap/ (Surplus)</b>	3,246.37	<b>(118.71)</b>



**TABLE 9-17: ESTIMATION OF ARR GAP/SURPLUS FOR PUVVNL FOR FY 2021-22 (RS. CRORE)**

PuVVNL	Claimed	Approved
<b>Net Aggregate Revenue Requirement (after subsidy)</b>	16,859.36	14,314.77
Revenue at Existing Tariff	14,518.59	14,413.91
Impact of Tariff Revision	-	-
<b>Revised Gap/ (Surplus)</b>	2,340.77	<b>(99.14)</b>

**TABLE 9-18: ESTIMATION OF ARR GAP/SURPLUS FOR KESCO FOR FY 2021-22 (RS. CRORE)**

KESCO	Claimed	Approved
<b>Net Aggregate Revenue Requirement (after subsidy)</b>	3,284.39	2,751.60
Revenue at Existing Tariff	2,768.98	2,768.83
Impact of Tariff Revision	-	-
<b>Revised Gap/ (Surplus)</b>	515.41	<b>(17.22)</b>

**TABLE 9-19: CONSOLIDATED ESTIMATION OF ARR GAP/SURPLUS OF STATE DISCOMS FOR FY 2021-22 (RS. CRORE)**

Consolidated (5 Discoms)	FY 2021-22	
	Claimed	Approved
<b>Aggregate Revenue Requirement (before subsidy)</b>	<b>81,901.24</b>	<b>71,963.91</b>
Less: GoUP Subsidy	11,650.01	11,650.01
<b>Net Aggregate Revenue Requirement (after subsidy)</b>	<b>70,251.23</b>	<b>60,313.90</b>
Revenue at Existing Tariff	60,587.86	60,701.44
Impact of Tariff Revision	-	-
<b>Revised Gap/ (Surplus)</b>	<b>9,663.38</b>	<b>(387.54)</b>

9.3.2. The carrying cost on the gap/(surplus) to be given separately in line with the Regulations. The surplus of Rs. 387.54 Crore at existing / approved revenue will be treated appropriately at the time of next tariff proceedings. The computations of ARR and Revenue for FY 2021-22 in the Order are estimated figures and may vary and so the projected gap / surplus will also undergo change correspondingly. The Commission will analyse these points in future tariff proceedings.

9.3.3. Further, the Commission had approved a surplus of Rs. 13,337.17 Crores as determined in the Tariff Order for FY 2019-20 dated 03.09.2019. In regards to the same, the Commission is aware that the matter is sub-judice in the Hon`ble APTEL and as the outcome of the matter will have a big impact, hence it is decided to treat



the same in future tariff proceedings at appropriate time otherwise it may cause volatility in tariff. Further, the actual transfer of the additional subsidy from State Government to the Discoms is yet to take place. The Licensees too, have not proposed the treatment of the same due to the above reason. Further, the interest of consumer is being protected by giving carrying cost on this surplus.

#### 9.4. AVERAGE COST OF SUPPLY

9.4.1. The table below summarises the per unit revenue realisation (average billing rate) as a percentage of ACoS (Consolidated for Distribution Licensees' namely DVVNL, MVVNL, PVVNL PuVVNL and KESCO). Consolidated ACoS (before subsidy) is worked out to be Rs. 7.54 / kWh (Rs. 71,963.91 Crs / 95,419.90 MU x 10).

**TABLE 9-20: REVENUE REALIZED AS % OF ACOS (WITHOUT SUBSIDY)**

Consumer Sub-Category	Average Billing Rate	(ABR – ACOS) as % of ACOS (+/-)
	Rs. / kWh	
<b>LMV-1: Domestic Light, Fan &amp; Power</b>		
Life Line Consumers (both Rural and Urban)	3.73	-50.48%
Dom: Rural Schedule (metered) other than BPL	4.85	-35.70%
Dom: Supply at Single Point for Bulk Load	7.26	-3.75%
Other Metered Domestic Consumers other than BPL	6.98	-7.51%
<b>LMV - 1 (Total)</b>	<b>5.79</b>	<b>-23.19%</b>
<b>LMV-2: Non-Domestic Light, Fan &amp; Power</b>		
Non-Dom: Rural Schedule (metered)	6.19	-17.89%
Non-Dom: Private Advertising /Sign Post/Sign Board/Glow Sign	40.93	442.67%
Non-Dom: Other Metered Non-Domestic Supply	11.12	47.45%
<b>LMV - 2 (Total)</b>	<b>10.49</b>	<b>39.11%</b>
<b>LMV-3: Public Lamps</b>	<b>9.79</b>	<b>29.87%</b>
<b>LMV-4: Light, fan &amp; Power for Institutions</b>	<b>9.99</b>	<b>32.44%</b>
<b>LMV-5: Private Tube Wells/ Pumping Sets</b>		
PTW: Rural Schedule (unmetered)	1.22	-83.79%
PTW: Rural Schedule (metered)	2.54	-66.33%
PTW: Urban Schedule (metered)	6.78	-10.06%
<b>LMV - 5 (Total)</b>	<b>1.32</b>	<b>-82.56%</b>
<b>LMV 6: Small and Medium Power upto 100 HP (75 kW)</b>	<b>9.07</b>	<b>20.21%</b>
<b>LMV-7: Public Water Works</b>	<b>9.42</b>	<b>24.92%</b>



Consumer Sub-Category	Average Billing Rate	(ABR – ACOS) as % of ACOS (+/-)
	Rs. / kWh	
<b>LMV-8: State Tube Wells &amp; Pump Canals upto 100 HP</b>	<b>9.41</b>	<b>24.81%</b>
<b>LMV-9: Temporary Supply</b>	<b>10.26</b>	<b>36.07%</b>
<b>LMV-10: Departmental Employees</b>	<b>7.71</b>	<b>2.30%</b>
<b>LMV-11: Electrical Vehicles</b>		
<b>HV-1: Non-Industrial Bulk Loads</b>	<b>9.91</b>	<b>31.36%</b>
<b>HV-2: Large and Heavy Power above 100 BHP (75 kW)</b>	<b>7.94</b>	<b>5.25%</b>
<b>HV-3: Railway Traction</b>		
HV3 Supply at and above 132 kV	10.04	33.10%
HV3 Supply below 132 kV	10.08	33.64%
HV3 For Metro traction	8.85	17.36%
<b>HV - 3 (Total) Railway Traction</b>	<b>9.11</b>	<b>20.85%</b>
<b>HV-4: Lift Irrigation &amp; P. Canals above 100 BHP (75 kW)</b>	<b>8.89</b>	<b>17.94%</b>
<b>Extra State Consumer</b>	<b>7.83</b>	<b>3.82%</b>
<b>Grand Total</b>	<b>6.36</b>	<b>-15.65%</b>
<b>ACOS</b>	<b>7.54</b>	

9.4.2. The Licensees should ensure that they must at least achieve & maintain the category wise ABRs approved, failing which the Commission may take an appropriate view and necessary action.



## **10. OPEN ACCESS CHARGES**

### **10.1. BACKGROUND**

10.1.1. In regard to Open Access, the Commission has finalized the necessary regulatory framework as below:

- UPERC (Terms and Conditions for Open Access) Regulations, 2019 that includes among others, the detail procedure (s) for Long-Term Open Access, Medium term Open Access and Short-Term Open Access for use of Distribution system, with or without transmission system;
- Procedures for Forecasting, Scheduling and Deviation Settlement of Solar and Wind Generation Sources, 2020.

10.1.2. The Electricity Act, 2003 has defined Open Access as non-discriminatory provision for use of transmission lines or distribution system or associated facilities thereof. Considering the operation constraints and other relevant factors, the Commission directs that the Open Access shall be allowed to those who wish to avail Open Access as per the provisions outlined by the Commission in its Regulations, Orders and any amendments from time to time.

10.1.3. The Commission has finalized the model Bulk Power Transmission Agreement (BPTA) and Bulk Power Wheeling Agreement (BPWA) for availing transmission and distribution services, which is to be signed in regard to payment of wheeling charge, transmission charges, surcharge and additional surcharge, if any, by the long-term Open Access customer.

10.1.4. Further, the Regulation 18.3 of UPERC (Fees & Charges of State Load Despatch Centre and other related matters) Regulations, 2020 provides the application fee for Short Term Open Access and Operating Charges for Short-Term Open Access.

### **10.2. OPEN ACCESS TRANSMISSION CHARGES**

10.2.1. The Commission in the Tariff Order for FY 2021-22 dated 29.06.2021 of UPPTCL has determined the Transmission Charges payable by Open Access customers for use of UPPTCL transmission network for transmission of electricity.

10.2.2. Similarly, the Commission also determines the wheeling charges payable by the Open Access customers for utilising the distribution network of the Distribution Licensees for wheeling of electricity in subsequent section.



### 10.3. OPEN ACCESS WHEELING CHARGES

10.3.1. The UPERC MYT (Transmission and Distribution) Regulations, 2019, embarks upon maintaining separate books of accounts for Wheeling and Retail Supply Business. The Regulations provide that if complete accounting segregation has not been done between the Distribution Wires Business and Retail Supply Business of the Distribution Licensee, the ARR of the Distribution Licensee shall be apportioned between the Distribution Wires Business and Retail Supply Business in accordance with an Allocation Matrix to be prepared by the Licensee and submitted for the Commission's approval. The extract of the relevant portion of the Regulations (i.e., Regulation 39.1 of the MYT (Transmission and Distribution) Regulations, 2019) is as follows:

Quote

*39.1 Every Distribution Licensee shall maintain separate accounting records for the Distribution Wires Business and Retail Supply Business and shall prepare an Allocation Statement to enable the Commission to determine the Tariff separately for:*

- (a) Distribution Wires Business (Wheeling);*
- (b) Retail Supply Business:*

*Provided that in case complete accounting segregation has not been done between the Distribution Wires Business and Retail Supply Business of the Distribution Licensee, the ARR of the Distribution Licensee shall be apportioned between the Distribution Wires Business and Retail Supply Business in accordance with an Allocation Matrix to be prepared by the Licensee and submitted for the Commission's approval:*

*Provided further that the Allocation Matrix shall be applied for all or any of the heads of expenditure and revenue, where actual accounting separation has not been done between the Distribution Wires Business and Retail Supply Business:*

*Provided also that the Commission may require the Distribution Licensee to file separate Petitions for determination of Tariff for the Distribution Wires Business and Retail Supply Business.*

Unquote

10.3.2. The State Owned Discoms submitted that complete segregation of account between wheeling and retail supply has still not taken place, therefore the



Petitioner has adopted the basis of allocation of the expenses in line with the methodology used by the Commission in its Tariff Order dated November 11, 2020.

10.3.3. Further, the State Owned Discoms submitted the allocations of Consolidated ARR into wheeling & retail supply for FY 2021-22 in the following table:

**TABLE 10-1: WHEELING AND RETAIL SUPPLY ARR SUBMITTED BY THE PETITIONER FOR FY 2021-22**

Particulars	Allocation %		Allocation (FY 2021-22)		
	Wheeling	Supply	Wheeling ARR	Retail Supply ARR	Total Approved ARR
Power Purchase Expenses (incl all transmission charges other than UPPTCL)	0%	100%	0.00	62,020.99	62,020.99
Apportionment of O&M Expenses & Interest & Finance Charges of UPPCL	0%	100%	0.00	0.00	0.00
Transmission Charges - Intra state (incl SLDC Charges)	0%	100%	0.00	2,729.61	2,729.61
<b>Gross O&amp;M Expenses</b>					
Gross Employee cost	60%	40%	884.38	589.59	1,473.96
Gross A&G expenses	40%	60%	977.77	1,466.65	2,444.42
Gross R&M expenses	90%	10%	4,642.94	515.88	5,158.82
Smart Metering OPEX	0%	100%	2,137.09	237.45	2,374.55
Gross Interest & Finance charges	90%	10%	1,668.58	185.40	1,853.98
Depreciation	90%	10%	<b>10,310.76</b>	<b>67,745.58</b>	<b>78,056.34</b>
<b>Gross Expenditure</b>					
<b>Expense capitalization</b>					
Employee cost capitalized	60%	40%	0.00	0.00	0.00
Interest capitalized	90%	10%	0.00	0.00	0.00
A&G expenses capitalized	40%	60%	0.00	0.00	0.00
<b>Net Expenditure</b>			<b>10,310.76</b>	<b>67,745.58</b>	<b>78,056.34</b>
Provision for Bad & Doubtful debts	0%	100%	0.00	1,416.76	1,416.76
Provision for Contingency Reserve	0%	100%	0.00	0.00	0.00
<b>Total net expenditure with provisions</b>			<b>10,310.76</b>	<b>69,162.33</b>	<b>79,473.09</b>
Add: Return on Equity	90%	10%	2,296.36	255.15	2,551.51
Less: Non-Tariff Income	0%	100%	0.00	123.36	123.36
<b>Aggregate Revenue Requirement (ARR)</b>			<b>12,607.12</b>	<b>69,294.12</b>	<b>81,901.24</b>

10.3.4. Further the Petitioner submitted the wheeling charge has been computed on overall consolidated Discom basis keeping in line with the consistent philosophy of the Commission in past Tariff Orders and Regulation 51 of the UPERC MYT (Transmission and Distribution) Regulations, 2019.



**TABLE 10-2: WHEELING CHARGES SUBMITTED BY PETITIONER FOR FY 2021-22**

S. No	Particulars	Units	Claimed
1	Wheeling ARR	Rs. Crores	12607.12
2	Retail sales	MU	95608.34
3	Average Wheeling charge	Rs./kWh	1.32

**TABLE 10-3: VOLTAGE-WISE WHEELING CHARGES SUBMITTED BY PETITIONER FOR FY 2021-22**

S. No.	Particulars	Units	% of Avg. wheeling charge	Claimed
1	Connected at 11 Kv			
i	Long Term (@ 80% of Average Wheeling Charge)	Rs./kWh	80%	1.055
ii	Medium Term (@ 80% of Average Wheeling Charge)	Rs./kWh	80%	1.055
iii	Short Term (@ 80% of Average Wheeling Charge)	Rs./kWh	80%	1.055
2	Connected above 11 Kv			
i	Long Term (@ 50% of Average Wheeling Charge)	Rs./kWh	50%	0.659
ii	Medium Term (@ 50% of Average Wheeling Charge)	Rs./kWh	50%	0.659
iii	Short Term (@ 50% of Average Wheeling Charge)	Rs./kWh	50%	0.659

10.3.5. The Commission has considered the allocation as per the Licensee and has approved the wheeling and retail supply ARR for FY 2021-22 as shown in the Table below:

**TABLE 10-4: WHEELING AND RETAIL SUPPLY ARR APPROVED BY THE COMMISSION FOR FY 2021-22**

Particulars	Allocation %		Consolidated		
	Wheeling	Supply	Wheeling	Supply	Total
Power Purchase Expenses (incl PGCIL charges)	0%	100%	0.00	57,966.78	57,966.78
Apportionment of O&M Expenses & Interest & Finance Charges of UPPCL	0%	100%	0.00	0.00	0.00
Transmission Charges - Intra state (incl SLDC Charges)	0%	100%	0.00	2,598.35	2,598.35
<b>Gross O&amp;M Expenses</b>					
Gross Employee cost	60%	40%	1,754.75	1,169.83	2,924.58
Gross A&G expenses	40%	60%	278.84	418.26	697.09
Gross R&M expenses	90%	10%	2,703.47	300.39	3,003.86
Gross Interest & Finance charges	90%	10%	1,952.61	216.96	2,169.57
Depreciation	90%	10%	1,652.71	183.63	1,836.35
<b>Gross Expenditure</b>			<b>8,342.38</b>	<b>62,854.20</b>	<b>71,196.59</b>
<b>Expense capitalization</b>					
Employee cost capitalized	60%	40%	770.31	513.54	1,283.85
Interest capitalized	90%	10%	575.94	63.99	639.93
A&G expenses capitalized	40%	60%	0.00	0.00	0.00



Particulars	Allocation %		Consolidated		
	Wheeling	Supply	Wheeling	Supply	Total
<b>Net Expenditure</b>			<b>6,996.14</b>	<b>62,276.67</b>	<b>69,272.80</b>
Provision for Bad & Doubtful debts	0%	100%	0.00	594.06	594.06
Provision for Contingency Reserve	0%	100%	0.00	0.00	0.00
<b>Total net expenditure with provisions</b>			<b>6,996.14</b>	<b>62,870.73</b>	<b>69,866.86</b>
Add: Return on Equity	90%	10%	1,998.36	222.04	2,220.40
Less: Non-Tariff Income	0%	100%	0.00	123.36	123.36
<b>Aggregate Revenue Requirement (ARR)</b>			<b>8,994.50</b>	<b>62,969.41</b>	<b>71,963.91</b>

10.3.6. Based on the above, the wheeling charges for FY 2021-22 has been worked out by the Commission as shown in the Table below:

**TABLE 10-5: WHEELING CHARGES APPROVED BY THE COMMISSION FOR FY 2021-22 (WC)**

S. No	Particulars	Units	Claimed	Approved (FY 2021-22)
1	Wheeling ARR (A)	Rs. Crores	12607.12	8994.62
2	Retail sales (B)	MU	95608.34	95419.90
3	Wheeling charge ((A/B)*10)	Rs./kWh	1.32	0.94

10.3.7. Further, since the Petitioners have proposed a higher ARR, resulting in a higher ACoS and higher wheeling charge of Rs. 1.32/unit. The Commission has approved the ACoS of Rs. 7.54/unit compared to Rs. 7.05/unit approved in FY 2020-21. Accordingly, the wheeling charges have increased for FY 2021-22 as compared to last year (Rs. 0.68/unit).

10.3.8. The Commission in order to encourage Open Access transactions in the State has further tried to segregate the wheeling charges payable by consumers seeking Open Access based on the voltage levels at which they are connected to the distribution network. However, in absence of voltage level wise break-up of expenses and asset details, the Commission has considered an interim allocation of costs at various voltage levels and approved the following wheeling charges payable by Open Access customers based on the voltage level at which they are connected with the distribution network.

10.3.9. As being done in previous Tariff Orders, the charges have been worked out on the assumption that the wheeling expenses at 11 kV voltage level shall be 80% of the average wheeling charges determined for the Wheeling function of all Distribution Licensees and that for wheeling at voltages above 11 kV shall be 50% of the average wheeling charges. Further, as specified in the Tariff Order of UPPTCL for FY 2021-22, the Commission has considered the transmission open access charges for short term open access at the same level as approved for Long term open access. In view



of the same the Commission has approved the short-term distribution wheeling charges same as long term wheeling charges.

**TABLE 10-6: APPROVED VOLTAGE-WISE WHEELING CHARGES FOR FY 2021-22 (WC)**

S. No.	Particulars	Units	Approved (FY 2021-22)
1	Connected at 11 kV		
i	Long Term (@ 80% of Wheeling Charge)	Rs./kWh	0.754
ii	Medium Term (@ 80% of Wheeling Charge)	Rs./kWh	0.754
iii	Short Term (@ 80% of Wheeling Charge)	Rs./kWh	0.754
2	Connected above 11 kV		
i	Long Term (@ 50% of Wheeling Charge)	Rs./kWh	0.471
ii	Medium Term (@ 50% of Wheeling Charge)	Rs./kWh	0.471
iii	Short Term (@ 50% of Wheeling Charge)	Rs./kWh	0.471

10.3.1. The wheeling charges determined above shall not be payable if the Open Access customer is availing supply directly through the State transmission network.

10.3.2. In addition to the payment of wheeling charges, the open access customers also have to bear the wheeling losses in kind.

#### **10.4. CROSS SUBSIDY SURCHARGE**

10.4.1. The cross-subsidy surcharge for Open Access consumers has been computed in accordance with the methodology specified in Clause 49 of the UPERC MYT (Transmission and Distribution) Regulations, 2019.

10.4.2. The State Owned Discoms submitted that as per Clause 49.2 of the UPERC MYT (Transmission and Distribution) Regulations, 2019, the cross-subsidy surcharge is to be computed based on the difference between (i) the tariff applicable to the relevant category of consumers and (ii) the cost of the Distribution Licensees to supply electricity to the consumers of the applicable class. Further mentioned that, in case of a consumer opting for open access, the Distribution Licensees could be in a position to discontinue purchase of power at the margin in the merit order.

Accordingly, the cost of supply to the consumer for this purpose is computed as the aggregate of (a) per unit weighted average cost of power purchase including meeting the Renewable Purchase Obligation; (b) transmission and distribution losses applicable to the relevant voltage level and commercial losses allowed by the Commission; (c) transmission, distribution and wheeling charges up to the relevant voltage level; and (d) per unit cost of carrying regulatory assets, if applicable.



10.4.3. The methodology specified in Regulation 49 of MYT Regulations, 2019 the cross-subsidy surcharge for the relevant consumer categories is computed using the following formula:

$$S = T - [C / (1 - L/100) + D + R]$$

Where:

*S is the Cross Subsidy Surcharge;*

*T is the tariff payable by the relevant category of consumers, including reflecting the Renewable Purchase Obligation;*

*C is the per unit weighted average cost of power purchase by the Licensee, including meeting the Renewable Purchase Obligation;*

*D is the aggregate of transmission, distribution and wheeling charge applicable to the relevant voltage level;*

*L is the aggregate of transmission, distribution and commercial losses, expressed as a percentage applicable to the relevant voltage level;*

*R is per unit carrying cost of regulatory assets:*

*Provided that the Cross Subsidy Surcharge shall not exceed 20% of the Tariff applicable to the category of the consumers seeking Open Access.*

10.4.4. The State Owned discoms have submitted the computation of Consolidated Cross-Subsidy Surcharge, as provided below:



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S. No.	Categories	Average Billing Rate (T) (Rs./kWh)	Wt. Avg. Pur. Cost (C) (Rs./kWh)	Aggregate of Trasn., Dist. & Wh. Charges applicable to the relevant voltage level (Rs./kWh)					Technical Loss (% to the relevant voltage level)			Carrying Cost of Regulator Assets (Rs./kWh) (R)	S=T-[C/(1-L/100)+D+R]	S (Rs./kWh)
				Transmission Charge		Distribution Charge	Wheeling Charge	Aggregate of Trasn., Dist. & Wh. Charges applicable to the relevant voltage level (D)	L1	L2	L3			
				Inter-State	Intra-State									
1	HV-1 (Supply at 11 kV)	9.79	4.60	0.564	0.238	0.475	1.055	2.33	2.94%	3.33%	8.00%	0.00	3.24	1.96
2	HV-1 (Supply above 11 kV)	12.97	4.60	0.564	0.238	0.475	0.659	1.94	2.94%	3.33%	2.10%	0.00	6.55	2.59
3	HV-2 (Supply upto 11 kV)	8.10	4.60	0.564	0.238	0.475	1.055	2.33	2.94%	3.33%	8.00%	0.00	1.55	1.55
4	HV-2 (Supply above 11 kV & upto 66 kV)	7.63	4.60	0.564	0.238	0.475	0.659	1.94	2.94%	3.33%	2.10%	0.00	1.21	1.21
5	HV-2 (Supply above 66 kV & above 132 kV)	7.36	4.60	0.564	0.238	0.475	0.659	1.94	2.94%	3.33%	0.00%	0.00	0.84	0.84
6	HV-3 (Supply below 132 kV)	11.20	4.60	0.564	0.238	0.475	0.659	1.94	2.94%	3.33%	0.18%	0.00	4.69	2.24
7	HV-3 (Supply at & above 132 kV)	10.81	4.60	0.564	0.238		0.000	0.80	2.94%	3.33%	0.00%			
8	HV-4 (Supply at 11 kV)	8.96	4.60	0.564	0.238	0.475	1.055	2.33	2.94%	3.33%	8.00%	0.00	2.41	1.79
9	HV-4 (Supply above 11 kV upto 66kV)	9.66	4.60	0.564	0.238	0.475	0.659	1.94	2.94%	3.33%	2.10%	0.00	3.23	1.93
10	HV-4 (Supply above 66 kV upto 132 kV)	11.40	4.60	0.564	0.238	0.475	0.659	1.94	2.94%	3.33%	0.18%	0.00	4.89	2.28



- 10.4.5. The Commission observed that the Licensees have combined the 2 sub-categories of HV -2 namely (i) HV-2 Above 66 kV & upto 132 kV and (ii) HV-2 above 132 kV, and have computed one single CSS i.e 'S' for both the categories. However, since both the categories are different and have different tariffs, their CSS should also be computed separately. The Commission in its Tariff Order for FY 2020-21 dated 11.11.2020 had done it separately and the Licensees should have followed the same.
- 10.4.6. Further, the Licensees have not computed/claimed any CSS for the category HV-3 Supply at & above 132 kV, however it has claimed/projected the revenue & sales for this category. The Commission also did not compute the same last year, because there were no billing determinants (i.e. consumers, connected load, sales) & revenue projections provided by the Licensee for this sub-category in FY 2020-21.
- 10.4.7. Similarly, the Licensees have not computed the CSS for HV-3 Metro traction category. The Commission also did not compute the same separately last year and had combined the same with sub-category HV-3 Supply below 132 kV. However, this year, the Commission has computed the CSS for the sub-category separately.
- 10.4.8. The Commission has computed the cross-subsidy surcharge based on the provisions of Regulation 49.2 of the UPERC (MYT for Distribution and Transmission Tariff) Regulations, 2019. For the purpose of computation of Cross subsidy surcharge, as per the formula, D needs to be computed, where D is the aggregate of transmission, distribution and wheeling charges applicable to the relevant voltage level. The Commission has considered Wheeling charges (WC) as computed above, Transmission charges – Inter-state charges (PC) & Intra State charges (TC), Retail Supply/Distribution charges (DC). Accordingly, only for the purpose of computation of D, i.e. aggregate of transmission, distribution and wheeling charges applicable to the relevant voltage levels, the Commission has computed (DC), (TC), (PC) in the tables below:

**TABLE 10-7: DISTRIBUTION/ RETAIL SUPPLY CHARGES FOR COMPUTATION OF 'D' FOR FY 2021-22 (DC)**

S. No	Particulars	Units	Approved (FY 2021-22)
1	Supply ARR (excluding Power Purchase & Transmission charges) (A)	Rs. Crores	2404.35
2	Retail sales (B)	MU	95419.90
3	Retail Supply/Distribution charge ((A/B)*10)	Rs./kWh	0.25



**TABLE 10-8: INTRA-STATE TRANSMISSION CHARGES FOR COMPUTATION OF 'D' FOR FY 2021-22 (TC)**

S.No	Particulars	Units	Approved (FY 2021-22)
1	Transmission Charge (Rs. Crore) (A)	Rs. Crores	2,598.35
2	Energy Handled in Open access (Retail sales)* (B)	MU	95,419.90
3	Intra-state Transmission Charge (TC) ((A/B)*10)	Rs./kWh	0.2723

**TABLE 10-9: AVERAGE TRANSMISSION CHARGE (EXCLUDING INTRA) FOR COMPUTATION OF 'D' FOR FY 2021-22 (PC)**

S. No	Particulars	Units	Approved (FY 2021-22)
1	Transmission Cost (A)	Rs. Crores	6769.17
2	Energy Handled in Open access (Retail sales)* (B)	MU	95419.90
3	Average Transmission Charge (excluding UPPTCL) (PC) ((A/B)*10)	Rs./kWh	0.709

\*In FY 2020-21, TC & PC were computed considering energy handled for that particular system. However, it was found that this approach does not reflect true ACoS for computation of Open Access. Hence, for the purpose of this computation for FY 2021-22, TC & PC are computed considering total energy delivered to consumers i.e. sales, which reflects the true value of ACoS, as ACoS & wheeling charges are also computed on sales i.e. the total delivered energy.

**TABLE 10-10: AGGREGATE OF TRANSMISSION, DISTRIBUTION & WHEELING CHARGES, APPLICABLE TO RELEVANT VOLTAGE LEVEL) D = PC + TC + DC + WC FOR THE STATE DISCOMS FOR FY 2021-22**

S. No	Particulars	Units	Approved (FY 2021-22)
1	Transmission + Wheeling +Supply Charge (PC+ TC + DC +WC)	Rs./kWh	2.18
2	PC+ TC + DC +WC (at 11 kV) @80% of WC	Rs./kWh	1.99
3	PC+ TC + DC + WC (above 11 kV) @50% of WC	Rs./kWh	1.70
4	TC+PC (above 132 kV)	Rs./kWh	0.98

10.4.9. Further, the formula provides for computation of 'L', where L is the aggregate of transmission, distribution and commercial losses, expressed as a percentage applicable to the relevant voltage level. The State Discoms have considered the same voltage wise losses for computation of CSS as approved by the Commission in the Tariff Order for FY 2020-21 dated November 11, 2020. Since weighted average Losses (consolidated basis) was not provided by Licensees in FY 2020-21 proceedings, the average losses of 5 Discoms at different voltage level was considered by the Commission. Further, in the proceedings for FY 2021-22, the Commission repeatedly sought voltage level loss data from each Licensee, and the Licensees after repeated follow-ups, submitted the actual voltage wise loss data for FY 2019-20 to the Commission in the required format, however, they also did



not submit the losses for FY 2021-22 & losses of 11 kV & LT separately. The Licensees submitted as under:

**TABLE 10-11: ACTUAL DISTRIBUTION LOSS AT VARIOUS VOLTAGE LEVELS FOR FY 2019-20 AS SUBMITTED BY PETITIONERS**

FY 2021-22	DVVNL	MVVNL	PVVNL	PuVVNL	KESCO
Voltage Level (kV)	Loss (%)				
220 kV	0.00%	0.00%	0.00%	0.00%	0.00%
132 kV	0.45%	0.00%	0.16%	0.00%	0.02%
33 kV	1.59%	2.27%	1.45%	1.97%	1.23%
11 kV & LT	23.44%	18.05%	15.32%	19.77%	7.56%

10.4.10. As the State owned Discoms have not submitted the consolidated Distribution Loss (%) of all Discoms at all voltage levels for FY 2021-22, the Commission has considered the Discom wise actual losses of FY 2019-20 at each voltage level as provided by the Licensees and computed the weighted average losses (consolidated basis), considering the discoms wise sales of HV categories (i.e. Open Access sales) at each voltage level, i.e. HV sales at 11 kV, sales above 11 kV & upto 66 kV (i.e. 33 kV), sales above 66kV & upto 132 kV & sales above 132 kV approved for FY 2021-22. Further, since the Losses of 11kV have not been submitted separately except KESCO, Loss at 11 kV has been considered as 8% for all Discoms except KESCO (as approved in FY 2020-21) & 4.09% for KESCO (as submitted by KESCO). Further, Inter-State & Intra State Losses have been considered on overall consolidated energy basis. The computation of consolidated voltage wise weighted average Loss at each voltage level is as under:

FY 2021-22	DVVNL	MVVNL	PVVNL	PuVVNL	KESCO	Consolidated
Total Sales (MU) at 11 kV	2908.43	1950.60	5594.80	1379.30	816.68	12649.81
System Loss (%)	8.00%	8.00%	8.00%	8.00%	4.09%	<b>7.75%</b>
System Loss (MU)	232.67	156.05	447.58	110.34	33.40	980.05
Total Sales (MU) above 11 & upto 66 kV	945.41	346.77	1591.70	753.07	0.00	3636.95
System Loss (%)	1.59%	2.27%	1.45%	1.97%	1.23%	<b>1.67%</b>
System Loss (MU)	15.02	7.88	23.08	14.82	0.00	60.80
Total Sales (MU) above 66 & upto 132 kV	258.76	128.84	424.35	84.53	0.00	896.49
System Loss (%)	0.45%	0.00%	0.16%	0.00%	0.02%	<b>0.21%</b>
System Loss (MU)	1.15	0.00	0.69	0.00	0.00	1.84



FY 2021-22	DVVNL	MVVNL	PVVNL	PuVVNL	KESCO	Consolidated
Total Sales (MU) above 132 kV	81.11	12.45	0.00	16.85	0.00	110.40
System Loss (%)	0.00%	0.00%	0.00%	0.00%	0.00%	<b>0.00%</b>
System Loss (MU)	0.00	0.00	0.00	0.00	0.00	0.00

10.4.11. Accordingly, voltage wise Loss at each voltage level considered for computation of CSS as under:

**TABLE 10-12: VOLTAGE WISE LOSSES APPROVED FOR OPEN ACCESS COMPUTATION (CONSOLIDATED-5 DISCOMS)**

S.No	Particulars	Loss Levels (%)
1	Inter State Transmission Loss (PGCIL)	1.17%
2	Intra State Transmission Loss (UPPTCL)	3.33%
3	Distribution Loss above 132 kV	0.00%
4	Distribution Loss above 33 kV (132kV,66 kV)	0.21%
5	Distribution Loss at 33 kV	1.67%
6	Distribution Loss at 11 kV	7.75%
7	Overall Distribution Loss	11.08%

10.4.12. The open access charges and the losses to be borne by the Open Access consumers / customers may be reviewed by the Commission on submission of the relevant information by the Licensees.

10.4.13. As per the above formula, the avoidable cost of supply for the Open Access consumers as approved is provided in the Tables below, which will be applied against the tariff applicable for the relevant consumer category for computation of Cross subsidy surcharge as and when any consumer applies for the same.

**TABLE 10-13: COST OF SUPPLY AS COMPUTED BY THE COMMISSION FOR FY 2021-22 (RS./KWH)**

S No.	Categories	Wh. Charge (D=PC+TC+DC+WC)	Wt. Avg. Pur Cost (C)	Wt. Avg Power Purchase Variable Cost (VC)	Wt. Avg. Pur Cost (C=FC+VC)	Transmission (PGCIL) Loss (L1)	Transmission (UPPTCL) Loss (L2)	Distribution Loss (L3)	R (per unit cost of carrying Regulatory Assets)	Total Cost of Supply = [C/((1-L1)*(1-L2)*(1-L3)) + D+R]
1	HV Categories above 132 KV	0.98	2.25	2.30	4.56	1.17%	3.33%	0.00%	0.00	5.75



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S No.	Categories	Wh. Charge (D=PC+TC+DC+WC)	Wt. Avg. Pur Cost (C)	Wt. Avg Power Purchase Variable Cost (VC)	Wt. Avg. Pur Cost (C=FC+VC)	Transmission (PGCIL) Loss (L1)	Transmission (UPPTCL) Loss (L2)	Distribution Loss (L3)	R (per unit cost of carrying Regulatory Assets)	Total Cost of Supply = [C/((1-L1)*(1-L2)*(1-L3)) + D+R]
2	HV Categories above 33 KV (132, 66kV)	1.70	2.25	2.30	4.56	1.17%	3.33%	0.05%	0.00	6.48
3	HV Categories at 33 KV	1.70	2.25	2.30	4.56	1.17%	3.33%	1.78%	0.00	6.56
4	HV Categories at 11 KV	1.99	2.25	2.30	4.56	1.17%	3.33%	7.75%	0.00	7.16

Note: L is the aggregate of transmission, distribution and commercial losses, expressed as a percentage applicable to the relevant voltage level

10.4.14. The impact of migration of consumers from the network of the incumbent Distribution Licensee on the consumer mix and revenues of a particular Distribution Licensee shall be reviewed by the Commission from time to time as may be considered appropriate. The category/sub-category-wise Tariff applicable (i.e.ABR) for the HV categories are as under:

S No.	Categories		Sales (MU)	Revenue (Rs. Crore)	Average Billing Rate (ABR)
			A	B	C=B/A*10
1	HV-1 (Supply at 11 kV)	a= (b+c)	3318.46	3246.88	9.78
	HV-1 Rural Public Institutions (Supply at 11 kV)	b	1634.51	1561.69	9.55
	HV-1 Urban Private Institutions (Supply at 11 kV)	c	1683.95	1685.19	10.01
2	HV-1 (Supply above 11 kV)	d= (e+f)	582.97	618.18	10.60
	HV-1 Rural Public Institutions (Supply above 11 kV)	e	276.19	289.31	10.48
	HV-1 Urban Private Institutions (Supply above 11 kV)	f	306.79	328.87	10.72
3	<b>Total HV-1</b>	<b>g=(a+d)</b>	<b>3901.43</b>	<b>3865.06</b>	<b>9.91</b>
4	HV-2 (Supply at 11 kV)	h= (i+j)	8923.67	7217.87	8.09
	HV-2 Urban Schedule (Supply at 11 kV)	i	8769.21	7095.36	8.09
	HV-2 Rural Schedule (Supply at 11 kV)	j	154.46	122.51	7.93
5	HV-2 Urban Schedule (Supply above 11 kV and upto 66kV)	k	2764.32	2108.68	7.63
6	HV-2 Urban Schedule (Supply above 66 kV and upto 132kV)	l	752.14	561.20	7.46
7	HV-2 Urban Schedule (Supply above 132 kV)	m	93.55	61.46	6.57
8	<b>Total HV-2</b>	<b>n= (h+k+l+m)</b>	<b>12533.68</b>	<b>9949.20</b>	<b>7.94</b>
7	HV-3 (at and above 132 kV)	o	16.85	16.92	10.04
8	HV-3 (Supply below 132kV)	p	16.21	16.34	10.08
9	HV-3 (For Metro traction)	q	118.82	105.17	8.85
10	<b>Total HV-3</b>	<b>r=(o+p+q)</b>	<b>151.88</b>	<b>138.43</b>	<b>9.11</b>



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S No.	Categories		Sales (MU)	Revenue (Rs. Crore)	Average Billing Rate (ABR)
			A	B	C=B/A*10
11	HV-4 (Supply at 11 kV)	s	407.68	356.60	8.75
12	HV-4 (Supply above 11 kV and upto 66kV)	t	289.65	262.70	9.07
13	HV-4 (Supply above 66 kV and upto 132kV)	u	9.32	9.26	9.93
14	<b>Total HV-4</b>	<b>v=(s+t+u)</b>	<b>706.65</b>	<b>628.56</b>	<b>8.89</b>

10.4.15. Based on the above, the Cross-Subsidy Surcharge has been computed by subtracting the avoidable cost of supply for the Open Access consumers from the tariff applicable (ABR) for the relevant consumer.

**TABLE 10-14: CROSS SUBSIDY SURCHARGE COMPUTED BY THE COMMISSION FOR FY 2021-22 (RS. /KWH)**

S No.	Categories	Average Billing Rate (ABR)	T = ABR + RS (i.e. Regulatory Surcharge)	Cost of Supply	Cross Subsidy Surcharge "CSS" (Computed)	Cross Subsidy Surcharge "CSS" (as per MYT 19) (with a cap of 20% of T)
1	HV-1 (Supply at 11 kV)	9.78	9.78	7.16	2.63	1.96
2	HV-1 (Supply above 11 kV)	10.60	10.60	6.56	4.04	2.12
3	HV-2 (Supply at 11 kV)	8.09	8.09	7.16	0.93	0.93
4	HV-2 (Supply above 11 kV and upto 66kV)	7.63	7.63	6.56	1.07	1.07
5	HV-2 (Supply above 66 kV and upto 132kV)	7.46	7.46	6.48	0.98	0.98
6	HV-2 (Supply above 132 kV)	6.57	6.57	5.75	0.82	0.82
7	HV-3 (at and above 132 kV)	10.04	10.04	6.48	3.56	2.01
8	HV-3 (Supply below 132kV)	10.08	10.08	6.48	3.60	2.02
9	HV-3 (For Metro traction)	8.85	8.85	6.56	2.29	1.77
10	HV-4 (Supply at 11 kV)	8.75	8.75	7.16	1.59	1.59
11	HV-4 (Supply above 11 kV and upto 66kV)	9.07	9.07	6.56	2.51	1.81
12	HV-4 (Supply above 66 kV and upto 132kV)	9.93	9.93	6.48	3.45	1.99

10.4.1. However, as per Licensee's submission, the CSS computed in few categories/sub-categories comes out to be lower. As the same was published for the comments of the stakeholder & public at large, the Commission, to ensure that consumers are not adversely affected and get best rates possible, approves the lower of its computations and Licensee's proposal. The approved CSS for FY 2021-22 is as under:



**TABLE 10-15: CROSS SUBSIDY SURCHARGE APPROVED BY THE COMMISSION FOR FY 2021-22 (RS. /KWH)**

Categories	Units	FY 2021-22		Approved CSS for FY 2021-22
		Claimed by Petitioner	Computed	
		h	k	
HV-1 (Supply at 11 kV)	Rs./kWh	1.96	1.96	1.96
HV-1 (Supply above 11 kV)	Rs./kWh	2.59	2.12	2.12
HV-2 (Supply at 11 kV)	Rs./kWh	1.55	0.93	0.93
HV-2 (Supply above 11 kV and upto 66kV)	Rs./kWh	1.21	1.07	1.07
HV-2 (Supply above 66 kV and upto 132kV)	Rs./kWh	0.84	0.98	0.84
HV-2 (Supply above 132 kV)	Rs./kWh	0.84	0.82	0.82
HV-3 (At and above 132 kV)	Rs./kWh	-	2.01	2.01
HV-3 (Supply below 132kV)	Rs./kWh	2.24	2.02	2.02
HV-3 for Metro Traction	Rs./kWh	-	1.77	1.77
HV-4 (Supply at 11 kV)	Rs./kWh	1.79	1.59	1.59
HV-4 (Supply above 11 kV and upto 66kV)	Rs./kWh	1.93	1.81	1.81
HV-4 (Supply above 66 kV and upto 132kV)	Rs./kWh	2.28	1.99	1.99



## 11. DIRECTIVES

### 11.1. COMPLIANCE WITH DIRECTIVES ISSUED IN THE ORDER DATED NOVEMBER 11, 2020

11.1.1. The Commission has issued certain directives to the Petitioners in the Order dated November 11, 2020. The status of compliance submitted by the Petitioner with the same is as shown in the table given below:

**TABLE 11-1: STATUS OF COMPLIANCE / PETITIONER'S REPLY TO COMMISSION'S DIRECTIVES**

Sl. No	Description of Directives	Status of Compliance / Petitioner's Reply
1	The State Government is providing annual subsidy of Rs. 10250 Crores for FY 2020-21. The Petitioners have not developed any transparent mechanism for proper utilization of this subsidy only for the directed class of consumers namely, agricultural, lifeline, rural domestic etc. In view of ensuring transparent utilization of public resources by way of subsidy, the Petitioners are directed to prepare a scheme for transfer of subsidy in a transparent manner with the approval of the State Government to be implemented with effect from 1 <sup>st</sup> April 2022. For introduction of DBT, the Petitioners will need to achieve 100% metering of all consumers and also computerise the details of all those consumers who are to be benefitted with subsidy under DBT including agricultural consumers. The Petitioners shall submit the roadmap for DBT in their next ARR filing for year 2021-22.	The State Discoms submitted that the approval of the State Government is under process.
2	100% metering is a necessary condition for an efficient distribution network and financial viability of the distribution companies. As per the submission made by the Petitioners, the metering of all the consumers (except LMV-5) shall be	The State Discoms submitted that they are working to comply the Commission's directive.



Sl. No	Description of Directives	Status of Compliance / Petitioner's Reply
	<p>completed by end of FY 2020-21. The Commission directs that metering of LMV-10 consumers should be completed by end of FY 2020-21. The Petitioners shall also strive to ensure metering of consumers in LMV-5 category as well because 100% metering of consumers is necessary for implementing DBT mechanism.</p>	
3	<p>The Petitioners have already commenced installation of 40 lakh smart meters. The Commission further directs that in addition to above smart meter roll out plan of 40 lakh smart meters, only either pre-paid meter or smart meters be installed for all new connections or replacement of faulty meters.</p>	<p>The State Discoms submitted that they are obligated to follow the Commission's directive.</p>
4	<p>The Petitioners are directed to ensure 100% feeder metering and DT metering within next one year.</p>	<ul style="list-style-type: none"> <li>• DVVNL submitted that it will achieve 100% feeder metering by the end of March 2021. DVVNL further submitted that the process of DT metering is already initiated in the bigger cities and will try to ensure 100% DT metering within next one year.</li> <li>• MVVNL submitted that it has achieved 100% feeder metering. The MVVNL further submitted that the process of DT metering is already initiated in the bigger cities and has metered 1,16,685 DTs till Dec'20. Further, it has envisaged to achieve 100% DT metering within next one year.</li> <li>• PVVNL submitted that it has achieved 100% feeder metering. PVVNL further submitted that the process of DT metering is already initiated in the bigger cities and will try to ensure 100% DT metering. Currently, 49034 DTs out of 496585 DTs are metered.</li> </ul>



Sl. No	Description of Directives	Status of Compliance / Petitioner's Reply
		<ul style="list-style-type: none"> <li>• PuVVNL submitted that it has started the work of feeder metering and will do its best efforts to complete the same in next one year. PuVVNL further submitted that the process of DT metering is already initiated and will try to ensure 100% DT metering.</li> <li>• KESCO has achieved 100% feeder metering. KESCO further submitted that the process of DT metering is already initiated and has achieved 99% DT metering. Further, it will try to ensure 100%DT metering.</li> </ul>
5	The Petitioners must submit the details of each investment scheme / project exceeding Rs. 10 Crore and obtain prior approval of the Commission as per Regulations for inclusion as regulatory expenditure in the ARR. Failure to do so will result in disallowance of such investment in the ARR in order to safeguard the consumers from unjust and unfair charges.	The State Discoms submitted that they are obligated to follow the Commission's directive.
6	The Commission also directs the Petitioners to submit the voltage wise (440V, 11kV, 33kV, 66kV, 132 kV) - Energy Sales and Losses. Also, the now mandatory energy audit report and the cost audit report (prepared in accordance with Companies (Cost Records and Audit) Rules 2014) shall also be submitted every year along with the ARR Petitions.	The State Discoms submitted that they have started the Feeder & DT metering work in all Discoms, after completion of the work licensees will be able to submit the required Audit report to the Commission. Further, Cost Audit report is under finalization and will be submitted shortly.
7	The Commission directs the Petitioners to ensure to file its ARR/ tariff Petition on time strictly in accordance with the applicable UPERC MYT Regulations.	The State Discoms submitted that they are obligated to follow the Commission's directive.
8	The Commission directs the Petitioners that while filing ARR/ Tariff Petition, it shall upload on its website the Petitions	The State Discoms submitted that they are obligated to follow the Commission's directive.



Sl. No	Description of Directives	Status of Compliance / Petitioner's Reply
	filed before the Commission along with all regulatory filings, information, particulars and related documents, which shall be signed digitally and in searchable pdf formats along with all excel files.	

11.1.2. The Commission directs that its un-complied directions of earlier Tariff Orders be complied with immediately. Compliance with Directives Issued In the Order Dated November 11, 2020

#### 11.2. DIRECTIVES ISSUED IN THIS ORDER

11.2.1. The State Government is providing annual subsidy of Rs. 11650 Crores for FY 2021-22. The Petitioners have not developed any transparent mechanism for proper utilization of this subsidy only for the directed class of consumers namely, agricultural, lifeline, rural domestic etc. In view of ensuring transparent utilization of public resources by way of subsidy, the Petitioners are directed to prepare a scheme for transfer of subsidy in a transparent manner with the approval of the State Government to be implemented with effect from 1st April 2022. For introduction of DBT, the Petitioners will need to achieve 100% metering of all consumers and also computerise the details of all those consumers who are to be benefitted with subsidy under DBT including agricultural consumers. The Petitioners shall submit the roadmap for DBT in their next ARR filing for year 2022-23.

11.2.2. The Commission also directs the Petitioners to submit the voltage wise (440V, 11kV, 33kV, 66kV, 132 kV) - Energy Sales and Losses. Also, the now mandatory energy audit report and the cost audit report (prepared in accordance with Companies (Cost Records and Audit) Rules 2014) shall also be submitted every year along with the ARR Petitions.

11.2.3. The Commission directs the Licensees, not to book excess sales under the unmetered categories.

11.2.4. The Commission directs the Licensees to submit details of the amount of Rs. 116.21 Crs of M/s PTC claimed as 'PTC unverified' power purchase related expenses, along with the bills at the time of Truing up of FY 2020-21, clearly mention the revision if any. Further, if there are no revisions, the same should be deducted (not claimed) in the Power purchase cost of FY 2020-21.



- 11.2.5. The Commission directs the Licensees to submit the detailed explanation for the variation in O&M expenses with respect to True-Up in its next filings.
- 11.2.6. The Licensees must submit the details of each investment scheme / project exceeding Rs. 10 Crore and obtain prior approval of the Commission as per Regulations for inclusion as regulatory expenditure in the ARR. Failure to do so will result in disallowance of such investment in the ARR in order to safeguard the consumers from unjust and unfair charges.
- 11.2.7. The Commission directs the Licensees to submit the detailed Fixed Asset Register (FAR) in excel with all the details of the assets opening, addition, deduction & closing values, as well as depreciation & cumulative depreciations, with the bifurcation of the assets owned by the Licensee, assets created out of Grants and assets created out of consumer contribution.
- 11.2.8. The Licensees have not made any submission for LMV-11 i.e. Electric Vehicle Charging consumer category. It is important that proper assessment is made for consumers of this category and submissions are made taking into account the initiatives taken by the Government for promotion of this consumer category.
- 11.2.9. The details of category/sub-category wise billing determinants and revenue of consumers of Franchisee for DVVNL is to be properly submitted in similar manner as is done for own consumers i.e. rather than showing billing determinants of Torrent Power as bulk supply, category wise billing determinants are to be submitted from next filing otherwise the Torrent Power could be subsidize rest of the consumers which should not be the case.
- 11.2.10. There is lack of clarity on the interest of security deposited that has been given to the consumers. This concern has been raised by several consumers in the public hearing. Licensee in its submission should clearly demonstrate how much interest on security deposit was required to be given and how much interest has been actually disbursed.
- 11.2.11. The Petitioners are directed to ensure 100% feeder metering and DT metering within next one year.
- 11.2.12. The Licensees are directed to submit year wise data regarding Surcharge Waiver in various One-Time Settlement (OTS) schemes from the year the same was abolished, to FY 2020-21, in the next filing.
- 11.2.13. All procurements made by the Petitioners should be through Competitive Bidding only.



- 11.2.14. The Licensee are directed to strictly follow the Central Government Guidelines for Procurement of power for short term (i.e. for a period more than one day to one year) through tariff-based bidding process using National e-bidding portal. However, no approval will be required for purchasing power (i) through exchange or (ii) to fulfil contingent short term power requirements. For all other power purchases, prior approval of the Commission is necessary.
- 11.2.15. The Licensees are directed to ensure that they fulfil all the Renewable Purchase Obligations (solar, non-solar, HPO) and may procure power from GTAM markets or as per Central Government Guidelines, and get prior approval of the Commission wherever required.
- 11.2.16. The Commission directs the Licensees to submit the MOD stack in accordance with MOD Regulation 2021.
- 11.2.17. The Commission directs the Licensees to ensure to file its ARR/ Tariff Petition on time strictly in accordance with the applicable UPERC MYT Regulations.
- 11.2.18. The Commission directs that metering of LMV-10 consumers should be completed by end of FY 2021-22. The Petitioners shall also strive to ensure metering of consumers in LMV-5 category as well because 100% metering of consumers is necessary for implementing DBT mechanism.
- 11.2.19. The Commission directs that the direction of earlier Tariff Orders which have not been complied yet may be complied with immediately.
- 11.2.20. The Petitioner shall upload on its website the Petition filed before the Commission along with all regulatory filings, information, particulars and related documents, which shall be signed digitally and in searchable pdf formats along with all Excel files and as per any other provision of the Regulations and Orders of the Commission. The Petitioner shall also ensure that these files are broken into such size which can be easily downloaded.
- 11.2.21. The Commission has noted that the Licensees have successfully completed a pilot implementation of peer to peer (P2P) trading of electricity in rooftop solar energy using Blockchain technology. The Commission directs the Licensees to take the pilot forward to its next phase for integrating it with the existing billing system (ERP)/ financial settlement etc. so that P2P rooftop solar energy may become operational for the prosumers and consumers of the State.
- 11.2.22. The Commission has approved the Smart Meter rollout plan for State Discoms of Uttar Pradesh vide Order dated 15.11.2018. Licensees had sought the date for



extension of the timeline, the same has expired. The Licensee is directed to submit the status of completion of the rollout and also submit the technical/financial impact of such rollout on their system.

11.2.23. The Commission encourages the Licensee implement more of such projects including battery storage. The Licensees are directed to seek innovative solutions based on energy storage systems, other innovative technologies to reduce the system losses, provide better services to the consumers etc.



## **12. APPLICABILITY OF THE ORDER**

The State owned Discoms / Licensees, in accordance with Regulation 5.10 of the Uttar Pradesh Electricity Regulatory Commission (Multi Year Tariff for Distribution & Transmission) Regulations, 2019, shall publish the Tariff approved by the Commission in at least two (2) English and two (2) Hindi daily newspapers having wide circulation in the area of supply and shall put up the approved Tariff on its internet website.

The Tariff so published shall be in force after seven days from the date of such publication of the Tariffs and shall, unless amended or revised, continue to be in force for such period as may be stipulated therein. The Commission may issue clarification / corrigendum / addendum to this Order as it deems fit from time to time with the reasons to be recorded in writing.

**(Vinod Kumar Srivastava)**  
**Member (Law)**

**(Kaushal Kishore Sharma)**  
**Member**

**(Raj Pratap Singh)**  
**Chairman**

Place: Lucknow

Date: July 29, 2021



## 13. ANNEXURES

### 13.1. RATE SCHEDULE FOR FY 2021-22

#### Rate Schedule for FY 2021-22

(Applicable for DVVNL, MVVNL, PVVNL, PuVVNL and KESCO)

#### A. GENERAL PROVISIONS:

These provisions shall apply to all categories unless specified otherwise and are integral part of the Rate Schedule.

#### 1. NEW CONNECTIONS:

All new connections shall be given in kW, kVA, or BHP as agreed to be supplied by the licensee. Further, if the contracted load (kW / kVA) of already existing consumer is in fractions then the same shall be treated as next higher kW / kVA load. If the contracted load is in kW and is being converted into kVA, the conversion factor of 0.90 will be used ( $kVA = kW / 0.90$ ) for tariff application purposes and the same shall be rounded off up to two decimal places.

#### 2. READING OF METERS:

As per applicable provisions of Electricity Supply Code 2005 and its amendments.

#### 3. BILLING WHEN METER IS NOT MADE ACCESSIBLE:

A penalty of Rs. 50 / kW or as decided by the Commission through an Order shall be levied for the purposes of Clause 6.2 (c) of the applicable Electricity Supply Code 2005 and its amendments.

#### 4. BILLING IN CASE OF DEFECTIVE METERS:

As per the applicable provisions of Electricity Supply Code 2005 and its amendments.

#### 5. kVAh TARIFF:

'kVAh based tariffs' shall be applicable on all consumers having contracted load of 10 kW / 13.4 BHP and above, under different categories with TVM / TOD / Demand recording meters (as appropriate).

The rates prescribed in different categories in terms of kW and kWh will be converted into appropriate kVA and kVAh by multiplying Fixed / Demand Charges



and Energy Charges by an average power factor of 0.90. Similarly, the Fixed / Demand Charges expressed in BHP can be converted into respective kVA rates in accordance with formula given below:

$$\text{Fixed Charges in kVA} = (\text{Fixed Charges in BHP} / 0.746) * 0.90$$

$$\text{Fixed Charges in kVA} = (\text{Fixed Charges in kW} * 0.90)$$

$$\text{Energy Charges in kVAh} = (\text{Energy Charges in kWh} * 0.90)$$

The converted rates (i.e. Energy charge in Rs. / kVAh and Fixed / Demand charges in Rs. / kVA) will be rounded up to two decimal places.

Further, for converting energy slabs of different categories specified in kWh to kVAh, average power factor of 0.90 will be used as a converting factor for converting each energy slab (specified in kWh) into energy slabs (in kVAh). The converted energy slabs (in kVAh) will be rounded to next higher kVAh.

**Note 1:** In case of kVAh billing only kVAh reading will be used for billing purpose.

**Note 2:** If the average power factor of a consumer in a billing cycle is leading and is within the range of 0.95 - 1.00, then for tariff application purposes such leading power factor shall be treated as unity. The bills of such consumers shall be prepared on kWh basis. However, if the leading power factor is below 0.95 (lead) then the consumer shall be billed as per the kVAh reading indicated by the meter. However, the aforesaid provision of treating power factor below 0.95 (lead) as the commensurate lagging power factor, for the purposes of billing, shall not be applicable on HV-3 category and shall be treated as unity. Hence, for HV-3, "lag only" logic of the meter should be used which blocks leading kVAh.

## 6. BILLABLE LOAD / DEMAND:

For all consumers having TVM / TOD / Demand recording meters installed, the billable load / demand during a month shall be the actual maximum load / demand as recorded by the meter (can be in parts of kW or kVA) or 75% of the contracted load / demand (kW or kVA), whichever is higher.

In case the Licensee's meter reader does not note the actual maximum load / demand, then the Licensee will raise the bill at 75% of the contracted load and in cases where the consumer approaches the Licensee with a meter reading but does not provide the proof of actual maximum load / demand displayed on his meter, then in such case the Licensee will raise the bill at 100% of the contracted load.

Further in case a consumer feels that his maximum load / demand reading has been noted wrong, the consumer may approach the licensee with a photo of the actual maximum load / demand reading displayed on his meter of the concerned month.



The licensee shall accept the same for the purpose of computation of billable demand, however if the licensee wishes to, it can get the same verified within 5 days.

## 7. SURCHARGE / PENALTY:

### (i) DELAYED PAYMENT:

If a consumer fails to pay his electricity bill by the due date specified therein, a late payment surcharge shall be levied at 1.25% on the dues (excluding late payment surcharge) per month; up-to first three months of delay and subsequently at 2.00% on the dues (excluding late payment surcharge) per month of delay. Late payment surcharge shall be calculated proportionately for the number of days for which the payment is delayed beyond the due date specified in the bill and levied on the unpaid amount of the bill excluding delayed payment surcharge. Imposition of this surcharge is without prejudice to the right of the Licensee to disconnect the supply or take any other measure permissible under the law.

### (ii) CHARGES FOR EXCEEDING CONTRACTED DEMAND:

- a) If the maximum load / demand in any month of a **domestic consumer** having TVM / TOD / Demand recording meter exceeds the contracted load / demand, then such excess load / demand shall be levied equal to 100% of the normal rate apart from the normal fixed / demand charge as per the maximum load / demand recorded by the meter. Further, if the consumer is found to have exceeded the contracted load / demand for continuous previous three months, the consumer shall be served a notice of one month advising him to get the contracted load enhanced as per the provisions of the Electricity Supply Code, 2005 and amendments thereof. However, the consumer shall be charged for excess load for the period the load is found to exceed the contracted load. The Licensee shall merge the excess load with the previously sanctioned load, and levy additional charges calculated as above, along with additional security. Subsequent action regarding the increase in contracted load, or otherwise shall be taken only after due examination of the consumer's reply to the notice and a written order in this respect by the Licensee.
- b) If the maximum load / demand in any month, for the consumers of **other category (except (a) above)** having TVM / TOD / Demand recording meter exceeds the contracted load / demand, then such excess load / demand shall be levied equal to 200% of the normal rate apart from the



normal fixed / demand charges as per the maximum load / demand recorded by the meter.

- c) Any surcharge / penalty shall be over and above the minimum charge, if the consumption bill of the consumer is being prepared on the basis of minimum charge.
- d) Provided where no TVM / TOD / Demand recording meter is installed, the excess load / demand charge shall be levied as per the Electricity Supply Code, 2005 as amended from time to time.

#### **8. POWER FACTOR SURCHARGE:**

- i. Power factor surcharge shall not be levied where consumer is being billed on kVAh consumption basis.
- ii. It shall be obligatory for all consumers to maintain an average power factor of 0.90 or more during any billing period. No new connections of motive power loads / inductive loads above 3 kW, other than under LMV-1 and LMV-2 category, and / or of welding transformers above 1 kVA shall be given, unless shunt capacitors having I.S.I specifications of appropriate ratings are installed, as described in Section F - 'LIST OF POWER FACTOR APPARATUS' of this Rate Schedule.
- iii. In respect of the consumers with or without TVM / TOD / Demand recording meters, excluding consumers under LMV-1 category up to contracted load of 10 kW and LMV-2 category up to contracted load of 5 kW, if on inspection it is found that capacitors of appropriate rating are missing or in-operational and Licensee can prove that the absence of capacitor is bringing down the power factor of the consumer below the obligatory norm of 0.90; then a surcharge of 15% on the 'RATE' shall be levied on such consumers. Licensee may also initiate action under the relevant provisions of the Electricity Act, 2003, as amended from time to time. Notwithstanding anything contained above, the Licensee also has a right to disconnect the power supply, if the power factor falls below 0.75.
- iv. Power factor surcharge shall however, not be levied during the period of disconnection on account of any reason whatsoever.

#### **9. PROTECTIVE LOAD AND PROTECTIVE LOAD CHARGE:**

Consumers getting supply on independent feeder at 11kV & above voltage, emanating from sub-station, may opt for facility of protective load and avail supply

during the period of scheduled rostering imposed by the Licensee, except under emergency rostering. An additional charge @ 100% of base demand charges shall be levied on the sanctioned protective load (as per Electricity Supply Code, 2005 and its amendments) per month as protective load charge. However, consumers of LMV-4 (A) - Public Institutions will pay the additional charge @ 25% of base demand charges only. During the period of scheduled rostering, the load shall not exceed the sanctioned protective load. In case the consumer exceeds the sanctioned protective load during scheduled rostering, he shall be liable to pay twice the prescribed additional charges for such excess load.

**10. ROUNDING OFF:**

All bills will be rounded off to the nearest rupee i.e. up to 49 paisa shall be rounded down to previous rupee and 50 paisa upwards shall be rounded up to next rupee. The difference due to such rounding shall be adjusted in subsequent bills.

**11. OPTION OF MIGRATION TO HV-1 & HV-2 CATEGORY:**

The consumer under LMV-2 and LMV-4 with contracted load above 50 kW and getting supply at 11 kV & above voltage shall have an option to migrate to the HV-1 category and LMV-6 consumers with contracted load above 50 kW and getting supply at 11 kV & above voltage shall have an option to migrate to the HV-2 category. Furthermore, the consumers shall have an option of migrating back to the original category on payment of charges prescribed in Cost Data Book for change in voltage level.

**12. PRE-PAID METERS / AUTOMATIC METER READING SYSTEM:**

- (i) Any consumer having prepaid meters shall also be entitled to a discount of 2.00 % on the 'RATE' as defined in the Tariff Order.
- (ii) The token charges for code generation for prepaid meters shall be Rs. 10/- per token or as decided by the Commission from time to time.

**13. CONSUMERS NOT COVERED UNDER ANY RATE SCHEDULE OR EXPRESSLY EXCLUDED FROM ANY CATEGORY:**

For consumers of light, fan & power (excluding motive power loads) not covered under any rate schedule or expressly excluded from any LMV rate schedule will be categorized under LMV-2.

- 14.** A consumer under metered category may undertake any extension work, in the same premises, on his existing connection without taking any temporary connection



as long as his demand does not exceed his contracted demand and the consumer shall be billed in accordance with the tariff applicable to that category of consumer.

**15. REBATE ON PAYMENT ON OR BEFORE DUE DATE:**

A rebate at the rate of 1.00 % on the 'RATE' shall be given in case the payment is made on or before the due date. However, a rebate at the rate of 5.00% on the 'RATE' shall be given to LMV-5 (Rural) (i.e. PTW Rural Category Agricultural Consumers) category of electricity consumers in case the payment is made on or before the due date. The consumers having any arrears in the bill shall not be entitled for this rebate. The consumers who have made advance deposit against their future monthly energy bills shall also be eligible for the above rebate applicable on the 'RATE'.

**16. SCHEME FOR ADVANCE DEPOSIT FOR FUTURE MONTHLY ENERGY BILLS:**

If a consumer intends to make advance deposit against his future monthly energy bills, the Licensee shall accept such payment and this amount shall be adjusted only towards his future monthly energy bills. On such advance deposit the consumers shall be paid interest, at the interest rate applicable on security deposit, for the period during which advance exists for each month on reducing balance method and amount so accrued shall be adjusted in the electricity bills which shall be shown separately in the bill of each month. Further, quarterly report regarding the same must be submitted to the Commission.

**17. FACILITATION CHARGE FOR ONLINE PAYMENT:**

- (i) No transaction charge shall be collected from the consumers making their payment through internet banking.
- (ii) The Licensees shall bear the transaction charges for transactions up to Rs. 4,000 for payment of bill through internet using Credit Card / Debit Card.

**18. MINIMUM CHARGE:**

Minimum charge is the charge in accordance with the tariff in force from time to time and come into effect only when sum of fixed / demand charges and energy charges are less than a certain prescribed amount i.e. Minimum Charges. For each month, consumer will pay an amount that is higher of the following:

- Fixed / Demand charges (if any) plus Energy Charge on the basis of actual consumption for the month and additional charges such as Electricity Duty, Regulatory Surcharges, FPPCA / Incremental Cost Surcharges and any other charges as specified by the Commission from time to time.
- Monthly minimum charge as specified by the Commission and computed at the contracted load and additional charges such as Electricity Duty,



Regulatory Surcharges, FPPCA / Incremental Cost Surcharges and any other charges as specified by the Commission from time to time.

**19. INTEREST ON DUES PAYABLE TO CONSUMER BY THE LICENSEE:**

If a consumer becomes eligible for dues from the Licensee which may arise out of rectification / adjustment / settlement of bill(s), then such consumer will also be entitled to get interest at rate applicable for interest on security deposits on all the dues payable by the Licensee to the consumer. The Licensee shall compute the interest amount for the period during which such pending amounts exists and adjust such interest towards the future monthly bills of consumers. After adjustment of the interest amount in a particular month, the balance amount, will be carried forward to next month for adjustment with interest on balance amount. The details of such interest amount and adjustment made during the month shall be shown separately in the bill. Further, separate accounting of interest paid must be maintained by the Licensees.

**20. DEFINITION OF RURAL SCHEDULE:**

Rural Schedule means supply schedule as defined and notified by State Load Despatch Centre (SLDC), Lucknow from time to time.



## B. RETAIL TARIFFS FOR FINANCIAL YEAR 2021-22

### RATE SCHEDULE LMV – 1:

#### DOMESTIC LIGHT, FAN & POWER:

##### 1. APPLICABILITY:

This schedule shall apply to:

- a) Premises for residential / domestic purpose, Accommodation for Paying Guests for Domestic purpose (Excluding Guest Houses), Janata Service Connections, Kutir Jyoti Connections, Jhuggi / Hutments, Places of Worship (e.g. Temples, Mosques, Gurudwaras, Churches) and Electric Crematoria, Shelter Homes, orphanages, old age homes, Institutions run for mentally retarded and forsaken children. Non-commercial places occupied by religious persons, of any religion, are also entitled in this category, for a maximum load up to 5 kW, subject to the condition that such non-commercial place shall have a valid registration/recognition from a charitable trust.
- b) Mixed Loads
  - i. **50 kW and above**
    - a. Registered Societies, Residential Colonies / Townships, Residential Multi-Storied Buildings with mixed loads (getting supply at single point) with the condition that at least 70% of the total contracted load shall be exclusively for the purposes of domestic light, fan and power. The above mixed load, within 70%, shall also include the load required for lifts, water pumps and common lighting,
    - b. Military Engineer Service (MES) for Defence Establishments (Mixed load without any load restriction).
  - ii. **Less than 50 kW**

Except for the case as specified in Regulation 3.3 (e) of Electricity Supply Code, 2005 as amended from time to time, if any portion of the load is utilized for conduct of business for non-domestic purposes then the entire energy consumed shall be charged under the rate schedule of higher charge.



**2. CHARACTER AND POINT OF SUPPLY:**

As per the applicable provisions of Electricity Supply Code, 2005 and its amendments.

**3. RATE:**

Rate, gives the fixed and energy charges at which the consumer shall be billed during the billing period applicable to the category:

**(a) Consumers getting supply as per 'Rural Schedule':**

1. **Lifeline consumers:** Consumers with contracted load upto 1 kW, energy consumption up to 100 kWh / month.

Description	Fixed Charge	Energy Charge
Metered Lifeline*	Rs. 50.00 / kW/ month	Rs. 3.00 / kWh

*\*Only for consumers with connected load upto 1 kW and for consumption up to 100.00 kWh / month*

2. **Others:** Other than Lifeline consumers (i.e. consumers who do not qualify under the criteria laid above for lifeline consumers)

Description	Fixed Charge	Energy Charge
i) Un-Metered (all Loads)	Rs. 500 / kW / month	Nil

Description	Consumption Range	Fixed Charge	Energy Charge
ii) Metered	For first 100 kWh / month	Rs. 90.00/ kW / month	Rs. 3.35 / kWh
	For next 101 - 150 kWh / month		Rs. 3.85 / kWh
	For next 151 – 300 kWh / month		Rs. 5.00 / kWh
	For next 301 – 500 kWh / month		Rs. 5.50 / kWh
	For above 500 kWh / month (Starting from 501 <sup>st</sup> unit)		Rs. 6.00 / kWh

**(b) Supply at Single Point for bulk loads (50 kW and above, Supplied at any Voltage):**

Description	Fixed Charge	Energy Charge
For Townships, Registered Societies, Residential Colonies, multi-storied residential complexes (including lifts, water pumps and common lighting within the premises) with loads 50 kW and above with the restriction that at least 70% of the total contracted load is meant exclusively for the domestic light, fan and power purposes and for Military Engineer Service (MES) for Defence Establishments (Mixed load without any load restriction).	Rs. 110.00 / kW / Month	Rs. 7.00 / kWh

The body seeking the supply at Single point for bulk loads under this category shall be considered as a deemed franchisee of the Licensee. Such body shall charge not more than 5% additional charge on the above specified 'Rate' from its consumers apart from other applicable charges such as Regulatory Surcharge, Penalty, Rebate and Electricity Duty on actual basis.

The 5% additional charge shall be towards facilitating supply of electricity to the individual members to recover its expenses towards supply of electricity, distribution loss, electrical maintenance in its supply area, billing, accounting and audit etc.

The deemed franchisee is required to provide to all its consumers and the licensee, a copy of the detailed computation of the details of the amounts realized from all the individual consumers and the amount paid to the licensee for every billing cycle on half yearly basis. If he fails to do so, then the consumers may approach the Consumer Grievance Redressal Forum (CGRF) having jurisdiction over their local area for the redressal of their grievances.

The deemed franchisee shall arrange to get its account(s) audited by a Chartered Accountant mandatorily. The audited accounts will be made available to all the consumers of the deemed franchisee within 3 months of the closure of that financial year. If he fails to do so, then the consumers may approach the Consumer Grievance Redressal Forum (CGRF) having jurisdiction over their local area for the redressal of their grievances.

The deemed franchisee should separately meter the electricity supplied from back up arrangements like DG sets etc. The bill of its consumers should clearly depict the units and rate of electricity supplied through back up arrangement and electricity supplied through Licensee.



The deemed franchisee shall not disconnect the supply of electricity of its consumers on the pretext of defaults in payments related to other charges except for the electricity dues regarding the electricity consumed by its consumers and electricity charges for lift, water lifting pump, streetlight if any, corridor / campus lighting and other common facilities.

In case the deemed franchisee exceeds the contracted load / demand under the provisions of Clause 7(ii) – ‘Charges for Exceeding Contracted demand’ of the General Provisions of this Rate Schedule, only in such case the deemed franchisee will recover the same from the individual members who were responsible for it on the basis of their individual excess demands.

**(c) OTHER METERED DOMESTIC CONSUMERS:**

- 1. Lifeline consumers:** Consumers with contracted load of 1 kW, energy consumption up to 100 kWh / month.

Description	Fixed Charge	Energy Charge
Loads up to 1 kW only and for consumption up to 100 kWh / month	Rs. 50.00 / kW / month	Rs. 3.00 / kWh

- 2. Others:** Other than Lifeline consumers (i.e. consumers who do not qualify under the criteria laid above for lifeline consumers)

Description	Consumption Range	Fixed Charge	Energy Charge
All loads	For first 150 kWh / month	Rs. 110.00 / kW / month	Rs. 5.50 / kWh
	For next 151 - 300 kWh / month		Rs. 6.00 / kWh
	For next 301 – 500 kWh / month		Rs. 6.50 / kWh
	For above 500 kWh / month (Starting from 501 <sup>st</sup> unit)		Rs. 7.00 / kWh

**Note:**

For all consumers under this category the maximum demand during the month recorded by the meter has to be essentially indicated in their monthly bills. However, this condition would be mandatory only in case meter reading is done by the Licensee. Accordingly, if the bill is being prepared on the basis of reading being submitted by the consumer then the consumer would not be liable to furnish maximum demand during the month and his bill would not be held back for lack of data of maximum demand.



## **RATE SCHEDULE LMV- 2:**

### **NON - DOMESTIC LIGHT, FAN AND POWER:**

#### **1. APPLICABILITY:**

This schedule shall apply to all consumers using electric energy for Light, Fan and Power loads for Non-Domestic purposes, like all type of Shops including Patri Shopkeepers, Hotels, Restaurants, Private Guest Houses, Private Transit Hostels, Private Students Hostels, Marriage Houses, Show-Rooms, Commercial / Trading Establishments, Cinema and Theatres, Banks, Cable T.V. Operators, Telephone Booths / PCO (STD / ISD), Fax Communication Centres, Photo Copiers, Cyber Café, Private Diagnostic Centres including X-Ray Plants, MRI Centres, CAT Scan Centres, Pathologies and Private Advertising / Sign Posts / Sign Boards, Commercial Institutions / Societies, Automobile Service Centres, Coaching Institutes, Private Museums, Power Looms with less than 5 kW load and for all companies registered under the Companies Act, 1956 with loads less than 75 kW.

#### **2. Character and Point of Supply:**

As per the applicable provisions of Electricity Supply Code, 2005 and its amendments.

#### **3. RATE:**

Rate, gives the fixed and energy charges at which the consumer shall be billed during the billing period applicable to the category:

##### **(a) Consumers getting supply as per 'Rural Schedule'**

Description	Description	Fixed charge	Energy charge
i) Un-metered	All Load	Rs. 1000 / kW / month	Nil
ii) Metered	All Load	Rs. 110 / kW / month	Rs. 5.50 / kWh

##### **(b) Private Advertising / Sign Posts / Sign Boards / Glow Signs / Flex\*:**

For all commercial (road side / roof tops of buildings) advertisement hoardings such as Private Advertising / Sign Posts / Sign Boards / Glow Signs / Flex, the rate of charge shall be as below:



Description	Fixed Charge	Energy Charge
Metered	-	Rs. 18.00 / kWh

*\*Note: Minimum charge payable by a consumer under the category “(b) Private Advertising / Sign Posts / Sign Boards / Glow Signs / Flex category” shall be Rs. 1800 / kW / Month.*

**Note:**

1. For application of these rates, Licensee shall ensure that such consumption is separately metered.

**(c) In all other cases,** including urban consumers and consumers getting supply through rural feeders but exempted from scheduled rostering / restrictions or through co-generating radial feeders in villages / towns.

Contracted Load	Fixed Charge
Up to 2 kW	Rs. 330.00 / kW / month
Above 2 kW to 4 kW	Rs. 390.00 / kW / month
Above 4 kW	Rs. 450.00 / kW / month

Consumption Range	Energy Charge
For first 300 kWh / month	Rs. 7.50 / kWh
For next 301 – 1000 kWh / month	Rs. 8.40 / kWh
For above 1000 kWh / month (Starting from 1001 <sup>st</sup> unit)	Rs. 8.75 / kWh

**Note:** Minimum charge payable by a consumer under the category “(c) In all other cases” shall be Rs. 600 / kW / month (From April to September) and Rs. 475 / kW / month (From October to March).

**Note:**

For all consumers under this category the maximum demand during the month recorded by the meter has to be essentially indicated in their monthly bills. However, this condition would be mandatory only in case meter reading is done by the Licensee. Accordingly, if the bill is being prepared on the basis of reading being submitted by the consumer, then the consumer would not be liable to



furnish maximum demand during the month and his bill would not be held back for lack of data on maximum demand.

**4. REBATE TO POWER LOOMS:**

Rebate to Power Loom consumers shall be provided in accordance with the applicable Government orders subject to adherence of provision of advance subsidy.



**RATE SCHEDULE LMV -3:**

**PUBLIC LAMPS:**

**1. APPLICABILITY:**

This schedule shall apply to Public Lamps including Street Lighting System, Road Traffic Control Signals, Lighting of Public Parks, etc. The street lighting in Harijan Bastis and Rural Areas are also covered by this rate schedule.

**2. CHARACTER AND POINT OF SUPPLY:**

As per the applicable provisions of Electricity Supply Code, 2005 and its amendments.

**3. RATE:**

Rate gives the fixed and energy charges (including the TOD rates as applicable to the hour of operation) at which the consumer shall be billed during the billing period applicable to the category:

**(a) Un-metered Supply:**

Description	Gram Panchayat	Nagar Palika and Nagar Panchayat	Nagar Nigam
To be billed on the basis of total connected load calculated as the summation of individual points	Rs. 2100 / kW or part thereof per month	Rs. 3200 / kW or part thereof per month	Rs. 4200 / kW or part thereof per month

**(b) Metered Supply:**

Description	Gram Panchayat		Nagar Palika and Nagar Panchayat		Nagar Nigam	
	Fixed Charges	Energy Charges	Fixed Charges	Energy Charges	Fixed Charges	Energy Charges
All loads	Rs. 200 / kW / month	Rs. 7.50 / kWh	Rs. 250 / kW / month	Rs. 8.00 / kWh	Rs. 250 / kW / month	Rs. 8.50 / kWh



**TOD Rates applicable for the metered supply (% of Energy Charges):**

18:00 hrs – 06:00 hrs	0%
06:00 hrs – 18:00 hrs	(+) 20%

4. For 'Maintenance Charges', 'Provision of Lamps' and 'Verification of Load' Point refer Section C - 'PUBLIC LAMPS' of this Rate Schedule.



**RATE SCHEDULE LMV- 4:**

**LIGHT, FAN & POWER FOR PUBLIC INSTITUTIONS AND PRIVATE INSTITUTIONS:**

**1. APPLICABILITY:**

Applicable for load less than 75 kW.

**LMV- 4 (A) - PUBLIC INSTITUTIONS:**

This schedule shall apply to:

- (a) Government Hospitals / Government Research Institutions / Offices of the Government Organizations other than companies registered under Companies Act 1956.
- (b) Government & Government aided (i) Educational Institutions (ii) Hostels (iii) Libraries
- (c) Religious and charitable trusts & Institutions having a valid registration under Section 12 AA & 30G issued by the Income Tax department including hospitals, colleges and those providing services free of cost or at the charges / structure of charges not exceeding those in similar Government operated institutions.
- (d) Railway Establishments (excluding railway traction, industrial premises & Metro) such as Booking Centres, Railway Stations & Railway Research and Development Organization, Railway rest houses, Railway holiday homes, Railway inspection houses.
- (e) All India Radio and Doordarshan
- (f) Guest houses of Government, Semi-Government, Public Sector Undertaking Organisations

**LMV-4 (B) - PRIVATE INSTITUTIONS:**

This schedule shall apply to non-Government hospitals, nursing homes / dispensaries / clinics, private research institutes, and schools / colleges / educational institutes & charitable institutions / trusts not covered under **(A)** above.

**2. CHARACTER AND POINT OF SUPPLY:**

As per the applicable provisions of Electricity Supply Code, 2005 and its amendments.

**3. RATE:**

Rate, gives the fixed and energy charges at which the consumer shall be billed during the billing period applicable to the category:

Description	Contracted Load	Fixed Charge
<b>(A) For Public Institutions</b>	All Load	Rs. 300 / kW / month
<b>(B) For Private Institutions</b>	Up to 3 kW	Rs. 350 / kW / month
	Above 3 kW	Rs. 400 / kW / month

Description	Consumption Range	Energy Charge
<b>(A) For Public Institutions</b>	For first 1000 kWh / month	Rs. 8.25/ kWh
	For next 1001 – 2000 kWh / month	Rs. 8.50/ kWh
	For above 2000 kWh / month (Starting from 2001 <sup>st</sup> unit)	Rs. 8.75/ kWh
<b>(B) For Private Institutions</b>	For first 1000 kWh / month	Rs. 9.00 / kWh
	For above 1000 kWh / month (Starting from 1001 <sup>st</sup> unit)	Rs. 9.30 / kWh

**RATE SCHEDULE LMV- 5:****SMALL POWER FOR PRIVATE TUBE WELLS / PUMPING SETS FOR IRRIGATION PURPOSES:****1. APPLICABILITY:**

This schedule shall apply to all power consumers getting supply as per Rural / Urban Schedule for Private Tube-wells / Pumping Sets for irrigation purposes having a contracted load up to 25 BHP and for additional agricultural processes confined to Chaff-Cutter, Thresher, Cane Crusher and Rice Huller. This schedule shall also be applicable for separate PTW connection for registered Goshalas for load up to 5 BHP having separate light and fan connection with the condition that such Gaushala – Cow shed shall not be used for commercial purpose. All new connections under this category shall necessarily have the ISI marked energy efficient mono-bloc pump sets with capacitors of adequate rating to qualify for the supply. All existing pump sets shall be required to install capacitors of adequate rating.

**2. CHARACTER AND POINT OF SUPPLY:**

As per the applicable provisions of Electricity Supply Code, 2005 and its amendments.

**3. RATE:**

Rate gives the fixed and energy charges at which the consumer shall be billed during the billing period applicable to the category:

**(A) For consumers getting supply as per Rural Schedule:****(i) Un-metered Supply**

Fixed Charge	Energy Charge
Rs. 170 / BHP / month	NIL
Consumer under this category will be allowed a maximum lighting load of 120 watts	

**(ii) Metered Supply**

Fixed Charges	Minimum Charges	Energy Charge
Rs. 70.00 / BHP / month	Rs. 160 / BHP / month	Rs. 2.00 / kWh

**Note:** Minimum amount payable by a consumer under the category "Rural Schedule (Metered Supply) shall be Rs. 160 per BHP per month, till the installation of the meter. Regulatory Surcharge, Duty, Taxes etc. will be payable extra.

**(iii) Energy Efficient Pumps**

Fixed Charge	Minimum Charges	Energy Charge
Rs. 70.00 / BHP / month	Rs. 140 / BHP / month	Rs. 1.65 / kWh

**Note:** Minimum amount payable by a consumer under the category “Rural Schedule” (Energy Efficient Pumps) shall be Rs. 140 per BHP per month, till the installation of the meter. Regulatory Surcharge, Duty, Taxes etc. will be payable extra

**(B)** For consumers getting supply as per **Urban Schedule** (Metered Supply) including consumers getting supply through rural feeders exempted from scheduled rostering or through co-generating radial feeders in villages and towns.

Fixed Charge	Minimum Charges	Energy Charge
Rs. 130.00 / BHP / month	Rs. 215 / BHP / month	Rs. 6.00 / kWh

**Note:** Minimum amount payable by a consumer under the category “Urban Schedule” (Metered Supply) shall be Rs. 215 per BHP per month, till the installation of the meter. Regulatory Surcharge, Duty, Taxes etc. will be payable extra.

For PTW consumers of Bundelkhand Area located in Gram Sabha, the minimum amount payable by a consumer shall be Rs. 170.00 per BHP per month, till the installation of the meter. Regulatory Surcharge, Duty, Taxes etc. will be payable extra.

**4. Provision Related to Single Crop Consumers of Bundelkhand Area:**

- This shall apply to all consumers of Bundelkhand area getting supply as per Rural / Urban Schedule for Private Tube-wells / Pumping Sets for irrigation purposes.
- Only such consumers who use electrical pumps for irrigation purpose during the period from November to February, in a financial year, only will be entitled for the benefit of these seasonal tariffs. The other conditions for availing the benefit of seasonal tariff shall be as under:
- In a Financial year, the continuous period of operation of such consumers shall in no case be more than 4 months i.e. from November to February.



- Any consumer, desirous of availing this benefit, shall specifically declare his option of availing benefit of seasonal tariffs at the divisional office, which will be duly incorporated in the agreement as well as in the billing system.
- For the off-season period i.e. period of 8 months depending upon the declaration of the consumer, metered consumers opting for seasonal use will get a discount of 75% on the normal monthly Fixed Charges or Minimum Charges, as applicable.
- Similarly, Un-Metered consumer opting for seasonal use will get a discount of 50% on the monthly Fixed Charges or Minimum Charges, as applicable for the off-season period of 8 months.
- During the period of off-season the consumer will not be allowed to use electricity from this connection for any purpose. In case of default the consumers would be penalized by charging 50% higher than the normally applicable tariff (fixed and energy charges or Minimum Charges, whichever is higher), for the complete period for which he has availed the seasonal benefit. In that case seasonal benefit for rest of the off-season period shall be forfeited.



**RATE SCHEDULE LMV– 6:**

**SMALL AND MEDIUM POWER:**

**1. APPLICABILITY:**

This schedule shall apply to all consumers of electrical energy having a contracted load less than 100 HP (75 kW) for industrial / processing or agro-industrial purposes, power loom (load of 5 kW and above) and to other power consumers, not covered under any other rate schedule. Floriculture, Mushroom and Farming units with contracted load less than 100 BHP (75kW) shall also be covered under this rate schedule. This schedule shall also apply to pumping sets above 25 BHP.

**2. CHARACTER AND POINT OF SUPPLY:**

As per the applicable provisions of Electricity Supply Code, 2005 and its amendments.

**3. RATE:**

Rate, gives the fixed and energy charges (including the TOD rates as applicable to the hour of operation) at which the consumer shall be billed during the billing period applicable to the category:

**(A) Consumers getting supply other than Rural Schedule:**

Contracted Load	Fixed Charge
All Load	Rs. 290 / kW / month

Consumption Range	Energy Charge
Up to 1000 kWh / month	Rs. 7.30 / kWh on entire consumption
Up to 2000 kWh / month	Rs. 7.40 / kWh on entire consumption
For above 2000 kWh / month	Rs. 7.90 / kWh on entire consumption

**TOD Structure:****Summer Months (April to September)**

Hours	% of Energy Charges
05:00 hrs – 11:00 hrs	(-) 15%
11:00 hrs – 17:00 hrs	0%
17:00 hrs – 23:00 hrs	(+) 15%
23:00 hrs – 05:00 hrs	0%

**Winter Months (October to March)**

Hours	% of Energy Charges
05:00 hrs – 11:00 hrs	0%
11:00 hrs – 17:00 hrs	0%
17:00 hrs – 23:00 hrs	(+) 15%
23:00 hrs – 05:00 hrs	(-) 15%

**(B) Consumers getting supply as per Rural Schedule:**

The consumer under this category shall be entitled to a rebate of 7.5% on 'RATE (Excluding the TOD rates as applicable to the hour of operation)' as given for 'Consumers getting supply other than Rural Schedule'. Further, no 'TOD RATE' shall be applicable for this category.

**4. PROVISIONS RELATED TO SEASONAL INDUSTRIES:**

Seasonal industries will be determined in accordance with the criteria laid down below. No exhaustive list can be provided but some examples of industries exhibiting such characteristics are sugar, ice, rice mill, kolhu and cold storage. The industries which operate during certain period of the year, i.e. have seasonality of operation, can avail the benefits of seasonal industries provided:

- i) The load of such industry is above 13.4 BHP (for motive power loads) & 10 kW (other loads) and have Tri-vector Meters / TOD meters installed at their premises, however for Kolhu consumers such load is of 10 HP or above.
- ii) The continuous period of operation of such industries shall be at least 4 (four) months but not more than 9 (nine) months in a financial year.



- iii) Any prospective consumer, desirous of availing the seasonal benefit, shall specifically declare his season at the time of submission of declaration / execution of agreement mentioning the period of operation unambiguously.
- iv) The seasonal period once notified cannot be reduced during the next consecutive 12 months. The off-season tariff is not applicable to composite units having seasonal and other category loads.

The off-season tariff is also not available to those units who have captive generation exclusively for process during season and who avail Licensees supply for miscellaneous loads and other non-process loads.

- v) The consumer opting for seasonal benefit has a flexibility to declare his off-season maximum demand subject to a maximum of 25% of the contracted demand. The tariff rates (demand charge per kW / kVA and energy charge per kWh / kVAh) for such industries during off-season period will be the same as for normal period. Further, during the off season period, fixed charges shall be levied on the basis of maximum demand recorded by the meter (not on normal billable demand or on percentage contracted demand). Rates for the energy charges shall however be the same as during the operational season. Further, first violation in the off-season would attract normal billable demand charges and energy charges calculated at the unit rate 50% higher than the applicable tariff during normal period but only for the month in which the consumer has defaulted. However, on second violation in the off-season, the consumer will be charged at the normal billable demand for the entire off-season and energy charges calculated at the unit rate 50% higher than the applicable tariff during normal period.

**5. REBATE TO POWER LOOMS:**

Rebate to Power Loom consumers shall be provided in accordance with the applicable Government orders subject to adherence of provision of advance subsidy.

**6. FACTORY LIGHTING:**

The electrical energy supplied shall also be utilized in the factory premises for lights, fans, coolers, etc. which shall mean and include all energy consumed for factory lighting in the offices, the main factory building, stores, time keeper's office, canteen, staff club, library, crèche, dispensary, staff welfare centres, compound lighting, etc. No separate connection for the same shall be provided.



**RATE SCHEDULE LMV– 7:**

**PUBLIC WATER WORKS:**

**1. APPLICABILITY:**

This schedule shall apply to Public Water Works, Sewage Treatment Plants and Sewage Pumping Stations functioning under Jal Sansthan, Jal Nigam or other local bodies.

**2. CHARACTER AND POINT OF SUPPLY:**

As per the applicable provisions of Electricity Supply Code, 2005 and its amendments.

**3. RATE:**

**(A) Consumers getting supply other than “Rural Schedule”:**

Rate gives the fixed and energy charges at which the consumer shall be billed during the billing period applicable to the category:

Fixed Charge	Energy Charge
Rs. 375.00 / kW / month	Rs. 8.60 / kWh

**(B) Consumers getting supply as per “Rural Schedule”:**

The consumer under this category shall be entitled to a rebate of 7.5% on ‘RATE’ as given for ‘Consumer getting supply other than Rural Schedule’.



**RATE SCHEDULE LMV – 8:**

**STATE TUBE WELLS / PANCHAYTI RAJ TUBE WELL & PUMPED CANALS:**

**1. APPLICABILITY:**

- (i) This schedule shall apply to supply of power for all State Tube wells, including Tube wells operated by Panchayti Raj, World Bank Tube wells, Indo Dutch Tube wells, Pumped Canals and Lift Irrigation schemes with contracted load less than 100 BHP (75 kW).
- (ii) Laghu Dal Nahar having load above 100 BHP (75 kW).

**2. CHARACTER AND POINT OF SUPPLY:**

As per the applicable provisions of Electricity Supply Code, 2005 and its amendments.

**3. RATE:**

Rate gives the fixed and energy charges at which the consumer shall be billed during the billing period applicable to the category:

Description	Fixed Charge	Energy Charge
Metered	Rs. 330.00 / BHP / month	Rs. 8.50 / kWh
Un-metered	Rs. 3300.00 / BHP / month	Nil

4. For finding out net load during any quarter of the year for this category refer Section D - 'STATE TUBE – WELLS' of this Rate Schedule.



**RATE SCHEDULE LMV – 9:**

**TEMPORARY SUPPLY:**

**1. APPLICABILITY:**

**A) Un-metered Supply for Illumination / Public Address / Temporary Shops in Melas:**

This schedule shall apply to temporary supply of light, fan & power up to 20 KW, Public address system and illumination loads during functions, ceremonies and festivities and temporary shops, not exceeding three months and PTW consumers of Bundelkhand Area having requirement of electricity only for the Rabi Crop i.e period between November to February in any year.

**B) Metered Supply for all other purposes:**

This schedule shall apply to all temporary supplies of light, fan and power load for the purpose other than mentioned in (A) above.

This schedule shall also apply for power taken for construction purposes including civil work by all consumers and Govt. Departments.

**2. CHARACTER AND POINT OF SUPPLY:**

As per the applicable provisions of Electricity Supply Code, 2005 and its amendments.

**3. RATE (SEPARATELY FOR EACH POINT OF SUPPLY):**

Rate gives the fixed and energy charges at which the consumer shall be billed during the billing period applicable to the category:

**A. Un-metered:**

(i) Fixed charges for illumination / public address / ceremonies for load up to 20 kW per connection plus Rs. 100 per kW per day for each additional kW.	Rs. 4750.00 / day
(ii) Fixed charges for temporary shops set-up during festivals / melas or otherwise and having load up to 2KW	Rs. 560.00 / day / shop
(iii) PTW consumers of Bundelkhand Area having requirement of electricity only for the Rabi Crop i.e. period between November to February in any year.	Rs. 500 / BHP / month



**B. Metered\*:**

Description	Fixed Charge	Energy Charge
Individual Residential construction	Rs. 200 / kW / Month	Rs. 8.00 / kWh
	From 3 <sup>rd</sup> year onwards: Base Tariff applicable for current year plus additional 10% of the applicable Energy Charge.	
Others	Rs. 300 / kW / Month	Rs. 9.00 / kWh
	From 3 <sup>rd</sup> year onwards: Base Tariff applicable for current year plus additional 10% of the applicable Energy Charge.	

*\*Minimum bill payable by a consumer under the category "Metered" shall be Rs. 450.00 / kW / week.*

**4.** Charge/Rate as specified, above shall be paid by the consumer in advance.



## **RATE SCHEDULE LMV– 10:**

### **DEPARTMENTAL EMPLOYEES AND PENSIONERS:**

#### **1. APPLICABILITY:**

This schedule shall apply only to such employees (including the cases of retired / voluntary retired or deemed retired) of Licensees / successor entities of erstwhile Uttar Pradesh State Electricity Board (UPSEB), who own electricity connection in their own name and opt for the same for their own use for light, fan and power for domestic appliances, where the energy is being fed directly from Licensee mains. The Schedule shall also apply to spouse of employees served under Licensees / successor entities of erstwhile UPSEB.

#### **2. RATE:**

For all such consumers LMV-1 rate schedule will be applicable.

#### **3. ELECTRICITY DUTY:**

Electricity duty on the above shall be levied in addition at the rates as may be notified by the State Government from time to time.

#### **4. OTHER PROVISIONS:**

- (i) For serving / retired employees and their spouse, the supply will only be given at one place where Licensee's mains exist. The electric supply under this tariff will be given only at one place, within the area of erstwhile UPSEB / its successor companies.
- (ii) Concerned executive engineers will take an affidavit from all employees and pensioners that the electricity supplied to their premises is being used exclusively for the purpose of domestic consumption of themselves and their dependants. It will have to be certified by the employees/pensioners that such electricity is not being used for any other purpose or to any individual to whom his house has been rented out. Without any prejudice to any legal action as provided in the legal framework, any misuse to above effect shall invalidate him from the facility of LMV-10 on permanent basis.
- (iii) In the event of transfer of the employee, this tariff shall be applied at the new place of posting only when a certificate has been obtained from the concerned Executive Engineer of the previous place of posting, that the supply under this tariff has been withdrawn at previous place of posting. Further, the employee shall also be



required to submit an affidavit that he is not availing the benefit of LMV-10 connection anywhere else in the state.

- (iv) Those who are not availing this tariff shall also give a declaration to this effect. This declaration shall be pasted / kept in his service book / personal file / Pensioners record. If the declaration is found wrong, necessary action against the employee shall be taken as per the provisions of service rules. If declaration has already been given at the present place of posting then further declaration is not necessary due to this revision. Pensioners shall also have to give a similar declaration for availing departmental tariff at only one place. In case this declaration is found wrong, this tariff shall be withdrawn forever.
- (v) No other concession shall be admissible on this tariff.
- (vi) The schedule of miscellaneous charges as appended with Licensee's General Tariff as amended from time to time and Electricity Supply (Consumers) Regulation, 1984 as enforced from time to time shall also be applicable on the employee / pensioner receiving supply under this schedule.
- (vii) Retired employees drawing pension from the Treasury / Bank will have to pay the monthly electricity charges as per the rates given in the rate schedule applicable to their category.

**RATE SCHEDULE LMV- 11:****ELECTRIC VEHICLE CHARGING****1. Domestic Consumers**

All the metered domestic consumers covered under the LMV-1 category will be allowed to charge their Electric Vehicle at their residence, provided the load of Electric Vehicle does not exceed the connected / contracted load. The Tariff that is applicable as per the rate schedule will be applicable on Electric Vehicle Charging as well.

**2. Multi Storey Buildings (covered under LMV-1b & HV-1b of the Rate Schedule)**

Those who wish to install Electric Vehicle Charging station in the premises Multi Storey Building, will have to take a separate connection for EV Charging Station. The Tariff applicable for such Charging Station in the Multi Storey Building will be as follows:

Category	Demand Charge	Energy Charge
Multi Story Buildings (Covered under LMV-1b)	Nil	Rs. 6.20 / kWh
Multi Story Buildings (Covered under HV-1b)	Nil	Rs. 5.90 / kWh

The consumer will be required to pay one time charges etc. wherever applicable.

**3. Public Charging Stations**

The Tariff applicable for Public Charging Stations will be as follows:

Category	Demand Charge	Energy Charge
Public Charging Station (LT)	Nil	Rs. 7.70 / kWh
Public Charging Station (HT)	Nil	Rs. 7.30 / kWh

The consumer will be required to pay one-time charges etc. wherever applicable.

**Time of Day (ToD) Structure for public Charging Stations:****Summer Months (April to September)**

Hours	% of Energy Charges
05:00 hrs – 11:00 hrs	(-) 15%
11:00 hrs – 17:00 hrs	0%



Hours	% of Energy Charges
05:00 hrs – 11:00 hrs	(-) 15%
17:00 hrs – 23:00 hrs	(+) 15%
23:00 hrs – 05:00 hrs	0%

#### Winter Months (October to March)

Hours	% of Energy Charges
05:00 hrs – 11:00 hrs	0%
11:00 hrs – 17:00 hrs	0%
17:00 hrs – 23:00 hrs	(+) 15%
23:00 hrs – 05:00 hrs	(-) 15%

#### 4. Other Consumers

The consumers of other categories (any metered consumers of LMV-2(a), LMV2(c), LMV-4, LMV-6, LMV-7, LMV-8 (Metered), LMV-9 (Metered), HV-1 (excluding Multi Storey Buildings covered under LMV-1b & HV-1b of the Rate Schedule), HV-2, HV-3 and HV-4), will be charged as per the Tariff applicable for their respective category or to say they need not to take a separate connection, they can do the Charging within their respective connections, provided the load of EV does not exceed the connected / contracted load.

Note: It is advised that the consumer should take precaution to take adequate contracted load in order to meet the load of Charging of Electrical Vehicle. In case the contracted / connected load is breached then the consumer will be liable to pay penalty. Further, the other provisions of General Provisions of Rate Schedule and Electricity Supply Code will also come into effect in case consumers load breaches the contract demand.



## **RATE SCHEDULE HV- 1:**

### **NON - INDUSTRIAL BULK LOADS**

#### **1. APPLICABILITY:**

This rate schedule shall apply to:

- (a) Commercial loads (as defined within the meaning of LMV-2) with contracted load of 75 kW & above and getting supply at single point on 11 kV & above voltage levels.
- (b) Private institutions (as defined within the meaning of LMV-4 (b)) with contracted load of 75 kW & above and getting supply at single point on 11 kV & above voltage levels.
- (c) Non domestic bulk power consumer (other than industrial loads covered under HV-2) with contracted load 75 kW & above and getting supply at single point on 11 kV & above voltage levels and feeding multiple individuals (owners / occupiers / tenants of some area within the larger premises of the bulk power consumer) through its own network and also responsible for maintaining distribution network.
- (d) Public institutions (as defined within the meaning of LMV-4 (a)) with contracted load of 75 kW & above and getting supply at single point on 11 kV & above voltage levels. The institution / consumer seeking the supply at Single point for non-industrial bulk loads under this category shall be considered as a deemed franchisee of the Licensee.
- (e) Registered Societies, Residential Colonies / Townships, Residential Multi-Storied Buildings with mixed loads (getting supply at single point) with contracted load 75 kW & above and getting supply at single point on 11 kV & above voltage levels and having less than 70% of the total contracted load exclusively for the purposes of domestic light, fan and power. Figure of 70%, shall also include the load required for lifts, water pumps and common lighting,
- (f) For Offices / Buildings / Guesthouses of UPPCL / UPRVUNL / UPJVNL / UPPTCL / Distribution Licensees having loads above 75 kW and getting supply at 11 kV & above voltages.

#### **2. CHARACTER AND POINT OF SUPPLY:**

As per the applicable provisions of Electricity Supply Code, 2005 and its amendments.

#### **3. RATE:**

Rate, gives the demand and energy charges at which the consumer shall be billed during the billing period applicable to the category:



- (a) **Commercial Loads / Private Institutions / Non - domestic bulk power consumer with contracted load 75 kW & above and getting supply at Single Point on 11 kV & above:**

	For supply at 11kV	For supply above 11 kV
<b>Contracted Load</b>	<b>All Load</b>	
<b>Demand Charges</b>	Rs. 430.00 / kVA / month	Rs. 400.00 / kVA / month

	For supply at 11kV		For supply above 11 kV	
<b>Consumption Range</b>	<b>For first 2500 kVAh / month</b>	<b>For above 2500 kVAh / month (Starting from 2501<sup>st</sup> kVAh )</b>	<b>For first 2500 kVAh / month</b>	<b>For above 2500 kVAh / month (Starting from 2501<sup>st</sup> kVAh)</b>
<b>Energy Charges</b>	Rs. 8.32 / kVAh	Rs. 8.68 / kVAh	Rs. 8.12 / kVAh	Rs. 8.48 / kVAh

- (b) **Public Institutions, Registered Societies, Residential Colonies / Townships, Residential Multi-Storied Buildings including Residential Multi-Storied Buildings with contracted load 75 kW & above and getting supply at Single Point on 11 kV & above voltage levels:**

	For supply at 11kV	For supply above 11 kV
<b>Contracted Load</b>	<b>All Load</b>	
<b>Demand Charges</b>	Rs. 380.00 / kVA / month	Rs. 360.00 / kVA / month

	For supply at 11kV		For supply above 11 kV	
<b>Consumption Range</b>	<b>For first 2500 kVAh / month</b>	<b>For above 2500 kVAh / month (Starting from 2501<sup>st</sup> kVAh)</b>	<b>For first 2500 kVAh / month</b>	<b>For above 2500 kVAh / month (Starting from 2501<sup>st</sup> kVAh)</b>
<b>Energy Charges</b>	Rs. 7.70 / kVAh	Rs. 7.90 / kVAh	Rs. 7.50 / kVAh	Rs. 7.70 / kVAh



The body seeking the supply at Single point for bulk loads under this category shall be considered as a deemed franchisee of the Licensee. Such body shall charge not more than 5% additional charge on the above specified 'Rate' from its consumers apart from other applicable charges such as Regulatory Surcharge, Penalty, Rebate and Electricity Duty on actual basis.

The 5% additional charge shall be towards facilitating supply of electricity to the individual members to recover its expenses towards supply of electricity, distribution loss, electrical maintenance in its supply area, billing, accounting and audit etc.

The deemed franchisee is required to provide to all its consumers and the licensee, a copy of the detailed computation of the details of the amounts realized from all the individual consumers and the amount paid to the licensee for every billing cycle on half yearly basis. If he fails to do so, then the consumers may approach the Consumer Grievance Redressal Forum (CGRF) having jurisdiction over their local area for the redressal of their grievances.

The deemed franchisee shall arrange to get its account(s) audited by a Chartered Accountant mandatorily. The audited accounts will be made available to all the consumers of the deemed franchisee within 3 months of the closure of that financial year. If he fails to do so, then the consumers may approach the Consumer Grievance Redressal Forum (CGRF) having jurisdiction over their local area for the redressal of their grievances.

The deemed franchisee should separately meter the electricity supplied from back up arrangements like DG sets etc. The bill of its consumers should clearly depict the units and rate of electricity supplied through back up arrangement and electricity supplied through Licensee.

The deemed franchisee shall not disconnect the supply of electricity of its consumers on the pretext of defaults in payments related to other charges except for the electricity dues regarding the electricity consumed by its consumers and electricity charges for lift, water lifting pump, streetlight if any, corridor / campus lighting and other common facilities.

In case the deemed franchisee exceeds the contracted load / demand under the provisions of Clause 7(ii) – 'Charges for Exceeding Contracted demand' of the General Provisions of this Rate Schedule, only in such case the deemed franchisee will recover the same from the individual members who were responsible for it on the basis of their individual excess demands.

**RATE SCHEDULE HV- 2:****LARGE AND HEAVY POWER:****1. APPLICABILITY:**

This rate schedule shall apply to all consumers with contracted load of 75 kW (100 BHP) and above for industrial and / or processing purposes as well as to Arc / induction furnaces, rolling / re-rolling mills, mini-steel plants and Floriculture, Mushroom and Farming units and to any other HT consumer not covered under any other rate schedule.

Supply to Induction and Arc furnaces shall be made available only after ensuring that the loads sanctioned are corresponding to the load requirement of tonnage of furnaces. The minimum load of one-ton furnace shall in no case be less than 400 kVA and all loads will be determined on this basis. No supply will be given on loads below this norm.

For all HV-2 consumers, conditions of supply, apart from the rates, as agreed between the Licensee and the consumer shall continue to prevail as long as they are in line with the existing Regulations & Acts.

**2. CHARACTER AND POINT OF SUPPLY:**

As per the applicable provisions of Electricity Supply Code, 2005 and its amendments.

**3. RATE:**

Rate, gives the demand and energy charges (including the TOD rates as applicable to the hour of operation) at which the consumer shall be billed during the billing period applicable to the category:

**(A) Urban Schedule:**

	For supply up to 11 kV	For supply above 11 kV and up to 66 kV	For supply above 66 kV and up to 132 kV	For supply above 132 kV
<b>BASE RATE</b>				
Demand Charges	Rs. 300.00 / kVA / month	Rs. 290.00 / kVA / month	Rs. 270.00 / kVA / month	Rs. 270.00 / kVA / month
Energy Charges	Rs. 7.10 / kVAh	Rs. 6.80 / kVAh	Rs. 6.40 / kVAh	Rs. 6.10 / kVAh

**TOD Structure:****Summer Months (April to September)**

Hours	% of Energy Charges
05:00 hrs – 11:00 hrs	(-) 15%
11:00 hrs – 17:00 hrs	0%
17:00 hrs – 23:00 hrs	(+) 15%
23:00 hrs – 05:00 hrs	0%

**Winter Months (October to March)**

Hours	% of Energy Charges
05:00 hrs – 11:00 hrs	0%
11:00 hrs – 17:00 hrs	0%
17:00 hrs – 23:00 hrs	(+) 15%
23:00 hrs – 05:00 hrs	(-) 15%

**(B) Rural Schedule:**

This schedule shall be applicable only to consumers getting supply up to 11 kV as per 'Rural Schedule'. The consumer under this category shall be entitled to a rebate of 7.5% on 'BASE RATE' as given for 11 kV consumers under urban schedule. Further, no 'TOD RATE' shall be applicable for this category.

**(C) Consumers already existing under HV-2 category with metering arrangement at low voltage:**

Existing consumer under HV-2 with metering at 0.4 kV shall be required to pay as per schedule applicable to 11 kV consumers under HV-2 category.

**4. PROVISIONS RELATED TO SEASONAL INDUSTRIES:**

Seasonal industries will be determined in accordance with the criteria laid down below. No exhaustive list can be provided but some examples of industries exhibiting such characteristics are sugar, ice, rice mill and cold storage. The industries which operate during certain period of the year, i.e. have seasonality of operation, can avail the benefits of seasonal industries provided:



- i. The continuous period of operation of such industries shall be at least 4 (four) months but not more than 9 (nine) months in a financial year.
- ii. Any prospective consumer, desirous of availing the seasonal benefit, shall specifically declare his season at the time of submission of declaration / execution of agreement mentioning the period of operation unambiguously.
- iii. The seasonal period once notified cannot be reduced during the next consecutive 12 months. The off-season tariff is not applicable to composite units having seasonal and other category loads.
- iv. The off-season tariff is also not available to those units who have captive generation exclusively for process during season and who avail Licensees supply for miscellaneous loads and other non-process loads.
- v. The consumer opting for seasonal benefit has a flexibility to declare his off seasonal maximum demand subject to a maximum of 25% of the contracted demand. The tariff rates (demand charge per kW / kVA and energy charge per kWh / kVAh) for such industries during off-season period will be the same as for normal period. Further, during the off season fixed charges shall be levied on the basis of maximum demand recorded by the meter (not on normal billable demand or on percentage contracted demand). Rates for the energy charges shall however be the same as during the operational season. Further, first violation in the off-season would attract full billable demand charges and energy charges calculated at the unit rate 50% higher than the applicable tariff during normal period but only for the month in which the consumer has defaulted. However, on second violation in the off-season, the consumer will forfeit the benefit of seasonal rates for the entire season and energy charges shall be calculated at the unit rate 50% higher than the applicable tariff during normal period.

#### **5. FACTORY LIGHTING:**

The electrical energy supplied shall also be utilized in the factory premises for lights, fans, coolers, etc. which shall mean and include all energy consumed for factory lighting in the offices, the main factory building, stores, time keeper's office, canteen, staff club, library, crèche, dispensary, staff welfare centres, compound lighting, etc. No separate connection for the same shall be provided.

**RATE SCHEDULE HV – 3:****A: RAILWAY TRACTION:****1. APPLICABILITY:**

This schedule shall apply to the Railways for Traction loads only.

**2. CHARACTER OF SERVICE AND POINT OF SUPPLY:**

Alternating Current, single phase, two phase or three phase, 50 cycles, 132 kV or below depending on the availability of voltage of supply and the sole discretion of the Licensee. The supply at each sub-station shall be separately metered and charged.

**3. RATE:**

Rate, gives the demand and energy charges at which the consumer shall be billed for consumption during the billing period applicable to the category:

Description	Charges
<b>(a) Demand Charge</b> For supply at, below and above 132 kV	Rs. 400.00 / kVA / month
<b>(b) Energy Charge (all consumption in a month)</b> For supply at and above 132 kV Below 132 kV	Rs. 8.50 / kVAh Rs. 8.80 / kVAh

**Note:** Minimum charge payable by a consumer under this category shall be Rs. 950.00 / kVA / month.

**4. DETERMINATION OF THE DEMAND:**

Demand measurement at a particular time will be made on basis of simultaneous maximum demands recorded in summation kilovolt-ampere meter installed at contiguous substation serviced by same grid transformer.

The maximum demand for any month shall be defined as the highest average load measured in Kilo Volt amperes during any fifteen consecutive minutes period of the month.



**B: METRO RAIL CORPORATION:**

**1. APPLICABILITY:**

This schedule shall apply to the Metro Rail Corporation.

**2. CHARACTER OF SERVICE AND POINT OF SUPPLY:**

Alternating Current, single phase, two phase or three phase, 50 cycles, 132 kV or below depending on the availability of voltage of supply and the sole discretion of the Licensee. The supply at each sub-station shall be separately metered and charged.

**3. RATE:**

Rate, gives the energy charges at which the consumer shall be billed for consumption during the billing period applicable to the category:

<b>Demand Charges</b>	Rs. 300.00 / kVA / month
<b>Energy Charges</b>	Rs. 7.30 / kVAh

**Note:** Minimum charge payable by a consumer under this category shall be Rs. 900 / kVA / month.

- Penalty @ Rs. 540 / kVA / month will be charged on excess demand, if maximum demand exceeds contracted load.

**4. DETERMINATION OF THE DEMAND:**

Demand measurement shall be made by suitable kilovolt ampere indicator at the point of delivery. The demand for any month shall be defined as the highest average load measured in Kilo Volt Amperes during any fifteen consecutive minute period of the month.



**RATE SCHEDULE HV – 4:**

**LIFT IRRIGATION WORKS:**

**1. APPLICABILITY:**

This Rate Schedule shall apply to medium and large pumped canals with contracted load of 100 BHP (75kW) and above.

**2. CHARACTER OF SERVICE & POINT OF SUPPLY:**

As per applicable provisions of Electricity Supply Code, 2005 and its amendments.

**3. RATE:**

Rate, gives the demand and energy charges at which the consumer shall be billed during the billing period applicable to the category:

**(a) Demand Charges:**

Voltage Level	Rate of Charge
For supply at 11 kV	Rs. 350.00 / kVA / month
For supply above 11 kV upto 66 kV	Rs. 340.00 / kVA / month
For supply above 66 kV upto 132 kV	Rs. 330.00 / kVA / month

**(b) Energy Charges:**

Voltage Level	Rate of Charge
For supply at 11 kV	Rs. 8.50 / kVAh
For supply above 11 kV upto 66 kV	Rs. 8.40 / kVAh
For supply above 66 kV upto 132 kV	Rs. 8.25 / kVAh

**c) Minimum Charges:**

Minimum charge payable by a consumer under this category shall be Rs. 1125.00 / kVA / month irrespective of supply voltage



#### 4. DETERMINATION OF THE DEMAND:

Demand measurement shall be made by suitable kilovolt ampere indicator at the point of supply. In the absence of suitable demand indicator, the demand as assessed by the Licensee shall be final and binding. If, however, the number of circuits is more than one, demand and energy measurement will be done on the principle of current transformer summation metering.



## **C. PUBLIC LAMPS:**

### **1. MAINTENANCE CHARGE:**

In addition to the "Rate of Charge" mentioned above, a sum of Rs. 10.00 per light point per month will be charged for operation and maintenance of street lights. This Maintenance Charge will cover only labour charges, where all required materials are supplied by the local bodies. However, the local bodies will have an option to operate and maintain the public lamps themselves and in such case, no maintenance charge shall be recovered. This charge shall not apply to the consumers with metered supply.

### **2. PROVISION OF LAMPS:**

Streets where distribution mains already exist, the Licensee will provide a separate single-phase, 2-wire system for the street lights including light fitting and incandescent lamps of rating not exceeding 100 Watts each. In case the above maintenance charge is being levied, the labour involved in replacements or renewal of lamps shall be provided by the Licensee. However, all the required materials shall be provided by the local bodies. The cost of all other types of street light fittings shall be paid by the local bodies.

The cost involved in extension of street light mains (including cost of sub - stations, if any) in areas where distribution mains of the Licensee have not been laid, will be paid for by the local bodies.

### **3. VERIFICATION OF LOAD:**

The number of light points including that of traffic signals together with their wattage will be verified jointly by the representatives of Licensee and Town Area / Municipal Board / Corporation at least once in a year. However, additions will be intimated by the Town Area / Municipal Board / Corporation on monthly basis. The Licensee will carry out the checking of such statements to satisfy themselves of the correctness of the same. The monthly bills shall be issued on the basis of verified number of points at the beginning of the year and additions, if any, during the months as intimated above. The difference, if any, detected during joint verification in the following year shall be reconciled and supplementary bills shall be issued.

Further, if the authorized representative of concerned local body does not participate in the work of verification of light points, a notice will be sent by concerned Executive Engineer in writing to such local bodies for deputing representative on specific date(s), failing which the verification of the light points shall be done by the concerned representative of Licensee which shall be final and binding upon such local body.



#### **D. STATE TUBE-WELLS**

##### **NET LOAD:**

- (i) Net load hereinafter shall mean the total load connected during the quarter less the load of failed and abandoned tube-wells accounted for during that quarter.
- (ii) The connected load as on 31<sup>st</sup> March of the preceding year will be worked out on the basis of 'Net load' reported by the Executive Engineers of concerned Divisions after joint inspection and verification of the same by the concerned officers of the State Government / Panchayat, joint meter reading shall also be taken during the inspection on quarterly basis. The monthly bills for three months of the first quarter will be issued on the connected load worked out as such at the above rates. The same process shall be repeated for subsequent quarters.



**E. SCHEDULE OF MISCELLANEOUS CHARGES**

S. No.	NATURE OF CHARGES	UNIT	RATES (₹)
1.	Checking and Testing of Meters:		
	a. Single Phase Meters	Per Meter	50.00
	b. Three Phase Meters	Per Meter	50.00
	c. Recording Type Watt-hour Meters / Prepaid Meters / Smart Meters	Per Meter	175.00
	d. Maximum Demand Indicator	Per Meter	350.00
	e. Tri-vector Meters	Per Meter	1000.00
	f. Ammeters and Volt Meters	Per Meter	50.00
	g. Special Meters / Net Meters	Per Meter	400.00
	h. Initial Testing of Meters	Per Meter	NIL
2.	Disconnection and Reconnection of supply for any reason whatsoever (Disconnection & Reconnection to be separately treated as single job)		
	a. Consumer having load above 100 BHP/75kW	Per Job	1000.00
	b. Power consumers up to 100BHP/75kW	Per Job	500.00
	c. All other categories of consumers.	Per Job	300.00
	d. Smart Meters consumers having load upto 5 kW	Per Job	50.00
	e. Smart Meters consumers having load above 5 kW	Per Job	100.00
	f. Pre-Paid Meters	Per Job	NIL
3.	Replacement of Meters:		



S. No.	NATURE OF CHARGES	UNIT	RATES (₹)
4.	a. By higher capacity Meter	Per Job	50.00
	b. Installation of Meter and its subsequent removal in case of Temporary Connections	Per Job	75.00
	c. Changing of position of Meter Board at the consumer's request	Per Job	100.00
	Service of Wireman:		
	a. Replacement of Fuse	Per Job	20.00
	b. Inserting and Removal of Fuse in respect of night loads.	Per Job	25.00
5.	c. Hiring of services by the consumer during temporary supply or otherwise.	Per wireman /day of 6 Hrs.	60.00
	Resealing of Meters on account of any reason in addition to other charges payable in terms of other provision of charging of penalties, etc.	Per Meter	100.00
6.	Checking of Capacitors (other than initial checking) on consumer's request:		
	a. At 400 V / 230 V	Per Job	100.00
	b. At 11 kV and above.	Per Job	200.00

**F. LIST OF POWER FACTOR APPARATUS****FOR MOTORS:**

S. No.	Rating of Individual Motor	KVAR Rating of Capacitor			
		750 RPM	1000 RPM	1500 RPM	3000 RPM
1.	Up to 3 HP	1	1	1	1
2.	5 HP	2	2	2	2
3.	7.5 HP	3	3	3	3
4.	10 HP	4	4	4	3
5.	15 HP	6	5	5	4
6.	20 HP	8	7	6	5
7.	25 HP	9	8	7	6
8.	30 HP	10	9	8	7
9.	40 HP	13	11	10	9
10.	50 HP	15	15	12	10
11.	60 HP	20	20	16	14
12.	75 HP	24	23	19	16
13.	100 HP	30	30	24	20
14.	125 HP	39	38	31	26
15.	150 HP	45	45	36	30
16.	200 HP	60	60	48	40



**FOR WELDING TRANSFORMERS:**

S. No.	Name Plate Rating in KVA of Individual Welding Transformer	Capacity of the Capacitors (KVAR)
1.	1	1
2.	2	2
3.	3	3
4.	4	3
5.	5	4
6.	6	5
7.	7	6
8.	8	6
9.	9	7
10.	10	8
11.	11	9
12.	12	9
13.	13	10
14.	14	11
15.	15	12
16.	16	12
17.	17	13
18.	18	14
19.	19	15
20.	20	15
21.	21	16
22.	22	17
23.	23	18
24.	24	19



S. No.	Name Plate Rating in KVA of Individual Welding Transformer	Capacity of the Capacitors (KVAR)
25.	25	19
26.	26	20
27.	27	21
28.	28	22
29.	29	22
30.	30	23
31.	31	24
32.	32	25
33.	33	25
34.	34	26
35.	35	27



### 13.2. LIST OF PERSONS WHO HAVE ATTENDED PUBLIC HEARING

#### DVVNL, PVVNL & KESCO

List of persons who attended the virtual public Hearing on May 17, 2021		
S. No	Name	Organisation
1	Shri Avadhesh Kumar Verma	UPRVUP
2	Shri Rama Shanker Awasthi	Consumer
3	Shri Saurabh Srivastava	Indian Energy Exchange Limited
4	Shri Chandrakant Shrivastava	DMRC
5	Shri Prateek Aggarwal	Council on Energy, Environment and Water
6	Shri Manabika Mandal	Prayas (Energy Group)
7	Shri Pramod Maskara	The Mahabir Jute Mills
8	Shri Saumendra Aggrawal	Prayas (Energy Group)
9	Shri Somya Tripathi	DMRC
10	Shri Dhruvak Aggarwal	Council on Energy, Environment and Water
11	Shri Bharat Sharma	Council on Energy, Environment and Water
12	Shri Rahul Shahi	Mercados Energy Markets India Private Limited
13	Shri Dilip Singh	Kalka Stone Mill
14	Shri Vijay Singh	Archana Graynite
15	Shri Waseem	Taj Graynite
16	Shri Pankaj Agarwal	Pankaj Traders
17	Shri Vrushabh Ganatra	Mercados Energy Markets India Private Limited
18	Shri Pratyusha Khandelwal	Kesco
19	Shri Dhiraj khullar	Bundelkhand Chamber of Commerce
20	Shri Sumit Garg	Consultant UPPCL
21	Shri kamlesh Saraf	Vijay industries
22	Shri Manoj Kumar Gupta.	Advocate
23	Shri Deepti Mittal	CEO Jhansi
24	Shri Gyanender Agarwal	Torrent Power Ltd.
25	Shri Aakash Saxena	Torrent Power Ltd.
26	Shri Rashu Agrawal	Rashu Agrawal & Co.
27	Shri Anil Gupta	Consumer
28	Shri Anil sharma	Consumer
29	Shri Pawan Sahu	Consumer
30	Shri Arvind Agrawal	Cold Storage Association UP
31	Shri Sudhir Chandra Goyal	Khatauli Cold Storage
32	Shri Samir Shingh	Veekay Connectors Private Limited
33	Shri Girraj Kumar Maheshwari	Aligarh Cold Storage Owner's Association Aligarh



<b>List of persons who attended the virtual public Hearing on May 17, 2021</b>		
<b>S. No</b>	<b>Name</b>	<b>Organisation</b>
34	Shri Manoj Kumar Agrawal	Aligarh Cold Storage Owner's Association Aligarh
35	Shri Gaurav Mohan	Allahabad Enterprises Private Limited
36	Shri Amarjit Singh	Shree Cement Limited
37	Shri Swapnil Mishra	Shree Cement Limited
38	Shri Manoj Gupta	Rimjhim Ispat Pvt. Ltd
39	Shri Raj Kishor Sharma	Hans Metal Pvt. Ltd
40	Shri Arun Mishra	Advocate
41	Shri Amit Dharma	KESCO
42	Shri Anil Jain	Director ( C & P ) UPPTCL
43	Shri Anoop Singh	Consumer
44	Shri Ayush Agrawal	Pankaj Traders
45	Shri Jaiveer Singh	Consumer
46	Shri Sanjay Srivastava	Dr. Commercial KESCO
47	Shri Niraj Agrawal	Chief Engineer (RAU)
48	Shri Saurabh Agrawal	Consumer
49	Shri Nihar Varshney	Rimjhim Ispat
50	Shri Arvind Mallapa Bangari	MD PVVNL
51	Shri Tanhauser D Pierce	NPCL
52	Shri Sanket Srivastava	NPCL
53	Shri Amit Kishore	MD DVVNL
54	Shri Yogesh Agarwa	Rimjhim Ispat
55	Shri Mohit Goel	Consultant UPPCL
56	Shri Akash Khanna	Consumer
57	Shri Pankaj Neta	Consumer
58	Shri Mukul Singhal	Chief Engineer
59	Shri Sanjiv Kumar Goel	MD NPCL
60	Shri AK Arora	NPCL
61	Shri Ishwar Pal	Director Commercial PVVNL
62	Shri V.K. Yadav	Consumer
63	Shri Giriraj Sharma	Aligarh Cold Storage Association
64	Shri Raghu Agrawal	Consumer
65	Hardeep Rakhra	Consumer
66	Shri Manoj Jain	NPCL
67	Shri Swatantra Singh	Consumer
68	Shri Hargovind	Hindustan Lever Limited
69	Shri Chanmeet Singh Syal	Consultant
70	Shri Somsuklo Biswas	Consultant
71	Shri Arjun Manohar	Consultant



**MVVNL & PuVVNL**

<b>List of persons who attended the virtual Public Hearing on May 19, 2021</b>		
<b>S. No</b>	<b>Name</b>	<b>Organisation</b>
1	Shri Pramod Maskara	Mahabir Jute Mills
2	Shri Avdesh Kumar Verma	UPVUP
3	Shri Rama Shanker Awasthi	Consumer
4	Shri Prateek Aggarwal	Council on Energy, Environment and Water
5	Shri Manabika Mandal	Prayas (Energy Group)
6	Shri Saumendra Aggrawal	Prayas (Energy Group)
7	Shri Saurabh Srivastava	Indian Energy Exchange Limited
8	Shri Bharat Sharma	Council on Energy, Environment and Water
9	Shri Md Maswood	Consumer
10	Shri Virat Singh	Consumer
11	Shri Shubham Yadav	Indian Energy Regulatory Services (IERS)
12	Shri Ankit Kumar	Indian Energy Regulatory Services (IERS)
13	Shri Amiy Chaturvedi	Mercados Energy Markets India Private Limited
14	Shri Arvind Agarwal	President
15	Shri Aman Raj	Indian Energy Regulatory Services (IERS)
16	Shri Samir Shingh	Veekay Connectors Private Limited
17	Shri Girraj Kumar Maheshwari	Aligarh Cold Storage Owner's Association Aligarh
18	Shri Gaurav Mohan	Allahabad Enterprises Private Limited
19	Shri Pushpa Tandon	Badaun cold storage
20	Shri Pradeep Kumar Singhal	UP ROLLER FLOOR MILLERS ASS.
21	Shri SATISH MAHESHWARI	UP UDYOG VYAPAR MANDAL
22	Shri Dhruvak Aggarwal	Council on Energy, Environment and Water
23	Shri Kanika Balani	Council on Energy, Environment and Water
24	Shri Jyotsana shahi	IIA HO
25	Shri Awdesh Agrawal	IIA HO
26	Shri Arvind kumar	IIA HO
27	Shri Ram Kunjan	Consumer
28	Shri AK Arora	NPCL
29	Shri Arun Mishra	Advocate
30	Shri Tanhauser D Pierce	NPCL
31	Shri Varushab Ganata	Consumer
32	Shri Manoj Jain	NPCL
33	Shri Anil Jain	Director ( C & P ) UPPTCL
34	Shri Vikram Dhaiya	Consumer
35	Shri A.K. Mishra	Chief Er. Varanasi



<b>List of persons who attended the virtual Public Hearing on May 19, 2021</b>		
<b>S. No</b>	<b>Name</b>	<b>Organisation</b>
36	Shri Niraj Agrawal	Chief Engineer (RAU)
37	Shri Rahul Shahi	Mercados Energy Markets India Private Limited
38	Shri Sanjiv Kumar Goel	MD NPCL
39	Shri Arvind Singh	UPPCL
40	Shri Shweta T	Badaun Cold Storage
41	Shri Sudhir Kumar Singh	Consumer
42	Shri Surya Prakash Gangwar	MD MVVNL
43	Shri Alok Kumar Verma	Consumer
44	Shri Anuj Gulati	Consumer
45	Shri Mahesh Chandra	Consumer
46	Shri Dhruwak Agrawal	CEEW
47	Shri Pralyusha Khandelwal	Consumer
48	Shri Rajesh Ranjan Singh	PuVVNL
49	Shri Pankaj Kumar	MD UPPCL
50	Shri Ashok Kumar Agarwal	VIDYA PLY & BOARD PVT LTD.
51	Shri Chanmeet Singh Syal	Consultant
52	Shri Somsuklo Biswas	Consultant
53	Shri Arjun Manohar	Consultant



### 13.3. SUB-CATEGORY WISE AVERAGE BILLING RATE FOR FY 2021-22

**TABLE 13-1: SUB-CATEGORY WISE AVERAGE BILLING RATE OF 5 DISCOMS CONSOLIDATED FOR FY 2021-22**

Consumer Sub-Category	No. of Consumers	Load (kW)	Energy Sales (MU)	Fixed / Demand Charges allowed	Energy Charge	Total Revenue	Average Billing Rate
	FY 2021-22	FY 2021-22	FY 2021-22	Rs. Crore	Rs. Crore	Rs. Crore	Rs. / kWh
(A)	(B)	(D)	(E)	(H)	(I)	(J) = (H) + (I)	(K)
<b>LMV-1: Domestic Light, Fan &amp; Power</b>							
<b>Life Line Consumers (both Rural and Urban) (Sub-Total)</b>	<b>1,990,954</b>	<b>1,916,121</b>	<b>1,533.47</b>	112.71	<b>460.04</b>	<b>572.75</b>	<b>3.73</b>
<b>Dom: Rural Schedule (unmetered) (Sub-Total)</b>	-	-	-	-	-	-	
<b>Dom: Rural Schedule (metered) other than BPL (Sub-Total)</b>	<b>17,257,901</b>	<b>1,831,210</b>	<b>23,490.08</b>	2,307.57	<b>9,084.38</b>	<b>11,391.95</b>	<b>4.85</b>
0-100 kWh/month	<b>8,946,425</b>	<b>9,371,452</b>	<b>4,077.77</b>	990.32	4,716.05	<b>5,706.37</b>	4.05
101-150 kWh/month	4,858,438	5,949,481	3,887.79	629.09	1,496.80	2,125.89	5.47
151-300 kWh/month	2,134,826	4,313,480	3,696.93	456.09	1,848.46	2,304.55	6.23
301-500 kWh/month	1,190,998	1,638,149	1,469.73	173.10	808.35	981.45	6.68
Above 500 kWh/Month (starting from 501 unit)	127,215	558,649	357.86	58.97	214.72	273.69	7.65
<b>Dom: Supply at Single Point for Bulk Load (Sub-Total)</b>	10,356	229,012	1,166.40	30.19	816.48	846.67	7.26
<b>Other Metered Domestic Consumers other than BPL (Sub-Total)</b>	8,291,882	17,287,551	19,970.52	2,231.57	11,698.11	13,929.68	6.98
0-150 kWh/month	5,125,063	9,194,914	11,728.98	1,186.98	6,450.94	7,637.92	6.51
151-300 kWh/month	1,536,052	3,556,822	3,971.58	459.14	2,382.95	2,842.09	7.16
301-500 kWh/month	989,219	2,710,066	2,495.00	349.83	1,621.75	1,971.58	7.90



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Consumer Sub-Category	No. of Consumers	Load (kW)	Energy Sales (MU)	Fixed / Demand Charges allowed	Energy Charge	Total Revenue	Average Billing Rate
	FY 2021-22	FY 2021-22	FY 2021-22	Rs. Crore	Rs. Crore	Rs. Crore	Rs. / kWh
(A)	(B)	(D)	(E)	(H)	(I)	(J) = (H) + (I)	(K)
Above 500 kWh/Month (starting from 501 unit)	641,548	1,825,749	1,774.96	235.61	1,242.47	1,478.09	8.33
<b>LMV - 1 (Total)</b>	<b>27,551,094</b>	<b>41,263,894.95</b>	<b>46,160.48</b>	<b>4,682.04</b>	<b>22,059.02</b>	<b>26,741.06</b>	<b>5.79</b>
	-	-	-	-	-	-	-
<b>LMV-2: Non Domestic Light, Fan &amp; Power</b>	-	-	-	-	-	-	-
<b>Non Dom: Rural Schedule (unmetered) (Sub-Total)</b>	-	-	-	-	-	-	-
<b>Non Dom: Rural Schedule (metered) (Sub-Total)</b>	196,237	495,375	921.59	63.85	506.88	570.73	6.19
<b>Non Dom: Private Advertising /Sign Post/Sign Board/GlowSign (Sub-Total)</b>	1,016	6,008	5.62	12.88	10.11	23.00	40.93
<b>Non Dom: Other Metered Non-Domestic Supply (Sub-Total)</b>	1,502,071	4,426,266	6,023.50	1,963.95	4,734.57	6,698.52	11.12
<b>Load upto 2 kw</b>	1,042,814	2,031,318	3,000.99	786.34	2,299.31	3,085.65	10.28
Upto 300 kWh / month	799,131	1,556,713	2,480.84	602.64	1,860.63	2,463.27	9.93
301 – 1000 kWh / month	226,975	442,419	470.08	171.24	394.87	566.10	12.04
Above 1000 kWh/Month	16,708	32,187	50.07	12.46	43.81	56.28	11.24
<b>Load 2 kw to 4 kW</b>	346,343	1,224,805	1,734.60	560.29	1,366.42	1,926.70	11.11
Upto 300 kWh / month	262,959	929,851	1,069.56	425.36	802.17	1,227.53	11.48
301 – 1000 kWh / month	67,420	237,603	504.64	108.68	423.90	532.58	10.55
Above 1000 kWh/Month	15,964	57,351	160.40	26.25	140.35	166.59	10.39
<b>Load above 4 kW</b>	112,914	1,170,142	1,287.91	617.32	1,068.84	1,686.17	13.09
Upto 300 kWh / month	76,332	390,288	392.84	205.84	294.63	500.47	12.74
301 – 1000 kWh / month	29,890	262,664	256.46	138.55	215.42	353.98	13.80



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Consumer Sub-Category	No. of Consumers	Load (kW)	Energy Sales (MU)	Fixed / Demand Charges allowed	Energy Charge	Total Revenue	Average Billing Rate
	FY 2021-22	FY 2021-22	FY 2021-22	Rs. Crore	Rs. Crore	Rs. Crore	Rs. / kWh
(A)	(B)	(D)	(E)	(H)	(I)	(J) = (H) + (I)	(K)
Above 1000 kWh/Month	6,692	517,190	638.62	272.93	558.79	831.72	13.02
	-	-	-			-	
<b>LMV - 2 (Total)</b>	<b>1,699,324</b>	<b>4,927,648.96</b>	<b>6,950.71</b>	<b>2,040.69</b>	<b>5,251.56</b>	<b>7,292.25</b>	<b>10.49</b>
	-	-	-	-		-	
<b>LMV-3: Public Lamps</b>	-	-	-	-		-	
<b>Unmetered (Sub-Total)</b>	24	5,939	22.29	18.24	-	18.24	
Unmetered - Gram Panchayat	-	-	-	-	-	-	
Unmetered - Nagar Palika & Nagar Panchayat	24	5,939	22.29	18.24	-	18.24	
Unmetered - Nagar Nigam	-	-	-	-	-	-	
<b>Metered (Sub-Total)</b>	3,834	230,732	731.11	53.61	666.06	719.67	9.84
Metered - Gram Panchayat	1,130	14,081	44.03	2.62	36.33	38.95	8.85
Metered - Nagar Palika & Nagar Panchayat	1,592	90,989	230.58	21.49	202.91	224.39	9.73
Metered - Nagar Nigam	1,112	125,661	456.50	29.50	426.83	456.33	10.00
<b>LMV - 3 (Total)</b>	<b>3,858</b>	<b>236,670.35</b>	<b>753.40</b>	<b>71.85</b>	<b>666.06</b>	<b>737.91</b>	<b>9.79</b>
	-	-	-			-	
<b>LMV-4: Light, fan &amp; Power for Institutions</b>	-	-	-			-	
<b>Inst: Public (Sub-Total)</b>	76,634	385,466	920.75	109.06	772.28	881.34	9.57
Inst: Public: 0 – 1000 kWh / month	67,770	338,891	604.18	95.87	498.45	594.32	9.84
Inst: Public: 1001 – 2000 kWh / month	6,825	33,898	126.50	9.59	107.53	117.12	9.26
Inst: Public: Above 2000 kWh / month	2,039	12,677	190.06	3.60	166.31	169.91	8.94
<b>Inst: Private (Sub-Total)</b>	15,240	155,421	221.63	56.96	202.76	259.72	11.72
<b>Load upto 3 kW (Sub-Total)</b>	10,053	33,619	89.26	11.10	80.86	91.95	10.30



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Consumer Sub-Category	No. of Consumers	Load (kW)	Energy Sales (MU)	Fixed / Demand Charges allowed	Energy Charge	Total Revenue	Average Billing Rate
	FY 2021-22	FY 2021-22	FY 2021-22	Rs. Crore	Rs. Crore	Rs. Crore	Rs. / kWh
(A)	(B)	(D)	(E)	(H)	(I)	(J) = (H) + (I)	(K)
Inst: Private: 0 – 1000 kWh / month	7,850	24,969	70.36	8.23	63.32	71.55	10.17
Inst: Private: Above 1000 kWh / month	2,204	8,650	18.86	2.86	17.54	20.40	10.82
<b>Load above 3 kW (Sub-total)</b>	<b>5,187</b>	<b>121,802</b>	<b>132.38</b>	<b>45.86</b>	<b>121.90</b>	<b>167.76</b>	<b>12.67</b>
Inst: Private: 0 – 1000 kWh / month	3,694	32,743	38.84	12.33	34.96	47.29	12.18
Inst: Private: Above 1000 kWh / month	1,493	89,059	93.49	33.53	86.94	120.47	12.89
	-	-	-			-	
<b>LMV - 4 (Total)</b>	<b>91,874</b>	<b>540,887.04</b>	<b>1,142.38</b>	<b>166.02</b>	<b>975.04</b>	<b>1,141.06</b>	<b>9.99</b>
	-	-	-			-	
<b>LMV-5: Private Tube Wells/ Pumping Sets</b>							
<b>Unmetered (Sub-Total)</b>	<b>1,257,367</b>	<b>7,671,150</b>	<b>13,527.06</b>	<b>1,653.94</b>	<b>-</b>	<b>1,653.94</b>	<b>1.22</b>
PTW: Rural Schedule (unmetered)	1,257,367	7,671,150	13,527.06	1,653.94	-	1,653.94	1.22
<b>Metered (Sub-Total)</b>	<b>59,032</b>	<b>270,556</b>	<b>479.00</b>	<b>29.88</b>	<b>162.16</b>	<b>192.05</b>	<b>4.01</b>
PTW: Rural Schedule (metered)	44,755	191,560	313.10	16.89	62.62	79.51	2.54
PTW: Urban Schedule (metered)	14,277	78,996	165.90	12.99	99.54	112.53	6.78
<b>LMV - 5 (Total)</b>	<b>1,316,399</b>	<b>7,941,706</b>	<b>14,006.06</b>	<b>1,683.83</b>	<b>162.16</b>	<b>1,845.99</b>	<b>1.32</b>
	-	-	-			-	
<b>LMV 6: Small and Medium Power upto 100 HP (75 kW)</b>							
<b>Consumers getting supply as per "Rural Schedule" (Sub-Total)</b>	<b>38,751</b>	<b>352,507</b>	<b>407.28</b>	<b>89.89</b>	<b>282.14</b>	<b>372.03</b>	<b>9.13</b>
Up to 1000 kWh / month	32,118	302,350	205.16	77.10	138.54	215.63	10.51
Up to 2000 kWh / month	4,610	28,840	88.60	7.35	60.65	68.00	7.68



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Consumer Sub-Category	No. of Consumers	Load (kW)	Energy Sales (MU)	Fixed / Demand Charges allowed	Energy Charge	Total Revenue	Average Billing Rate
	FY 2021-22	FY 2021-22	FY 2021-22	Rs. Crore	Rs. Crore	Rs. Crore	Rs. / kWh
(A)	(B)	(D)	(E)	(H)	(I)	(J) = (H) + (I)	(K)
For above 2000 kWh / month	2,022	21,317	113.52	5.44	82.95	88.39	7.79
<b>Consumers getting supply other than "Rural Schedule" (Sub-Total)</b>	137,638	1,708,815	3,129.65	468.23	2,366.21	2,834.44	9.06
<b>Up to 1000 kWh / month (Sub-Total)</b>	99,783	1,055,612	1,239.83	316.32	908.40	1,224.72	9.88
05:00 hrs to 11:00 hrs	15,271	160,048	192.18	48.39	140.29	188.68	9.82
11:00 hrs to 17:00 hrs	44,988	463,099	558.40	140.50	407.63	548.13	9.82
17:00 hrs to 23:00 hrs	21,058	213,176	259.78	65.19	218.09	283.27	10.90
23:00 hrs to 05:00 hrs	18,466	219,290	229.48	62.24	142.39	204.63	8.92
<b>Up to 2000 kWh / month (Sub-Total)</b>	22,977	326,316	785.83	78.78	626.87	705.65	8.98
05:00 hrs to 11:00 hrs	3,514	46,987	129.81	11.68	96.06	107.73	8.30
11:00 hrs to 17:00 hrs	10,265	142,358	376.37	34.57	278.52	313.09	8.32
17:00 hrs to 23:00 hrs	4,995	64,846	181.84	16.20	154.74	170.95	9.40
23:00 hrs to 05:00 hrs	4,203	72,124	155.09	16.32	97.55	113.88	7.34
<b>For above 2000 kWh / month (Sub-Total)</b>	14,878	326,888	1,046.71	73.13	830.95	904.08	8.64
05:00 hrs to 11:00 hrs	2,327	46,925	164.27	10.76	129.77	140.53	8.55
11:00 hrs to 17:00 hrs	6,606	142,609	462.85	32.02	365.65	397.67	8.59
17:00 hrs to 23:00 hrs	3,226	68,645	226.87	15.78	206.11	221.89	9.78
23:00 hrs to 05:00 hrs	2,720	68,709	192.73	14.57	129.42	143.99	7.47
<b>LMV - 6 (Total)</b>	<b>176,389</b>	<b>2,061,322</b>	<b>3,536.93</b>	<b>558.11</b>	<b>2,648.35</b>	<b>3,206.46</b>	<b>9.07</b>
	-	-	-			-	
<b>LMV-7: Public Water Works</b>	-	-	-			-	
<b>Rural Schedule (Sub-Total)</b>	9,099	121,960	492.12	39.88	391.48	431.36	8.77



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Consumer Sub-Category	No. of Consumers	Load (kW)	Energy Sales (MU)	Fixed / Demand Charges allowed	Energy Charge	Total Revenue	Average Billing Rate
	FY 2021-22	FY 2021-22	FY 2021-22	Rs. Crore	Rs. Crore	Rs. Crore	Rs. / kWh
(A)	(B)	(D)	(E)	(H)	(I)	(J) = (H) + (I)	(K)
Rural Schedule: Jal Nigam	7,717	84,536	322.95	27.61	256.91	284.52	8.81
Rural Schedule: Jal Sansthan	458	11,350	73.48	3.71	58.45	62.16	
Rural Schedule: Other PWWs	925	26,074	95.69	8.56	76.12	84.68	
<b>Urban Schedule (Sub-Total)</b>	<b>14,798</b>	<b>399,701</b>	<b>1,331.78</b>	<b>141.60</b>	<b>1,145.33</b>	<b>1,286.93</b>	<b>9.66</b>
Urban Schedule: Jal Nigam	7,722	144,212	438.59	51.24	377.19	428.43	9.77
Urban Schedule: Jal Sansthan	2,214	121,404	432.17	42.91	371.66	414.58	
Urban Schedule: Other PWWs	4,862	134,085	461.03	47.44	396.48	443.92	
<b>LMV - 7 (Total)</b>	<b>23,897</b>	<b>521,661</b>	<b>1,823.91</b>	<b>181.48</b>	<b>1,536.82</b>	<b>1,718.30</b>	<b>9.42</b>
	-	-	-	-	-	-	-
<b>LMV-8: State Tube Wells &amp; Pump Canals upto 100 HP</b>	-	-	-	-	-	-	-
<b>Metered (Sub-Total)</b>	<b>34,970</b>	<b>626,333</b>	<b>2,862.91</b>	<b>261.38</b>	<b>2,433.47</b>	<b>2,694.86</b>	<b>9.41</b>
Metered STW	34,970	626,333	2,862.91	261.38	2,433.47	2,694.86	9.41
<b>Unmetered (Sub-Total)</b>	-	-	-	-	-	-	-
Unmetered: STW/Panch.Raj/WB/ID/P. Canals/LI upto 100 BHP	-	-	-	-	-	-	-
Unmetered: Laghu Dal Nahar above 100 BHP	-	-	-	-	-	-	-
<b>LMV - 8 (Total)</b>	<b>34,970</b>	<b>626,333</b>	<b>2,862.91</b>	<b>261.38</b>	<b>2,433.47</b>	<b>2,694.86</b>	<b>9.41</b>
	-	-	-	-	-	-	-
<b>LMV-9: Temporary Supply</b>	-	-	-	-	-	-	-
<b>Metered (Sub-total)</b>	<b>14,062</b>	<b>85,242</b>	<b>219.00</b>	<b>28.73</b>	<b>195.99</b>	<b>224.72</b>	<b>10.26</b>
Metered TS: Individual residential consumers	3,136	13,040	11.12		8.90		



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Consumer Sub-Category	No. of Consumers	Load (kW)	Energy Sales (MU)	Fixed / Demand Charges allowed	Energy Charge	Total Revenue	Average Billing Rate
	FY 2021-22	FY 2021-22	FY 2021-22	Rs. Crore	Rs. Crore	Rs. Crore	Rs. / kWh
(A)	(B)	(D)	(E)	(H)	(I)	(J) = (H) + (I)	(K)
Metered TS: Others	10,926	72,203	207.88		187.09		
<b>Unmetered (Sub-Total)</b>	5	50	-	0.03	-	0.03	
Unmetered TS: Ceremonies	-	-	-	-	-	-	
	-	-	-	-	-	-	
Unmetered TS: Temp shops	5	50	-		-		
<b>LMV - 9 (Total)</b>	<b>14,067</b>	<b>85,292</b>	<b>219.00</b>	<b>28.75</b>	<b>195.99</b>	<b>224.74</b>	<b>10.26</b>
	-	-	-	-	-	-	
<b>LMV-10: Departmental Employees</b>	-	-	-	-	-	-	
<b>LMV - 10 (Total)</b>	<b>105,319</b>	<b>441,829</b>	<b>643.68</b>	<b>46.02</b>	<b>450.57</b>	<b>496.59</b>	<b>7.71</b>
	-	-	-	-	-	-	
<b>LMV-11: Electrical Vehicles</b>	-	-	-	-	-	-	
<b>Multi Story Buildings (Sub-Total)</b>	-	-	-	-	-	-	
LMV-1b	-	-	-	-	-	-	
HV-1b	-	-	-	-	-	-	
<b>Public Charging Station (Sub-Total)</b>	-	-	-	-	-	-	
LT	-	-	-	-	-	-	
HT	-	-	-	-	-	-	
<b>LMV - 11 (Total)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	
	-	-	-	-	-	-	
<b>HV-1: Non-Industrial Bulk Loads</b>	-	-	-	-	-	-	
<b>Rural Public Institutions, etc. (Sub-Total)</b>	<b>2,889</b>	<b>1,269,163</b>	<b>1,910.69</b>	<b>348.73</b>	<b>1,502.27</b>	<b>1,851.00</b>	<b>9.69</b>
<b>Supply at 11 kV</b>	<b>1,733</b>	<b>811,801</b>	<b>1,634.51</b>	<b>271.52</b>	<b>1,290.17</b>	<b>1,561.69</b>	<b>9.55</b>



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Consumer Sub-Category	No. of Consumers	Load (kW)	Energy Sales (MU)	Fixed / Demand Charges allowed	Energy Charge	Total Revenue	Average Billing Rate
	FY 2021-22	FY 2021-22	FY 2021-22	Rs. Crore	Rs. Crore	Rs. Crore	Rs. / kWh
(A)	(B)	(D)	(E)	(H)	(I)	(J) = (H) + (I)	(K)
Supply at 11 kV: 0 to 2500 kVAh/month	1,577	29,233	54.47	9.79	41.94	51.73	9.50
Supply at 11 kV: Above 2500 kVAh/month	156	782,568	1,580.03	261.73	1,248.23	1,509.96	9.56
<b>Supply above 11 kV &amp; above</b>	<b>1,156</b>	<b>457,362</b>	<b>276.19</b>	<b>77.21</b>	<b>212.10</b>	<b>289.31</b>	<b>10.48</b>
Supply above 11 kV & above: 0 to 2500 kVAh/month	995	40,801	28.29	6.89	21.22	28.11	9.93
Supply above 11 kV & above: Above 2500 kVAh/month	160	416,560	247.89	70.33	190.88	261.20	10.54
<b>Urban Private Institutions, etc. (Sub-Total)</b>	<b>2,631</b>	<b>971,506</b>	<b>1,990.74</b>	<b>296.40</b>	<b>1,717.66</b>	<b>2,014.06</b>	<b>10.12</b>
<b>Supply at 11 kV</b>	<b>1,483</b>	<b>597,140</b>	<b>1,683.95</b>	<b>226.17</b>	<b>1,459.01</b>	<b>1,685.19</b>	<b>10.01</b>
Supply at 11 kV: 0 to 2500 kVAh/month	1,260	45,229	73.73	17.18	61.34	78.52	10.65
Supply at 11 kV: Above 2500 kVAh/month	223	551,911	1,610.22	209.00	1,397.67	1,606.67	9.98
<b>Supply above 11 kV &amp; above</b>	<b>1,148</b>	<b>374,367</b>	<b>306.79</b>	<b>70.23</b>	<b>258.64</b>	<b>328.87</b>	<b>10.72</b>
Supply above 11 kV & above: 0 to 2500 kVAh/month	864	29,781	42.04	5.60	34.14	39.74	9.45
Supply above 11 kV & above: Above 2500 kVAh/month	285	344,586	264.75	64.63	224.51	289.14	10.92
<b>HV - 1 (Total)</b>	<b>5,520</b>	<b>2,240,669</b>	<b>3,901.43</b>	<b>645.14</b>	<b>3,219.92</b>	<b>3,865.06</b>	<b>9.91</b>
	-	-	-	-	-	-	-
<b>HV-2: Large and Heavy Power above 100 BHP (75 kW)</b>	-	-	-	-	-	-	-
<b>HV2 Urban Schedule: Supply at 11 kV (Sub-Total)</b>	<b>11,562</b>	<b>3,297,706</b>	<b>8,769.21</b>	<b>876.87</b>	<b>6,218.49</b>	<b>7,095.36</b>	<b>8.09</b>
05:00 hrs to 11:00 hrs	2,598	731,807	1,975.48	194.66	1,297.40	1,492.06	7.55



Approval of ARR and Tariff for State Discoms for FY 2021-22, APR of FY 2020-21 and True-up of FY 2019-20

Consumer Sub-Category	No. of Consumers	Load (kW)	Energy Sales (MU)	Fixed / Demand Charges allowed	Energy Charge	Total Revenue	Average Billing Rate
	FY 2021-22	FY 2021-22	FY 2021-22	Rs. Crore	Rs. Crore	Rs. Crore	Rs. / kWh
(A)	(B)	(D)	(E)	(H)	(I)	(J) = (H) + (I)	(K)
11:00 hrs to 17:00 hrs	3,909	1,068,913	2,944.72	284.07	2,090.75	2,374.82	8.06
17:00 hrs to 23:00 hrs	2,496	717,755	1,893.59	190.94	1,546.12	1,737.06	9.17
23:00 hrs to 05:00 hrs	2,559	779,230	1,955.41	207.21	1,284.22	1,491.42	7.63
<b>HV2 Urban Schedule: Supply above 11 kV &amp; upto 66 kV (Sub-Total)</b>	1,045	887,829	2,764.32	227.55	1,881.13	2,108.68	7.63
05:00 hrs to 11:00 hrs	250	195,825	627.89	50.16	394.94	445.10	7.09
11:00 hrs to 17:00 hrs	341	305,329	939.10	78.27	638.59	716.86	7.63
17:00 hrs to 23:00 hrs	250	192,829	617.49	49.39	482.88	532.27	8.62
23:00 hrs to 05:00 hrs	204	193,845	579.85	49.73	364.72	414.45	7.15
<b>HV2 Urban Schedule: Supply above 66 kV &amp; upto 132 kV (Sub-Total)</b>	64	332,792	752.14	79.53	481.67	561.20	7.46
05:00 hrs to 11:00 hrs	15	78,041	169.92	18.66	100.59	119.25	7.02
11:00 hrs to 17:00 hrs	21	111,343	255.46	26.59	163.49	190.09	7.44
17:00 hrs to 23:00 hrs	15	76,825	167.68	18.38	123.41	141.79	8.46
23:00 hrs to 05:00 hrs	12	66,582	159.08	15.90	94.18	110.08	6.92
<b>HV2 Urban Schedule: Supply above 132 kV (Sub-Total)</b>	18	19,446	93.55	4.61	56.84	61.46	6.57
05:00 hrs to 11:00 hrs	4	3,910	18.57	0.93	10.48	11.41	6.14
11:00 hrs to 17:00 hrs	7	6,944	33.40	1.65	20.37	22.02	6.59
17:00 hrs to 23:00 hrs	4	3,853	18.43	0.91	12.93	13.84	7.51
23:00 hrs to 05:00 hrs	4	4,740	23.15	1.12	13.06	14.18	6.13
<b>HV2 Rural Schedule: Supply at 11 kV</b>	436	115,002	154.46	21.06	101.44	122.51	7.93



Approval of ARR and Tariff for State Discoms for FY 2021-22, APR of FY 2020-21 and True-up of FY 2019-20

Consumer Sub-Category	No. of Consumers	Load (kW)	Energy Sales (MU)	Fixed / Demand Charges allowed	Energy Charge	Total Revenue	Average Billing Rate
	FY 2021-22	FY 2021-22	FY 2021-22	Rs. Crore	Rs. Crore	Rs. Crore	Rs. / kWh
(A)	(B)	(D)	(E)	(H)	(I)	(J) = (H) + (I)	(K)
<b>HV - 2 (Total)</b>	<b>13,125</b>	<b>4,652,775</b>	<b>12,533.68</b>	<b>1,209.62</b>	<b>8,739.58</b>	<b>9,949.20</b>	<b>7.94</b>
	-	-	-	-	-	-	-
<b>HV-3: Railway Traction</b>	-	-	-	-	-	-	-
HV3 Supply at and above 132 kV	1	10,800	16.85	2.59	14	16.92	10.04
HV3 Supply below 132 kV	2	10,800	16.21	2.07	14	16.34	10.08
HV3 For Metro traction	6	66,133	118.82	18.43	87	105.17	8.85
<b>HV - 3 (Total)</b>	<b>9</b>	<b>87,733</b>	<b>151.88</b>	<b>23.10</b>	<b>115</b>	<b>138.43</b>	<b>9.11</b>
	-	-	-	-	-	-	-
<b>HV-4: Lift Irrigation &amp; P. Canals above 100 BHP (75 kW)</b>	-	-	-	-	-	-	-
HV4 Supply at 11kV	89	60,502	407.68	10.08	346.52	356.60	8.75
HV4 Supply above 11kV & upto 66kV	10	119,473	289.65	19.40	243.31	262.70	9.07
HV4 Supply above 66 kV & upto 132kV	1	9,900	9.32	1.57	7.69	9.26	9.93
<b>HV - 4 (Total)</b>	<b>100</b>	<b>189,874</b>	<b>706.65</b>	<b>31.04</b>	<b>597.52</b>	<b>628.56</b>	<b>8.89</b>
	-	-	-	-	-	-	-
<b>Bulk Supply (Torrent Power Consumers)</b>	<b>Bifurcated/spread over different categories</b>						
Extra State Consumer	2	5,770	26.78	-	20.97	20.97	7.83
<b>Grand Total</b>	<b>31,035,946</b>	<b>65,824,066</b>	<b>95,419.90</b>	<b>11,629.06</b>	<b>49,072.37</b>	<b>60,701.44</b>	<b>6.36</b>

Note: For Computation of Incremental Cost for all Discoms the consolidated ABRs as given in the above table will be used.



### 13.4. ADMITANCE ORDER



## UttarPradesh Electricity Regulatory Commission

Vidyut Niyamak Bhawan, Vibhuti Khand, Gomti Nagar, Lucknow-226010 Phone 2720426 Fax 2720423 E-mail secretary@uperc.org

Dr. Sanjay K. Singh  
Secretary

Ref: UPERC/Secy/D(T)/2021-005  
Dated: 08 April, 2021

To,

1. The Chairman, U. P. Power Corporation Ltd., 7<sup>th</sup> Floor, Shakti Bhawan, 14, Ashok Marg, Lucknow – 226001.
2. The Managing Director, U. P. Power Corporation Ltd., 7<sup>th</sup> Floor, Shakti Bhawan, 14, Ashok Marg, Lucknow – 226001.
3. The Managing Director, Dakshinanchal Vidyut Vitran Nigam Ltd., Urja Bhawan, 220KV Sub-Station Mathura bypass Road, Agra - 282007.
4. The Managing Director, Madhyanchal Vidyut Vitran Nigam Ltd., 4-A, Gokhale Marg, Lucknow - 226001.
5. The Managing Director, Paschimanchal Vidyut Vitran Nigam Ltd., Victoria Park, Meerut - 250001.
6. Managing Director, Purvanchal Vidyut Vitran Nigam Ltd., Bhikharipur, 132KV Sub-Station, Poorvanchal Vidyut Bhawan, P. O. Diesel Locomotive Works, Varanasi - 221004.
7. The Managing Director, Kanpur Electricity Supply Company Ltd., KESA House, 14/71, Civil Lines, Kanpur - 208001.
8. CE, RAU, Regulatory Affairs Unit, U. P. Power Corporation Ltd., 15<sup>th</sup> Floor, Shakti Bhawan Extension, 14, Ashok Marg, Lucknow – 226001.

Petitions Nos. 1687 / 2021 (DVVNL), 1688 / 2021 (MVVNL), 1689 / 2021 (PVVNL), 1690 / 2021 (PuVVNL), & 1691 / 2021 (KESCO).

Sir,

Kindly find enclosed herewith a copy of the Commission's Order dated 08<sup>th</sup> April 8, 2021, regarding above cited matter.

Encl: As above.

Yours sincerely

  
(Sanjay K. Singh)  
Secretary

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Approval of ARR and Tariff for State Discoms for FY 2021-22, APR  
of FY 2020-21 and True-up of FY 2019-20



BEFORE

THE UTTAR PRADESH ELECTRICITY REGULATORY COMMISSION,  
LUCKNOW

Petition No. 1687 / 2021, 1688 / 2021, 1689 / 2021, 1690 / 2021 & 1691 / 2021

IN THE MATTER OF:

1. Petition for Truing-Up for FY 2019-20, Annual Performance Review (APR) for FY 2020-21 and Approval of Aggregate Revenue Requirement (ARR) for the FY 2021-22- (Petition No. - 1690 of 2021) of Dakshinanchal Vidyut Vitran Nigam Ltd. (DVVNL)
2. Petition for Truing-Up for FY 2019-20, Annual Performance Review (APR) for FY 2020-21 and Approval of Aggregate Revenue Requirement (ARR) for the FY 2021-22- (Petition No. - 1689 of 2021) of Madhyanchal Vidyut Vitran Nigam Ltd. (MVVNL).
3. Petition for Truing-Up for FY 2019-20, Annual Performance Review (APR) for FY 2020-21 and Approval of Aggregate Revenue Requirement (ARR) for the FY 2021-22- (Petition No. - 1687 of 2021) of Paschimanchal Vidyut Vitran Nigam Ltd. (PVVNL).
4. Petition for Truing-Up for FY 2019-20, Annual Performance Review (APR) for FY 2020-21 and Approval of Aggregate Revenue Requirement (ARR) for the FY 2021-22- (Petition No. - 1688 of 2021) of Purvanchal Vidyut Vitran Nigam Ltd. (PuVVNL).
5. Petition for Truing-Up for FY 2019-20, Annual Performance Review (APR) for FY 2020-21 and Approval of Aggregate Revenue Requirement (ARR) for the FY 2021-22- (Petition No. - 1691 of 2021) of Kanpur Electricity Supply Company Ltd. (KESCO).

ORDER

As per provisions of Section 64 of the Electricity Act, 2003, it is incumbent upon the Licensee to make an application to the State Electricity Regulatory Commission for determination of tariff in such manner as may be specified by the Commission as per the applicable Regulations.

The Uttar Pradesh Electricity Regulatory Commission (Multi Year Distribution Tariff) Regulations, 2014 were notified on May 12, 2014. These Regulations were applicable for determination of tariff in all cases covered under these Regulations from April 1, 2015 to March 31, 2020, unless otherwise extended by the Commission. Embarking upon the MYT framework, the Commission has divided the period of five years (i.e. April 1, 2015 to March 31, 2020) into two periods namely –

- a. Transition period (April 1, 2015 to March 31, 2017)
- b. Control period (April 1, 2017 to March 31, 2020)

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Approval of ARR and Tariff for State Discoms for FY 2021-22, APR of FY 2020-21 and True-up of FY 2019-20



As per the provisions stipulated in Regulation 12 of Uttar Pradesh Electricity Regulatory Commission (Multi Year Distribution Tariff) Regulations, 2014 (hereinafter referred to as "MYT Regulations, 2014"), the Petition for determination of Aggregate Revenue Requirement (ARR) and Tariff, Annual Performance Review (APR) and True Up, complete in all respect have to be filed by the Distribution Licensee each year of the control period (FY 2017-18 to FY 2019-20).

Subsequently, the Uttar Pradesh Electricity Regulatory Commission (Multi Year Tariff for Distribution and Transmission) Regulations, 2019 were approved on September 23, 2019 (hereinafter referred to as "MYT Regulations, 2019") which is applicable for determination of Tariff from April 1, 2020 onwards up to FY 2024-25 [i.e., till March 31, 2025] unless extended by the Commission. Further, as per the provisions stipulated in Regulation 4, the Petition for determination of True-Up, Annual Performance Review (APR) and Aggregate Revenue Requirement (ARR) and Tariff, complete in all respect, has to be filed by the Distribution Licensee before the Commission on or before November 30 of each year.

The Petitioner vide letter dated December 08, 2020 requested for additional time for the filing of True-Up/APR/ARR Petition due to difficulties faced by the impact of Covid-10 pandemic for which the Commission granted an extension of two months of time. Further, the Petitioner vide letter dated January 29, 2021 requested for an addition one month of time for the submission of True-Up/APR/ARR Petition for which the Commission granted permission vide letter dated February 09, 2021.

The State-owned Distribution Licensees namely Dakshinanchal Vidyut Vitran Nigam Ltd., Madhyanchal Vidyut Vitran Nigam Ltd., Paschimanchal Vidyut Vitran Nigam Ltd., Purvanchal Vidyut Vitran Nigam Ltd., Kanpur Electricity Supply Company Ltd. (hereinafter referred to as "DVVNL", "MVVNL", "PVVNL", "PuVVNL", "KESCO" respectively & collectively called as the State-owned Distribution Licensees). State-owned Distribution Licensees filed the Petitions for determination of True-up for the FY 2019-20, Annual Performance Review of FY 2020-21 and Aggregate Revenue Requirement and Tariff for FY 2021-22 on the following dates:

S. No.	Distribution Licensee	Date of Filing	Petition No.
1	DVVNL	22.02.2021	1690
2	MVVNL	22.02.2021	1689
3	PVVNL	22.02.2021	1687
4	PuVVNL	22.02.2021	1688
5	KESCO	22.02.2021	1691

A preliminary analysis was conducted of the Petitions, wherein the Commission asked the Petitioners to revise its ARR based on the billing determinants and distribution loss

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*Approval of ARR and Tariff for State Discoms for FY 2021-22, APR of FY 2020-21 and True-up of FY 2019-20*



trajectory approved by the Commission in the Business Plan Order dated 26.10.2020, along with various other deficiencies observed, which were communicated vide letters dated March 12, 2021. The State-owned Distribution Licensees submitted their response to the deficiencies in respect to ARR FY 2021-22, APR FY 2020-21 & True-Up of FY 2019-20 on March 23, 2021.

From the submissions of the State-owned Distribution Licensees, it has been observed that the billing determinants & loss trajectory were retained as given in their initial ARR/Tariff Petition. Further, the Commission had also asked the State-owned Distribution Licensees to submit the revised Rate Schedule for various categories of consumers in reference to the Tariff Rationalization proposed for FY 2021-22. Further, the State-owned Distribution Licensees were also requested to submit the Revenue models depicting existing rate schedule v/s Proposed Rate schedule after Tariff Rationalization. In reply, State-owned Distribution Licensees did not submit the required data but have submitted that they request the Commission to determine the tariff without government subsidy and mention separately the subsidy rates as communicated by GoUP. They further submitted that the proposal for rate schedule requires the cross subsidy amongst various consumer categories and the road map for cross-subsidy reduction has not yet been approved, hence the Commission may determine the Tariff without government subsidy, as per approved road map of cross subsidy and approved average cost of supply.

Taking into consideration the above, the State-owned Distribution Licensees should have taken the existing rates and the GoUP subsidy approved per unit for the subsidised categories and should have submitted the Rate Schedule accordingly. The Licensees have also not submitted any tariff proposal and have not submitted any details as to how the consolidated revenue gap proposed for FY 2021-22 would be managed. Further, the Licensees have not complied with the repeated directions of the Commission's for 100% metering of 'Departmental employees & Pensioners' and conversion into LMV-1 category.

The Technical Validation Session covering all the Petitions was conducted on April 01, 2021 which was attended by the senior officials of the Commission and the State-owned Distribution Licensees and during the Technical Validation Session (TVS), the State-owned Distribution Licensees explained various issues raised in the deficiencies. Subsequently, minutes of meeting (M.O.M) along with pending data / information were issued and the Licensees were directed to submit the pending information within 10 days. Pending information such as Audited Accounts of UPPCL for FY 2019-20, CAG Audit Report for FY 2018-19 and FY 2019-20, category/sub-category wise Revenue Models (for each Discom separately & consolidated 5 Discoms) depicting revenue before and after tariff rationalization, details of voltage-wise (132 kV, 33kV, 11kV & LT) distribution losses essentially required for computing CSS, compliance report on

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*Approval of ARR and Tariff for State Discoms for FY 2021-22, APR of FY 2020-21 and True-up of FY 2019-20*



metering status of consumers, category & sub-category wise billing determinants & Revenue for Torrent Power Agra DF, Fixed Asset Registers (FAR- zone-wise data needs to be consolidated and reconciled with the Balance sheet), other matters captured in the M.O.M.

The Commission would like to reiterate that the Licensee has not submitted any Tariff Proposal.

Further, since the determination of ARR / Tariffs has already been significantly delayed, the Commission admits the Petitions for further processing, the Commission admits the Petitions for further processing. The Commission directs the State-owned Distribution Licensees to submit the pending responses immediately and also directs them that they shall furnish further information / clarifications, if any, as deemed necessary by the Commission during the processing of the Petitions and provide the same to the satisfaction of the Commission within the time frame as stipulated by the Commission, failing which the Commission may proceed to dispose of the matter as it deems fit based on the information available with it.

The Petitioners in accordance with the Regulation 5.8 of MYT Regulations, 2019 shall, within three working days of issue of this Admittance Order, publish a Public Notice in at least two English and two Hindi daily newspapers having wide circulation in their licence areas, outlining the True-Up, ARR, proposed Tariff, approved and actual Distribution and Transmission losses for FY 2019-20 & 2020-21 along with proposed losses for FY 2021-22, Power Purchase Cost, Bulk Supply Tariff, DBST, Average Cost of Supply, Average Retail tariff from each category / sub-category of consumers, wheeling charges, Open Access related charges, subsidy by GoUP etc. and such other matters, if any, as directed by the Commission, and invite suggestions and objections within 15 days from the date of publication of the Public Notice(s) from the stakeholders and public at large.

The Public Notices should also indicate that the stakeholders should regularly check the websites of the Petitioners for further submissions made in respect to these proceedings. The Petitioners shall also submit a set of notices along with the copies of original newspapers.

The Petitioner shall also upload on its website the Petition filed before the Commission along with all regulatory filings, information, particulars, and related documents, which shall be signed digitally and in searchable pdf formats along with all excel files. The Petitioner shall also ensure that for downloading the same, there is no requirement of providing personal information. The Petitioner shall not provide or put up any such information, particulars, or documents, which are confidential in nature, without the prior approval of the Commission.

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Approval of ARR and Tariff for State Discoms for FY 2021-22, APR  
of FY 2020-21 and True-up of FY 2019-20



It is pertinent to mention that the Commission, in wake of prevailing COVID-19 pandemic outbreak, which has led to restricted movement across the country, and due to the subsequent requirement of social distancing for prevention of spread of the disease, proposes to hold the Public Hearings the end of April / start of May, through video conferencing.

The details of the same will be provided subsequently on the Commission's website [www.uperc.org](http://www.uperc.org). The State-owned Distribution Licensees shall take all necessary steps to ensure the necessary arrangements for smooth functioning of the same in accordance with the guidelines / instructions issued in this regard by the Commission from time to time.

The Commission reserves the right to seek any further information / clarifications as deemed necessary during the processing of these Petitions.

(Vinod Kumar Srivastava)

Member (Law)

(Kaushal Kishore Sharma)

Member

(Raj Pratap Singh)

Chairman

Place: Lucknow

Date: 08/04/2021