# TARIFF ORDER

True-up of the FY 2019-20, Annual Performance Review of the FY 2020-21, Aggregate Revenue Requirement (ARR) and Determination of Retail Tariff for the FY 2021-22

Petition No. 40/2020

For

Electricity Wing of Engineering Department, Chandigarh (EWEDC)

30th March 2021

JOINT ELECTRICITY REGULATORY COMMISSION
For the State of Goa and Union Territories,
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# List of abbreviations

| Abbreviation | Full Form |
|---|---|
| A&G | Administrative and General |
| ACoS | Average Cost of Supply |
| Act | The Electricity Act, 2003 |
| APCPL | Aravali Power Company Pvt Ltd. |
| APR | Annual Performance Review |
| ARR | Aggregate Revenue Requirement |
| ATE | Appellate Tribunal of Electricity |
| BBMB | Bhakra Beas Management Board |
| BPL | Below Poverty Line |
| CAGR | Compound Annualized Growth rate |
| Capex | Capital Expenditure |
| CEA | Central Electricity Authority |
| CERC | Central Electricity Regulatory Commission |
| CGRF | Consumer Grievance Redressal Forum |
| CGS | Central Generating Stations |
| COD | Commercial Operation Date |
| Cr | Crores |
| Discom | Distribution Company |
| DT | Distribution Transformer |
| EWEDC | Electricity Wing of Engineering Department, Chandigarh |
| DSM | Deviation Settlement Mechanism |
| EA 2003 | The Electricity Act, 2003 |
| ED | Electricity Department |
| EHT | Extra High Tension |
| ERP | Enterprise Resource Planning |
| FAR | Fixed Asset Register |
| FPPCA | Fuel and Power Purchase Cost Adjustment |
| FY | Financial Year |
| GFA | Gross Fixed Assets |
| HT | High Tension |
| IEX | Indian Energy Exchange Limited |
| INR | Indian Rupee |
| IPDS | Integrated Power Development Scheme |
| IPP | Independent Power Producer |
| ISTS | Inter State Transmission System |
| JERC | Joint Electricity Regulatory Commission for the State of Goa and Union Territories |
| JKPDD | Power Development Department , Jammu and Kashmir |
| LC | Letter of Credit |

| Abbreviation | Full Form |
|---|---|
| LT | Low Tension |
| MU | Million Units |
| MYT | Multi Year Tariff |
| NAPS | Narora Atomic Power Station |
| NFA | Net Fixed Assets |
| NHPC | National Hydroelectric Power Corporation |
| NPCIL | Nuclear Power Corporation of India Limited |
| NRS | Non- Residential Supply |
| NTPC | National Thermal Power Corporation |
| O&M | Operation and Maintenance |
| PGCIL | Power Grid Corporation of India Limited |
| PLF | Plant Load Factor |
| PLR | Prime Lending Rate |
| POSOCO | Power System Operation Corporation Limited |
| PPA | Power Purchase Agreement |
| R&M | Repair and Maintenance |
| RAPP | Rajasthan Atomic Power Project |
| REC | Renewable Energy Certificate |
| RLDC | Regional Load Despatch Centre |
| RoE | Return on Equity |
| RPO | Renewable Purchase Obligation |
| SBI PLR | SBI Prime Lending Rate |
| SERC | State Electricity Regulatory Commission |
| SJVNL | Satluj Jal Vidyut Nigam Limited |
| SLDC | State Load Despatch Center |
| SOP | Standard of Performance |
| T&D | Transmission & Distribution Loss |
| THDC | Tehri Hydro Development Corporation Limited |
| TVS | Technical Validation Session |
| UI | Unscheduled Interchange |
| UT | Union Territory |
| WART | Weighted Average Retail Tariff |

## Before the

## Joint Electricity Regulatory Commission

## For the State of Goa and Union Territories, Gurugram

**QUORUM**

**Sh. M. K. Goel, Chairperson**

**Petition No. 40/2020**

**In the matter of**

Approval for the True-up of the FY 2019-20, Annual Performance Review for the FY 2020-21, Aggregate Revenue Requirement (ARR) and retail tariff for the FY 2021-22.

**And in the matter of**

Electricity Wing of Engineering Department, Chandigarh (EWEDC)....................................................**Petitioner**

## ORDER

Dated: 30th March 2021

1) This Order is passed in respect of a Petition filed by the Electricity Wing of Engineering Department, Chandigarh (EWEDC) for approval of True-up of the FY 2019-20, Annual Performance Review for the FY 2020-21, Aggregate Revenue Requirement (ARR) and retail tariff for the FY 2021-22 before the Joint Electricity Regulatory Commission (hereinafter referred to as “The Commission” or “JERC”).

2) The Commission scrutinized the said Petition and generally found it in order. The Commission admitted the Petition on 20th January 2021. The Commission thereafter requisitioned further information/ clarifications on the data gaps observed to take a prudent view of the said Petition. The Commission also held a Technical Validation Session to determine sufficiency of data and the veracity of the information submitted. Further, suggestions/comments/views and objections were invited from the Stakeholders and Electricity Consumers. Further, due to the COVID-19 pandemic that had adversely impacted the movement of people as per the guidelines of GoI which had suggested avoiding of travel and gathering of people as far as possible, the Commission had decided to conduct the Public Hearing virtually. The virtual Public Hearing was held on 12th February 2021 and all the Stakeholders/Electricity Consumers present in the Public Hearing were heard.

3) In order to mitigate the hardship of Electricity Consumers and DISCOMs/EDs in view of nationwide lockdown due to COVID-19, the Commission had issued SUO MOTU ORDER NO. JERC/LEGAL/SMP/27/2020 on 10th April 2020 wherein the Commission provided relief to industrial and commercial consumers and acknowledged the need for additional working capital requirement by the Distribution Licensees. Further, the Commission viewed that the lockdown will also impact certain other parameters of ARR like sales/sales mix, power purchase quantum and cost and revenue. The Commission opined that it will consider all such additional costs and variations in parameters appropriately while evaluating the APR of FY 2020-21 and thereafter in True-up of FY 2020-21. Accordingly, the Commission has considered the impact of lower sales, rebate received in power purchase cost and some other parameters due to COVID 19 as part of APR for FY 2020-21. Further, the Commission will consider the actual impact of COVID 19 on various parameters of ARR while carrying out the truing up for FY 2020-21.



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4) The Commission based on the Petitioner's submission, relevant MYT Regulations, facts of the matter, rules and provisions of the Electricity Act, 2003 and after proper due diligence and prudence check, has approved the True-up of FY 2019-20, APR of FY 2020-21 and ARR along with the Retail Tariff for FY 2021-22.

5) A summary has been provided as follows:

(a) The following table provides ARR, Revenue and gap as submitted by the Petitioner and approved by the Commission in the True-up of FY 2019-20:

**Table 1: Standalone Revenue Gap/ (Surplus) approved for FY 2019-20 (In INR Cr)**

| S. No | Particulars | Petitioner's Submission | Trued-up by Commission |
|---|---|---|---|
| 1 | Net Revenue Requirement | 817.27 | 794.53 |
| 2 | Revenue from Retail Sales at Existing Tariff | 841.96 | 841.96 |
| 3 | FPPCA Charges | -0.32 | -0.32 |
| 4 | Regulatory Surcharge | 9.91 | 9.91 |
| **5** | **Total Revenue** | **851.54** | **851.54** |
| | **Net Gap /(Surplus)** | **(34.27)** | **(57.02)** |

(b) The following table provides ARR, Revenue and gap/surplus as submitted by the Petitioner and approved by the Commission in the APR of FY 2020-21:

**Table 2: Standalone Revenue Gap/ (Surplus) approved for FY 2020-21 (In INR Cr)**

| S. No | Particulars | Petitioner's Submission | Now Approved by Commission |
|---|---|---|---|
| 1 | Annual Revenue Requirement | 910.95 | 773.83 |
| 2 | Revenue from sale of power at existing tariff | 930.57 | 830.69 |
| 3 | FPPCA | 1.15 | 1.15 |
| 4 | Regulatory Surcharge | 0.01 | 0.00 |
| | **Revenue Gap/(Surplus)** | **(20.78)** | **(58.01)** |

(c) The following table provides ARR, Revenue and gap/surplus as submitted by the Petitioner and as approved by the Commission:

**Table 3: Standalone Revenue Gap/ (Surplus) approved for FY 2021-22 (In INR Cr)**

| S. No | Particulars | Petitioners submission | Approved by Commission |
|---|---|---|---|
| 1 | Annual Revenue Requirement | 965.34 | 842.23 |
| 2 | Revenue from sale of power at Approved Tariff | 950.02 | 850.35 |
| | **Revenue Gap/(Surplus)** | **(15.32)** | **(8.12)** |

(d) Accordingly, the following table provides the cumulative revenue gap/ surplus at approved tariff by the end of FY 2021-22:

**Table 4: Cumulative Revenue Gap/ (Surplus) approved by Commission (In INR Cr)**

| S. No. | Particulars | Formulae | FY 2019-20 | FY 2020-21 | FY 2021-22 |
|---|---|---|---|---|---|
| a | Opening Gap /(Surplus) | | (83.87) | (151.62) | (225.43) |
| b | Add: Gap/(Surplus) | | (57.02) | (58.01) | (8.12) |
| c | Closing Gap /(Surplus) | (c=a+b) | (140.89) | (209.63) | (233.55) |
| d | Average Gap/ (Surplus) | (d=(a+c)/2) | (112.38) | (180.63) | (229.49) |
| e | Interest Rate on carrying cost (% ,e) | | 9.55% | 8.75% | 8.00% |
| f | Carrying Cost | (f=d*e) | (10.73) | (15.80) | (18.36) |
| **g** | **Final Closing Gap/ (Surplus)** | **(c+f)** | **(151.62)** | **(225.43)** | **(251.91)** |

(e) The Commission observes that the Petitioner had a standalone revenue surplus in each year from FY 2016-17 to FY 2019-20. Further, it is observed that the projected standalone surplus for FY 2021-22 and cumulative revenue surplus till FY 2021-22 at existing tariff is expected to be INR 98.21 Cr and INR 345.61 Cr respectively even after discontinuing the Regulatory Surcharge w.e.f. May 2019 and FPPCA w.e.f. June 2020.

(f) In view of the same, the Commission approves a reduction in the retail tariff for existing categories which works out to be 9.58%. Even after a reduction in average tariff the projected standalone revenue surplus at the end of FY 2021-22 is expected to be INR 8.12 Cr.

(g) The Commission has approved the Average Billing Rate (ABR) of INR 5.10/kWh against the approved Average Cost of Supply (ACoS) of INR 5.05/kWh for the FY 2021-22.

(h) On account of revenue surplus in FY 2021-22, the Petitioner is hereby directed to discontinue recovery of FPPCA from all consumer categories starting from 1st April 2021 onwards till further orders of the Commission. The Petitioner is, however, directed to submit the quarterly FPPCA calculation to the Commission for review.

(i) This Order shall come into force with effect from 1st April 2021 and shall, unless amended or revoked, continue to be in force till further orders of the Commission.

6) The licensee shall publish the Tariff Schedule and salient features of Tariff as determined by the Commission in this Order within one week of receipt of the Order in three daily newspapers in the respective local languages of the region, besides English, having wide circulation in their respective areas of supply and also upload the Tariff Order on its website.

7) Ordered accordingly, the attached documents giving detailed reasons, grounds and conditions are the integral part of this Order.

sd/-

**(M.K. Goel)**

**Chairperson**

Place: Gurugram
Date: 30th March 2021

**Certified Copy**

RKumar

**(Rakesh Kumar)**
**Secretary**

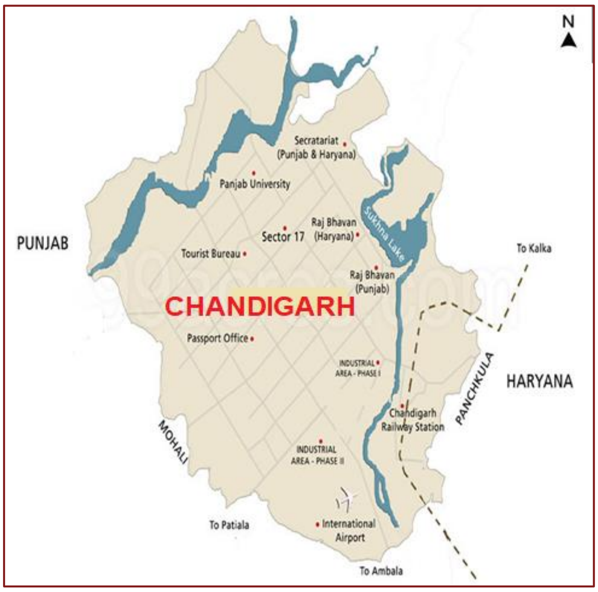
# 1. Chapter 1: Introduction

## 1.1. About Joint Electricity Regulatory Commission for the State of Goa and UT's (JERC)

In exercise of powers conferred by the Electricity Act 2003, the Central Government constituted a Joint Electricity Regulatory Commission for all the Union Territories except Delhi to be known as the "Joint Electricity Regulatory Commission for the Union Territories" vide notification no. 23/52/2003-R&R dated 2$^{nd}$ May 2005. Later with the joining of the State of Goa, the Commission came to be known as "Joint Electricity Regulatory Commission for the State of Goa and Union Territories" (hereinafter referred to as "the JERC" or "the Commission") vide notification no. 23/52/2003-R&R (Vol. II) dated 30$^{th}$ May 2008.

JERC is a statutory body responsible for regulation of the Power Sector in the State of Goa and the Union Territories of Andaman & Nicobar Islands, Lakshadweep, Chandigarh, Dadra & Nagar Haveli and Daman & Diu and Puducherry, consisting of generation, transmission, distribution, trading and use of electricity. Its primary objective includes taking measures conducive to the development of the electricity industry, promoting competition therein, protecting interest of consumers and ensuring supply of electricity to all areas.

## 1.2. About Union Territory of Chandigarh




Chandigarh is a city, district and union territory in India that serves as the capital of the two neighbouring states of Punjab and Haryana. It is bordered by the state of Punjab to the north, the west and the south, and by the state of Haryana to the east. The city is unique as it is not a part of either of the two states but is governed directly by the Union Government, which administers all such territories in the country. Chandigarh is located near the foothills of the Shivalik range of the Himalayas in northwest India. It covers an area of approximately 114 km$^2$. The metropolitan area of Chandigarh–Mohali–Panchkula collectively forms a Tri-city, with a combined population of over 1,611,770.

Chandigarh has been rated as one of the "Wealthiest Towns" of India. The city has one of the highest per capita incomes in the country. The city was reported to be one of the cleanest in India based on a national government study. The union territory also heads the list of Indian states and territories according to Human Development Index. In 2020, a survey ranked it among the top 3 happiest cities in India over the happiness index.

## 1.3. About Electricity Wing of Engineering Department, Chandigarh (EWEDC)

The Electricity Wing of Engineering Department of UT Administration of Chandigarh, hereinafter referred to as 'EWEDC' or as the 'Petitioner', a deemed licensee under Section 14 of the Electricity Act 2003, is carrying out the business of transmission, distribution and retail supply of electricity in Chandigarh (UT). EWEDC is functioning as an integrated distribution licensee of the Union Territory of Chandigarh. EWEDC procures most of its power through its allocation from Central Generating Stations (CGS) such as NTPC, NHPC, NPCIL BBMB, SJVNL and THDC. The EWEDC also buys short-term power for meeting the demand-supply shortfall during peak hours.

Chandigarh has been divided into various sectors and all the sectors of Chandigarh are electrified and any desiring consumer can avail power supply by submitting a requisition in the prescribed form to the appropriate office of the Department subject to fulfillment of the requisite conditions and payment of charges. The EWEDC is under the control of the Administration of the Union Territory of Chandigarh.

## 1.4. Multi Year Tariff Regulations, 2018

The Commission notified the Joint Electricity Regulatory Commission for the State of Goa and Union Territories (Generation, Transmission and Distribution Multi Year Tariff) Regulations, 2018 (hereinafter referred to as 'MYT Regulations, 2018') on 10$^{th}$ August 2018. These Regulations are applicable in the 2$^{nd}$ MYT Control Period comprising of three financial years from FY 2019-20 to FY 2021-22. These Regulations are applicable to all the generation companies, transmission and distribution licensees in the State of Goa and Union Territories of Andaman & Nicobar Islands, Lakshadweep, Chandigarh, Dadra & Nagar Haveli and Daman & Diu and Puducherry.

## 1.5. Filing and Admission of the Present Petition

As per Clause 9.1 of the JERC MYT Regulations, 2018, the Petitioner is required to file for approval of the Commission, the application for approval of Aggregate Revenue Requirement and tariff proposal for FY 2021-22.

The Petitioner has submitted the current Petition for approval of True-up of the FY 2019-20, Annual Performance Review for the FY 2020-21, Aggregate Revenue Requirement (ARR) and retail tariff for the FY 2021-22 vide letter no. SEE/OP/C1/2021/210/372019/210/2311 dated 12$^{th}$ January 2021.

After initial scrutiny/analysis, the Petition was admitted on 20$^{th}$ January 2021 and was marked as Petition no. 40/2020

## 1.6. Interaction with the Petitioner

A preliminary scrutiny/analysis of the Petition was conducted, and certain deficiencies were observed. Accordingly, discrepancy notes were issued to the Petitioner. Further, additional information/clarifications were solicited from the Petitioner as and when required. The Commission and the Petitioner also discussed various concerns of the Petitioner and key data gaps, which included retail sales, revenue from retail tariff, capitalisation, tariff proposal etc. The Petitioner submitted its response on the issues through various letters/emails.

The Commission conducted the Technical Validation session (TVS) with the Petitioner at the Commission's office in Gurugram, during which the discrepancies in the Petition were conveyed and additional information required by the Commission was sought. Subsequently, the Petitioner submitted replies to the issues raised in this session and provided documentary evidence to substantiate its claims regarding various submissions. The following table provides the list of interactions with the Petitioner along with the dates:

**Table 1: List of interactions with the Petitioner**

| S. No | Subject | Date |
|---|---|---|
| 1 | Issue of First Discrepancy Note | 22$^{nd}$ January 2021 |
| 2 | Reply received from Petitioner | 5$^{th}$ February 2021 |
| 3 | Technical Validation Session | 8$^{th}$ February 2021 |
| 4 | Issue of 2$^{nd}$ Discrepancy Note | 9$^{th}$ February 2021 |
| 5 | Public hearing | 12$^{th}$ February 2021 |
| 6 | Reply received from Petitioner | 17$^{th}$ February 2021 |

The Order has referred at numerous places to various actions taken by the "Commission." It may be mentioned for the sake of clarity that the term "Commission," except for the Hearing and Orders, denotes the Secretariat of the Commission responsible for carrying out technical due diligence and validation of data of the Petitions filed by the utilities, obtaining and analysing information/clarifications received from the utilities, and submitting relevant issues for consideration of the Commission.

## 1.7. Notice for Public Hearing

Public notices were published by the Petitioner for inviting objections/ suggestions from stakeholders on the Tariff Petition with details as shown in the table as follows:

**Table 5: Details of Public Notices published by the Petitioner**

| S.No. | Date | Name of Newspaper | Language | Place of Circulation |
|---|---|---|---|---|
| 1 | 28th January 2021 | Ajit | Punjabi | Chandigarh |
| 2 | 28th January 2021 | Dainik Jagran | Hindi | Chandigarh |
| 3 | 28th January 2021 | Indian Express | English | Chandigarh |
| 4 | 28th January 2021 | Times of India | English | Chandigarh |

The Commission also published Public Notices in the leading newspapers for inviting objections/ suggestions on the tariff petition filed by EWEDC as tabled below, giving due intimation to the stakeholders, consumers and the public at large about the Public Hearing conducted by the Commission on 12th February 2021 from 11 AM onwards through video conferencing. These notices and Petition were also uploaded on the Commission's website.

**Table 6: Details of Public Notices published by the Commission**

| S.No. | Date | Name of Newspaper | Language | Place of Circulation |
|---|---|---|---|---|
| 1 | 21st January 2021 | Ajit | Punjabi | Chandigarh |
| 2 | | Dainik Jagran | Hindi | Chandigarh |
| 3 | | The Tribune | English | Chandigarh |
| 4 | | Hindustan Times | English | Chandigarh |
| 5 | 8th February 2021 | Ajit | Punjabi | Chandigarh |
| 6 | | Dainik Jagran | Hindi | Chandigarh |
| 7 | | The Tribune | English | Chandigarh |
| 8 | | Hindustan Times | English | Chandigarh |

## 1.8. Public Hearing

The COVID-19 pandemic has adversely impacted the movement of people as per the guidelines of GoI. These guidelines have also suggested avoiding of travel and gathering of people as far as possible. In view of the above, the physical conduct of proceedings by the Commission was not possible. So, The Commission deemed it is necessary to provide an access to all the stakeholders by conducting proceedings remotely, by the use of audio and video enabled hearings in the matters of Petition submitted by the Petitioner. Therefore, the Commission decided that the comments/suggestions of the stakeholders need to be heard virtually through video conferencing for seeking their opinion.

Accordingly, the Virtual Public Hearing was held on 12th February 2021 from 11 AM to discuss the issues, if any, related to the Petition filed by the Petitioner. The issues and concerns raised by the stakeholders in writing and as voiced by them during the Public Hearing have been examined by the Commission. The names of the stakeholders who attended the Public Hearing are provided in Annexure-I. The major issues discussed, the responses of the Petitioner thereon and the views of the Commission have been summarized in Chapter 2 of this Order.

# 2. Chapter 2: Public Hearing

## 2.1. Regulatory Process

On admitting the Petition, the Commission directed the Petitioner to make copies of the Petition available to the public, upload the Petition on the website and also publish the same in the newspapers in an abridged form in the given format duly inviting comments/objections from the public as per the provisions of the MYT Regulations, 2018.

The COVID-19 pandemic has adversely impacted the movement of people as per the guidelines of GoI. These guidelines have also suggested avoiding of travel and gathering of people as far as possible. In view of the above, the physical conduct of proceedings by the Commission was not possible. So, The Commission deemed it is necessary to provide an access to all the stakeholders by conducting proceedings remotely, by the use of audio and video enabled hearings in the matters of Petition submitted by the Petitioner. Therefore, the Commission decided that the comments/suggestions of the stakeholders need to be heard virtually through video conferencing for seeking their opinion.

Accordingly, the Virtual Public Hearing was held on 12$^{th}$ February 2021 from 11 AM to discuss the issues, if any, related to the Petition filed by the Petitioner. The issues and concerns raised by the stakeholders in writing and as voiced by them during the Public Hearing have been examined by the Commission. The names of the stakeholders who attended the Public Hearing are provided in Annexure-I.

## 2.2. Suggestions/ Objections, Response of the Petitioner and Commission's Views

The Commission is appreciative of the efforts of various stakeholders in providing their suggestions/comments/observations to make the Electricity Distribution Sector responsive and efficient. The Commission has noted the concerns of all the stakeholders and has tried to address them to the extent possible in the Chapters on tariff design and directives. Relevant observations have been suitably considered by the Commission while finalizing the Tariff Order. The submissions of the stakeholders, response of the Petitioner and views of the Commission are summarized as follows:

### 2.2.1. Non-compliance of SOP regulation

#### Stakeholder's Comment:

As per JERC SOP for distribution Licensees Regulation, 2015, services are to be provided in a time bound period. The delay in providing the services effects the renew losses to the utility itself. No road map has been prepared by the petitioner to provide time bound services to the consumers. HT Connections in particular are not being sanctioned for month together. As per timelines mentioned in JERC Supply Code-2018 in case of HT service connections demand note is required to be issued within a period of 15 days & within 30 days from the receipt of application the Connection is rewired to be released by the licensee. The Union Territory Electricity Department (UT ED) itself suffer in financial loss of Fixed per KW charges per month due to delay in releasing the connection. Hence it is recommended to direct the petitioner to prepare a road map in order to give time bound service as per Regulations approved by the Commission.

#### Petitioner's Response:

The SOP for distribution Licensees Regulation approved by the Commission for providing the services to the consumers of UT Chandigarh is being complied despite acute shortage of staff.

The new connection releases as per the site conditions and rule & regulations of the department. Further to expedite the release of 11 KV connection a commercial instruction No.95A, dated 27.03.2015 is already issued to all concerned for its meticulous compliance.

### Commission's View:

The concern of the stakeholder is noted. The Petitioner is **directed to submit the date of receipt of applications and date of release of connections for the last three months of FY 2020-21 for HT service connections**.

## *2.2.2. Non-Framing of Instruction- Term & Conditions of supply*

### Stakeholder's Comment:

As per Joint Electricity Regulatory Commission for the State of Goa and UTs (Electricity Supply Code) Regulations, 2018, UT ED is required to frame conditions of supply and all circulars, orders and any other document or communication relating to supply of electricity to consumers to make them consistent with these Regulation as provided under sec.10.11 of Supply code to avoid unnecessary harassment to the innocent consumers. None of the commercial instructions issued by the department is available on its website despite requested many times.

### Petitioner's Response:

The Electricity Wing of Engineering Department is following the various provisions of Supply Code and Tariff Order (in true spirit) issued time to time by the JERC. However, various commercial instructions are already issued for ease of consumer time to time.

### Commission's View:

The Commission has noted the concerns of the Stakeholders and directs the Petitioner to check the circulars/Orders which are not in accordance with Supply Code Regulations, 2018. **Further, the Petitioner is directed to make all the terms and conditions of supply and other commercial instructions available on its website at the earliest.**

## *2.2.3. Manpower Requirement*

### Stakeholder's Comment:

The petitioner has repeatedly failed to comply with the Commission directive and was advised by JERC to take up the matter at the level of Chief Engineer and the Secretary (Power) to convince the competent authority in the interest of consumers. It is understood that the manpower requirement is linked with Privatization of electric supply or corporatization of the department. For transparency, the latest position on the issues is requested

### Petitioner's Response:

Tender for Corporatization of Electricity Wing of Engineering Department has already been opened on 18$^{th}$ February 2021 and is under scrutiny. The scope of work includes the manpower study.

### Commission's View:

The Petitioner is directed to submit the manpower study report within three months of issuance of this order.

### *2.2.4. Non-replacement of electro mechanical meter*

**Stakeholder's Comment:**

The Commission has already given directive to the UT ED in the previous tariff orders to replace the meters in a time bound period and the action plan declared. But the UT ED has not obeyed the directive of the Commission as such suffering huge commercial losses as these meters are not so efficient in recording of energy. The Commission may please take action for non-compliance of its Order and penalize the utility under sec.142 to be read with sec.145 of the EA, 2003.

**Petitioner's Response:**

The replacement of defective or nonfunctional meters is a continuous process. However, every effort is being made to ensure that faulty meters are replaced on priority. At present very few electromechanical meters are existing and same shall be replaced shortly. The EWEDC submits quarterly report on the status of meters to the Commission regularly.

**Commission's View:**

The concern of the stakeholder is noted. The Commission has taken a serious view of the fact that the Petitioner is yet to ensure full compliance and has discussed the same in the chapter on directives. **The Petitioner is directed to ensure that faulty meters are replaced in a timely manner in accordance with the Supply Code Regulations, 2018**.

### *2.2.5. Delay in completion of 66 KV works*

**Stakeholder's Comment:**

66 KV Sub Stations in village Raipur Kalan and Village Sarangpur were constructed & completed by UT ED about 8 years ago with the funds approved by JERC but the stations are not in use as the 66 KV line to feed substations are yet to be laid. The warranty clause for machinery given by the manufacturer worth about 15-20 crores might have already been expired due to the lapses on the part of Engineers of the department of the SMART CITY for poor planning.

**Petitioner's Response:**

The work of laying of Double circuit of 66KV Transmission line and of line bays for 66KV Grid S/Stn. Vill. Sarangpur has already been given to M/s Hartek Power Ltd. The work is under progress and is likely to be completed in FY 2020-21. M/s RECPDCL had already been appointed as Project Management Agency (PMA) for execution of 66 KV Transmission line along with 66KV bay at Grid S/Stn. Raipur Kalan, but the matter is subjudice regarding construction of 66KV S/Stn. and next date of hearing is 28.06.2021.

**Commission's View:**

The Stakeholder may note the reply of the Petitioner. The Petitioner is directed to expedite the matter so that the work can be completed as early as possible. **The Commission also directs the Petitioner to submit the status report within 3 months of issuance of this Order.**

### *2.2.6. Domestic Supply (DS-LT & DS-HT)*

**Stakeholder's Comment:**

Previously for the period from CED came under the jurisdiction of the JERC to the financial year ending March 2020, for all the Private Educational Institutions recognized by the UT Administration, the electricity tariff was under domestic tariff supply, however w.e.f 01.04.2020 Non-Residential Supply (NRS) tariff is being charged as per tariff order dated 19.5.2020 approved by the JERC.

These educational institutions are providing the same service as given by the Govt. Institutions so charging under in different category in not justified for the same type of services. Providing education to the student does not come under commercial activity. Provision of Electricity Act-2003 Sec 62 (3) dealing for determination of tariff is as under:

*"The Appropriate Commission shall not, while determining the tariff under this Act, show undue preference to any consumer of electricity but may differentiate according to the consumer's 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."*

Hence Commission should not show any preference for DS tariff in case of Govt recognized Educational institutions & NRS for private recognized Educational Institutions as provided in this Act. As such DS category of tariff should also be sanctioned for private Educational Institution already recognized by UT Administration as per practice available in UTED before 31.3.2020.

### Petitioner's Response:

No Comments, as the matter comes under the purview of the Commission.

### Commission's View:

In this regard, the Stakeholder may refer to the Chapter 10- Applicability of tariff schedule in the Tariff Order for FY 2020-21.

## *2.2.7. Meter Reading Cards/ Passbook (New/ Replacement)*

### Stakeholder's Comment:

What is the need of getting approval for Meter Reading Cards/ Passbook from the commission when no such document has ever been provided by the CED to its consumer? Also, it is a mandatory requirement under the Electricity Act/Supply code as well as ISS. Hence it is requested that while approving such rates, directions may be given to the CED to provide such documents at the premises of each consumer so that the reading taken by the meter readers may be verified by the consumer & in case wrong reading is taken by him, it may be reported by the consumer to the concerned office before the issue of bill in order to minimize the wrong billing complaints. So far as we remember that the JERC had given some directions in the past on this issue but no action is made known to the public.

### Petitioner's Response:

The installation of smart meters having facility of Pre-paid metering is under progress. After installation of Smart meters, the Meter Reading Passbook may not be needed.

### Commission's View:

The Stakeholder may note the reply of the Petitioner. **The Petitioner is directed to expedite the installation of smart meters and submit monthly compliance report to the Commission for monitoring.**

## 2.2.8. *Meter Rentals*

### Stakeholder's Comment:

Cost of per unit single phase meter purchased by UTED during FY 2019-20 is ranging from Rs.260/- to Rs.540/- only. The proposed rental of Rs.20/- per month is very high as provided in this Petition. Keeping in view the total life of meter, per unit rental may be minimized by the commission. Similarly, for other type of meters.

### Petitioner's Response:

No Comments, as the matter comes under the purview of the Commission.

### Commission's View:

This matter relates to the revision of Supply Code and shall be dealt at the time of revision of Supply Code Regulations, 2018. Further, it is for information that the Consumer has an option to purchase his own meter.

## 2.2.9. *Charges recoverable from the consumer when meter is found damaged/burnt owing to the negligence or default on the part of consumer*

### Stakeholder's Comment:

The charges for damaged & burnt meter should be fixed after deduction of depreciation for the used life/period on initial cost. When initial cost of meter is Rs.260-540/- , charging a consumer Rs.700/- for single phase meter is unfair. Hence cost of recovery should be taken after taking into account the credit of its depreciation.

### Petitioner's Response:

The cost of single-phase meter may differ from manufacturer to manufacturer. The approval of charges for replacement of burnt/damaged meter comes under the purview of the Commission.

### Commission's View:

The Commission notes the suggestion and **directs the Petitioner to submit the detailed report of prices charged for single phase meter by different manufacturers.**

## 2.2.10. *Demand Notice extension period*

### Stakeholder's Comment:

The Note provided in Table 152 (Schedule of Other Charges) of the Tariff Order for FY 2020-21 is reproduced as under:

Demand notice shall be valid for 3 months, initially with the extended/grace period of further 3 months. After the expiry of grace/extended period of 3 months, the application shall be deemed as cancelled. Revival fee for cancelled application shall be twice the demand notice extension fee as prescribed above and will be done by load sanctioning authority for maximum for another six months only in the block of three months each. After expiry of demand notice (including grace period) 10% security shall be forfeited.

As per Supply code-2018 under sec 5.48 as produced under:

*"The demand note shall be prepared as per the provisions of this Supply Code, 2018 and on the basis of charges specified by the Licensee with the prior approval of the Commission from time to time. The Licensee shall submit a proposal to the Commission along with the Tariff Petition for approval of various charges to be charged by the Licensee in demand notes. The demand note, once made for an applicant, shall be valid for two months."*

As per Supply Code-2018; Sec 5.49 the validity of demand note is two months then why three months is mentioned in the Tariff Petition. Either of these periods should be amended by the Commission & further opportunity to the consumer for extension of demand notice should be given for maximum of 12 months (4 quarter of 3 month each) from the expiry of demand notice. After 12 months it should be lapsed & application should be cancelled subject to the notice served to the consumer for its cancellation by the demand notice issuing authority & further revival fee of cancelled application as proposed in the petition should be charged and its revival sanctioning authority should be next higher authority who issued the initial demand notice. The forfeiture of 10% security after the expiry of demand notice (including the grace period) as provided by the Petitioner in the instant Petition neither exists under Electricity Act or in the Supply code. As per Electricity Act under sec 47 (4) interest equivalent to the bank rate or more as may be specified by the Commission**.**

### Petitioner's Response:

It is submitted that the validity period of three months for Demand Notice is approved by the Commission in Tariff Orders.

However, the forfeiture of 10% security after the expiry of Demand Notice (including the Grace Period) has been proposed in the petition and approval of the same comes under the purview of the Commission.

### Commission's View:

The Commission notes the suggestion and the Stakeholder may note the reply of the Petitioner. This matter has been addressed in Chapter 10 of this Tariff Order.

## *2.2.11. Rates for Security Deposit for New/Extension in load*

### Stakeholder's Comment:

A lump sum amount per kW or KVA is suggested to be approved as per past approved tariff order prior to 2019 in place of security under clause 5.130 to 5.134 as there is an error in calculations of units due to provision of 24 hours in the existing formula as per Annexure XVIII for Delimitation of Security Deposit amount provide in the Supply code-2018. We have already requested the JERC for its amendment & the same is still pending.

It is therefore prayed that Nominal amount of security rates may be approved as provided in the many previously approved ARR instead of as provided in Supply code -2018.These nominal amounts are subject to revision in the start of every financial year on the basis of bimonthly bill during the previous year of a consumer as per prevailing practice. Further no security should be charged on change of name of connection applied by the legal heir on the death of existing consumer. This practice of not recovering of any security amount from the legal heir/blood relation in case the load is same was already available in UTED before coming under the jurisdiction of JERC.

### Petitioner's Response:

No comments, as the matter relates to Supply Code and necessary amendments come under the purview of the Commission.

### Commission's View:

The Commission has noted the suggestions of the Stakeholders. This matter relates to the revision of Supply Code and shall be dealt at the time of revision of Supply Code Regulations, 2018.

## *2.2.12. Schedule of Service Connection Charges Para 6.4 of petition*

### Stakeholder's Comment:

Para 5.10 of Supply Code-2018 which is reproduce as under:

*"In all cases of new connections, the consumer shall bear the Service Connection Charges, that is the cost of service (cable) connection from the Distribution Mains to the point of supply, as approved by the Commission from time to time."*

The ready reckoner for calculation of estimated cost for service to be provided for release of connection has not been approved from the JERC by UT ED till date. Moreover, service cable up to 30 meters is to be laid free of cost as per Electricity Act.

In the tariff order for year 2020-21 of UT dated 19.5.2020 on petition No.17/2019, in item No.9.5 it is clearly mentioned at page 144 that Service connection charges are not to be recovered from all prospective consumers and existing consumers seeking extension of load are payable by consumers who have got the work executed at their own expense.

In the current petition under item No.6.4 Schedule of Service Connection Charges & Service rental UT ED has not been specifically mentioned about the charges to be deposited in case consumer opt to provide his own service from his own finances. So, this point may kindly be taken into account & should clearly be mentioned in the tariff order as done in the orders dated 19.5.2020 on petition No.17/2019.

### Petitioner's Response:

The necessary provisions have already been made in the relevant Para such as 6.4 B (b), 6.4 C (b) of this Tariff Petition.

### Commission's View:

The Stakeholder may note the reply of the Petitioner. This matter has been addressed in Chapter 10 of this Tariff Order.

## *2.2.13. Para 5.49 of Supply code-2018*

### Stakeholder's Comment:

The rates & GST for the material required to lay the service is the same throughout in our country. So, the charges for the service cable required for releasing connection should also be same for all UTs under the jurisdiction of JERC. So, it is kindly prayed that very high/different rate for CED may not be approved as proposed in this tariff proposal.

Para 5.49 of Supply code-2018 are re-produced as under:

*"The demand note shall be prepared as per the provisions of this Supply Code, 2018 and on the basis of charges specified by the Licensee with the prior approval of the Commission from time to time. The Licensee shall submit a proposal to the Commission along with the Tariff Petition for approval of various charges to be charged by the Licensee in demand notes.' The demand note, once made for an applicant, shall be valid for two months"*

No Compliance of directives of Supply Code made by UTED in this tariff plan. Hence directions to comply the directive given by the JERC may be given to the UTED while approving the current petition in the best interest of the consumers of this smart city of Chandigarh

### Petitioner's Response:

The necessary provisions have already been made under relevant Para 6.3(Q) Miscellaneous & General Charges of Tariff Petition.

### Commission's View:

The Stakeholder may note the reply of the Petitioner. This matter has been addressed in Chapter 10 of this tariff order.

## *2.2.14. Management Information System:*

### Stakeholder's Comment:

UT ED has devised a new format for billing. In this format date of payment of amount with prompt payment rebate is missing although it was desired by JERC to be mentioned on each bill. Further computerization of office records like posting of applications for new connection/ extension/ reduction/ shifting of connection & further completion of such job is yet to be done by UTED. If such record is also computerized, the efficiency of the department can be checked for the service provided to the consumers.

### Petitioner's Response:

The suggestion has been noted. However, it is intimated that the EWEDC is giving the prompt payment rebate as per Clause No. 9 of Chapter 10.3 of Tariff order approved by the Commission.

Further, the Smart Grid project is in pipe line which shall enable the online system of various activities.

### Commission's View:

The Commission notes the suggestion. **The Petitioner is directed to timely submit the progress reports of the Smart Grid Project on quarterly basis.**

## *2.2.15. Metering/replacement of non functional defective 11 KV meter*

### Stakeholder's Comment:

UT ED is still in the initial tendering process for Installation of Device Language Message Specification (DLMS) meters at the end of the year.

### Petitioner's Response:

The tender for Installation DLMS meters for energy audit in Electricity Wing of Engineering Department UT, Chandigarh (EWEDC) was floated but due to lack of participation, opening date was extended several times. In the meantime, it came to notice that these DLMS were not compatible with the latest technology of Smart Grid Project. No action is being taken so far. It is further mentioned that the smart grid project is under progress wherein, the smart meters to be installed at the feeder and DT level also which shall enable the Energy Audit.

### Commission's View:

**The Petitioner is directed to expedite the process for replacing the non-functional/defective meters and submit a quarterly status report to the Commission.**

## *2.2.16. Energy Audit*

### Stakeholder's Comment:

In this case UT ED has stated that audited report was submitted to the Commission in the month of Nov/2020. Although Detailed Notice Inviting Tender (DNIT) for work of providing DLMS Energy Audit Meter amounting to Rs.81,97,100/- was approved by the Commission in the month of Jan.19 but UTED failed to get the work done till date. The inability to get the work done should be taken seriously by the commission in the interest of consumers.

### Petitioner's Response:

The tender for Installation DLMS meters for energy audit in Electricity Wing of Engineering Department UT, Chandigarh (EWEDC) was floated but due to lack of participation, opening date was extended several times. In the meantime, it came to notice that these DLMS were not compatible with the latest technology of Smart Grid Project. No action is being taken so far. It is further mentioned that the smart grid project is under progress wherein, the smart meters to be installed at the feeder and DT level also which shall enable the Energy Audit.

### Commission's View:

The Commission has noted with serious concern that the Petitioner is yet to submit the Energy Audit Reports for previous years despite repeated directions. The Commission directs the Petitioner to expedite the process and complete the Annual Energy Audit of the UT on priority.

## *2.2.17. Assets created from consumer contribution*

### Stakeholder's Comment:

The progress on this directive is unsatisfactory. Hence action as deem fit may be taken by the JERC.

### Petitioner's Response:

All assets created from the consumer contribution are under compilation and same shall be submitted accordingly.

### Commission's View:

The Commission notes the suggestions of the stakeholders. The Petitioner, despite repeated directions has failed to submit the desired information. Every year the Petitioner submits that the compilation of information is in process. **The Petitioner in this regard is hereby directed to submit the desired information positively along with the next Tariff Petition** otherwise the Commission will consider the value based on certain assumptions which will have financial repercussions on the Petitioner's ARR.

## *2.2.18. Operational Safety and policy for accidents and compensation*

### Stakeholder's Comment:

Some of the technical staff working in operation and maintenance in distribution systems in UTED are not having basic technical qualification as provided in Chapter II of CEA's Regulation for Measures relating to Safety and Electricity Supply Line notified 20.9.2010 under Para 7:

"*(1) Engineers or supervisors engaged in operation and maintenance of transmission and distribution systems shall hold diploma in Electrical, mechanical, electronics and instrumentation engineering from the recognized Institution University.*
*(2) The Technicians to assist engineers or supervisors shall possess a certificate i appropriate trade, preferably with two years course from an Industrial Training Institute recognized by the Central Govt or state Govt.*
*(3) Engineers, Supervisors and technicians engaged in operation and maintenance of transmission and distribution systems electric plants should have successfully undergone the type of training as specified under Schedule II"*

Hence, in the best interest of the department each such worker not having requisite basic technical qualifications should be given refresher technical course/training from the technical institutes for getting award of requisite certificate to comply with the technical qualification as per clause -7 of this Regulation of CEA.
Though practical training has been imparted /being arranged by UTED through nearby Pb/Hr electricity boards but nothing is done to improve their technical qualification for compliance of CEA regulation.

### Petitioner's Response:

The officials of EWEDC are sent for training as and when required. The year wise training imparted to EWEDC employees is as under:

| Venue of Training | Quantity/ Designation of the official attended training | Schedule of Training |
|---|---|---|
| HPPN Power Training Institute, HPTI Complex, Panchkula | 25 Nos. ALM | 15.02.2018 to 13.03.2018 |
| | 24 Nos. ALM | 09.04.2018 to 26.04.2018 |
| PSPCL, Patiala | 20 Nos. JE | 11.03.2019 to 05.04.2019 |
| | 20 Nos. LM | 26.02.2020 |

### Commission's View:

The Commission notes the suggestions of the stakeholders and directs the Petitioner to ensure suitable training to all officials as per CEA norms. **Further, the Petitioner is directed to submit the training plan for the department employees for FY 2021-22 within three months of issuance of this Order.**

## *2.2.19. Monthly Billing for Domestic and NRS category of Connection*

### Stakeholder's Comment:

Supply code Regulation 7.1 is reproduced as under-

*"7.1 Tariff and charges for supply of electricity shall be determined by the Commission from time to time. The Licensee shall intimate the consumer, in the beginning of the financial year, the following:*
*(1) Billing cycle, which shall be monthly for all categories of consumers except agricultural consumers, i.e., pump set connections, in which case, depending upon the local conditions, the Licensee shall specify the billing cycle separately with the approval of the Commission.*
*In case of consumers with LT single phase supply, if the Licensee experiences difficulty in monthly billing of such a large number of consumers, it may carry out the billing on bi-monthly basis (i.e., once in two months) with the approval of the Commission. The Commission may consider the difficulties of the Licensee and may approve the billing on bi-monthly basis for a limited time period beyond which the billing cycle shall be on monthly basis."*

Further as per Directive 11 of the Commission in Tariff Order dated 19.05.2020, UTED has not started giving monthly bill stating the reason of conversion of meter reading from bi-monthly to monthly basis due to shortage of staff. The reply of petitioner is not satisfactory. Hence strict action for compliance of the directive is required by the commission.

Due to bimonthly billing consumers are being forced to pay surcharges @ 4% for the total bill if any consumer is missed to pay the bill by due date even for one day only. UTED also come to know after 4 month about the nonpayment. For the speedy recovery of departmental dues monthly billing must be started in the interest of revenue gain of the department & to reduce the defaulting amount. If still commission wants to retain the bimonthly billing surcharge due to late payment should be taken 2% per cycle instead of per month, the interest rate on the principal amount should not be exceeded to the bank rate as presently 24% surcharges are being charged yearly.

### Petitioner's Response:

At present, more than 85% consumers of (Domestic & Commercial) are billed Bi-Monthly. The conversion of meter reading from Bi-Monthly to Monthly basis will lead to various problems as there is acute shortage of staff. Further, the software is also required to be amended for Monthly billing. The work for installation of smart meters under the National Smart Grid Mission (NSGM) is in progress, which will help for Monthly billing of all category of consumers including Domestic and Commercial category also.

### Commission's View:

The Stakeholder may note the reply of the Petitioner. **The Petitioner is directed to expedite the process and submit the progress report within one month of issuance of this order.**

## *2.2.20. Para 6.4 of the Petition*

### Stakeholder's Comment:

This para gives schedule of service connection charges and Service Rentals to be recovered from all perspective consumers and existing consumers seeking extension in load. It does not specify that these charges won't be payable by consumers who have got the works executed at their own expense. The commission was kind enough to introduce this provision in Tariff Order dated 19-05-2020 for FY 2020-21 even though the petition was silent on this issue last year also. Suitable provision may also be made in Tariff Order for 2021-22.

### Petitioner's Response:

The necessary provisions have already been made in the relevant Para such as 6.4 B (b), 6.4 C (b) of the Tariff Petition.

### Commission's View:

The Stakeholder may note the reply of the Petitioner. This matter has been addressed in Chapter 10 of this Tariff Order.

## *2.2.21. Para 5.46 and Para 5.124 of Supply code (Annexure-VIII)*

### Stakeholder's Comment:

This specifies the procedure for determination of connected load while applying for a new connection. The annexure gives the load value to be shown for Geyser, Heater (for cooking and water heating) 1000 Watts, Geyser 2000 watts, AC 1.0 ton 1500 watts, AC 1.5 ton 2250 watts (irrespective of whether the AC is Window type or Split type).
Annexure —I of supply code 2010 gave some different figures. Subsequently, vide Gazette of India Extraordinary notification first Amendment Regulations 2013 (Part III- Section-4) No. 224 dated 27-08-2013, a number of amendments were issued. One of the amendments in regulation 4.13 (3) of the Principal Regulations was to introduce change for calculation of connected load for all categories of consumers. Salient portion of amendment was-

*"If both Air Conditioners and Room Heaters/Geysers are found in the same premises, the load of cooling or heating devices with higher ratings shall be taken into account. However, the load of Geyser, Water heater in Kitchen of Restaurants/Hotels shall be counted with the load of ACs even for summer months"*
This amendment has not been carried out in the new supply code 2018. It is therefore requested that all amendments to regulations issued between 2010 and 2018 be examined critically and required action taken to amend the new supply code accordingly.

### Petitioner's Response:

No Comments, as the matter relates to Supply Code and necessary amendments come under the purview of the Commission.

### Commission's View:

The Commission has noted the suggestions. This matter relates to the revision of Supply Code and shall be dealt at the time of revision of Supply Code Regulations, 2018.

## 2.2.22. Para 5.76 (4), 5.98 & 5.108 (Annexure-1/111)

### Stakeholder's Comment:

These deal with application form to be filled for load enhancement / reduction. Necessity of work completion certificate and test report from Licensed Electrical Contractor (if the consumer's installation has been altered) may be dispensed with in case the consumer wants to decrease/increase the load on self declaration.

### Petitioner's Response:

No comments, as the matter relates to Supply Code and necessary amendments come under the purview of the Commission.

### Commission's View:

The Commission has noted the suggestion. This matter relates to the revision of Supply Code and shall be dealt at the time of revision of Supply Code Regulations, 2018.

## 2.2.23. Monthly Billing for all consumers Except Agriculture Consumers

### Stakeholder's Comment:

As per Commission's Orders, the Licensee was to ensure that monthly billings are implemented in UT. It was also suggested that implementation of monthly billing may be done in a phased manner so that billing of certain number of consumers be shifted to monthly billing cycle every month/quarter. The Licensee was directed to submit the Cost Benefit Analysis of implementing monthly billing in its area of service. The latest position is requested in this regard.

### Petitioner's Response:

At present, more than 85% consumers (Domestic & Commercial) are being billed Bi-Monthly. The conversion of meter reading from Bi-Monthly to Monthly basis will require additional manpower, whereas, there is an acute shortage of manpower as on date. Further, the software is also required to be amended for Monthly billing. However, the work for replacement or existing meters with smart meters is in progress under the Smart Grid Pilot Project, which would facilitate in monthly billing in future.
Further, the RFP for appointment of Project Development and Management Agency (PDMA) for Smart Grid project of PAN City was floated and the bids for appointment of PDMA for this project were received. However, it has been decided to privatize the Electricity Wing of Engineering Department of UT Chandigarh for which

tendering is under progress. Therefore, the decision to take up the Smart Grid Project for PAN city shall be decided subsequently.

### Commission's View:

The Stakeholder may note the reply of the Petitioner. This matter relates to Supply Code and shall be dealt accordingly.

## *2.2.24. Prepaid Electric Meters and Smart Meters*

### Stakeholder's Comment:

The Licensee had allotted the Pilot work for installation of 30,000 Smart meters (having additional facility of prepaid meters) to Sub-Division No -5 in Industrial Area. Work was to be completed within 18 months after award of contract. An update is requested. Conduct of holding regular Public Hearings by the licensee with the consumers as per laid down instructions is very important to apprise the consumers about progress of various projects being undertaken by the licensee. The last public hearing was conducted in February 2020 for benefit of consumers. Holding of public hearing at least once in a quarter is requested.

DPR for installation of Smart Meters worth 350 crore was submitted to Ministry of Power under NSGM. Latest position is requested.

Project for Installation of Smart Meters in PAN City Chandigarh was under investment approval with MHA Govt. of India. An update is requested. The Parliamentary Standing Committee on Home Affairs has also directed the UT Administration to speed up the execution of the Smart Grid Project.

Consumers felt that security deposit should not be taken from consumers opting for Prepaid metering. The licensee was to be submit a proposal to JERC regarding the adequate requirement of security deposit from pre-paid consumers. An update is requested in this regard.

### Petitioner's Response:

**Smart Grid Pilot Project**
Smart Grid Pilot Project is being executed in the area of Electy. OP Sub-Div. No.5, UT Chd. wherein 5480 Nos. Single phase Smart meters have already been installed. Under this project, SCADA Control Room has been established in Sector 18, Chandigarh.

**Smart Grid project of PAN City**
A DPR of Rs.373 Cr. for smart grid project for whole city Chandigarh was submitted to NSGM, Ministry of Power for approval against which an approval of Rs.241 Cr. has been granted for the project.
As per approval granted, the RFP for appointment of Project Development and Management Agency (PDMA) for Smart Grid project of PAN City was floated and the bids for appointment of PDMA for this project were received. However, it has been decided to privatize the Electricity Wing of Engineering Department of UT Chandigarh for which tendering is under progress.
Therefore, the decision to take up the Smart Grid Project for PAN city shall be decided subsequently.
Suggestion has been noted. However, the proposal will be submitted to the Commission with the installation of requisite infrastructure for Pre-paid metering

### Commission's View:

The Stakeholder may note the reply of the Petitioner and the directive given by the Commission regarding the Smart Grid Project.

### *2.2.25. Manpower requirement*

#### Stakeholder's Comment:

Since bids for Privatization of the Electricity Department are in the final stage, it is not known whether the manpower requirements sanctioned by JERC will become null & Void. This is for JERC to decide. As consumers, we would request the Commission to ensure that all pending liabilities of the licensee towards consumers are respected after privatization.

#### Petitioner's Response:

No Comments, as the matter comes under the purview of the Commission.

#### Commission's View:

The Commission appreciates the concern of the stakeholder. The comments of the Commission maybe seen in Chapter 9 of this order.

### *2.2.26. Commissioning of 220 KV/661V substations at Hallo Maira*

#### Stakeholder's Comment:

Latest position on pending Court case and target date for commissioning is requested.

#### Petitioner's Response:

The 220 KV Grid Substation is an ISTS Substation, which is being commissioned under the supervision and ownership of M/s PGCIL, which is an independent agency. As per information gathered from M/s PGCIL, the next date of hearing for court case was on 23.02.2021.

#### Commission's View:

The Stakeholder may note the reply of the Petitioner. **Further, the Petitioner is directed to submit the updates regarding the ongoing and new litigation/ Court cases on regular basis.**

### *2.2.27. Creation of a separate Police Station for investigating Electrical Thefts in Chandigarh*

#### Stakeholder's Comment:

This was being processed by the licensee with the Chandigarh Administration. Latest position is requested.

#### Petitioner's Response:

The suggestion has been noted.

#### Commission's View:

The Commission has noted the suggestion of the stakeholders. However, setting up of new police station comes under the purview of Chandigarh Administration. **Therefore, the Petitioner is directed to assess the need for new police station and take up the matter with the Chandigarh Administration and submit the progress status on quarterly basis.**

### *2.2.28. Energy Audit*

#### Stakeholder's Comment:

EWEDC was not able to undertake the energy audit in UT. Action was in hand to provide Smart Meters on the feeders which would facilitate Energy Audit, Latest position on DNIT for work of providing DLMS Energy Audit (approved in January 2019) is requested.

#### Petitioner's Response:

The tender for installation of DLMS meters for energy audit in Electricity Wing of Engineering Department UT, Chandigarh (EWEDC) was floated but due to lack of participation, opening date was extended several times. In the meantime, it came to notice that these DLMS meters were not compatible with the latest technology of Smart Grid Project. No action is being taken so far.

It is further mention that the smart grid project is under progress wherein, the smart meters to be installed at the feeder and DT level also which shall enable the Energy Audit.

#### Commission's View:

The Commission has noted with serious concern that the Petitioner is yet to submit the Energy Audit Reports for previous years despite repeated directions. **The Commission directs the Petitioner to expedite the process and complete the Annual Energy Audit of the UT on priority.**

### *2.2.29. Implementation of Smart City Schemes*

#### Stakeholder's Comment:

The commission had approved capital Expenditure (50 crores) in Business Plan Order against Smart City Schemes. These schemes were to be implemented after taking proper approval from Chandigarh Administration. An update is requested on this.

#### Petitioner's Response:

The Smart Grid Pilot Project and Smart Grid Project for PAN city have been approved by NSGM, Ministry of Power. The progress of these works has already been given above for "**Prepaid Electric Meters and Smart Meters"**.

#### Commission's View:

The Stakeholder may note the reply of the Petitioner and the directive given by the Commission in this regard.

### *2.2.30. Action Plan for rolling out Time of Day (ToD) Metering*

#### Stakeholder's Comment:

As per EWEDC, TOD metering and few other features are available in Smart Meters. Time bound plan for installation of smart meters must be made by EWEDC to install smart meters at all consumer premises. EWEDC was to further strengthen the DSM Cell and widely publicize the various schemes and initiatives undertaken. The consumers are ignorant of the latest position.

### Petitioner's Response:

Suggestion has been noted. The TOD is an additional feature of smart meter. However, the progress of works for various project for installation of smart meter have already been given above for Pt "**Prepaid Electric Meters and Smart Meters**".

### Commission's View:

The Commission notes the suggestion. The Commission has already been giving the directive in the Tariff Order regarding the same and accordingly, directs the Petitioner to ensure its implementation.

## *2.2.31. Refund of Excess Electricity Duty Charged from Solar Consumers*

### Stakeholder's Comment:

EWEDC is charging ED from date of commissioning on total imported energy. As per Para 6.6.3 of Solar Agreement between the licensee and the consumer, ED is payable only on Net Energy imported from the grid. JERC (vide order date 12-11-2018 on review petition 262/1018) had decided that ED shall be payable on Net Energy imported from the grid. SE Electricity vide Commercial Instruction number 174/2019 dated 15-01-2019 gave directions for meticulous compliance and directed various Ops Sub-Divisional Officers to forward duly audited refund entry details from date of release of Solar Net Metering connections to the billing Agency within a month from 15-01-2019. In bills issued for electricity consumed from 30-07-2019 onwards, ED is been charged on Net imported energy only. Refund from the date of installment with interest may be given to the solar consumers at the earliest.

### Petitioner's Response:

The necessary instruction had already been issued vide CI No. 174/2019 dated 15.01.2019 to all field officers to ensure that duly audited refund entry from the date of release of solar net metering connection of eligible consumers be forwarded to M/s NIELIT (billing agency) to impart the directions of the Commission against the Petition No. 262/2019.

### Commission's View:

The Commission has noted the concern of the stakeholders and **directs the Petitioner to ensure its compliance at the earliest.**

## *2.2.32. Over Charging of Fixed Charges w.e.f. 04-04-2015*

### Stakeholder's Comment:

Various SDOs of Ops Sub-Divisions were sending guidelines for determination of connected load every six months along with the bills. One of the Guidelines was "subject to minimum load of 1 KW, the fraction of load below 500 watts shall be rounded to its nearest lower level of whole number and 500 watts and above shall be rounded to nearest higher level of whole number. This is not being followed from April 2015 onwards (the date from which fixed charges were introduced). Any fraction of load below 500 watts is being rounded to its nearest higher level whole number. The billing agency should be directed to refund amount over charged and sanctioned load fixed accordingly. Supply code and tariff orders are probably silent on this issue. So, the question of adherence to supply code by field officers does not arise. This is applicable to all consumers.

### Petitioner's Response:

The matter relates to Supply Code Regulation and EWEDC follows the Supply Code.

### Commission's View:

The Commission notes the suggestion. This matter relates to the revision of Supply Code and shall be dealt at the time of revision of Supply Code Regulations, 2018.

## *2.2.33. Replacement of faulty single phase meters*

### Stakeholder's Comment:

The licensee was directed to ensure that faulty meters were replaced in a timely manner in accordance with the JERC Supply Code Regulations. An update on availability of single phase meters in sufficient quantity with the licensee for replacement to meet the schedule as laid down is requested.

### Petitioner's Response:

The replacement of defective or Non Functional meters is a continuous process. However, every effort is being made to ensure that faulty meters are replaced on priority.

### Commission's View:

**The Petitioner is directed to ensure the replacement the non-functional/defective meters within the timelines stipulated in Supply Code Regulations, 2018.**

## *2.2.34. Hosting of Specifications for Meter and other Equipment on the Licensee's Website*

### Stakeholder's Comment:

The licensee was directed to publish a notice of all the approved brands of meters along with its specifications on its website which the consumer can purchase from the market. No latest notice seems to have been hosted on the website. The licensee was also to ensure that sufficient meters for replacement of defective meters and issue for new connections are available at all times.

### Petitioner's Response:

Approved make of meters are available on the website of the department.

### Commission's View:

The Stakeholder may note the reply of the Petitioner and the Petitioner is directed to continue to provide the approved make of meters on the website of the department.

# 3. Chapter 3: True-up for the FY 2019-20

## 3.1. Applicable Provisions and Background

The MYT Order for 2nd Control Period was issued by the Commission on 20th May 2019 approving the Aggregate Revenue Requirement (ARR) (hereinafter referred to as 'MYT Order'). Subsequently, the Tariff Order approving True-up of the FY 2018-19, Annual Performance review (APR) of the FY 2019-20 and Aggregate Revenue Requirement (ARR) and determination of retail tariff for the FY 2020-21 was issued on 19th May 2020.

The True up for the FY 2019-20 has to be carried out in accordance to Regulation 11 of the MYT Regulations, 2018, stated as following:

*"11. **Annual Performance Review, Truing-up and tariff determination during the Control Period***

*11.1 The Generating Company, Transmission Licensee and Distribution Licensee shall be subject to annual performance review and truing up of expenses and revenue during the Control Period in accordance with these Regulations.*

*11.2 The Generating Company, Transmission Licensee and Distribution Licensee shall file an application for the annual performance review of the current year, truing up of the previous Year or the Year for which the audited accounts are available and determination of tariff for the ensuing Year on or before 30th November of each Year, in formats specified by the Commission from time to time:*

*Provided that the Generating Company, Transmission Licensee or Distribution Licensee, as the case may be, shall submit to the Commission information in such form as may be specified by the Commission, together with the audited accounts, extracts of books of account and such other details as the Commission may require to assess the reasons for and extent of any variation in financial performance from the approved forecast of Aggregate Revenue Requirement and Expected Revenue from Tariff and Charges.*

*11.3 The scope of the annual performance review, truing up and tariff determination shall be a comparison of the performance of the Generating Company, Transmission Licensee or Distribution Licensee with the approved forecast of Aggregate Revenue Requirement and Expected Revenue from Tariff and Charges and shall comprise of the following:*

*a) **True-up:** a comparison of the audited performance of the Applicant for the Financial Year for which the true up is being carried out with the approved forecast for such previous Financial Year, subject to the prudence check;*

*b) **Annual Performance Review**: a comparison of the revised performance targets of the Applicant for the current Financial Year with the approved forecast in the Tariff Order corresponding to the Control Period for the current Financial Year subject to prudence check;*

*c) **Tariff determination** for the ensuing Year of the Control Period based on the revised forecast of the Aggregate Revenue Requirement for the Year;*

*d) Review of compliance with directives issued by the Commission from time to time;*

*e) Other relevant details, if any.*

*11.4 Upon completion of the exercise, the Commission shall attribute any variations or expected variations in performance for variables specified under Regulation 12below, to factors within the control of the Applicant (controllable factors) or to factors beyond the control of the Applicant (uncontrollable factors):*

*Provided that any variations or expected variations in performance, for variables other than those specified under Regulation 12below shall be attributed entirely to controllable factors.*

*11.5 Upon completion of the exercise, the Commission shall pass an order recording:*

*a) Components of approved cost pertaining to the uncontrollable factors, which were not recovered during the previous Year, to be passed through in tariff as per Regulation 13 of these Regulations:*

*Provided that, for a Generating Company, the above exercise shall be in accordance with prevalent CERC Tariff Regulations.*

*b) Approved aggregate gain or loss to the Transmission Licensee or Distribution Licensee on account of controllable factors, and the amount of such gains or such losses that may be shared in accordance with Regulation 14 of these Regulations:*

*Provided that, for a Generating Company, the above exercise shall be in accordance with prevalent CERC Tariff Regulations.*

*c) Carrying cost shall be allowed for a Generating Company, Transmission Licensee or Distribution Licensee on the amount of revenue gap for the period from the date on which such gap has become due, i.e., from the end of the Year for which true-up has been done, till the end of the Year in which it is addressed, on the basis of actual rate of loan taken by the Licensee to fund the deficit in revenue:*

*Provided that carrying cost on the amount of revenue gap shall be allowed subject to prudence check and submission of documentary evidence for having incurred the carrying cost in the years prior to the year in which the revenue gap is addressed:*

*Provided also that if no loan has been taken to fund revenue deficit, the Commission shall allow Carrying Cost on simple interest basis at one (1) Year State Bank of India (SBI) MCLR /any replacement thereof as notified by RBI for the time being in effect applicable for 1 Year period, as may be, applicable as on 1st April of the relevant Year plus 100 basis points;*

*Provided further that in case of revenue surplus, the Commission shall charge the Licensee a Carrying Cost from the date on which such surplus has become due, i.e., from the end of the Year for which true up has been done, till the end of the Year in which it is addressed on simple interest basis at one(1) Year State Bank of India (SBI) MCLR / any replacement thereof as notified by RBI for the time being in effect applicable for 1 Year period, as may be, applicable as on 1st April of the relevant Year plus 100 basis points.*

*d) Revision of estimates and tariff for the ensuing Financial Year."*

## 3.2. Approach for True-up for FY 2019-20

The Petitioner has requested for True-up of FY 2019-20 on the basis of audited annual accounts for FY 2019-20. The Petitioner has submitted the audited accounts based on audit conducted by statutory auditor M/s Davinder S. Jaaj & Co. (Charted Accountant). The Commission in this chapter now carries out the true-up of FY 2019-20, the first year of the second control period (FY 2019-20 to FY 2021-22) in accordance with the principles laid down in the MYT Regulations, 2018.

## 3.3. Energy Sales

### Petitioner's Submission

The Petitioner has submitted the total quantum of energy sales for the FY 2019-20 as 1,595.55 MU as against approved energy sales quantum of 1,562.34 MU during the APR of FY 2019-20 vide Tariff Order dated 19th May 2020.

### Commission's Analysis

Regulation 12.1 of the MYT Regulations, 2018 provides:

*"12.1 For the purpose of these Regulations, the term "uncontrollable factors" for a Transmission or Distribution Licensee shall comprise of the following factors, which were beyond the control of the Licensee, and could not be mitigated by the Licensee:*

- *a) Force Majeure events;*
- *b) Change in Law, judicial pronouncements and Orders of the Central Government, State Government or Commission;*
- *c) Variation in the number or mix of Consumers or quantities of electricity supplied to Consumers;*
- *d) Transmission loss;*
- *e) Variation in the cost of power purchase due to variation in the rate of power purchase from approved sources, subject to clauses in the power purchase agreement or arrangement approved by the Commission;*
- *f) Variation in fuel cost;*
- *g) Change in power purchase mix;*
- *h) Inflation;*
- *i) Transmission Charges for a Distribution Licensee;*
- *j) Variation in market interest rates for long-term loans;*
- *k) Employee expenses limited to one time payment owing requirements of a pay commission and terminal liability of employees;*
- *l) Taxes and Statutory levies;*
- *m) Taxes on income;*
- *n) Income from the realisation of bad debts written off:*

*Provided that where the Applicant believes, for any variable not specified above, that there is a material variation or expected variation in performance for any Financial Year on account of uncontrollable factors, such Applicant may apply to the Commission for inclusion of such variable at the Commission's discretion, under this Regulation for such Financial Year:*

*Provided further that the uncontrollable factors for a Generating Company shall be as specified in the prevalent CERC Tariff Regulations."*

The Commission had approved the energy sales of 1,685.29 MU in the MYT Order and 1,562.34 MU during the APR of FY 2019-20, against which the Petitioner has now submitted the actual energy sales of 1595.55 MU. The quantum of energy sales was verified from the audited accounts submitted by the Petitioner and the same were found to be in order.

The following table provides the energy sales approved by the Commission in the Tariff Order for APR of FY 2019-20, the Petitioner's submission and quantum of energy sales now trued-up by the Commission.

**Table 7: Energy Sales (MU) Trued-up by the Commission for FY 2019-20**

| S. No | Category | Approved in Tariff Order for APR of FY 2019-20 | Petitioner's Submission | Trued-up by Commission |
|---|---|---|---|---|
| 1 | Domestic -LT | 628.56 | 729.81 | 729.81 |
| 2 | Domestic -HT | | 29.40 | 29.40 |
| **3** | **Domestic -Total** | **628.56** | **759.21** | **759.21** |
| 4 | Commercial - LT | 469.12 | 222.15 | 222.15 |
| 5 | Commercial - HT | | 262.34 | 262.34 |
| **6** | **Commercial - Total** | **469.12** | **484.49** | **484.49** |
| **7** | **Large Industrial supply** | **121.59** | **123.76** | **123.76** |
| **8** | **Medium Industrial supply** | **208.59** | **106.38** | **106.38** |
| **9** | **Small Industrial supply** | **32.93** | **18.43** | **18.43** |
| **10** | **Agriculture** | **1.51** | **1.41** | **1.41** |
| **11** | **Public lighting** | **14.30** | **14.78** | **14.78** |
| **12** | **Bulk supply** | **81.57** | **82.88** | **82.88** |
| **13** | **Temp. Supply** | **4.16** | **4.20** | **4.20** |
| **14** | **Total** | **1,562.34** | **1,595.55** | **1,595.55** |

**The Commission approves 1,595.55 MU as energy sales in the True-Up of FY 2019-20.**

## *3.4. Inter-State Transmission Loss*

### Petitioner's submission

The Petitioner has submitted the Inter-State Transmission Loss of 4.03%, as against the value of 3.69% approved in the APR of the FY 2019-20.

### Commission's analysis

Based on the power purchased by the Petitioner and the power available to the Petitioner at the State periphery, the Commission finds the Inter-State Transmission Loss as submitted by the Petitioner to be in order.

The following table provides the Inter-State Transmission Loss as approved in the MYT Order, the Petitioner's submission and now trued-up by the Commission.

**Table 8: Inter-State Transmission Loss Trued-up by the Commission for FY 2019-20 (%)**

| S. No | Particulars | Approved in Tariff Order for APR of FY 2019-20 | Petitioner's Submission | Trued-up by Commission |
|---|---|---|---|---|
| 1 | Inter-State Transmission Loss | 3.69% | 4.03% | 4.03% |

**The Commission approves the Inter-State Transmission Loss at 4.03% in the True-Up of FY 2019-20.**

## *3.5. Intra-State Distribution Loss*

### Petitioner's submission

Intra-State Distribution Loss for the FY 2019-20 has been arrived at 11.91% as compared to 9.40% approved by the Commission in the APR Order.

The Petitioner submitted that it has been able to reduce the T&D losses from 20.20% in FY 2011-12 to 13.65% in the FY 2016-17. The Petitioner achieved T&D loss level of 9.51% for the FY 2017-18. The sharp fall in T&D losses in the FY 2017-18 was on account of the following factors:

i. There has been increase in energy sale through UI/exchange from 36.76 MUs in FY 2016-17 to 131.74 MUs in FY 2017-18.
ii. The excess energy sale was due to return of 48 MUs towards banked units to J&K during the FY 2017-18 against energy received in the FY 2015-16 & FY 2016-17 and sale of excess power through UI/exchange during different intervals of time.

Hence, decrease in T&D loss to 9.51% during the FY 2017-18 was due to the extraordinary factors as explained above and the same should not be considered as benchmark for fixing T&D Loss targets for future years. Further, Petitioner achieved T&D loss level of 13.50% for the FY 2018-19. Therefore, The T&D loss level achieved by Petitioner for the FY 2019-20 should viewed in comparison to the T&D loss trajectory over the past 7-8 years to get a realistic and achievable T&D loss trend. The Petitioner has restricted the T&D loss for the FY 2019-20 to 11.91% and submitted that it is difficult to bring the losses substantially from this level.

The Petitioner has proposed the T&D losses for the FY 2019-20, FY 2020-21 & FY 2021-22 to 11.91%, 11.85% & 11.80% respectively and has requested the Commission to kindly consider the above submissions & approve the actual distribution losses to 11.91% for the FY 2019-20 as any disallowances would have a substantial financial impact on it.

## Commission's analysis

The Petitioner in its submission has failed to submit the Energy Audit Report of the State for FY 2019-20. In the absence of the Energy Audit Report, the Commission, for verification of the Intra-State T&D loss levels has relied on the information of energy drawal at the UT periphery, and the energy sales as approved above.

The Commission has considered the net energy available for sales to retail consumers by the Petitioner consisting of energy available from firm sources, energy under the Deviation Settlement Account (DSA), energy purchased from Open market and energy procured from Solar sources within the UT. The Commission has further considered actual sales of 1,595.55 MU as approved in the previous section. Considering the difference in energy available at the periphery of the Petitioner and the sales approved, actual Intra-State Distribution Loss of the FY 2019-20 stands at 11.91%, as shown in the following table:

**Table 9: Intra-State Distribution Loss calculation**

| S. No | Particulars | Trued-up by Commission |
|---|---|---|
| 1 | Energy Sales within the UT (MU) | 1,595.55 |
| 2 | Energy Required at State Periphery (MU) | 1,811.29 |
| 3 | T&D Losses (MU) | 215.74 |
| **4** | **T&D Loss (%)** | **11.91%** |

Since, the Petitioner has under-achieved the Intra-State Distribution Loss target of 9.40% for the year, the Petitioner has been dis-incentivized in accordance with the MYT Regulations, 2018. The calculation of the same has been discussed in detail in Section 3.20 of this Order.

The following table provides the Intra-State T&D loss approved in the APR of FY 2019-20, the Petitioner's submission and now trued-up by the Commission.

**Table 10: Intra-State Distribution Loss Trued-up by the Commission for FY 2019-20 (%)**

| S. No | Particulars | Approved in Tariff Order for APR of FY 2019-20 | Petitioner's Submission | Trued-up by Commission |
|---|---|---|---|---|
| 1 | Intra-State Distribution Loss | 9.40% | 11.91% | 11.91% |

**The Commission, while Truing-up for the FY 2019-20 has considered the actual intra-state T&D loss of 11.91% and hence considered a dis-incentive in Section 3.20 in accordance with the MYT Regulations, 2018 for under-achievement of Intra-State Distribution Loss target approved by the Commission in the APR Order.**

## 3.6. Power Purchase Quantum & Cost

### Petitioner's submission:

The Petitioner meets its power requirement from the allocations from Central Generating Stations (CGS) such as NTPC, NHPC, NPCIL, BBMB, SJVNL, THDC along with bilateral agreement and banking arrangements. The allocation from CGS consists of a fixed share of allocation for a year, and the Govt. of India changes the variable share of allocation from the unallocated quota, time to time. Since, during the peak summer seasons the allocation of power from various sources is inadequate, therefore the Petitioner procures power from short-term sources i.e. power exchange, UI, banking etc.
The following table shows the summary of actual Power Purchase from various sources for the FY 2019-20 including Transmission Charges and purchase from short-term sources i.e. power exchange, UI, cost towards RPO etc.

**Table 11: Power Purchase quantum and cost submitted by the Petitioner**

| S. No. | Source | Energy Units (MU) | Fixed Charges (Cr) | Energy Charges (Cr) | Other Charges (Cr) | Total Cost (Cr) |
|---|---|---|---|---|---|---|
| 1 | NTPC | 368.42 | 64.82 | 80.90 | -0.16 | 145.56 |
| 2 | NHPC | 343.31 | 49.83 | 51.68 | 8.68 | 110.19 |
| 3 | NPCIL | 203.92 | 0.00 | 70.45 | 2.47 | 72.91 |
| 4 | SJVNL | 143.04 | 18.13 | 17.86 | 4.73 | 40.72 |
| 5 | BBMB | 711.20 | 0.00 | 144.94 | 14.54 | 159.47 |
| 6 | APCPL | 20.97 | 13.13 | 7.85 | -0.27 | 20.71 |
| 7 | THDC | 186.40 | 42.87 | 42.08 | 7.13 | 92.08 |
| 8 | MUNPL | 8.81 | 3.52 | 2.64 | -0.09 | 6.07 |
| 9 | PTC | 65.31 | 0.00 | 20.99 | 0.00 | 20.99 |
| 10 | PTC REC | 0.00 | 0.00 | 0.00 | 1.14 | 1.14 |
| 11 | UI Over-drawal | 91.88 | 0.00 | 28.12 | 0.00 | 28.12 |
| 12 | Crest | 6.81 | 0.00 | 5.35 | 0.00 | 5.35 |
| 13 | Pvt. solar (Gross + Net Metering) | 1.64 | - | 1.13 | -0.02 | 1.11 |
| 14 | Others (PGCIL, Reactive Power etc) | - | - | - | 66.39 | 66.39 |
| 15 | LC Charges | - | - | - | 1.72 | 1.72 |
| | **GRAND TOTAL** | **2151.70** | **192.30** | **473.97** | **106.27** | **772.54** |

In addition to the Power Purchase cost the Petitioner has also submitted revenue from sale of surplus power/ UI Under-drawal and adjusted the same in the overall ARR submitted for FY 2019-20.

**Table 12: Quantum and Revenue from sale of surplus power submitted by the Petitioner**

| S. No. | Source | Energy Units (MU) | Fixed Charges (Cr) | Energy Charges (Cr) | Other Charges (Cr) | Total Cost (Cr) |
|---|---|---|---|---|---|---|
| 1 | **Sale of Surplus Power/ UI Under-drawal** | **264.64** | **-** | **78.07** | **-** | **78.07** |

### Commission's analysis

The MYT Regulations, 2018 stipulate that Variation in the cost of power purchase due to variation in the rate of power purchase from approved sources, subject to clauses in the power purchase agreement or arrangement approved by the Commission shall be treated as an uncontrollable factor. Regulation 58.1 of the MYT Regulations, 2018 stipulates the following:

*"58.1 The Distribution Licensee shall be allowed to recover the cost of power generated by the Generating Stations owned by it or purchased from approved sources for supply to Consumers based on the power procurement plan of the Distribution Licensee, approved by the Commission."*

The Petitioner procures power mainly from NTPC Stations, Hydro Stations, NPCIL stations, and IPPs. The Petitioner has submitted the overall power purchase cost as INR 772.54 Cr against a procurement of 2151.70 MU, inclusive of transmission cost but exclusive of revenue due to sale of surplus power.

The revenue on account of surplus power sale/UI Under-drawl has been considered as a revenue item by the Petitioner and considered separately in the ARR. The Commission for the purpose of finalising the Power Purchase quantum and cost for FY 2019-20 has adjusted the revenue of INR 78.07 Cr on account of surplus power sale/UI Under-drawl (verified as per the audited accounts) in the Total Power Purchase cost to arrive at the Net Power Purchase cost. . Further, the financing cost related to Letter of Credit (LC) Charges of Rs. 1.72 Cr are allowed separately in Section 3.13 of this Order.

The Petitioner submitted that the total power purchase cost is inclusive of the cost incurred towards compliance of Renewable Purchase Obligation (RPO) target for the FY 2019-20. The compliance status of RPO has been discussed in detail in the subsequent section.

The following table provides the summary of the power purchase quantum and the cost approved by the Commission during FY 2019-20.

**Table 13: Power Purchase quantum and cost Trued-up by the Commission for FY 2019-20**

| S. No. | Source | Energy Units Ex-bus (MU) | Fixed Charges (Cr) | Energy Charges (Cr) | Other Charges # (Cr) | Total Cost (Cr) |
|---|---|---|---|---|---|---|
| 1 | NTPC | 368.42 | 64.82 | 80.90 | -0.16 | 145.56 |
| 2 | NHPC | 343.31 | 49.83 | 51.68 | 8.68 | 110.19 |
| 3 | NPCIL | 203.92 | 0.00 | 70.45 | 2.47 | 72.91 |
| 4 | SJVNL | 143.04 | 18.13 | 17.86 | 4.73 | 40.72 |
| 5 | BBMB | 711.20 | 0.00 | 144.94 | 14.54 | 159.47 |
| 6 | APCPL | 20.97 | 13.13 | 7.85 | -0.27 | 20.71 |
| 7 | THDC | 186.40 | 42.87 | 42.08 | 7.13 | 92.08 |
| 8 | MUNPL | 8.81 | 3.52 | 2.64 | -0.09 | 6.07 |
| 9 | PTC | 65.31 | 0.00 | 20.99 | 0.00 | 20.99 |
| 10 | PTC REC | 0.00 | 0.00 | 0.00 | 1.14 | 1.14 |
| 11 | UI Over-drawal | 91.88 | 0.00 | 28.12 | 0.00 | 28.12 |
| **11** | **Total Availability from firm sources outside UT - @Ex-bus** | **2143.25** | **192.30** | **467.51** | **38.17** | **697.96** |
| 12 | Less: Revenue from Sale of Surplus Power | 264.64 | 0 | 78.07 | 0 | 78.07 |
| 13 | Crest | 6.81 | 0 | 5.35 | 0 | 5.35 |
| 14 | Pvt. solar (Gross + Net Metering) | 1.64 | 0 | 1.13 | -0.02 | 1.11 |
| 15 | Others (PGCIL, Reactive Power etc) | - | - | - | 66.39 | 66.39 |
| | **GRAND TOTAL** | **1887.05** | **192.30** | **395.92** | **106.26** | **692.75** |

*# Other Charges includes ED & Cess on APC/Sales, Energy Charges Revision, ECR Gain Sharing, etc.*

**The Commission approves power purchase cost of INR 692.75 Cr (adjusted for sale of surplus power/UI Under-drawal) in the True-up of FY 2019-20.**

## *3.7. Renewable Purchase Obligation (RPO)*

### Petitioner's submission

The Petitioner submitted that it has been able to meet its RPO for the FY 2019-20 (solar and non-solar). Besides the REC purchase, it has also purchased energy from solar plants such as CREST and through gross and net metering, details of which are as follows:

**Table 14: RPO compliance submitted by the Petitioner**

| Particulars | RPO % | Target | | Actual |
|---|---|---|---|---|
| | | Conventional Power consumed (MU) | Units (MU) | Units (MU) |
| Solar | 4.70% | 380.72 | 17.89 | 32.08 |
| *Solar Rooftop (Gross Generation)* | | | | *10.16* |
| *CREST* | | | | *21.92* |
| Non-Solar (REC) | 6.80% | 380.72 | 25.89 | 10.00 |
| **Total** | **11.50%** | | **43.78** | **42.08** |

### Commission's analysis

As per Clause 1, Sub-clause (1) of the JERC for the State of Goa and UTs (Procurement of Renewable Energy) Regulations, 2010

*"Each distribution licensee shall purchase electricity (in kWh) from renewable energy sources, at a defined minimum percentage of the total consumption of all the consumers in its area during a year."*

The Commission notified the JERC (Procurement of Renewable Energy), (Third Amendment) Regulations, 2016 on 22nd August 2016 and revised the RPO targets. In accordance with the Regulations, the Petitioner had to purchase 11.50% of its total consumption (excluding hydro) from renewable sources for the FY 2019-20.

The effective energy sales used for calculation of the RPO have been arrived at as follows:

**Table 15: Effective energy sales (except hydro) for calculation of RPO**

| S.No. | Particular | Formula | FY 2019-20 |
|---|---|---|---|
| 1 | Energy Sales within UT (MU) | a | 1,595.55 |
| 2 | Hydro Power Purchase (MU) | b | 1,437.05 |
| 3 | Inter-State Loss (%) | c | 4.03% |
| 4 | Inter-State Loss (MU) | d= c*b | 57.91 |
| 5 | Intra-State Loss (%) | e | 11.91% |
| 6 | Intra-State Loss (MU) | f=e*(b-d) | 164.27 |
| 7 | Hydro Power Sale (MU) | g=b-d-f | 1,214.83 |
| 8 | Conventional Power Sale | h= a-g | 380.68 |

The Petitioner has complied with the RPO target till FY 2018-19.

The standalone RPO target for FY 2019-20 has been provided in the following table:

**Table 16: Summary of Renewable Purchase Obligation (RPO) (MU)**

| Description | FY 2019-20 |
|---|---|
| Sales within State from conventional sources (MU) | 380.68 |
| **RPO obligation (in %)** | **11.50%** |
| Solar | 4.70% |
| Non-solar | 6.80% |
| **RPO obligation for the year (in MU)** | **43.78** |
| Solar | 17.89 |
| Non-solar | 25.89 |
| **Backlog upto FY 2018-19** | **0.00** |
| Solar | 0.00 |
| Non Solar | 0.00 |
| **Total RPO to be fulfilled for the year** | **43.78** |
| Solar | 17.89 |
| Non Solar | 25.89 |
| **RPO compliance- Physical Purchase** | |
| - Solar | 32.08 |
| *CREST* | *21.92* |
| *Pvt. Solar (Gross Generated)* | *10.16* |
| -Non-solar | 0.00 |
| **RPO compliance (REC certificate purchase)** | |
| - Solar | 0.00 |
| -Non-solar | 10.00 |
| **Total RPO compliance (Physical Purchase+ REC certificate purchase)** | **42.08** |
| - Solar | 32.08 |
| -Non-solar | 10.00 |

The RPO compliance status in the FY 2019-20 has been done based on the renewable energy/ REC purchased by the Petitioner. The Petitioner has not been able to meet the standalone RPO target for the FY 2019-20 and the backlog of 1.70 MU (43.78 - 42.08) shall be carried forward to FY 2020-21. However, it has been observed that no expenditure has been incurred towards procurement of solar power via Gross Metering. In case the Petitioner incurs any cost in the subsequent years under this head, the same shall be considered as per actuals.

The cost towards compliance of RPO incurred in FY 2019-20 has been shown in the following table:

**Table 17: Cost towards compliance of Renewable Purchase Obligation (In INR Cr)**

| S. No | Description | RPO (MU) | Total Cost (INR Cr) | Avg. Rate (INR/kWh) |
|---|---|---|---|---|
| 1 | Solar | 32.08 | 6.48 | 2.02 |
| *a)* | *CREST** | 21.92 | 5.35 | 2.44 |
| *b)* | *Pvt. Solar** | 10.16 | 1.13 | 1.11 |
| 2 | Non-solar | 10.00 | 1.16 | 1.16 |
| | **Total** | **42.08** | **7.64** | **1.82** |

**Includes the Captive Generation*

**The Commission approves INR 7.64 Cr towards compliance of RPO in the True-up of the FY 2019-20 and the same has been considered in the Power Purchase cost approved for FY 2019-20.**

## *3.8. Energy Balance*

### Petitioner's submission

The Petitioner has submitted the energy requirement as shown in the following table.

**Table 18: Energy requirement submitted by the Petitioner (in MU)**

| **Particulars** | **Petitioner's submission** |
|---|---|
| Units Procured from firm sources | 2143.25 |
| Less: Outside Sale - Trading | 264.64 |
| Energy Available | 1878.61 |
| Inter-State Transmission Loss | 4.03% |
| Transmission Loss (MU) | 75.76 |
| **Net Energy Available at UT Periphery** | **1802.85** |
| Power Available within UT | |
| Power procured from Gross & NET Metering Mode (In MUs) | 8.44 |
| **Total Energy Available** | **1,811.29** |
| | |
| **Actual Energy Sales (Mus)** | 1,595.55 |
| T&D Loss (%) | 11.91% |
| T&D Loss (in MUs) | 215.74 |
| **Total Energy Required at UT Periphery (MUs)** | **1,811.29** |

### Commission's analysis:

The information submitted by the Petitioner on power purchase quantum, UI over/ under drawl, IEX/ Bilateral purchase has been studied and accordingly the energy balance has been derived for FY 2019-20.

The following table provides the energy balance approved in the Tariff Order for APR of FY 2019-20 issued on 19th May 2020, submitted by the Petitioner and now trued-up by the Commission.

**Table 19: Energy balance Trued-up by the Commission for FY 2019-20 (in MU)**

| Particulars | Formulae | Approved in Tariff Order for APR of FY 2019-20 | Petitioner's Submission | Trued-up by Commission |
|---|---|---|---|---|
| **Energy Requirement** | | | | |
| Energy sales within the State/UT | a | 1,562.32 | 1,595.55 | 1,595.55 |
| **Distribution losses** | | | | |
| % | b | 9.40% | 11.91% | 11.91% |
| MU | | 162.10 | 215.74 | 215.74 |
| **Total Energy requirement** | **c=a/(1-b)** | **1,724.42** | **1,811.29** | **1,811.29** |
| | | | | |
| **Energy Availability** | | | | |
| Availability from firm sources outside UT | d | 1,892.23* | 2,143.25 | 1,986.06 |
| Availability from UI Over-drawal/ Under-drawal | e | 15.85 | - | 91.88 |
| Less: Sale in Open Market | f | 217.24 | 264.64 | 264.64 |
| Add: Net Purchase in Open Market | g | 33.57 | - | 65.31 |
| **Total Energy Availability for UT from Firm Sources** | **h=d+e-f+g** | **1,724.42** | **1,878.61** | **1,878.61** |
| **Inter-State Transmission Loss** | | | | |
| % | i | - | 4.03% | 4.03% |
| MU | | - | 75.76 | 75.76 |
| **Total Energy Availability at UT Periphery** | **j=h*(1-i)** | **-** | **1,802.85** | **1,802.85** |
| Availability from within UT | k | - | 8.44 | 8.44 |
| **Total Energy Availability** | **l= j + k** | | **1,811.29** | **1,811.29** |

**After deduction of inter-state transmission losses*

## 3.9. Operation & Maintenance Expenses

The Operation & Maintenance Expenses comprise of the Employee Expenses, Administrative and General Expenses (A&G) and the Repair & Maintenance Expenses (R&M). The MYT Regulations, 2018 considers the variation of O&M Expenses except to the extent of inflation to be controllable. Regulation 12.2 of the MYT Regulation, 2018 states the following:

*"For the purpose of these Regulations, the term "controllable factors" for a Transmission or Distribution Licensee shall comprise of the factors which were within the control of the Licensee, shall inter-alia include:*

*a) Variations in capitalisation on account of time and/or cost overruns/ efficiencies in the implementation of a capital expenditure project not attributable to an approved change in scope of such project, change in statutory levies or force majeure events;*

*b) Variation in Interest and Finance Charges, Return on Equity, and Depreciation on account of variation in capitalisation, as specified in clause (a) above;*

*c) Variations in technical and commercial losses of Distribution Licensee;*

*d) Availability of transmission system;*

*e) Variations in performance parameters;*

*f) Failure to meet the standards specified in the Joint Electricity Regulatory Commission for the State of Goa & UTs (Standard of Performance for Distribution Licensees) Regulation, 2015, as amended from time to time;*

*g) Variations in labour productivity;*

*h) Variation in O&M Expenses, except to the extent of inflation;*

*i) Bad debts written off, in accordance with the provisions of Regulation 62:*

*Provided further that the controllable factors for a Generating Company shall be as specified in the prevalent CERC Tariff Regulations."*

Therefore, any variation in O&M Expenses is attributable to the Petitioner and is not passed on in the ARR, other than any cost which is beyond the control of the Petitioner. Further Regulations 51.6 provides as follows:

**"51. Operation and Maintenance (O&M) expenses for Distribution Wires Business**

....

*51.6 For the purpose of estimation, the same value of factors – $CPI_{inflation}$ and $WPI_{inflation}$ shall be used for all Years of the Control Period.* ***However, the Commission shall consider the actual values of the factors – $CPI_{inflation}$ and $WPI_{inflation}$ during the truing up exercise for the Year for which true up is being carried out and true up the O&M Expenses for that Year, only to the extent of inflation." (Emphasis supplied)***

Further, Regulation 14 of the MYT Regulations, 2018 stipulates the following:

***"14. Mechanism for sharing of gains or losses on account of controllable factors***

*14.1 Approved aggregate gain to the Transmission Licensee or Distribution Licensee on account of controllable factors shall be shared equally between Licensee and Consumers:*

*Provided that the mechanism for sharing of gains or losses on account of controllable factors for a Generating Company shall be as specified in the prevalent CERC Tariff Regulations.*

*14.2 Approved aggregate loss, if any to the Transmission Licensee or Distribution Licensee on account of controllable factors shall be on account of the Licensee, and shall not be passed to the Consumers."*

### *3.9.1. Employee Expenses*

## Petitioner's submission

Employee expenses of INR 75.30 Cr have been incurred against approved expenses of INR 73.47 Cr in the APR. The employee expenses comprise of Salaries, Dearness allowance, Bonus, Terminal benefits in the form of Pension and Gratuity, Leave encashment and staff welfare expenses.

## Commission's analysis

As per the audited accounts submitted by the Petitioner, the employee expenses during the FY 2019-20 are reflected as INR 75.30 Cr.

In accordance with the MYT Regulations, 2018, the Commission had determined the Employee expenses for each year of the MYT Control Period. The Regulation 6 of the MYT Regulations, 2018 stipulates the following:

*"6. Values for Base Year*

*6.1 The values for the Base Year of the Control Period shall be determined on the basis of the audited accounts or provisional accounts of last three (3) Years, and other factors considered relevant by the Commission:*

*Provided that, in absence of availability of audited accounts or provisional accounts of last three (3) Years, the Commission may benchmark the parameters with other similar utilities to establish the values for Base Year:*

*Provided further that the Commission may change the values for Base Year and consequently the trajectory of parameters for Control Period, considering the actual figures from audited accounts*

……"

As per Regulation 6.1 and 51.6 provided above, the Commission has considered the employee expenses for Base Year same as actuals submitted in the Audited Accounts of FY 2018-19 and revised the norms for FY 2019-20. The base year employee expenses have been escalated by Growth Rate determined based on the manpower plan approved in the Business Plan Order and actual CPI Inflation of FY 2019-20 to arrive upon the employee expenses for FY 2019-20.

The CPI Inflation has been computed as follows:

**Table 20: Computation of CPI Inflation (%)**

| FY | Average of (Apr-Mar) | CPI Inflation |
|---|---|---|
| 2018-19 | 299.92 | **7.53%** |
| 2019-20 | 322.50 | |

Accordingly, the employee expenses approved by the Commission for FY 2019-20 have been provided in the following table:

**Table 21: Employee Expenses (In INR Cr)**

| S. No | Particulars | FY 2018-19-Base Year (Actuals as submitted in the Audited Accounts) | FY 2019-20 |
|---|---|---|---|
| 1 | Employee Expenses base year | | 70.39 |
| 2 | Growth in number of employees (Gn) | | -0.08% |
| 3 | CPI Inflation for FY 2019-20 | | 7.53% |
| **4** | **Employee Expenses** | **70.39** | **75.63** |

The Commission considers the normative Employee expenses of INR 75.63 Cr.

**Table 22: Employee Expenses Trued-up by the Commission for FY 2019-20 (In INR Cr)**

| S. No | Particulars | Approved in Tariff Order for APR of FY 2019-20 | Petitioner's Submission | Revised Normative Employee Expenses | Trued-up by Commission |
|---|---|---|---|---|---|
| 1 | Total Employee Expenses | 73.47 | 75.30 | 75.63 | 75.63 |

**The Commission approves Employee Expenses of INR 75.63 Cr in the True-up of FY 2019-20 in line with Regulation 14.2 quoted above and further discussed in Section 3.9.4.**

### *3.9.2. Administrative and General (A&G) Expenses*

## Petitioner's submission

The Petitioner has submitted the actual A&G expenses of INR 5.42 Cr as reflected in audited accounts against the approved expenses of INR 4.78 Cr in the APR.

## Commission's analysis

A&G expenses mainly comprise of rents, telephone and other communication expenses, professional charges, conveyance and travelling allowances, etc. As per the audited accounts submitted by the Petitioner the A&G expenses for FY 2019-20 are reflected as INR 5.42 Cr.

Similar to the methodology followed while estimating the employee expenses, the Commission has determined the A&G expenses for the FY 2019-20 using the actual CPI Inflation for FY 2019-20 to determine the A&G expenses for FY 2019-20.

The A&G expenses approved by the Commission in FY 2019-20 have been provided in the following table:

**Table 23: A&G Expenses approved by Commission (In INR Cr)**

| S. No | Particulars | FY 2018-19-Base Year (Actuals as submitted in the Audited Accounts) | FY 2019-20 |
|---|---|---|---|
| 1 | A&G Expenses base year | | 6.44 |
| 2 | CPI Inflation for FY 2019-20 | | 7.53% |
| **3** | **A&G Expenses** | **6.44** | **6.93** |

The Commission considers the normative A&G expenses of INR 6.93 Cr.

**Table 24: A&G Expenses Trued-up by the Commission for FY 2019-20 (In INR Cr)**

| S. No | Particulars | Approved in Tariff Order for APR of FY 2019-20 | Petitioner's Submission | Revised Normative A&G Expenses | Trued-up by Commission |
|---|---|---|---|---|---|
| 1 | Administration & General Expenses (A&G) | 4.78 | 5.42 | 6.93 | 6.93 |

**The Commission approves the Administrative & General (A&G) expenses of INR 6.93 Cr in the True-up of FY 2019-20 in line with Regulation 14.2 quoted above and further discussed in Section 3.9.4.**

### *3.9.3. Repair & Maintenance Expenses (R&M)*

## Petitioner's submission

Actual R&M expenses of INR 13.63 Cr have been incurred against approved expenses of INR 10.45 Cr in the APR of FY 2019-20. R&M expenses are incurred towards day to day maintenance of the transmission and distribution network of the Petitioner and form an integral part of the Licensee's efforts towards providing reliable and quality power supply and also in the reduction of losses in the system.

## Commission's analysis

In accordance with the MYT Regulations, 2018, the 'K' factor has been considered same as approved in the MYT Order. The 'K' factor is then multiplied with the opening GFA approved for $(n-1)^{th}$ year. The resultant amount is then escalated by the actual WPI for FY 2019-20 to arrive upon the R&M Expenses for FY 2019-20.

The WPI Inflation has been computed as follows:

**Table 25: Computation of WPI Inflation (%)**

| FY | Average of (Apr-Mar) | CPI Inflation |
|---|---|---|
| 2018-19 | 119.79 | **1.68%** |
| 2019-20 | 121.80 | |

The R&M expenses approved by the Commission in FY 2019-20 have been provided in the following table:

**Table 26: R&M Expenses approved by the Commission (In INR Cr)**

| S. No | Particulars | FY 2019-20 |
|---|---|---|
| 1 | GFAn-1 for FY 2018-19 | 452.31 |
| 2 | K factor approved (K) in MYT Order | 2.32% |
| 3 | WPI Inflation for FY 2019-20 | 1.68% |
| **4** | **R&M Expenses = (K x (GFA $_{n-1}$) x (1+WPI$_{inflation}$)** | **10.67** |

**Table 27: R&M Expenses Trued-up by the Commission for FY 2019-20 (In INR Cr)**

| S. No | Particulars | Approved in Tariff Order for APR of FY 2019-20 | Petitioner's Submission | Revised Normative A&G Expenses | Trued-up by Commission |
|---|---|---|---|---|---|
| 1 | Repair & Maintenance Expenses (R&M) | 10.45 | 13.63 | 10.67 | 10.67 |

**The Commission approves the Repair & Maintenance (R&M) expenses of INR 10.67 Cr in the True-up of FY 2019-20.**

### *3.9.4. Total Operation and Maintenance Expenses (O&M)*

The following table provides the O&M expenses, approved by the Commission in the Tariff Order for APR of FY 2019-20, Petitioner's submission and O&M expenses now trued-up by the Commission.

**Table 28: O&M Expenses Trued-up by the Commission for FY 2019-20 (In INR Cr)**

| S. No | Particulars | Approved in Tariff Order for APR of FY 2019-20 | Petitioner's Submission | Revised Normative Expenses | Trued-up by Commission |
|---|---|---|---|---|---|
| 1 | Employee Expenses | 73.47 | 75.30 | 75.63 | 75.63 |
| 2 | Administrative & General Expenses (A&G) | 4.78 | 5.42 | 6.93 | 6.93 |
| 3 | Repair & Maintenance Expenses | 10.45 | 13.63 | 10.67 | 10.67 |
| | **Total Operation & Maintenance Expenses** | **88.70** | **94.34** | **93.23** | **93.23** |

**The Commission approves the Operation & Maintenance (O&M) expenses of INR 93.23 Cr in the True-up of FY 2019-20.**

**Since the total normative O&M expenses approved by the commission are observed to be lower than the actual O&M expenses, 100% of losses i.e. INR 1.12 (94.34 - 93.23) Cr is to be borne by the Petitioner, in line with Regulation 14.2 quoted above.**

## *3.10. Capitalisation*

### Petitioner's submission

The Petitioner has managed to achieve capitalisation of INR 5.46 Cr during the year against approved capitalisation of INR 5.23 Cr in the APR of FY 2019-20.

## Commission's analysis:

The Commission with regard to the capitalisation proposed to be undertaken during the year directed the Petitioner to submit the details of the schemes to be undertaken during the year along with the supporting documents. Against a capitalisation of INR 5.23 Cr approved in the Tariff Order for APR of FY 2019-20, capitalisation of INR 5.46 Cr has been achieved in FY 2019-20.

Post thorough scrutiny and review of the submissions made by the Petitioner with regards to the capitalization of schemes undertaken and the Fixed Asset Register (FAR) as submitted by the Petitioner, the Commission approves the capitalisation for the year as shown in the following table:

**Table 29: Capitalisation approved by the Commission for FY 2019-20 (In INR Cr)**

| S. No | Particulars | Approved in Tariff Order for APR of FY 2019-20 | Petitioner's Submission | Trued-up by Commission |
|---|---|---|---|---|
| 1 | Capitalisation | 5.23 | 5.46 | 5.46 |

**The Commission approves Capitalisation of INR 5.46 Cr in the True-up of the FY 2019-20.**

## *3.11. Capital Structure*

### Petitioner's Submission

The entire capital deployment at the Petitioner is through equity for the FY 2019-20.

### Commission's analysis

In the Technical Validation Session held at the Commission's office, the Petitioner was directed to submit the relevant documents specifying the nature of capital deployed for creation of assets. The Petitioner submitted that the entire capital is infused as equity by the Government. Further, the Petitioner also submitted that no assets have been created through consumer contribution

The Regulation 26 of the MYT Regulations, 2018 specifies the following:

***"26. Debt to Equity Ratio***

*26.1 In case of Existing Projects, debt to equity ratio allowed by the Commission for determination of tariff for the period ending March 31, 2018 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.*

*26.2 For New Projects, the 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 23, after prudence check for determination of tariff:*

*Provided 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 if the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as a normative loan for the Licensee for determination of tariff:*

*Provided also 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 the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment:*

*Provided further that the premium, if any, raised by the Licensee while issuing share capital and investment of internal resources created out of its free reserves, for the funding of the scheme, shall be reckoned as paid up capital for the purpose of computing return on equity, provided such premium amount and internal resources are actually utilized for meeting the capital expenditure of the transmission system or the distribution system, and are within the ceiling of 30% of capital cost approved by the Commission.*

*26.3 Any expenditure incurred or projected to be incurred on or after April 1, 2019, 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 specified in this Regulation."*

In accordance with the MYT Regulations, 2018 the Commission has determined the Capital Structure for FY 2019-20 as shown in the following tables.

**Table 30: Funding Plan Trued-up by the Commission for FY 2019-20 (In INR Cr)**

| S. No | Particulars | Approved in Tariff Order for APR of FY 2019-20 | Petitioner's Submission | Trued-up by Commission |
|---|---|---|---|---|
| 1 | Capitalisation | 5.23 | 5.46 | 5.46 |
| 2 | Debt (%) | 70% | 70% | 70% |
| 3 | Equity (%) | 30% | 30% | 30% |
| 4 | Normative Loan | 3.66 | 3.82 | 3.82 |
| 5 | Equity | 1.57 | 1.64 | 1.64 |

**Table 31: GFA addition Trued-up by the Commission for FY 2019-20 (In INR Cr)**

| S. No | Particulars | Approved in Tariff Order for APR of FY 2019-20 | Petitioner's Submission | Trued-up by Commission |
|---|---|---|---|---|
| 1 | Opening Gross Fixed Assets | 452.31 | 452.31 | 452.31 |
| 2 | Addition During the FY | 5.23 | 5.46 | 5.46 |
| 3 | Adjustment/Retirement During the FY | - | - | - |
| 4 | Closing Gross Fixed Assets | 457.54 | 457.77 | 457.77 |

**Table 32: Normative Loan addition Trued-up by the Commission for FY 2019-20 (In INR Cr)**

| S. No | Particulars | Approved in Tariff Order for APR of FY 2019-20 | Petitioner's Submission | Trued-up by Commission |
|---|---|---|---|---|
| 1 | Opening Normative Loan | 7.30 | 38.45 | 7.30 |
| 2 | Add: Normative Loan During the year | 3.66 | 3.82 | 3.82 |
| 3 | Less: Normative Repayment equivalent to Depreciation | 11.62 | 15.71 | 11.12 |
| 4 | Closing Normative Loan | - | 26.57 | - |

**Table 33: Normative Equity addition Trued-up by the Commission for FY 2019-20 (In INR Cr)**

| S. No | Particulars | Approved in Tariff Order for APR of FY 2019-20 | Petitioner's Submission | Trued-up by Commission |
|---|---|---|---|---|
| 1 | Opening Equity | 129.74 | 135.69 | 129.74 |
| 2 | Additions on account of new capitalisation | 1.57 | 1.64 | 1.64 |
| 3 | Closing Equity | 131.31 | 137.33 | 131.38 |

## *3.12. Depreciation*

### Petitioner's submission

The Petitioner has submitted that it has prepared the Fixed Asset Register for the FY 2019-20 and considered the GFA accordingly. Further, depreciation for the year has been considered based on the Fixed Asset Register prepared for FY 2019-20.

The Petitioner has submitted the actual depreciation of INR 15.71 Cr as reflected in audited accounts against the approved depreciation of INR 11.62 Cr in the APR.

### Commission's analysis

Regulation 30 of the MYT Regulations, 2018 stipulates the following:

*30. Depreciation*

*30.1 The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission:*

*Provided that the depreciation shall be allowed after reducing the approved original cost of the retired or replaced or decapitalized assets:*

*Provided also that the no depreciation shall be allowed on the assets financed through consumer contribution, deposit work, capital subsidy or grant.*

*30.2 The salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to a maximum of 90% of the capital cost of the asset.*

*30.3 Land other than the land held under lease shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the assets.*

*30.4 In case of existing assets, the balance depreciable value as on April 1, 2019, shall be worked out by deducting the cumulative depreciation as admitted by the Commission up to March 31, 2018, from the gross depreciable value of the assets.*

*30.5 The depreciation shall be chargeable from the first Year of commercial operations. In case of projected commercial operation of the assets during the Year, depreciation shall be computed based on the average of opening and closing value of assets:*

*Provided that depreciation shall be re-calculated during truing-up for assets capitalised at the time of truing up of each Year of the Control Period, based on documentary evidence of asset capitalised by the Applicant, subject to the prudence check of the Commission.*

*30.6 For Transmission Licensee, the depreciation shall be calculated at rates and norms specified in the prevalent CERC Tariff Regulations for transmission system.*

*30.7 The depreciation for a Distribution Licensee shall be calculated annually, based on the Straight Line Method, over the Useful Life of the asset at rates specified in Appendix I of the Regulations.*

*30.8 In addition to allowable depreciation, the Distribution Licensee shall be entitled to advance against depreciation (AAD), computed in the manner given hereunder:*

*AAD = Loan (raised for capital expenditure) repayment amount based on loan repayment tenure, subject to a ceiling of 1/10th of loan amount minus depreciation as calculated on the basis of these Regulations:*

*Provided that advance against depreciation shall be permitted only if the cumulative repayment upto a particular Year exceeds the cumulative depreciation upto that Year:*

*Provided further that advance against depreciation in a Year shall be restricted to the extent of difference between cumulative repayment and cumulative depreciation upto that Year.*

*30.9 The Distribution Licensee shall provide the list of assets added during each Year of Control Period and list of assets completing 90% of depreciation in the Year along with Petition for annual performance review, true-up and tariff determination for ensuing Year.*

*30.10 The remaining depreciable value for a Distribution Licensee shall be spread over the balance useful life of the asset, on repayment of the entire loan.*

The Commission has derived the weighted average rate of depreciation based on the asset wise depreciation rate prescribed in MYT Regulations, 2018, provided in the following table:

**Table 34: Depreciation Rate (%)**

| Description | Rate |
|---|---:|
| Plant & Machinery | 3.60% |
| Buildings | 1.80% |
| Vehicles | 18.00% |
| Furniture & Fixtures | 6.00% |
| Computers & Others | 6.00% |
| Land | 0.00% |

The closing GFA of FY 2018-19 as approved in the True-Up has been considered as opening GFA of FY 2019-20. The Commission has determined the depreciable GFA after deducting the value of assets that have achieved 90% depreciation as reflected in the FAR of FY 2019-20. Further, depreciation has been computed on average Gross Fixed Assets (GFA) after considering the net addition approved for FY 2019-20. Accordingly, the weighted average rate of depreciation is as per the following table:

**Table 35: Asset wise and overall effective Depreciation Rate (%)**

| Description | Rate | Opening Depreciable GFA (Less: Assets achieved 90% depreciation | Asset Addition | Closing Depreciable GFA | Average Depreciable GFA | Effective Rate |
|---|---|---|---|---|---|---|
| Plant & Machinery | 3.60% | 297.16 | 5.30 | 302.46 | 299.81 | |
| Buildings | 1.80% | 29.84 | - | 29.84 | 29.84 | |
| Vehicles | 18.00% | 0.16 | 0.09 | 0.25 | 0.21 | |
| Furniture & Fixtures | 6.00% | 0.04 | | 0.04 | 0.04 | |
| Computers & Others | 6.00% | 0.08 | 0.07 | 0.14 | 0.11 | |
| Land | 0.00% | - | | - | | |
| **Total** | **-** | **327.28** | **5.46** | **332.74** | **330.01** | **3.45%** |

The following table provides the depreciation as approved in the APR of FY 2019-20, Petitioner's submission and now approved by the Commission:

**Table 36: Depreciation approved by the Commission for FY 2019-20 (In INR Cr)**

| S. No | Particulars | Approved in Tariff Order for APR of FY 2019-20 | Petitioner's Submission | Trued-up by Commission |
|---|---|---|---|---|
| 1 | Opening GFA for FY 2019-20 (a) | 452.31 | 452.31 | 452.31 |
| 2 | Less: Assets depreciated upto 90% (b) | 121.83 | 0.00 | 125.03 |
| 3 | Revised opening Gross Fixed Assets (a-b) | 330.48 | 452.31 | 327.28 |
| 4 | Addition During the FY | 5.23 | 5.46 | 5.46 |
| 5 | Adjustment/Retirement During the FY | - | - | - |
| 6 | Closing Gross Fixed Assets | 335.71 | 457.77 | 332.74 |
| 7 | Average Gross Fixed Assets | 333.09 | 455.04 | 330.01 |
| 8 | Effective Rate of Depreciation (%) | 3.49% | 3.45% | 3.45% |
| | **Depreciation** | **11.62** | **15.71** | **11.38** |

**The Commission now approves depreciation of INR 11.38 Cr in the True-up of the FY 2019-20.**

## *3.13. Interest on Loan*

### Petitioner's submission

The Petitioner has submitted that it has completed the compilation of fixed asset register incorporating all the assets from inception till 31.03.2020. The same has also been incorporated in Annual Accounts and submitted to AG UT for audit. Previously, the assets prior to 31.03.2005 was not included in the GFA. Hence, post finalisation of FAR, GFA as per FAR as on 31.03.2020 has been considered for calculation of normative loan.

Accordingly, for calculating opening normative loan for the FY 2019-20, the Petitioner has considered 70% of the opening GFA as on 01.04.2019 and deducted the cumulative depreciation (considering the same as cumulative normative loan repayment) as on that date. The addition in normative loan has been considered based on 70:30 debt-equity ratio in line with the Regulations notified by the Commission. Repayment of the loan has been considered to be equal to the depreciation for the year, similar to the methodology considered by the Commission in APR for FY 2019-20. An interest rate of 9.55% as on April 1$^{st}$, 2019, which is the SBI MCLR rate plus 100 basis points, has been applied on the average normative debt in order to estimate the normative interest cost for the FY 2019-20.

Accordingly, the Petitioner has submitted the interest on normative loans as INR 3.10 Cr for FY 2019-20 against INR 0.35 Cr as approved in APR.

## Commission's analysis:

The Regulation 28 of the MYT Regulations, 2018 specifies the following:

*"**28. Interest on Loan***

*28.1 The loans arrived at in the manner indicated in Regulation 26 on the assets put to use, shall be considered as gross normative loan for calculation of interest on the loan:*

*Provided that interest and finance charges on capital works in progress shall be excluded:*

*Provided further that in case of De-capitalisation or retirement or replacement of assets, the loan capital shall be reduced to the extent of outstanding loan component of the original cost of the de-capitalised or retired or replaced assets, based on documentary evidence.*

*28.2 The normative loan outstanding as on April 1, 2019, shall be worked out by deducting the cumulative repayment as admitted by the Commission up to March 31, 2018, from the gross normative loan.*

*28.3 Notwithstanding any moratorium period availed by the Transmission Licensee or the Distribution Licensee, as the case may be, the repayment of loan shall be considered from the first Year of commercial operation of the project and shall be equal to the annual depreciation allowed in accordance with Regulation 30.*

*28.4 The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio at the beginning of each Year applicable to the Transmission Licensee or the Distribution Licensee:*

*Provided that at the time of truing up, the weighted average rate of interest calculated on the basis of the actual loan portfolio during the Year applicable to the Transmission Licensee or the Distribution Licensee shall be considered as the rate of interest:*

*Provided also that if there is no actual loan for a particular Year but normative loan is still outstanding, the last available weighted average rate of interest for the actual loan shall be considered:*

*Provided further that if the Transmission Licensee or the Distribution Licensee does not have actual loan, then one (1) Year State Bank of India (SBI) MCLR / any replacement thereof as notified by RBI for the time being in effect applicable for one (1)Year period, as may be applicable as on 1st April of the relevant Year plus 100 basis points shall be considered as the rate of interest for the purpose of allowing the interest on the normative loan.*

*28.5 The interest on loan shall be calculated on the normative average 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 Year shall be considered on the basis of the actual asset capitalisation approved by the Commission for the Year.*

*28.6 For new loans proposed for each Financial Year of the Control Period, interest rate shall be considered as lower of (i) one (1) Year State Bank of India (SBI) MCLR / any replacement thereof as notified by RBI for the time being in effect applicable for one (1)Year period, as may be applicable as on 1st April of the relevant Year plus 100 basis points, and (ii) weighted average rate of interest proposed by the Distribution Licensee.*

*28.7 The above interest computation shall exclude the interest on loan amount, normative or otherwise, to the extent of capital cost funded by consumer contribution, deposit work, capital subsidy or grant, carried out by Transmission Licensee or Distribution Licensee.*

*28.8 The finance charges incurred for obtaining loans from financial institutions for any Year shall be allowed by the Commission at the time of Truing-up, subject to prudence check.*

*28.9 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 Transmission 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.*

*28.10 The Transmission Licensee or the Distribution Licensee, as the case may be, shall make every effort to re-finance the loan as long as it results in net savings on interest and in that event the costs associated with such re-financing shall be borne by the beneficiaries and the net savings shall be shared between the equally between the beneficiaries and the Transmission Licensee or the Distribution Licensee and the Consumers of Distribution Licensee.*

*28.11 Interest shall be allowed on the amount held as security deposit held in cash from Retail Consumers at the Bank Rate as on 1st April of the Financial Year in which the Petition is filed:*

*Provided that at the time of truing-up, the interest on the amount of security deposit for the Year shall be considered on the basis of the actual interest paid by the Licensee during the Year, subject to prudence check by the Commission."*

Hence, the rate of interest to be considered while determining the ARR shall be the weighted average interest rate of the actual loan portfolio. However, the Petitioner has submitted that capitalisation during each year has been funded by the Petitioner's equity and no loan has been taken against any of the capitalised assets. In absence of any actual loans, the Commission has considered the SBI MCLR rate, as on 1st April 2019, plus 100 basis points as Rate of Interest, in accordance with the MYT Regulations, 2018.

As per the MYT Regulations 2018, if the equity actually deployed is more than 30% of the capital cost, then equity in excess of 30% would be considered as normative loan. Further, the Commission has considered the capitalisation of assets as approved in the foregoing paragraphs. The Commission for the purpose of funding of the capitalisation has considered the normative debt equity ratio of 70:30.

The Interest on Loan has been calculated on the average loan during the year with the opening loan considered equivalent to the closing loan approved for FY 2018-19 in the True-Up. The total normative loan has been considered to be repaid through depreciation during the year. Since the depreciation is higher than the total normative loan, the normative repayment has been restricted to total normative loan. Further, the financing cost related to Letter of Credit (LC) Charges of Rs. 1.72 Cr are allowed as per the audited annual accounts.

The following table provides the Interest on Loan approved in APR, Petitioner's submission and now approved by the Commission:

**Table 37: Interest on Loan approved by the Commission for FY 2019-20 (In INR Cr)**

| S. No | Particulars | Approved in Tariff Order for APR of FY 2019-20 | Petitioner's Submission | Trued Up by Commission |
|---|---|---|---|---|
| 1 | Opening Normative Loan | 7.30 | 38.45 | 7.30 |
| 2 | Add: Normative Loan During the year | 3.66 | 3.82 | 3.82 |
| 3 | Less: Normative Repayment | 11.62 | 15.71 | 11.12 |
| 4 | Closing Normative Loan | 0.00 | 26.56 | 0.00 |
| 5 | Average Normative Loan | 3.65 | 32.51 | 3.65 |
| 6 | Rate of Interest (%) | 9.55% | 9.55% | 9.55% |
| **7** | **Interest on Loan** | **0.35** | **3.10** | **0.35** |
| 8 | **LC Charges** | 0.00 | 0.00 | 1.72 |
| **9** | **Total Interest and Finance Charges** | **0.35** | **3.10** | **2.07** |

**The Commission approves Interest on Loan of INR 2.07 Cr in the APR of the FY 2019-20.**

## *3.14. Return on Equity (RoE)*

### Petitioner's submission

The RoE is calculated in accordance with the Regulation 27 of MYT Regulations, 2018. The Petitioner has submitted that the opening equity has been considered as 30% of GFA as per Fixed Asset Register as on 31.03.2019 and 30% of proposed capitalisation for the FY 2019-20 has been considered for arriving at the total equity for the year. Accordingly, the Petitioner has computed the Return on Equity at 15.50% for Wire Business and 16.00% for Retail Supply Business.

Accordingly, the Petitioner has submitted the return on equity as INR 21.23 Cr for FY 2019-20 against INR 20.30 Cr as approved in APR.

### Commission's analysis:

The Regulations 27.2 and 27.3 of the MYT Regulations, 2018 stipulate the following:

*"27.2 The return on equity for the Distribution Wires Business shall be allowed on the equity capital determined in accordance with Regulation 26 for the assets put to use at post-tax rate of return on equity specified in the prevalent CERC Tariff Regulations for transmission system.*

*27.3 The return on equity for the Retail Supply Business shall be allowed on the equity capital determined in accordance with Regulation 26 for the assets put to use, at the rate of sixteen (16) per cent per annum."*

Further, in this regard, the Regulation 30(2) of the CERC (Terms and Conditions of Tariff) Regulations, 2019 stipulates the following:

*"30. Return on Equity: ......... 30.2 Return on equity shall be computed at the base rate of **15.50%** for thermal generating station, transmission system including communication system and run-of river hydro generating station, and at the base rate of 16.50% for the storage type hydro generating stations including pumped storage hydro generating stations and run-of river generating station with pondage: ........" (**Emphasis supplied)***

The Commission has segregated the approved average equity (average of opening and closing equity) into average equity for Distribution Wires Business and Retail Supply Business based on the Allocation Statement provided in the MYT Regulations, 2018 i.e. 90% allocation for the Distribution Wires Business and 10% allocation for the

Retail Supply Business. The Commission has considered a rate of 15.50% for the Distribution Wires Business (as per the prevalent CERC Regulations as mentioned above) and a rate of 16.00% for the Retail Supply Business.

As the complete asset capitalisation during the year has been funded through equity, the Commission, for the purpose of equity addition during the year, has limited it to 30% of the total capitalisation in line with the MYT Regulations, 2018. The following table provides the total return on equity approved in the APR, Petitioner's submission and now approved by the Commission:

**Table 38: RoE approved by the Commission for FY 2019-20 (In INR Cr)**

| Particulars | Approved in Tariff Order for APR of FY 2019-20 | Petitioner's Submission | Trued-up by Commission |
|---|---|---|---|
| Opening Equity | 129.74 | 135.69 | 129.74 |
| Additions on account of new capitalisation | 1.57 | 1.64 | 1.64 |
| Closing Equity | 131.31 | 137.33 | 131.38 |
| Average Equity | 130.52 | 136.51 | 130.56 |
| Average Equity (Wires Business) (90%) | 117.47 | 122.86 | 117.50 |
| Average Equity (Retail Supply Business) Business) (10%) | 13.05 | 13.65 | 13.06 |
| Return on Equity for Wires Business (%) | 15.50% | 15.50% | 15.50% |
| Return on Equity for Retail Supply Business (%) | 16.00% | 16.00% | 16.00% |
| Return on Equity for Wires Business | 18.21 | 19.04 | 18.21 |
| Return on Equity for Retail Supply Business | 2.09 | 2.18 | 2.09 |
| **Return on Equity** | **20.30** | **21.23** | **20.30** |

**The Commission approves the Return on Equity of INR 20.30 Cr for FY 2019-20.**

## *3.15. Interest on Consumer Security Deposits*

### Petitioner's submission

Payments of INR 9.04 Cr were released to the consumers towards interest on security deposits during the FY 2019-20 against INR 12.62 Cr approved by the Commission in the APR.

### Commission's analysis:

Regulation 28.11 of the MYT Regulations, 2018 stipulates the following:

*"28.11. Interest shall be allowed on the amount held as security deposit held in cash from Retail Consumers at the Bank Rate as on 1st April of the Financial Year in which the Petition is filed:*

*Provided that at the time of truing-up, the interest on the amount of security deposit for the Year shall be considered on the basis of the actual interest paid by the Licensee during the Year, subject to prudence check by the Commission. "*

The Commission has considered the actual interest on security deposit disbursed to the consumers in their bills, as reflected in the audited accounts of the FY 2019-20 for Truing-up.

The following table provides the interest on security deposit as approved in the APR, the Petitioner's submission and the interest now trued-up by the Commission:

**Table 39: Interest on Consumer Security Deposits Trued-up by the Commission for FY 2019-20 (In INR Cr)**

| S. No | Particulars | Approved in Tariff Order for APR of FY 2019-20 | Petitioner's Submission | Trued-up by Commission |
|---|---|---|---|---|
| 1 | Opening Security Deposit | 197.85 | 197.85 | 197.85 |
| 2 | Add: Deposits During the year | 8.00 | 2.60 | 2.60 |
| 3 | Less: Deposits refunded | 0.00 | 4.74 | 4.74 |
| 4 | Closing Security Deposit | 205.85 | 195.72 | 195.72 |
| 5 | Average Security Deposit | 201.85 | 196.78 | 196.78 |
| | **Interest paid to consumers** | **12.62** | **9.04** | **9.04** |

**The Commission approves interest on security deposit as INR 9.04 Cr in the True-up of the FY 2019-20.**

## *3.16. Interest on Working Capital*

### Petitioner's submission

As per clause 31 & 52 of JERC MYT Regulations, 2018 the working capital of a licensee shall consist of:

(a) Receivable of two months of billing

(b) O&M Expenses of one month

(c) 40% of Repair & maintenance expenses for one month

(d) Less consumer security deposit but excluding Bank Guarantee

The interest on working capital is computed at 10.55% (SBI base rate as on 1st April 2019 plus 200 basis point) as has been shown in the following table:

**Table 40: Interest on Working Capital submitted by Petitioner (In INR Cr)**

| S. No | Particulars | Petitioner's Submission |
|---|---|---|
| 1 | Two months receivables | 140.33 |
| 2 | Add: one month O&M Expenses | 7.86 |
| 3 | Add: 40% of R&M expenses for one month | 0.45 |
| 4 | Less: Security Deposit excluding BG/FDR | 195.72 |
| 5 | Net Working Capital | (47.07) |
| 6 | Rate of Interest (%) | 10.55% |
| | **Interest on Working Capital** | **0.00** |

### Commission's analysis:

The Regulation 52 of the MYT Regulations, 2018 stipulates the following:

*"52. **Norms of Working Capital for Distribution Wires Business***

*52.1 The Distribution Licensee shall be allowed interest on the estimated level of working capital for the Distribution Wires Business for the Financial Year, computed as follows:*

*(a) O&M Expenses for one (1) month; plus*

*(b) Maintenance spares at 40% of repair and maintenance expenses for one (1) month; plus*

*(c) Receivables equivalent to two (2) months of the expected revenue from charges for use of distribution wires at the prevailing tariff;*

*Less:*

*(d) Amount, if any, held as security deposits under clause (b) of sub-section (1) of Section 47 of the Act from distribution system users except the security deposits held in the form of Bank Guarantees:*

*Provided that at the time of truing up for any Year, the working capital requirement shall be re-calculated on the basis of the values of components of working capital approved by the Commission in the truing up."*

Further, Regulation 31.3 of the MYT Regulation, 2018 stipulates the following:

*"31.3 The interest on working capital shall be a payable on normative basis notwithstanding that the Licensee has not taken working capital loan from any outside agency or has exceeded the working capital loan based on the normative figures. 31.4 The rate of interest on working capital shall be equal one (1)Year State Bank of India (SBI) MCLR / any replacement thereof as notified by RBI for the time being in effect applicable for one (1)Year period, as may be applicable as on 1st April of the Financial Year in which the Petition is filed plus 200 basis points."*

In accordance with the MYT Regulation, 2018, the Commission has computed the Interest on Working Capital for FY 2019-20. The actual Working Capital requirement, after deduction of the average amount of Consumer Security Deposit is coming out to be negative. Thus, the Interest on Working Capital has been considered as Nil, as shown in the following table:

**Table 41: Interest on Working Capital approved by the Commission for FY 2019-20 (In INR Cr)**

| S. No | Particulars | Approved in Tariff Order for APR of FY 2019-20 | Petitioner's Submission | Trued-up by Commission |
|---|---|---|---|---|
| 1 | O&M Expense for 1 month | 7.39 | 7.86 | 7.77 |
| 2 | Maintenance spares at 40% of R&M expenses for one (1) month; | 0.35 | 0.45 | 0.36 |
| 3 | Receivables equivalent to two (2) months of the expected revenue from charges at the prevailing tariff | 124.93 | 140.33 | 141.92 |
| 4 | Less: Amount, held as security deposits | 201.85 | 195.72 | 196.78 |
| 5 | Net Working Capital | 0.00 | 0.00 | 0.00 |
| 6 | Rate of Interest (%) | 10.55% | 10.55% | 10.55% |
| | **Interest on Working Capital** | **0.00** | **0.00** | **0.00** |

**The Commission approves the Interest on Working Capital as nil for FY 2019-20.**

## *3.17. Income Tax*

### Petitioner's submission

No submission has been made in this regard.

## Commission's analysis:

Regulation 32 of the MYT Regulations, 2018, states the following:

*"32. Tax on Income*

*32.1 The treatment of tax on income for a Transmission Licensee shall be in accordance with the prevalent CERC Tariff Regulations.*

*32.2 The Commission in its MYT Order shall provisionally approve Income Tax payable for each Year of the Control Period, if any, based on the actual income tax paid, including cess and surcharge on the same, if any, as per latest audited accounts available for the Distribution Licensee, subject to prudence check.*

*32.3 Variation between Income Tax actually paid, including cess and surcharge on the same, if any, and approved, if any, on the income stream of the Licensed business of the Distribution Licensees shall be reimbursed to/recovered from the Distribution Licensees, based on the documentary evidence submitted at the time of truing up of each Year of the Control Period, subject to prudence check.*

*32.4 Under-recovery or over-recovery of any amount from the Consumers on account of such tax having been passed on to them shall be adjusted every Year on the basis of income-tax assessment under the Income-Tax Act, 1961, as certified by the statutory auditors. The Distribution Licensee may include this variation in its truing up Petition:*

*Provided that tax on any income stream other than the core business shall not be a pass-through component in tariff and tax on such other income shall be borne by the Distribution Licensee."*

As the Regulation above stipulates that the income tax shall be approved as per actuals, the Commission considers the income tax payable for the year as nil as no Income Tax has been paid by the Petitioner for FY 2019-20.

**Table 42: Income Tax Trued-up by the Commission for FY 2019-20 (In INR Cr)**

| S. No | Particulars | Approved in Tariff Order for APR of FY 2019-20 | Petitioner's Submission | Trued-up by Commission |
|---|---|---|---|---|
| 1 | Income Tax | 0.00 | 0.00 | 0.00 |

**The Commission approves Income Tax liability as nil for the FY 2019-20.**

# *3.18. Provision for Bad & Doubtful Debts*

## Petitioner's submission

The Petitioner has submitted that in accordance with Clause 62 of JERC MYT Regulations, 2018, the licensee gets the receivables audited, allow actual provision for bad debts up to 1% of receivables in the revenue requirement of the licensee.

Accordingly, the Petitioner has submitted the Provision for Bad and Doubtful Debts as INR 4.34 Cr for FY 2019-20.

## Commission's analysis:

As per Regulation 62.1 of the MYT Regulations, 2018:

*"62.1 The Commission may allow bad debts written off as a pass through in the Aggregate Revenue Requirement, based on the trend of write off of bad debts in the previous years, subject to prudence check:*

*Provided that the Commission shall true up the bad debts written off in the Aggregate Revenue Requirement, based on the actual write off of bad debts excluding delayed payment charges waived off, if any, during the year, subject to prudence check:*

*Provided also that the provision for bad and doubtful debts shall be limited to 1% of the annual Revenue Requirement of the Distribution Licensee:*

*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 as an uncontrollable item under the Non-Tariff Income of the year in which such revenue is realised."*

The Commission had enquired for details of actual write off of bad and doubtful debts for the FY 2019-20. The Petitioner has submitted that no bad debts are written off by it during the year.

**The Commission therefore has not considered any bad and doubtful debts in the True-up of FY 2019-20.**

## 3.19. Non-Tariff Income (NTI)

### Petitioner's submission

The Petitioner has submitted the actual Non-Tariff Income of INR 24.97 Cr for the FY 2019-20.

### Commission's analysis:

The Commission observed that the Petitioner as included Delayed Payment Charges in Non-Tariff Income.

Regulation 34.2 of JERC MYT Regulation, 2018 states the following:

*"34.2 The delayed payment charge earned by the Transmission Licensee or the Distribution Licensee shall not be considered under its Non-Tariff Income."*

Therefore, the Commission has not considered delayed payment charges of INR 7.31 Cr under NTI. The Commission authenticated the submission of the Petitioner from the audited accounts. The NTI approved in the APR, Petitioner's submission and now trued-up by the Commission is shown in the following table:

**Table 43: Non- Tariff Income Trued-up by the Commission for FY 2019-20 (In INR Cr)**

| S. No | Particulars | Approved in Tariff Order for APR of FY 2019-20 | Petitioner's Submission | Trued-up by Commission |
|---|---|---|---|---|
| 1 | Non-tariff income | 19.33 | 24.97 | 17.66 |

**The Commission approves Non-Tariff Income of INR 17.66 Cr in the True-up of the FY 2019-20.**

## 3.20. Dis-incentive on account of under-achievement of Intra- State Transmission & Distribution (T&D) loss

### Petitioner's submission:

No submission has been made in this regard.

## Commission's analysis:

In the APR for FY 2019-20, the Commission had approved the T&D loss level of 9.40%. The Petitioner has achieved T&D loss of 11.91% against the approved loss level of 9.40%. The Commission, in accordance with Regulation 14.2 of the JERC MYT Regulations, 2018 (reproduced below) has determined the dis- incentive towards the under-achievement of the target of Intra-State distribution loss for the FY 2019-20 as follows:

*As per Regulation 14.2 of the MYT Regulations 2018,*
*"14.2 Approved aggregate loss, if any to the Transmission Licensee or Distribution Licensee on account of controllable factors shall be on account of the Licensee, and shall not be passed to the Consumers"*

The dis-incentive has been considered at INR 3.31/kWh, which is the Average Power Purchase cost (APPC) of the Petitioner. The APPC has been derived at State/UT Periphery based on the Power Purchase cost approved in the True-up and the Energy at the State/UT Periphery has been computed after grossing up the retail energy sales (1,595.55 MU) with the actual Intra-State T&D Loss (11.91%).

The assessment of incentive for lower T&D losses is shown in the following table:

**Table 44: Dis-incentive due to under-achievement of Intra-State Distribution Loss target (In INR Cr)**

| S. No | Particulars | As per Approved Intra-State T&D Loss | Trued-up by Commission |
|---|---|---|---|
| 1 | Retail Sales | 1,595.55 | 1,595.55 |
| 2 | T&D Loss (%) | 9.40% | 11.91% |
| 3 | Power Purchase at State/UT Periphery | 1,761.09 | 1,811.27 |
| 4 | Gain/(Loss) (MU) | | (50.18) |
| 5 | Average Power Purchase Cost (APPC) | | 3.31 |
| 6 | Gain/ (Loss) (INR Cr) | | (16.59) |
| 7 | **Sharing of 100% of Loss with the Petitioner** | | **(16.59)** |

**The Commission determines and approves INR 16.59 as dis-incentive for under- achieving the Intra-State Distribution Loss target for the FY 2019-20.**

## *3.21. Aggregate Revenue Requirement (ARR)*

### Petitioner's submission

Based on the expenses as detailed above, the Petitioner has submitted the net aggregate revenue requirement of INR 817.27 Cr for approval in the True-up of the FY 2019-20.

### Commission's analysis

The Commission on the basis of the detailed analysis of the cost parameters of the ARR approves the net revenue requirement in the True-up of the FY 2019-20 as given in the following table:

**Table 45: Aggregate Revenue Requirement Trued-up by Commission for the FY 2019-20 (In INR Cr)**

| S. No | Particulars | Approved in Tariff Order for APR of FY 2019-20 | Petitioner's Submission | Trued-up by Commission |
|---|---|---|---|---|
| 1 | Power Purchase Cost | 635.31 | 772.54 | 692.75* |
| 2 | Operation & Maintenance Expenses | 88.70 | 94.34 | 93.23 |
| 3 | Depreciation | 11.62 | 15.71 | 11.38 |
| 4 | Interest on Finance Charges | 0.35 | 3.10 | 2.07 |
| 5 | Return on Equity | 20.30 | 21.23 | 20.30 |
| 6 | Interest on Security Deposit | 12.62 | 9.04 | 9.04 |
| 7 | Interest on Working Capital | 0.00 | 0.00 | 0.00 |
| 8 | Income Tax | 0.00 | 0.00 | 0.00 |
| 9 | Provision for Bad & Doubtful Debt | 0.00 | 4.34 | 0.00 |
| 10 | Incentive/ (Disincentive)on achievement of norms | - | - | (16.59) |
| 11 | **Total Revenue Requirement** | **768.89** | **920.31** | **812.19** |
| 12 | Less: Revenue from outside sale of power | **-** | **78.07** | **-** |
| 13 | Less: Non-Tariff Income | 19.33 | 24.97 | 17.66 |
| **14** | **Net Revenue Requirement** | **749.56** | **817.27** | **794.53** |

**Adjusted with revenue from outside sale of power*

**The Commission approves net Aggregate Revenue Requirement of INR 794.53 Cr in the True-up of the FY 2019-20.**

## *3.22. Revenue at existing Retail Tariff*

### Petitioner's submission

The actual revenue from retail sale for the FY 2019-20 is INR 841.96 Cr as against INR 864.33 Cr approved by the Commission in the APR of FY 2019-20. The Petitioner has also considered revenue recovered through FPPCA of INR. -0.32 Cr. The detailed reconciled statement of revenue from the sale of power at existing tariff and FPPCA with reference to the final actual figures of income & expenditure as per the audited accounts of the FY 2019-20 has also been submitted.

Further, an amount of INR 9.91 Cr on account of Regulatory Surcharge billed by the Petitioner has also been considered.

### Commission's analysis

The Commission has analysed the sales and revenue figures for each consumer category and checked the revenue from audited accounts. The consumer category-wise revenue as submitted by the Petitioner and approved by the Commission is shown in the following table:

**Table 46: Revenue at existing tariff Trued-up by Commission for the FY 2019-20 (In INR Cr)**

| S. No | Particulars | Approved in Tariff Order for APR of FY 2019-20 | Petitioner's Submission | Trued-up by Commission |
|---|---|---|---|---|
| 1 | Domestic | 294.57 | 324.83 | 324.83 |
| 2 | Commercial | 302.48 | 307.96 | 307.96 |
| 3 | Large Industrial supply | 74.92 | 74.53 | 74.53 |
| 4 | Medium Industrial supply | 113.65 | 67.34 | 67.34 |
| 5 | Small Industrial Supply | 16.61 | 9.65 | 9.65 |
| 6 | Agriculture | 0.44 | 0.41 | 0.41 |
| 7 | Public lighting | 8.25 | 8.62 | 8.62 |
| 8 | Bulk supply | 50.06 | 45.41 | 45.41 |
| 9 | Temp. Supply | 3.36 | 3.19 | 3.19 |
| **10** | **Sub-total** | **864.33** | **841.96** | **841.96** |
| 11 | FPPCA | 30.62 | -0.32 | -0.32 |
| 12 | Regulatory Surcharge | 10.03 | 9.91 | 9.91 |
| **13** | **Grand total** | **904.98** | **851.54** | **851.54** |

**The Commission approves the revenue from sale of power as INR 851.54 Cr (including FPPCA charges and Regulatory Surcharge) in the True-up of the FY 2019-20.**

## *3.23. Standalone Revenue Gap/ (Surplus)*

### Petitioner's submission

Based on the ARR and the revenue from retail tariff, the standalone revenue surplus of INR 34.27 Cr is arrived at in the True-up of the FY 2019-20.

### Commission analysis

The Commission based on the approved ARR and retail tariff has arrived at the Revenue Gap/Surplus as follows:

**Table 47: Standalone Revenue Gap/ (Surplus) for the FY 2019-20 (In INR Cr)**

| S. No | Particulars | Approved in Tariff Order for APR of FY 2019-20 | Petitioner's Submission | Trued-up by Commission |
|---|---|---|---|---|
| 1 | Net Revenue Requirement | 749.56 | 817.27 | 794.53 |
| 2 | Revenue from Retail Sales at Existing Tariff | 864.33 | 841.96 | 841.96 |
| 3 | FPPCA Charges | 30.62 | -0.32 | -0.32 |
| 4 | Regulatory Surcharge | 10.03 | 9.91 | 9.91 |
| **5** | **Total Revenue** | **904.98** | **851.54** | **851.54** |
| | **Net Gap /(Surplus)** | **(155.42)** | **(34.27)** | **(57.02)** |

**The Commission, in the True-up of the FY 2019-20 approves a standalone surplus of INR 57.02 Cr. This standalone surplus has been carried over to the subsequent years and has been dealt with while determining the tariff for the FY 2021-22.**

# 4. Chapter 4: Annual Performance Review for the FY 2020-21

## 4.1. Applicable Provisions and Background

The MYT Order for 2nd Control Period was issued by the Commission on 20th May 2019 approving the Aggregate Revenue Requirement (ARR) (hereinafter referred to as 'MYT Order'). Subsequently, the Tariff Order approving True-up of the FY 2018-19, Annual Performance review (APR) of the FY 2019-20 and Aggregate Revenue Requirement (ARR) and determination of retail tariff for the FY 2020-21 was issued on 19th May 2020.

This Chapter covers the Annual Performance Review (APR) for the FY 2020-21 vis-à-vis the cost parameters approved by the Commission in the Tariff Order for FY 2020-21. The Annual Performance Review for the FY 2020-21 is to be carried out in accordance with the Regulation 11 of the MYT Regulations 2018:

***"11. Annual Performance Review, Truing-up and tariff determination during the Control Period***

*11.1 The Generating Company, Transmission Licensee and Distribution Licensee shall be subject to annual performance review and truing up of expenses and revenue during the Control Period in accordance with these Regulations.*

*11.2 The Generating Company, Transmission Licensee and Distribution Licensee shall file an application for the annual performance review of the current year, truing up of the previous Year or the Year for which the audited accounts are available and determination of tariff for the ensuing Year on or before 30th November of each Year, in formats specified by the Commission from time to time:*

*Provided that the Generating Company, Transmission Licensee or Distribution Licensee, as the case may be, shall submit to the Commission information in such form as may be specified by the Commission, together with the audited accounts, extracts of books of account and such other details as the Commission may require to assess the reasons for and extent of any variation in financial performance from the approved forecast of Aggregate Revenue Requirement and Expected Revenue from Tariff and Charges.*

*11.3 The scope of the annual performance review, truing up and tariff determination shall be a comparison of the performance of the Generating Company, Transmission Licensee or Distribution Licensee with the approved forecast of Aggregate Revenue Requirement and Expected Revenue from Tariff and Charges and shall comprise of the following:*

***a) True-up:** a comparison of the audited performance of the Applicant for the Financial Year for which the true up is being carried out with the approved forecast for such previous Financial Year, subject to the prudence check;*

***b) Annual Performance Review:** a comparison of the revised performance targets of the Applicant for the current Financial Year with the approved forecast in the Tariff Order corresponding to the Control Period for the current Financial Year subject to prudence check;*

*………"*

## 4.2. Approach for the Review for the FY 2020-21

The review of the Aggregate Revenue Requirement requires assessment of the quantum of energy sales, energy loss as well as the various cost elements like Power Purchase Cost, O&M expenses, interest on long term loans, interest on working capital loans, depreciation etc. The Annual Performance Review for the FY 2020-21 has been done based on actual Power Purchase Quantum and Cost of the first 6 months of the FY 2020-21, actual Energy

Sales for the first 6 months, etc. depending on which the estimates for the remaining months of the financial year have been made. The various cost elements constituting the Aggregate Revenue Requirement have been approved based on the information submitted by the Petitioner, the MYT Regulations 2018 on the basis of the norms approved in the MYT Order dated 20th May 2019.

In order to mitigate the hardship of Electricity Consumers and DISCOMs/EDs in view of nationwide lockdown due to COVID-19, the Commission had issued SUO MOTU ORDER NO. JERC/LEGAL/SMP/27/2020 on 10th April, 2020 wherein the Commission provided relief to industrial and commercial consumers and acknowledged the need for additional working capital requirement by the Distribution Licensees. Further, the Commission viewed that the lockdown will also impact certain other parameters of ARR like sales/sales mix, power purchase quantum and cost and revenue. The Commission opined that it will consider all such additional costs and variations in parameters appropriately while evaluating the APR of FY 2020-21 and thereafter in True-up of FY 2020-21. Accordingly, the Commission has considered the impact of lower sales, rebate received in power purchase cost and some other parameters due to COVID 19 as part of APR for FY 2020-21. Further, the Commission will consider the actual impact of COVID 19 on various parameters of ARR while carrying out the truing up for FY 2020-21.

## *4.3. Energy Sales*

### Petitioner's Submission

The sales for the FY 2020-21 have been estimated based on the CAGR of the actual sales approved by the Commission for the FY 2013-14 to FY 2018-19. The CAGR for the past five/three/two/one-year growth has been applied appropriately on the actual sales for the FY 2019-20 to arrive at the estimated sales for the FY 2020-21. Total sales of 1,626.51 MU have been estimated against the 1,579.64 MU as approved by the Commission in the Tariff Order for FY 2020-21.

### Commission's Analysis

The Commission has noted the audited figures for FY 2019-20 and provisional information provided by the Petitioner for the first 6 months of the FY 2020-21. The Commission is of the view that due to Covid-19 pandemic, the energy sales for H1 of FY 2020-21 is significantly lower. Thus, the Petitioner's method of determining the energy sales for H2 of FY 2020-21 in proportion as the actuals of H2 of FY 2019-20 cannot be considered appropriate. Therefore, for all the categories, the Commission has considered the actual energy sales till the month of September and the CAGR for the past five/four -year growth has been applied appropriately on the actual sales for the H2 of FY 2019-20 to arrive at the estimated sales for remaining period of FY 2020-21.

The following table provides the energy sales approved by the Commission in the Tariff Order, the Petitioner's submission and now approved by the Commission.

**Table 48: Energy Sales (MU) approved by the Commission for the FY 2020-21**

| S. No. | Category | Approved in Tariff Order for FY 2020-21 | Petitioner's Submission | | Now Approved by Commission |
|---|---|---|---|---|---|
| | | | Apr-Sep (Actual) | Estimated for FY 2020-21 | |
| 1 | Domestic | 640.05 | 354.57 | 781.89 | 738.37 |
| 2 | Commercial | 474.63 | 163.29 | 490.18 | 374.44 |
| 3 | Large Industrial supply | 121.59 | 59.13 | 124.00 | 120.14 |
| 4 | Medium Industrial supply | 208.59 | 47.04 | 108.69 | 98.95 |
| 5 | Small Industrial Supply | 32.93 | 7.96 | 18.43 | 16.21 |
| 6 | Agriculture | 1.54 | 0.63 | 1.41 | 1.28 |
| 7 | Public lighting | 14.59 | 6.80 | 14.78 | 15.49 |
| 8 | Bulk supply | 81.57 | 45.87 | 82.93 | 81.22 |
| 9 | Temp. Supply | 4.16 | 1.50 | 4.20 | 3.87 |
| | **Gross Total** | **1,579.64** | **686.80** | **1,626.51** | **1,449.98** |

**The Commission approves energy sales of 1,449.98 MU in the APR of the FY 2020-21.**

## *4.4. Inter-State Transmission Loss*

### Petitioner's submission

The Petitioner has considered the Inter-State Transmission Loss of 4.03%, same as the actual transmission losses of FY 2019-20.

### Commission's analysis

The Commission in the APR of FY 2020-21 considers the Inter-State transmission losses in line with those approved in the True-up of FY 2019-20. The same shall be revised based on actuals during the True-up exercise.

The following table provides the Inter-State Transmission Loss approved by the Commission in the Tariff Order for FY 2020-21, the Petitioner's submission and Loss level now approved by the Commission.

**Table 49: Inter-State Transmission Loss approved by the Commission for the FY 2020-21 (%)**

| S. No | Particulars | Approved in Tariff Order for FY 2020-21 | Petitioner's Submission | Now Approved by Commission |
|---|---|---|---|---|
| 1 | Inter-State Transmission Losses | 3.69% | 4.03% | 4.03% |

**The Commission approves Inter-State Transmission Loss of 4.03% for the APR of the FY 2020-21.**

## *4.5. Intra-State Distribution Loss*

### Petitioner's submission

The Petitioner submitted that as per the Tariff Order dated 19th May, 2020, the T&D loss approved for the FY 2020-21 was 9.30% as against the Petitioner's submission of 13.30%. While the Petitioner is dedicated for reducing the intra-state T&D losses in the UT of Chandigarh, there are constraints in reducing the T&D loss. Further, the T&D losses have remained stagnant due to significant increase in the sales in the LT category.

In addition to the issue of higher LT sales, another important factor is the absence of interconnection point within the UT boundary which has also been submitted to the Commission in its past submissions. The energy input at the Petitioner's periphery is currently being metered at 400kV Nalagarh, 220kV Mohali and 220kV Dhoolkot (BBMB) which has resulted in higher T&D losses for the Petitioner. The Petitioner has to bear around 3% additional losses of interstate circuit due to not having any interstate point in its boundary. In this regard, the Petitioner has submitted that construction of a 220/66 kV substation at Hallo Majra is under progress by M/s PGCIL. This substation shall cater to the future load growth of Chandigarh resulting in lower losses due to commissioning of an interconnection point within the UT periphery.

In view of the above, the Petitioner has submitted that the Commission may kindly consider & revise the loss target to a level which is achievable under the circumstances detailed above. The trend of T&D losses over the period of last 5 years upto FY 2016-17, shows that the Petitioner has been able to reduce the T&D loss substantially year over year. However, further reduction within the present infrastructural conditions & constraints explained as above would be difficult. Accordingly, the Petitioner has proposed a T&D loss target of 11.85% for the FY 2020-21.

### Commission's analysis

The Commission in the MYT Order had discussed in detail the approach and the basis of setting the Intra-State Distribution Loss trajectory for the MYT Period from FY 2019-20 to FY 2020-21 and retained the same in Tariff Order for FY 2020-21. The Petitioner has not made any additional submissions to substantiate its claim. The Commission decides to retain the same T&D loss as approved earlier.

The following table provides the Intra-State Distribution Loss approved in the Tariff Order for FY 2020-21, the Petitioner's submission and now approved by the Commission.

**Table 50: Intra-State Distribution Loss approved by the Commission for the FY 2020-21 (%)**

| S. No | Particulars | Approved in Tariff Order for FY 2020-21 | Petitioner's Submission | Now Approved by Commission |
|---|---|---|---|---|
| 1 | Intra-State Distribution Loss | 9.30% | 11.85% | 9.30% |

**The Commission approves Intra-State Distribution Loss of 9.30% in the APR of the FY 2020-21**

## *4.6. Power Purchase Quantum & Cost*

### Petitioner's submission:

The Petitioner procures power from various sources such as:

- Central Generating Stations (CGS) such as NTPC, NHPC and NPCIL
- Other Generating Stations such as SJVNL, BBMB, THDC, APCPL and MUNPL
- Other Sources such as bilateral agreement, banking arrangement, power exchange, UI etc.

The Petitioner has allocation from Northern as well as Western regions from coal, gas, nuclear and hydro power stations. However, for meeting the supply-demand gap during the peak hours, the Petitioner relies on energy exchange and Over-drawl from the grid.

For projecting the energy availability for the FY 2020-21, the Petitioner has considered 6 months actual power availability from various sources including short- term sources. For projecting the remaining six months of power purchase for the FY 2020-21, firm and infirm allocation from various generating stations has been considered as per the allocation specified in the notification number NRPC/OPR/103/02/2020/10081-10108 dated 16.10.2020 issued by Northern Regional Power Committee.

The revised estimated power purchase cost for FY 2020-21 is presented in the following table:

**Table 51: Power Purchase quantum (MU) and cost (In INR Cr) submitted by the Petitioner**

| Particulars | Approved in T.O. dated 19th May, 2020 | | Estimated | |
|---|---|---|---|---|
| | Units (in MUs) | Cost (in Rs. Cr.) | Units (in MUs) | Cost (in Rs. Cr.) |
| NTPC | 346.97 | 142.13 | 378.57 | 158.42 |
| NHPC | 263.99 | 105.22 | 306.42 | 115.21 |
| APCPL | 43.71 | 33.78 | 11.78 | 17.08 |
| NPCIL | 167.35 | 62.99 | 176.47 | 63.48 |
| SJVNL | 97.37 | 34.93 | 127.61 | 33.69 |
| BBMB | 633.97 | 131.67 | 694.37 | 164.74 |
| THDC | 172.63 | 75.59 | 183.95 | 90.88 |
| MUNPL | 19.39 | 12.76 | 7.70 | 8.38 |
| Bilateral/UI/Exchange | (39.52) | (12.29) | 264.90 | 79.69 |
| CREST | 9.67 | 7.47 | 6.94 | 5.53 |
| Pvt. Solar (Gross) | 1.09 | 0.95 | 1.64 | 1.19 |
| Non-Solar SECI | 25.00 | 7.25 | - | 74.93 |
| PGCIL Charges | - | 63.26 | - | 32.39 |
| NRLDC Charges | - | - | - | 0.15 |
| Reactive Energy | - | - | - | 0.08 |
| REC Cost | - | - | - | 4.16 |
| **Grand Total** | **1,741.61** | **665.72** | **1,157.99** | **817.60** |

## Commission's Analysis:

The Commission while estimating the power purchase quantum and cost for FY 2020-21 has considered the actual quantum and cost of power till September 2020 (H1), as submitted by the Petitioner. The Commission has projected the quantum of energy and cost for the remaining 6 months of the FY 2020-21 (H2). The methodology followed for projecting the quantum and cost for the remaining months of FY 2020-21 has been discussed as follows:

### *4.6.1. Availability of power*

**Availability of energy from APCPL and NTPC Stations:**

- The energy availability from APCPL and the NTPC stations except Tanda-II station has been estimated based on the average energy available during the months of October – March in the last intermittent scheduling in the past two/three financial years FY 2017-18 to FY 2019-20 based on the scheduling of stations.

- For Tanda-II, The Petitioner has started to receive power from this station from November 2019 onwards hence the quantum of energy available has been considered same as the average energy available during H1 of FY 2020-21.

**Availability of energy from NHPC, THDC, BBMB and SJVNL stations:**

- The energy availability from all stations of NHPC, THDC, BBMB and SJVNL has been estimated based on the average energy available during the months of October – March in the last three financial years FY 2017-18 to FY 2019-20 based on the scheduling of stations.

**Availability from NPCIL stations:**

- The energy availability from all the stations of NPCIL has been estimated based on the average energy available during the months of October – March in the last two/three financial years FY 2017-18 to FY 2019-20 based on the scheduling of stations.

**Availability from MUNPL Meja Thermal station:**

- The Petitioner has started to receive power from this station from April 2019 onwards hence the quantum of energy available has been considered same as the average energy available during H1 of FY 2020-21.

**Availability of power from CREST and other Renewable Energy Sources**

- The energy availability from CREST and other Renewable Energy has been estimated based on the average energy available during the months of October – March in the last two/three financial years FY 2017-18 to FY 2019-20 based on the scheduling of stations.

**Availability of power from the Open Market, Unscheduled Interchange and Banking**

- The Open market purchase and sale for April-Jan has been considered as per actuals. For the remaining months the quantum of purchase/sale has been considered as estimated in the energy balance, discussed in the subsequent section

- No quantum of energy under banking has been considered for FY 2020-21.

- Quantum under UI Over-drawal/ Under-drawal in April-Dec of FY 2020-21 has been considered as per actuals. No quantum under UI has been considered for the remaining months of FY 2020-21.

### *4.6.2. Power Purchase Cost*

**Variable Charges:**

- The per unit variable costs for various power stations have been computed by taking the average of the actual per unit variable cost during the first 6 months from April 2020 to September 2020 for all the stations.

- For purchase/sale of power from the Open Market, the Average Round the Clock (RTC) rate for the Northern Region during the financial year 2020 has been considered.

**Fixed Charges:**

- Actual Fixed Costs have been considered for the first six months for all stations.

- The fixed costs for the remaining months for the NHPC Stations have been considered same as the actuals of first six months.

- The fixed costs for the remaining months have been considered based on the Tariff Orders issued by the CERC for respective Central Generating Stations (except NHPC).

**Other Charges:**

- Actual charges have been considered for the first 6 months of the FY 2020-21. The Other charges for the remaining months have been considered same as the actuals of first six months.

- Actual charges for BBMB O&M Charges & R&MU Charges have been considered for FY 2020-21

### 4.6.3. Transmission Charges

The Commission has estimated the transmission charges payable to PGCIL based on the total capacity allocation of the transmission network of the Petitioner.

The transmission charges are determined based on the latest quarterly Point of Connection (PoC) rates approved by the Central Electricity Regulatory Commission (CERC) in accordance with Regulation 17(2) of the Central Electricity Regulatory Commission (Sharing of Inter State Transmission Charges and Losses) Regulations, 2010 and the latest Regional Power Committee reports specifying the station-wise cumulative weighted average share of the various CG Stations allocated to the Petitioner.

### 4.6.4. Total power purchase quantum and cost

The following table provides the quantum of energy availability and the power purchase cost approved by the Commission for the FY 2020-21:

**Table 52: Power Purchase Quantum (MU) and cost (INR Cr) approved by the Commission for the FY 2020-21**

| Details of the stations | Units Purchased (MU) | Variable Charges (INR. Cr.) | Fixed Charges (INR. Cr.) | Other Charges# (INR. Cr.) | Total Charges (INR. Cr.) |
|---|---|---|---|---|---|
| **NTPC** | | | | | |
| Singrauli | 8.83 | 1.30 | 0.90 | (0.13) | 2.08 |
| Rihand I | 61.34 | 9.23 | 6.40 | (0.81) | 14.82 |
| Rihand II | 58.66 | 8.82 | 4.50 | (0.07) | 13.25 |
| Rihand III | 43.03 | 6.33 | 6.80 | 0.10 | 13.23 |
| Unchahar I | 10.59 | 3.44 | 1.60 | 0.40 | 5.45 |
| Unchahar II | 15.19 | 5.01 | 2.40 | 0.41 | 7.82 |
| Unchahar III | 7.84 | 2.62 | 1.17 | 0.41 | 4.20 |
| Unchahar IV | 19.55 | 6.21 | 5.27 | 0.83 | 12.31 |
| Anta | 8.04 | 2.19 | 5.80 | (0.18) | 7.81 |
| Auriya | 8.98 | 2.29 | 6.84 | 0.36 | 9.49 |
| Dadri | 26.07 | 7.16 | 7.47 | 0.47 | 15.10 |
| Kahalgaon II | 19.05 | 4.17 | 1.82 | (0.03) | 5.96 |
| Dadri II | 2.67 | 0.98 | 1.17 | 0.27 | 2.42 |
| Koldam Hydro | 46.40 | 11.86 | 13.46 | (0.28) | 25.04 |
| Singrauli Hydro | 0.25 | 0.13 | 0.00 | 0.03 | 0.16 |
| Tanda II | 20.22 | 5.34 | 3.22 | 0.22 | 8.78 |
| **Subtotal - NTPC** | **356.70** | **77.07** | **68.82** | **1.99** | **147.89** |
| | | | | | |
| **NHPC** | | | | | |
| Salal | 9.07 | 0.58 | 0.78 | 0.87 | 2.23 |
| Tanakpur | 4.59 | 0.79 | 1.55 | 0.01 | 2.34 |
| Chamera I | 92.17 | 10.96 | 10.86 | 0.45 | 22.27 |
| Chamera II | 17.08 | 1.79 | 2.58 | 0.06 | 4.43 |
| Uri | 17.46 | 1.50 | 2.04 | 0.56 | 4.10 |
| Dhauliganga | 25.58 | 3.24 | 3.68 | 1.02 | 7.94 |
| Dulhasti | 41.62 | 11.92 | 11.89 | 3.14 | 26.95 |
| Sewa II | 11.72 | 3.23 | 2.87 | 6.94 | 13.05 |

| Details of the stations | Units Purchased (MU) | Variable Charges (INR. Cr.) | Fixed Charges (INR. Cr.) | Other Charges# (INR. Cr.) | Total Charges (INR. Cr.) |
|---|---|---|---|---|---|
| URI II | 18.88 | 4.20 | 5.17 | (2.72) | 6.65 |
| Chamara III | 20.51 | 4.21 | 4.29 | (0.53) | 7.97 |
| Parbati-III | 12.71 | 2.04 | 4.22 | 0.02 | 6.27 |
| Kishanganga | 13.69 | 2.81 | 3.13 | 1.21 | 7.15 |
| **Subtotal- NHPC** | **285.07** | **47.26** | **53.06** | **11.03** | **111.35** |
| | | | | | |
| **NPCIL** | | | | | |
| NAPS | 76.63 | 23.73 | 0.00 | 1.37 | 25.09 |
| RAPP (Unit 3 & 4) | 14.80 | 4.87 | 0.00 | 0.36 | 5.24 |
| RAPP (Unit 5 & 6) | 73.96 | 28.74 | 0.00 | 0.87 | 29.61 |
| **Subtotal- NPCIL** | **165.39** | **57.34** | **0.00** | **2.60** | **59.94** |
| | | | | | |
| **SJVNL** | | | | | |
| Nathpa Jhakri | 103.92 | 12.32 | 11.02 | (1.55) | 21.79 |
| Rampur | 17.25 | 3.81 | 2.99 | (0.30) | 6.51 |
| **Subtotal- SJVNL** | **121.17** | **16.14** | **14.01** | **-1.85** | **28.30** |
| | | | | | |
| **BBMB** | | | | | |
| BBMB 3.5% | 557.26 | 51.68 | 0.00 | 0.00 | 51.68 |
| BBMB 1 LU- Dehar | 83.06 | 11.15 | 0.00 | 0.05 | 11.20 |
| BBMB 10 LU- Pong | 25.03 | 68.31 | 0.00 | 0.98 | 69.29 |
| BBMB O&M Charges | | | | 15.04 | 15.04 |
| BBMB R&MU Charges | | | | 1.11 | 1.11 |
| **Subtotal- BBMB** | **665.34** | **131.14** | **0.00** | **17.18** | **148.32** |
| | | | | | |
| **APCPL** | | | | | |
| APCPL Jhajjar | 20.70 | 7.18 | 9.36 | (0.08) | 16.47 |
| **Subtotal- APCPL** | **20.70** | **7.18** | **9.36** | **(0.08)** | **16.47** |
| | | | | | |
| **THDC** | | | | | |
| Koteshwar | 14.38 | 3.47 | 5.98 | (0.14) | 9.31 |
| Tehri | 158.48 | 33.82 | 36.01 | (1.48) | 68.35 |
| **Subtotal- THDC** | **172.86** | **37.29** | **41.99** | **-1.62** | **77.66** |
| | | | | | |
| **MUNPL** | | | | | |
| Meja Thermal | 15.75 | 5.16 | 9.20 | (0.19) | 14.18 |
| **Subtotal- MUNPL** | **15.75** | **5.16** | **9.20** | **-0.19** | **14.18** |
| | | | | | |
| **RPO** | | | | | |
| Crest | 8.10 | 6.37 | 0.00 | 0.00 | 6.37 |
| Pvt. Solar (Gross) | 1.18 | 1.02 | 0.00 | (0.01) | 1.01 |
| Pvt. solar (Net) | 0.33 | 0.10 | 0.00 | 0.00 | 0.10 |
| **Subtotal- Others** | **9.61** | **7.50** | **0.00** | **-0.01** | **7.49** |
| | | | | | |
| **Total – Firm Sources** | **1,888.32** | **386.08** | **196.45** | **29.07** | **611.60** |
| | | | | | |
| Unscheduled Interchange (UI) Over-drawal/Under-drawal | 50.54 | 17.21 | 0.00 | 0.00 | 17.21 |
| Open Market Purchase | 32.41 | 11.97 | 0.00 | 0.00 | 11.97 |
| Less: Open Market Sale | 296.90 | 62.26 | 0.00 | 0.00 | 62.26 |

| Details of the stations | Units Purchased (MU) | Variable Charges (INR. Cr.) | Fixed Charges (INR. Cr.) | Other Charges# (INR. Cr.) | Total Charges (INR. Cr.) |
|---|---|---|---|---|---|
| | | | | | |
| **Sub Total- Power Purchase Cost** | **1598.66** | **353.00** | **196.45** | **29.07** | **578.52** |
| | | | | | |
| **Transmission Charges** | | | | | |
| PGCIL Charges | | | | | **74.19** |
| **Subtotal – Transmission Charges** | | | | | **74.19** |
| | | | | | |
| **Total Power Purchase Cost** | **1598.66** | **353.00** | **196.45** | **29.07** | **652.71** |

*# Other Charges includes ED & Cess on APC/Sales, Energy Charges Revision, ECR Gain Sharing, etc.*

**The Commission approves the revised quantum of power purchase as 1,598.66 MU at the UT Periphery with total cost of INR 652.71 Cr in the APR of the FY 2020-21.**

## *4.7. Renewable Purchase Obligation (RPO)*

### Petitioner's submission:

The Petitioner is required to procure power from renewable sources for meeting the RPO requirement for the FY 2020-21. Further, based on the revised sales for FY 2020-21, applicable RPO and actual renewable power/REC procured during first six months of FY 2020-21, the balance RPO compliance during the six months have been computed. Besides the REC purchase, the Petitioner has also purchased energy from solar plants under gross metering and net metering. Further, the Petitioner has followed the methodology of adjusting the excess solar RPO compliance with Non-Solar RPO compliance, which has been approved by the Commission in the Tariff Order dated 20th May, 2019.

The RPO requirement for FY 2020-21 and the compliance status as submitted by the Petitioner has been provided in the following table:

**Table 53: Effective Energy Sales (Excluding Hydro) as submitted by Petitioner**

| S. No. | Particular | Formula | FY 2020-21 |
|---|---|---|---|
| 1 | Energy Sales within UT (In MUs) | a | 1,626.51 |
| 2 | Hydro Power Purchase (In MUs) | b | 1,361.39 |
| 3 | Inter-State Loss | c | 4.03% |
| 4 | Inter-State Loss (In MUs) | d=b*c | 54.86 |
| 5 | Intra-State Loss | e | 11.85% |
| 6 | Intra-State Loss (In MUs) | f=e*(b-d) | 154.82 |
| 7 | Hydro Power Consumed (In MUs) | g=b-d-f | 1,151.71 |
| **8** | **Conventional Power Consumed (In MUs)** | **h=a-g** | **474.81** |

**Table 54: RPO Requirement (Solar and Non-Solar) as submitted by Petitioner**

| Particulars | RPO (%) | Target | | Estimated 2019-20 | Excess RPO Procured 2019-20 (MU) | RPO to be Procured after adjusting excess solar RPO 2019-20 H2 (MU) |
|---|---|---|---|---|---|---|
| | | Conventional Power Consumed (MU) | Units (MU) | Units (MU) | | |
| Solar | 6.10% | 474.81 | 28.96 | 32.58 | 3.62 | - |
| Non-Solar | 8.00% | 474.81 | 37.98 | - | - | 34.37 |
| **Total** | **14.10%** | | **66.95** | **32.58** | **3.62** | **34.37** |

The Petitioner has proposed to fulfill the remaining RPO by way of purchase of Renewable Energy Certificates (REC's). The Cost of the same has been considered in the Overall Power Purchase cost of the Petitioner for FY 2020-21.

## Commission's analysis:

As per Clause 1, Sub-clause (1) of the JERC for the State of Goa and UTs (Procurement of Renewable Energy) Regulations, 2010

*"Each distribution licensee shall purchase electricity (in kWh) from renewable energy sources, at a defined minimum percentage of the total consumption of all the consumers in its area during a year."*

The Commission notified the JERC (Procurement of Renewable Energy), (Third Amendment) Regulations, 2016 on 22nd August 2016 and approved the revised RPO targets, as per which the Petitioner has to purchase 14.10% of its total consumption through conventional sources (including 6.10% from Solar) from renewable sources for the FY 2020-21.

The effective energy sales used for calculation of the RPO has been arrived at as follows:

**Table 55: Effective energy sales (adjusted for hydro) (in MU)**

| S.No. | Particular | Formula | FY 2020-21 |
|---|---|---|---|
| 1 | Energy Sales within UT | a | 1,449.98 |
| 2 | Hydro Power Purchase | b | 1,345.31 |
| 3 | Inter-State Loss (%) | c | 4.03% |
| 4 | Inter-State Loss (MU) | d= c*b | 54.22 |
| 5 | Intra-State Loss (%) | e | 9.30% |
| 6 | Intra-State Loss (MU) | f=e*(b-d) | 120.07 |
| 7 | Hydro Power Consumed (MU) | g=b-d-f | 1,171.02 |
| 8 | Conventional Power consumed | h= a-g | 278.96 |

In accordance with the JERC for the State of Goa and UTs (Procurement of Renewable Energy) Regulations, 2010 and the Petitioner's submission, the Commission has determined the following Renewable Purchase Obligation for the Petitioner for the FY 2020-21. The Petitioner has backlog of 1.70 MUs from FY 2019-20.

**Table 56: Summary of Renewable Purchase Obligation (RPO) (MU)**

| Description | FY 2020-21 |
|---|---|
| Sales within State from conventional sources (MU) | 278.96 |
| **RPO obligation (in %)** | **14.10%** |
| Solar | 6.10% |
| Non-solar | 8.00% |
| **RPO obligation for the year (in MU)** | **39.33** |
| Solar | 17.02 |
| Non-solar | 22.32 |
| **Backlog upto FY 2019-20** | **1.70** |
| Solar | 0.00 |
| Non Solar | 1.70 |
| **Total RPO to be fulfilled for the year** | **41.03** |
| Solar | 17.02 |
| Non Solar | 24.01 |
| **RPO compliance (proposed actual purchase)** | **32.58** |
| - Solar | 32.58 |
| *Crest power* | 29.08 |
| *Pvt. Solar (Gross Generated)* | 3.50 |
| -Non-solar | 0.00 |
| **RPO compliance (REC certificate purchase)** | **0.00** |
| - Solar | 0.00 |
| -Non-solar | 0.00 |
| **Total RPO compliance (Physical Purchase+ REC certificate purchase)** | **32.58** |
| - Solar | 32.58 |
| -Non-solar | 0.00 |

As per the JERC (Procurement of Renewable Energy), (Third Amendment) Regulations, 2016 dated 22nd August 2016, the Commission has notified the total RPO in terms of percentage of total energy mix of consumption excluding hydropower and has also specified the minimum quantum of Solar RPO to be met out of the total RPO. The Commission has observed that the Licensee has projected over-achievement of Solar and Non-Solar RPO. The actual compliance in respect of the pending RPO would be reviewed at the time of true-up and the supporting details such as purchase of RECs, bills from Solar/Non-Solar plants for the year must be submitted.

The compliance and cost status towards RPO for FY 2020-21 as approved by the Commission is provided in the following table:

**Table 57: Cost towards compliance of Renewable Purchase Obligation (In INR Cr)**

| S. No | Description | RPO (MU) | Total Cost (INR Cr) | Avg. Rate (INR/kWh) |
|---|---|---|---|---|
| **1** | **Solar** | **32.58** | **7.49** | **2.30** |
| *(a)* | *CREST** | 29.08 | 6.37 | 2.19 |
| *(b)* | *Pvt. Solar (Gross/Net Generation)** | 3.50 | 1.12 | 3.19 |
| **2** | **Non-solar** | **-** | **-** | **-** |
| | **Total** | **32.58** | **7.49** | **2.30** |

**Includes the Captive Generation*

**The Commission approves INR 7.49 Cr towards compliance of RPO in the APR of FY 2020-21 and the same has been considered in the Power Purchase cost approved for FY 2020-21.**

## 4.8. Energy Balance

### Petitioner's submission

The energy requirement as submitted by the Petitioner has been shown in the following table:

**Table 58: Energy Requirement of the System (MU)**

| Energy Available | Petitioner's Submission |
|---|---|
| Units Procured | 2,151.76 |
| Less: Outside Sale - Trading | 216.13 |
| Energy Available | 1,935.63 |
| Inter-State Transmission Loss | 4.03% |
| Transmission Loss (Mus) | 78.01 |
| **Net Energy Available at UT Periphery** | **1,857.62** |
| Power procured from Gross & NET Metering Mode (In MUs) | 8.58 |
| **Total Energy Available** | **1,866.20** |
| | |
| **Actual Energy Sales (Mus)** | 1,626.51 |
| T&D Loss (%) | 11.85% |
| T&D Loss (in MUs) | 239.69 |
| **Total Energy Required at UT Periphery (MUs)** | **1,866.20** |
| | |
| **Demand Supply (Gap) / Surplus** | **0.00** |

### Commission's analysis

Based on the revised estimates of energy sales and power purchase quantum, the Commission approves the following energy balance:

**Table 59: Energy Balance approved by the Commission for the FY 2020-21 (MU)**

| Particulars | Approved in Tariff Order for FY 2020-21 | Petitioner's Submission | Now Approved by Commission |
|---|---|---|---|
| **Energy Requirement** | | | |
| Energy sales within the State/UT (a) | 1,579.64 | 1,626.51 | 1,449.98 |
| **Distribution losses (b)** | | | |
| % | 9.30% | 11.85% | 9.30% |
| MU | 161.97 | 239.69 | 148.67 |
| **Total Energy requirement (c=a/(1-b))** | **1,741.61** | **1,866.20** | **1,598.66** |
| | | | |
| **Energy Availability** | | | |
| Availability from various sources (d) | 1,781.13 | 1,866.20 | 1812.60 |
| Availability from UI Over-drawal/ Under-drawal (e) | 0.00 | 0.00 | 50.54 |
| Add: Net Purchase in Open Market in H1 FY 2020-21 (f) | 0.00 | 0.00 | 32.41 |
| Less: Net sale in Open Market in H1 FY 2020-21 (g) | 0.00 | 0.00 | 203.50 |
| **Total Energy Availability (h=d+e+f-g)** | **1,781.13** | **1,866.20** | **1692.06** |
| **Deficit/(Surplus) (i=c-h)** | **(39.52)** | **0.00** | **(93.40)** |

**The Commission has estimated a surplus of 93.40 MU and has assumed that the surplus power shall be sold in Open Market in H2 of FY 2020-21. The revenue from sale of surplus power has been adjusted by the Commission in power procurement cost approved in the earlier section.**

## 4.9. Operation & Maintenance Expenses

The Operation & Maintenance Expenses comprise of the Employee Expenses, Administrative & General Expenses (A&G) and the Repair & Maintenance Expenses (R&M). Regulation 51 of the MYT Regulation, 2018 states the following:

*51.1 The Operation and Maintenance expenses for the Distribution Wires Business shall be computed in accordance with this Regulation.*

*51.2 Operation and Maintenance (O&M) expenses shall comprise of the following:*

*a) Employee expenses - salaries, wages, pension contribution and other employee costs;*

*b) Administrative and General expenses including insurance charges if any; and*

*c) Repairs and Maintenance expenses.*

*51.3 The Distribution Licensee shall submit the required O&M expenses for the Control Period as a part of Multi Year Tariff Petition. O&M expenses for the base Year shall be approved by the Commission taking into account the latest available audited accounts, business plan filed by the transmission Licensee, estimates of the actuals for the Base Year, prudence check and any other factors considered appropriate by the Commission.*

*51.4 O&M expenses for the nth Year of the Control Period shall be approved based on the formula given below:*

*O&Mn = (R&Mn + EMPn + A&Gn) x (1 - Xn) + Terminal Liabilities*

*Where,*

*R&Mn = K x GFAn-1 x (WPIinflation)*

*EMPn = (EMPn-1) x (1+Gn) x (CPIinflation)*

*A&Gn = (A&Gn-1) x (CPIinflation)*

*'K' is a constant (expressed in %). Value of K for each Year of the Control Period shall be determined by the Commission in the Multi Year Tariff Order based on Licensee's filing, benchmarking of repair and maintenance expenses, approved repair and maintenance expenses vis-à-vis GFA approved by the Commission in past and any other factor considered appropriate by the Commission;*

*CPIinflation – is the average increase in Consumer Price Index (CPI) for immediately preceding three (3) Years before the base Year;*

*WPIinflation – is the average increase in the Wholesale Price Index (CPI) for immediately preceding three (3) Years before the base Year;*

*EMPn – Employee expenses of the Distribution Licensee for the nth Year;*

*A&Gn – Administrative and General expenses of the Distribution Licensee for the nth Year;*

*R&Mn – Repair and Maintenance expenses of the Distribution Licensee for the nth Year;*

*GFAn-1 – Gross Fixed Asset of the transmission Licensee for the n-1th Year;*

*Xn is an efficiency factor for nth Year. Value of Xn shall be determined by the Commission in the Multi Year Tariff Order based on Licensee's filing, benchmarking, approved cost by the Commission in past and any other factor the Commission feels appropriate;*

*Gn is a growth factor for the nthYear. Value of Gn shall be determined by the Commission for each Year in the Multi Year Tariff Order for meeting the additional manpower requirement based on Licensee's filings, benchmarking, approved cost by the Commission in past and any other factor that the Commission feels appropriate:*

*Provided that in case the Distribution Licensee has been in operation for less than three (3) Years as on the date of effectiveness of these Regulations, O&M Expenses shall be determined on case to case basis.*

*51.5 Terminal liabilities of employees of Licensee including pension expenses etc. shall be approved as per actuals submitted by the Licensee, subject to prudence check or be established through actuarial studies. Additionally, any variation due to changes recommended by the pay commission shall be allowed separately by the Commission, subject to prudence check.*

*51.6 For the purpose of estimation, the same value of factors – CPIinflation and WPIinflation shall be used for all Years of the Control Period. However, the Commission shall consider the actual values of the factors – CPIinflation and WPIinflation during the truing up exercise for the Year for which true up is being carried out and true up the O&M Expenses for that Year, only to the extent of inflation.*

### 4.9.1. Employee Expenses

## Petitioner's submission

The Petitioner has estimated the Employee Expenses, A&G Expenses and R&M Expenses for the FY 2020-21 based on the actual for the period April, 2020 to September, 2020 and projected figures for the period of October, 2020 to March, 2021. The Petitioner has submitted that the actual Employee Expenses for H1 of FY 2020-21 is INR 43.05 Cr and has accordingly projected the Employee Expenses of INR 86.11 Cr for FY 2020-21.

## Commission's analysis

In accordance with the MYT Regulations, 2018, the Commission has determined the Employee expenses for each year of the MYT Control Period. The Regulation 6 of the MYT Regulations, 2018 stipulates the following:

*"**6. Values for Base Year***

*6.1 The values for the Base Year of the Control Period shall be determined on the basis of the audited accounts or provisional accounts of last three (3) Years, and other factors considered relevant by the Commission:*

*Provided that, in absence of availability of audited accounts or provisional accounts of last three (3) Years, the Commission may benchmark the parameters with other similar utilities to establish the values for Base Year:*

*Provided further that the Commission may change the values for Base Year and consequently the trajectory of parameters for Control Period, considering the actual figures from audited accounts.*

The Commission has considered the employee expenses for Base Year same as trued up in the preceding chapter. The base year employee expenses have been escalated by Growth Rate determined based on the manpower plan approved in the Business Plan Order and CPI Inflation to arrive upon the employee expenses for FY 2020-21.

The CPI Inflation has been computed as follows:

**Table 60: Computation of CPI Inflation (%)**

| FY | Average of (Apr-Mar) | Increase in CPI Index | Average increase in CPI indices over 3 years |
|---|---|---|---|
| 2017-18 | 284.42 | 3.08% | |
| 2018-19 | 299.92 | 5.45% | |
| 2019-20 | 322.50 | 7.53% | |
| | | **CPI Inflation** | **5.35%** |

Accordingly, the employee expenses approved by the Commission for FY 2020-21 have been provided in the following table:

**Table 61: Employee Expenses approved by the Commission for the FY 2020-21 (In INR Cr)**

| S. No | Particulars | FY 2019-20-Base Year (Approved in True-up) | FY 2020-21 |
|---|---|---|---|
| 1 | Employee Expenses base year | | 75.63 |
| 2 | Growth in number of employees (Gn) | | -0.54% |
| 3 | CPI Inflation for preceding three years (CPI) | | 5.35% |
| **4** | **Employee Expenses** | **75.63** | **79.26** |

**The Commission approves Employee Expenses of INR 79.26 Cr for FY 2020-21.**

### *4.9.2. Administrative and General (A&G) Expenses*

## Petitioner's submission

The Petitioner has submitted that the actual Employee Expenses for H1 of FY 2020-21 is INR 3.11 Cr and has accordingly projected the Employee Expenses of INR 6.22 Cr for FY 2020-21.

## Commission's analysis

Similar to the methodology followed while estimating the employee expenses, the Commission has determined the A&G expenses for the FY 2020-21 using the CPI Inflation for preceding three years to determine the A&G expenses for FY 2020-21.

The A&G expenses approved by the Commission in FY 2020-21 have been provided in the following table:

**Table 62: A&G Expenses approved by the Commission for the FY 2020-21 (In INR Cr)**

| S. No | Particulars | FY 2019-20-Base Year (Approved in True-up) | FY 2020-21 |
|---|---|---|---|
| 1 | A&G Expenses(n-1) | | 6.93 |
| 2 | CPI Inflation | | 5.35% |
| **3** | **A&G Expenses** | **6.93** | **7.30** |

**The Commission approves the Administrative & General (A&G) expenses of INR 5.20 Cr for FY 2020-21.**

### 4.9.3. Repair & Maintenance Expenses (R&M)

#### Petitioner's submission

The Petitioner has submitted that the actual Employee Expenses for H1 of FY 2020-21 is INR 4.86 Cr and has accordingly projected the Employee Expenses of INR 10.81 Cr for FY 2020-21.

#### Commission's analysis

In accordance with the MYT Regulations, 2018, the 'K' factor has been considered same as approved in the MYT Order. The 'K' factor is then multiplied with the opening GFA approved for $(n-1)^{th}$ year. The resultant amount is then escalated by latest WPI Inflation to arrive upon the R&M Expenses for FY 2020-21.

The WPI Inflation has been computed as follows:

**Table 63: Computation of WPI Inflation (%)**

| FY | Average of (Apr-Mar) | Increase in WPI Index | Average increase in WPI indices over 3 years |
|---|---|---|---|
| 2017-18 | 114.88 | 2.92% | |
| 2018-19 | 119.79 | 4.28% | |
| 2019-20 | 121.80 | 1.68% | |
| | | **WPI Inflation** | **2.96%** |

The R&M expenses approved by the Commission in FY 2020-21 have been provided in the following table:

**Table 64: R&M Expenses approved by the Commission for the FY 2020-21 (In INR Cr)**

| S. No | Particulars | FY 2020-21 |
|---|---|---|
| 1 | GFA ($GFA_{n-1}$) of previous year | 457.77 |
| 2 | K factor approved (K) in MYT Order | 2.32% |
| 3 | WPI Inflation (Average of preceding three years) | 2.96% |
| **4** | **R&M Expenses = (K x ($GFA_{n-1}$) x ($1+WPI_{inflation}$)** | **10.93** |

**The Commission approves the Repair & Maintenance (R&M) expenses of INR 10.93 Cr for FY 2020-21.**

### 4.9.4. Total Operation and Maintenance Expenses (O&M)

The following table provides the O&M expenses, approved by the Commission in the MYT Order, Petitioner's submission and O&M expenses now approved by the Commission.

**Table 65: O&M Expenses approved by the Commission for the FY 2020-21 (In INR Cr)**

| S. No | Particulars | Approved in Tariff Order for FY 2020-21 | Petitioner's Submission | Now Approved by Commission |
|---|---|---|---|---|
| 1 | Employee Expenses | 76.16 | 86.11 | 79.26 |
| 2 | Administrative & General Expenses (A&G) | 4.99 | 6.22 | 7.30 |
| 3 | Repair & Maintenance Expenses | 10.81 | 10.81 | 10.93 |
| | **Total Operation & Maintenance Expenses** | **91.95** | **103.13** | **97.49** |

**The Commission approves the Operation & Maintenance (O&M) expenses of INR 97.49 Cr in the APR of the FY 2020-21.**

## *4.10. Capital Expenditure and Capitalisation*

### Petitioner's submission

The Petitioner has proposed the capital expenditure and capitalisation during the FY 2020-21 based on the actual capital expenditure and capitalisation incurred in the first half of FY 2020-21. The Petitioner has submitted that the actual capitalisation achieved in the first 6 months of FY 2020-21 is INR 3.96 Cr.

The Petitioner has further submitted capitalisation of INR 5.15 Cr in Annexure R in replies to 1st Deficiency Note vide memo no. SEE/OP/C1/2021/210/329 dated 05.02.2021.

The following table provides the capital expenditure and capitalisation for first 6 months of FY 2020-21 and proposed during FY 2020-21 by the Petitioner.

**Table 66: Capitalisation for FY 2020-21 as submitted by the Petitioner (In INR Cr)**

| Sr. No. | Particulars | FY 2020-21 Apr-Sep (Actual) | FY 2020-21 |
|---|---|---|---|
| 1 | Capital Expenditure | 3.13 | 25.58 |
| 2 | Capitalisation | 3.96 | 5.15 |

### Commission's analysis

The Commission with regard to the capital expenditure and capitalisation proposed to be undertaken during the year directed the Petitioner to submit the details of the schemes to be undertaken during the year along with the supporting documents. Against the capital expenditure approved of INR 135.87 Cr approved for FY 2020-21, the Petitioner has only undertaken capital expenditure of INR 3.13 Cr in H1 FY 2020-21. Furthermore, against a capitalisation of INR 86.08 Cr approved in the Tariff Order, capitalisation of only INR 3.96 Cr has been achieved in H1 FY 2020-21. The Commission takes a serious note of the inability of the Petitioner to meet the approved capital expenditure targets. In the current year, the Petitioner has managed to achieve much lower capitalisation than approved and is proposing to achieve capitalisation of only INR 5.15 Cr by the end of Financial Year. The Commission cautions the Petitioner that such slow pace of implementation will have a substantial bearing on its revenue, will be detrimental to its own financial health and at the same time will have an impact on the quality of power supplied to the consumers. **Hence, the Commission directs the Petitioner to expedite its efforts towards achieving capitalisation and submit quarterly status report to the Commission**.

For FY 2020-21, the Commission has approved capital expenditure and capitalisation for all the schemes that have been initiated and were approved in the Business Plan/MYT Order. The remaining schemes which were approved in the Business Plan/MYT Order for FY 2020-21 but on which no works have been started yet have been carried forward and allowed in the subsequent year. Post thorough scrutiny and review of the supporting documents submitted by the Petitioner with regards to the capital expenditure and capitalization of schemes undertaken, the Commission approves the capital expenditure and capitalisation for the year as shown in the following table:

**Table 67: Capitalisation approved by the Commission for the FY 2020-21 (In INR Cr)**

| S. No | Particulars | Approved in Tariff Order for FY 2020-21 | Petitioner's Submission | Now Approved by Commission |
|---|---|---|---|---|
| 1 | Capital Expenditure | 135.87 | 25.58 | 25.58 |
| 2 | Capitalisation | 86.08 | 5.15 | 5.15 |

**The Commission approves capital expenditure of INR 25.58 Cr and capitalisation of INR 5.15 Cr in the APR of the FY 2020-21.**

## 4.11. Capital Structure

### Petitioner's Submission

The entire capital deployment shall be through equity for the FY 2020-21.

### Commission's analysis

The Regulation 26 of the MYT Regulations, 2018 specifies the following

*"**26. Debt to Equity Ratio***

*26.1 In case of Existing Projects, debt to equity ratio allowed by the Commission for determination of tariff for the period ending March 31, 2018 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.*

*26.2 For New Projects, the 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 23, after prudence check for determination of tariff:*

*Provided 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 if the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as a normative loan for the Licensee for determination of tariff:*

*Provided also 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 the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment:*

*Provided further that the premium, if any, raised by the Licensee while issuing share capital and investment of internal resources created out of its free reserves, for the funding of the scheme, shall be reckoned as paid up capital for the purpose of computing return on equity, provided such premium amount and internal resources are actually utilized for meeting the capital expenditure of the transmission system or the distribution system, and are within the ceiling of 30% of capital cost approved by the Commission.*

*26.3 Any expenditure incurred or projected to be incurred on or after April 1, 2019, 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 specified in this Regulation.*

In accordance with above, since the Petitioner has submitted that the entire capitalisation is funded through equity, equity higher than 30% of capitalisation has been considered as normative loan. Further, as per the submission of the Petitioner no assets haven been created by way of consumer contribution or Government grant.

Therefore, in accordance with the MYT Regulations, 2018, the Commission has determined the Capital Structure for FY 2020-21 as follows:

**Table 68: Funding Plan approved by the Commission for the FY 2020-21 (In INR Cr)**

| S. No | Particulars | Approved in Tariff Order for FY 2020-21 | Petitioner's Submission | Now Approved by Commission |
|---|---|---|---|---|
| 1 | Capitalisation | 86.08 | 5.15 | 5.15 |
| 2 | Debt (%) | 70% | 70% | 70% |
| 3 | Equity (%) | 30% | 30% | 30% |
| 4 | Normative Loan | 60.25 | 3.60 | 3.60 |
| 5 | Equity | 25.82 | 1.55 | 1.55 |

**Table 69: GFA addition approved by Commission (In INR Cr)**

| S. No | Particulars | Approved in Tariff Order for FY 2020-21 | Petitioner's Submission | Now Approved by Commission |
|---|---|---|---|---|
| 1 | Opening Gross Fixed Assets | 457.54 | 457.77 | 457.77 |
| 2 | Addition During the FY | 86.08 | 5.15 | 5.15 |
| 3 | Adjustment/Retirement During the FY | - | - | - |
| 4 | Closing Gross Fixed Assets | 543.62 | 462.92 | 462.92 |

**Table 70: Normative Loan addition approved by Commission (In INR Cr)**

| S. No | Particulars | Approved in Tariff Order for FY 2020-21 | Petitioner's Submission | Now Approved by Commission |
|---|---|---|---|---|
| 1 | Opening Normative Loan | - | 26.57 | - |
| 2 | Add: Normative Loan During the year | 60.25 | 3.60 | 3.60 |
| 3 | Less: Normative Repayment | 13.21 | 15.89 | 3.60 |
| 4 | Closing Normative Loan | 47.04 | 14.28 | - |

**Table 71: Normative Equity addition approved by Commission (In INR Cr)**

| S. No | Particulars | Approved in Tariff Order for FY 2020-21 | Petitioner's Submission | Now Approved by Commission |
|---|---|---|---|---|
| 1 | Opening Equity | 131.31 | 137.33 | 131.38 |
| 2 | Additions on account of new capitalisation | 25.82 | 1.55 | 1.55 |
| 3 | Closing Equity | 157.13 | 138.88 | 132.93 |

## *4.12. Depreciation*

### Petitioner's submission

The Petitioner has submitted that it has prepared the Fixed Asset Register for the FY 2019-20. The Petitioner has considered the closing GFA for the FY 2019-20 amounting to INR 457.77 Cr as opening GFA for the FY 2020-21.

The Petitioner has further submitted that Depreciation has been calculated on basis of the opening GFA & proposed additions during the FY 2020-21 at the average rate of FY 2019-20 as per the Fixed Asset & Depreciation Register as on 31.03.2020.

Accordingly, the Petitioner has estimated Depreciation of INR 15.89 Cr for FY 2020-21.

## Commission's analysis

Regulation 30 of the MYT Regulations, 2018 stipulates the following:

***"30. Depreciation***

*30.1 The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission:*

*Provided that the depreciation shall be allowed after reducing the approved original cost of the retired or replaced or decapitalized assets:*

*Provided also that the no depreciation shall be allowed on the assets financed through consumer contribution, deposit work, capital subsidy or grant.*

*30.2 The salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to a maximum of 90% of the capital cost of the asset.*

*30.3 Land other than the land held under lease shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the assets.*

*30.4 In case of existing assets, the balance depreciable value as on April 1, 2019, shall be worked out by deducting the cumulative depreciation as admitted by the Commission up to March 31, 2018, from the gross depreciable value of the assets.*

*30.5 The depreciation shall be chargeable from the first Year of commercial operations. In case of projected commercial operation of the assets during the Year, depreciation shall be computed based on the average of opening and closing value of assets:*

*Provided that depreciation shall be re-calculated during truing-up for assets capitalised at the time of truing up of each Year of the Control Period, based on documentary evidence of asset capitalised by the Applicant, subject to the prudence check of the Commission.*

*30.6 For Transmission Licensee, the depreciation shall be calculated at rates and norms specified in the prevalent CERC Tariff Regulations for transmission system.*

*30.7 The depreciation for a Distribution Licensee shall be calculated annually, based on the Straight Line Method, over the Useful Life of the asset at rates specified in Appendix I of the Regulations.*

*30.8 In addition to allowable depreciation, the Distribution Licensee shall be entitled to advance against depreciation (AAD), computed in the manner given hereunder:*

*AAD = Loan (raised for capital expenditure) repayment amount based on loan repayment tenure, subject to a ceiling of 1/10th of loan amount minus depreciation as calculated on the basis of these Regulations:*

*Provided that advance against depreciation shall be permitted only if the cumulative repayment upto a particular Year exceeds the cumulative depreciation upto that Year:*

*Provided further that advance against depreciation in a Year shall be restricted to the extent of difference between cumulative repayment and cumulative depreciation upto that Year.*

*30.9 The Distribution Licensee shall provide the list of assets added during each Year of Control Period and list of assets completing 90% of depreciation in the Year along with Petition for annual performance review, true-up and tariff determination for ensuing Year.*

*30.10 The remaining depreciable value for a Distribution Licensee shall be spread over the balance useful life of the asset, on repayment of the entire loan."*

The Commission has derived the weighted average rate of depreciation based on the asset wise depreciation rate prescribed in MYT Regulations, 2018, provided in the following table:

**Table 72: Depreciation Rate (%)**

| Description | Rate |
|---|---|
| Plant & Machinery | 3.60% |
| Buildings | 1.80% |
| Vehicles | 18.00% |
| Furniture & Fixtures | 6.00% |
| Computers & Others | 6.00% |
| Land | 0.00% |

The closing GFA of FY 2019-20 as approved in the True-Up has been considered as opening GFA of FY 2020-21. Further, depreciation has been computed on average Gross Fixed Assets (GFA) after considering the net addition approved for FY 2020-21.

The following table provides the depreciation as approved in the Tariff Order for FY 2020-21, Petitioner's submission and now approved by the Commission:

**Table 73: Depreciation approved by the Commission for the FY 2020-21 (In INR Cr)**

| S. No | Particulars | Approved in Tariff Order for FY 2020-21 | Petitioner's Submission | Now Approved by Commission |
|---|---|---|---|---|
| 1 | Opening Gross Fixed Assets | 335.71 | 457.77 | 332.74 |
| 2 | Addition During the FY | 86.08 | 5.00 | 5.15 |
| 3 | Adjustment/Retirement During the FY | - | - | 0.00 |
| 4 | Closing Gross Fixed Assets | 421.78 | 462.77 | 337.89 |
| 5 | Average Gross Fixed Assets | 378.75 | 460.27 | 335.31 |
| 6 | Effective Rate of Depreciation (%) | 3.49% | 3.45% | 3.45% |
| | **Depreciation** | **13.21** | **15.89** | **11.57** |

**The Commission now approves depreciation of INR 11.57 Cr in the APR of the FY 2020-21.**

## *4.13. Interest on Loan*

### Petitioner's submission

The Petitioner has considered the opening normative loan as 70% of GFA as per Fixed Asset Register as on 31$^{th}$ March 2020 reduced by the Accumulated Depreciation as on that date. The normative loan addition in FY 2020-21 has been computed as 70% of the capitalisation proposed during the FY 2020-21.

The repayment of normative loans has been considered equivalent to the depreciation during FY 2020-21. Further, the interest at the SBI MCLR rate as on April 1st, 2020 plus 100 basis points i.e. 8.75% has been applied on the average normative debt in order to project the interest on normative loans for FY 2020-21.

Accordingly, the Petitioner has estimated Interest on Normative Loan of INR 1.78 Cr for FY 2020-21.

### Commission's analysis:

The Regulation 28 of the MYT Regulations, 2018 specifies the following:

*“**28. Interest on Loan***

*28.1 The loans arrived at in the manner indicated in Regulation 26 on the assets put to use, shall be considered as gross normative loan for calculation of interest on the loan:*

*Provided that interest and finance charges on capital works in progress shall be excluded:*

*Provided further that in case of De-capitalisation or retirement or replacement of assets, the loan capital shall be reduced to the extent of outstanding loan component of the original cost of the de-capitalised or retired or replaced assets, based on documentary evidence.*

*28.2 The normative loan outstanding as on April 1, 2019, shall be worked out by deducting the cumulative repayment as admitted by the Commission up to March 31, 2018, from the gross normative loan.*

*28.3 Notwithstanding any moratorium period availed by the Transmission Licensee or the Distribution Licensee, as the case may be, the repayment of loan shall be considered from the first Year of commercial operation of the project and shall be equal to the annual depreciation allowed in accordance with Regulation 30.*

*28.4 The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio at the beginning of each Year applicable to the Transmission Licensee or the Distribution Licensee:*

*Provided that at the time of truing up, the weighted average rate of interest calculated on the basis of the actual loan portfolio during the Year applicable to the Transmission Licensee or the Distribution Licensee shall be considered as the rate of interest:*

*Provided also that if there is no actual loan for a particular Year but normative loan is still outstanding, the last available weighted average rate of interest for the actual loan shall be considered:*

*Provided further that if the Transmission Licensee or the Distribution Licensee does not have actual loan, then one (1) Year State Bank of India (SBI) MCLR / any replacement thereof as notified by RBI for the time being in effect applicable for one (1)Year period, as may be applicable as on 1st April of the relevant Year plus 100 basis points shall be considered as the rate of interest for the purpose of allowing the interest on the normative loan.*

*28.5 The interest on loan shall be calculated on the normative average 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 Year shall be considered on the basis of the actual asset capitalisation approved by the Commission for the Year.*

*28.6 For new loans proposed for each Financial Year of the Control Period, interest rate shall be considered as lower of (i) one (1) Year State Bank of India (SBI) MCLR / any replacement thereof as notified by RBI for the time being in effect applicable for one (1)Year period, as may be applicable as on 1st April of the relevant Year plus 100 basis points, and (ii) weighted average rate of interest proposed by the Distribution Licensee.*

*28.7 The above interest computation shall exclude the interest on loan amount, normative or otherwise, to the extent of capital cost funded by consumer contribution, deposit work, capital subsidy or grant, carried out by Transmission Licensee or Distribution Licensee.*

*28.8 The finance charges incurred for obtaining loans from financial institutions for any Year shall be allowed by the Commission at the time of Truing-up, subject to prudence check.*

*28.9 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 Transmission 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.*

*28.10 The Transmission Licensee or the Distribution Licensee, as the case may be, shall make every effort to re-finance the loan as long as it results in net savings on interest and in that event the costs associated with such re-financing shall be borne by the beneficiaries and the net savings shall be shared between the equally between the beneficiaries and the Transmission Licensee or the Distribution Licensee and the Consumers of Distribution Licensee.*

*28.11 Interest shall be allowed on the amount held as security deposit held in cash from Retail Consumers at the Bank Rate as on 1st April of the Financial Year in which the Petition is filed:*

*Provided that at the time of truing-up, the interest on the amount of security deposit for the Year shall be considered on the basis of the actual interest paid by the Licensee during the Year, subject to prudence check by the Commission."*

Hence, the rate of interest to be considered while determining the ARR shall be the weighted average interest rate of the actual loan portfolio. However, the Petitioner has submitted that capitalisation during each year has been funded by the Petitioner's equity and no loan has been taken against any of the capitalised assets.

As per the MYT Regulations 2018, if the equity actually deployed is more than 30% of the capital cost, then equity in excess of 30% would be considered as normative loan. Further, the Commission has considered the capitalisation of assets as approved in the foregoing paragraphs. The Commission for the purpose of funding of the capitalisation has considered the normative debt equity ratio of 70:30.

The normative repayment is limited to the remaining loan amount as the same is lesser than the depreciation during the year. In absence of any actual loans, the Commission has considered the SBI MCLR rate plus 100 basis points as Rate of Interest, in accordance with the MYT Regulations, 2018. The Interest on Loan has been calculated on the average loan during the year with the opening loan for considered equivalent to the closing loan approved for FY 2019-20 in the True-Up.

The following table provides the Interest on Loan approved in the Tariff Order for FY 2020-21, Petitioner's submission and now approved by the Commission:

**Table 74: Interest on Loan approved by the Commission for the FY 2020-21 (In INR Cr)**

| S. No | Particulars | Approved in Tariff Order for FY 2020-21 | Petitioner's Submission | Now Approved by Commission |
|---|---|---|---|---|
| 1 | Opening Normative Loan | - | 26.57 | - |
| 2 | Add: Normative Loan During the year | 60.25 | 3.50 | 3.60 |
| 3 | Less: Normative Repayment | 13.21 | 15.89 | 3.60 |
| 4 | Closing Normative Loan | 47.04 | 14.18 | - |
| 5 | Average Normative Loan | 23.52 | 20.37 | - |
| 6 | Rate of Interest (%) | 8.85% | 8.75% | 8.75% |
| | **Interest on Loan** | **2.08** | **1.78** | **0.00** |

**The Commission approves Interest on Loan as nil in the APR of the FY 2020-21.**

## *4.14. Return on Equity (RoE)*

### Petitioner's submission

The Return on Equity (RoE) is computed in accordance with the Regulation 27 of MYT Regulations, 2018 and is computed on 30% of the capital base. The Petitioner has considered opening equity as 30% of GFA as per Fixed Asset Register as on 31.03.2020 & 30% of proposed capitalisation for the FY 2020-21 has been considered for arriving at the total equity for the year. Accordingly, the Petitioner has computed the Return on Equity for Wires and Retail Supply Business separately.

### Commission's analysis:

The Regulations 27.2 and 27.3 of the MYT Regulations, 2018 stipulate the following:

*"27.2 The return on equity for the Distribution Wires Business shall be allowed on the equity capital determined in accordance with Regulation 26 for the assets put to use at post-tax rate of return on equity specified in the prevalent CERC Tariff Regulations for transmission system.*

*27.3 The return on equity for the Retail Supply Business shall be allowed on the equity capital determined in accordance with Regulation 26 for the assets put to use, at the rate of sixteen (16) per cent per annum."*

Further, in this regard, the Regulation 30(2) of the CERC (Terms and Conditions of Tariff) Regulations, 2019 stipulates the following:

*"30. Return on Equity: ……… 30.2 Return on equity shall be computed at the base rate of **15.50%** for thermal generating station, transmission system including communication system and run-of river hydro generating station, and at the base rate of 16.50% for the storage type hydro generating stations including pumped storage hydro generating stations and run-of river generating station with pondage: ……..." (**Emphasis supplied)***

The Commission has segregated the approved average equity (average of opening and closing equity) into average equity for Distribution Wires Business and Retail Supply Business based on the Allocation Statement provided in the MYT Regulations, 2018 i.e. 90% allocation for the Distribution Wires Business and 10% allocation for the Retail Supply Business. The Commission has considered a rate of 15.50% for the Distribution Wires Business (as per the prevalent CERC Regulations as mentioned above) and a rate of 16.00% for the Retail Supply Business. The equity component has been determined in accordance with capital structure as discussed in the section on capital structure. The rate of return on equity for the Distribution Wires Business shall be trued up based on the prevalent CERC Regulations during the True-up of the respective years. The following table provides the total return on equity approved in the Tariff Order for FY 2020-21, Petitioner's submission and now approved by the Commission:

**Table 75: RoE approved by the Commission for the FY 2020-21 (In INR Cr)**

| Particulars | Approved in Tariff Order for FY 2020-21 | Petitioner's Submission | Now Approved by Commission |
|---|---|---|---|
| Opening Equity | 131.31 | 137.33 | 131.38 |
| Additions on account of new capitalization | 25.82 | 1.50 | 1.55 |
| Closing Equity | 157.13 | 138.83 | 132.93 |
| Average Equity | 144.22 | 138.08 | 132.15 |
| Average Equity (Wires Business) | 129.80 | 124.27 | 118.94 |
| Average Equity (Retail Supply Business) Business) | 14.42 | 13.81 | 13.22 |
| Return on Equity for Wires Business (%) | 15.50% | 15.50% | 15.50% |
| Return on Equity for Retail Supply Business (%) | 16.00% | 16.00% | 16.00% |
| Return on Equity for Wires Business | 20.12 | 19.26 | 18.44 |
| Return on Equity for Retail Supply Business | 2.31 | 2.21 | 2.11 |
| **Return on Equity** | **22.43** | **21.47** | **20.55** |

**The Commission approves the Return on Equity of INR 20.55 Cr in the APR of the FY 2020-21. Any Income Tax, paid by the Petitioner on return on equity, shall be allowed by the Commission at the time of true up based on actual figures.**

## *4.15. Interest on Consumer Security Deposits*

### Petitioner's submission

The Petitioner has considered the opening consumer security deposit based on the actual closing for FY 2019-20. The Petitioner has estimated that total addition during the year shall be Rs. 8.00 Crores. The following table summarizes the Petitioner' submission for Interest on Consumer Security Deposits:

**Table 76: Interest on Security Deposits as submitted by the Petitioner (In INR Cr)**

| S. No | Particulars | Petitioner's Submission |
|---|---|---|
| 1 | Opening Security Deposit | 195.72 |
| 2 | Net addition during the year | 8.00 |
| 3 | Closing Security Deposit | 203.72 |
| 4 | Average Security Deposit | 199.72 |
| 5 | Rate of Interest (%) | 6.25% |
| 6 | **Interest on Security Deposit** | **12.48** |

### Commission's analysis:

Regulation 28.11 of the MYT Regulations, 2018 stipulates the following:

*"28.11 Interest shall be allowed on the amount held as security deposit held in cash from Retail Consumers at the Bank Rate as on 1st April of the Financial Year in which the Petition is filed:*

*Provided that at the time of truing-up, the interest on the amount of security deposit for the Year shall be considered on the basis of the actual interest paid by the Licensee during the Year, subject to prudence check by the Commission. "*

The Interest on security deposits has been calculated in accordance with the MYT Regulations 2018, based on the average of the opening and closing consumer security deposits during the year. In accordance with the Petitioner's submission, the Commission has considered a net addition of INR 8.00 Cr in the consumer security deposits during the year. The rate of interest has been considered equivalent the RBI Bank Rate as on 1st April of the Financial Year in which the Petition is filed.

The following table provides the computation of interest on consumer security deposits approved in the MYT Order, Petitioner's submission and now approved by the Commission:

**Table 77: Interest on Security Deposits approved by the Commission for the FY 2020-21 (In INR Cr)**

| S. No | Particulars | Approved in Tariff Order for FY 2020-21 | Petitioner's Submission | Now Approved by Commission |
|---|---|---|---|---|
| 1 | Opening Security Deposit | 205.85 | 195.72 | 195.72 |
| 2 | Net addition during the year | 8.00 | 8.00 | 8.00 |
| 3 | Closing Security Deposit | 213.85 | 203.72 | 203.72 |
| 4 | Average Security Deposit | 209.85 | 199.72 | 199.72 |
| 5 | Rate of Interest (%) | 6.25% | 6.25% | 4.65% |
| 6 | **Interest on Security Deposit** | **13.12** | **12.48** | **9.29** |

**The Commission approves Interest on Security Deposit as INR 9.29 Cr in the APR of the FY 2020-21.**

## *4.16. Interest on Working Capital*

### Petitioner's submission

The Petitioner has determined the interest on working capital in accordance with the MYT Regulations, 2018.

The working capital requirement for the Control Period has been computed considering the following parameters:

(a) Receivable of two months of billing

(b) O&M Expenses of one month

(c) 40% of Repair & maintenance expenses for one month

(d) Less consumer security deposit but excluding Bank Guarantee

The Interest on Working Capital is computed at the SBI 1 Year MCL as on 1st April, 2020 plus 200 basis points at 9.75%.

### Commission's analysis:

The Regulation 52 of the MYT Regulations, 2018 stipulates the following:

*"**52. Norms of Working Capital for Distribution Wires Business***

*52.1 The Distribution Licensee shall be allowed interest on the estimated level of working capital for the Distribution Wires Business for the Financial Year, computed as follows:*

*(a) O&M Expenses for one (1) month; plus*

*(b) Maintenance spares at 40% of repair and maintenance expenses for one (1) month; plus*

*(c) Receivables equivalent to two (2) months of the expected revenue from charges for use of distribution*

*wires at the prevailing tariff;*

*Less:*

*(d) Amount, if any, held as security deposits under clause (b) of sub-section (1) of Section 47 of the Act from distribution system users except the security deposits held in the form of Bank Guarantees:*

*Provided that at the time of truing up for any Year, the working capital requirement shall be re-calculated on the basis of the values of components of working capital approved by the Commission in the truing up.*

Further, Regulation 31.3 of the MYT Regulation, 2018 stipulates the following:

*"31.3 The interest on working capital shall be a payable on normative basis notwithstanding that the Licensee has not taken working capital loan from any outside agency or has exceeded the working capital loan based on the normative figures. 31.4 The rate of interest on working capital shall be equal one (1)Year State Bank of India (SBI) MCLR / any replacement thereof as notified by RBI for the time being in effect applicable for one (1)Year period, as may be applicable as on 1st April of the Financial Year in which the Petition is filed plus 200 basis points."*

In accordance with the MYT Regulation, 2018, the Commission has computed the Interest on Working Capital for FY 2020-21. The actual Working Capital requirement, after deduction of the average amount of Consumer Security Deposit is coming out to be negative. Thus, the Interest on Working Capital has been considered as Nil, as shown in the following table:

**Table 78: Interest on Working Capital approved by the Commission for the FY 2020-21 (In INR Cr)**

| S. No | Particulars | Approved in Tariff Order for FY 2020-21 | Petitioner's Submission | Now Approved by Commission |
|---|---|---|---|---|
| 1 | O&M Expense for 1 month | 7.66 | 8.59 | 8.12 |
| 2 | Maintenance spares at 40% of R&M expenses for one (1) month; | 0.36 | 0.36 | 0.36 |
| 3 | Receivables equivalent to two (2) months of the expected revenue from charges at the prevailing tariff | 131.53 | 155.10 | 138.64 |
| 4 | Less: Amount, held as security deposits | 209.85 | 199.72 | 199.72 |
| 5 | Net Working Capital | (70.30) | (35.67) | (52.59) |
| 6 | Rate of Interest (%) | 10.55% | 9.75% | 9.75% |
| | **Interest on Working Capital** | **0.00** | **0.00** | **0.00** |

**The Commission approves the Interest on Working Capital as nil in the APR of the FY 2020-21.**

## *4.17. Income Tax*

### Petitioner's submission

No submissions have been made in this regard.

### Commission's analysis:

For the FY 2020-21 no income tax liability is computed and the same shall be Trued-up based on the actual income tax paid by the Petitioner.

**Table 79: Income tax approved by the Commission for the FY 2020-21 (In INR Cr)**

| S. No | Particulars | Approved in Tariff Order for FY 2020-21 | Petitioner's Submission | Now Approved by Commission |
|---|---|---|---|---|
| 1 | Income Tax | 0.00 | 0.00 | 0.00 |

**The Commission approved Nil income tax liability for the FY 2020-21.**

## *4.18. Provision for Bad & Doubtful Debts*

### Petitioner's submission

The Petitioner has submitted that in accordance with Clause 62 of JERC MYT Regulations, 2018, the licensee gets the receivables audited, allow actual provision for bad debts up to 1% of receivables in the revenue requirement of the licensee.

In view of the above para & outstanding dues of Rs. 19.12 Crores from permanently disconnected consumers as on 31st March, 2020, the Petitioner has proposed the provision for bad and doubtful debts for FY 2020-21 @ 1% of the estimated receivables of Rs. 930.57 Crores for the FY 2020-21. Accordingly, the Petitioner has estimated the provision of bad debt of Rs. 9.31 Crores for the FY 2020-21.

### Commission's analysis

The Regulation 62 of the MYT Regulations, 2018 stipulates the following

*"62. Provision for bad and doubtful debts*

*62.1 The Commission may allow bad debts written off as a pass through in the Aggregate Revenue Requirement, based on the trend of write off of bad debts in the previous years, subject to prudence check:*

*Provided that the Commission shall true up the bad debts written off in the Aggregate Revenue Requirement, based on the actual write off of bad debts excluding delayed payment charges waived off, if any, during the year, subject to prudence check:*

*Provided also that the provision for bad and doubtful debts shall be limited to 1% of the annual Revenue Requirement of the Distribution Licensee:*

*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 as an uncontrollable item under the Non-Tariff Income of the year in which such revenue is realized."*

The Commission also has not considered any Provision for Bad & Doubtful Debts for the MYT Control Period. The same shall be accounted for as per actuals in the True-up of respective years.

The following table provides the Provision of Bad & Doubtful Debts approved in the MYT Order, Petitioner's submission and now approved by the Commission:

**Table 80: Provision of Bad & Doubtful Debts approved by the Commission for the FY 2020-21 (In INR Cr)**

| S. No | Particulars | Approved in Tariff Order for FY 2020-21 | Petitioner's Submission | Now Approved by Commission |
|---|---|---|---|---|
| 1 | Provision of Bad & Doubtful Debts | 0.00 | 9.31 | 0.00 |

**The Commission approves Provision of Bad & Doubtful Debts as nil in the APR of the FY 2020-21.**

## 4.19. Non-Tariff Income

### Petitioner's submission

The non-tariff income for the FY 2020-21 has been estimated as INR 17.77 Cr based on the actual non-tariff income in the first 6 months of FY 2020-21.

### Commission's analysis:

In absence of any precise methodology for projecting the NTI, the Commission, for the APR of FY 2020-21 has considered the same NTI as proposed by the Petitioner. The same shall be Trued-up on actual basis.

The NTI approved in the MYT Order, the Petitioner's submission and now approved by the Commission is shown in the following table:

**Table 81: Non-Tariff Income approved by the Commission for the FY 2020-21 (In INR Cr)**

| S. No | Particulars | Approved in Tariff Order for FY 2020-21 | Petitioner's Submission | Now Approved by Commission |
|---|---|---|---|---|
| 1 | **Non- Tariff Income** | **19.33** | **17.77** | **17.77** |

**The Commission now approves Non-Tariff Income of INR 17.77 Cr in the APR of the FY 2020-21.**

## 4.20. Aggregate Revenue Requirement (ARR)

### Petitioner's submission

Based on the expenses detailed above, the net aggregate revenue requirement of INR 836.93 Cr is submitted after adjusting the Non -Tariff Income for the FY 2020-21.

### Commission's analysis

On the basis of the detailed analysis of the cost parameters of the ARR, the revenue requirement in the APR of the FY 2020-21 are approved as follows:

**Table 82: Aggregate Revenue Requirement approved by the Commission for the FY 2020-21 (In INR Cr)**

| S. No | Particulars | Approved in Tariff Order for FY 2020-21 | Petitioner's Submission | Now Approved by Commission |
|---|---|---|---|---|
| 1 | Power Purchase Cost (inclusive of cost towards RPO and adjusting for sale of surplus power) | 665.72 | 764.65* | 652.71 |
| 2 | Operation & Maintenance Expenses | 91.95 | 103.13 | 97.49 |
| 3 | Depreciation | 13.21 | 15.89 | 11.57 |
| 4 | Interest on Loan | 2.08 | 1.78 | 0.00 |
| 5 | Return on Equity | 22.43 | 21.47 | 20.55 |
| 6 | Interest on Security Deposit | 13.12 | 12.48 | 9.29 |
| 7 | Interest on Working Capital | 0.00 | 0.00 | 0.00 |
| 8 | Income Tax | 0.00 | 0.00 | 0.00 |

| S. No | Particulars | Approved in Tariff Order for FY 2020-21 | Petitioner's Submission | Now Approved by Commission |
|---|---|---|---|---|
| 9 | Provision for Bad & Doubtful Debt | 0.00 | 9.31 | 0.00 |
| **10** | **Total Revenue Requirement** | **808.52** | **928.71** | **791.60** |
| 11 | Less: Non-Tariff Income | 19.33 | 17.77 | 17.77 |
| | **Net Revenue Requirement** | **789.18** | **910.95** | **773.83** |

**Deducted Revenue from Sale through UI of INR 52.95 Cr. (The same has already been considered in the Power Purchase Cost approved by the Commission).*

**The Commission approves the net ARR of INR 773.83 Cr in the APR of the FY 2020-21.**

## *4.21. Revenue at existing Retail Tariff*

### Petitioner’s submission

The Petitioner has calculated the revenue from sale of power at existing tariff on the basis of energy sales in the territory for the FY 2020-21 of INR 930.57 Cr. Besides INR 1.15 Cr has been billed as FPPCA during the first 6 months of the FY 2020-21 and the same has been considered in the total revenue for the FY 2020-21. Further a revenue from Regulatory Surcharge of INR 0.01 Cr has been imposed during FY 2019-20 and continued till May 2019 and has been considered on actual basis.

### Commission’s analysis

The category wise/ sub-category wise and slab-wise revenue at existing retail tariff is calculated as per the tariff rates applicable for FY 2020-21. The revenue from demand charges and the energy charges have been projected for each category/ sub-category and slab. The FPPCA recovered in H1 FY 2020-21 has been considered while approving the revenue gap/ surplus for FY 2020-21. The Commission has considered suitable assumptions wherever necessary. The revenue from category/ sub-category/ slab-wise revenue as computed by the Commission for FY 2020-21 has been shown in the following table.

**Table 83: Revenue at existing tariff computed by Commission (In INR Cr)**

| S. No | Category | Energy Sales (MU) | Fixed Charges (INR Cr.) | Energy charges (INR Cr.) | Total Charges (INR. Cr.) | ABR (INR./unit) |
|---|---|---|---|---|---|---|
| **1** | **DOMESTIC SUPPLY (DS)** | **738.37** | **10.95** | **359.73** | **370.68** | **5.02** |
| A | LT Domestic | | | | | |
| 1 | 0-150 units | 59.00 | 2.69 | 16.22 | 18.91 | 3.21 |
| 2 | 151-400 units | 215.53 | 3.87 | 103.46 | 107.32 | 4.98 |
| 3 | 401 and above units | 435.25 | 3.98 | 226.33 | 230.30 | 5.29 |
| B | HT Domestic | 28.59 | 0.42 | 13.72 | 14.15 | 4.95 |
| | | | | | | |
| **2** | **COMMERCIAL / NON RESIDENTIAL (NRS)** | **374.44** | **51.56** | **202.96** | **254.53** | **6.80** |
| A | LT Commercial | | | | | |
| 1 | 0-150 units (Single Phase) | 3.91 | 0.46 | 1.95 | 2.41 | 6.17 |
| 2 | 151-400 units (Single Phase) | 9.32 | 0.27 | 4.94 | 5.20 | 5.59 |
| 3 | 401 and above units (Single Phase) | 16.91 | 0.13 | 9.47 | 9.60 | 5.68 |
| 1 | 0-150 units (Three Phase) | 0.20 | 2.78 | 0.10 | 2.88 | 144.66 |
| 2 | 151-400 units (Three Phase) | 3.89 | 2.79 | 2.06 | 4.85 | 12.47 |
| 3 | 401 and above units (Three Phase) | 137.47 | 16.49 | 76.98 | 93.48 | 6.80 |
| B | HT Commercial | 202.75 | 28.64 | 107.46 | 136.10 | 6.71 |
| | | | | | | |
| **3** | **INDUSTRY** | **235.31** | **28.98** | **114.36** | **143.34** | **6.09** |
| 1 | Large Industrial Power Supply (LS) | 120.14 | 14.00 | 60.07 | 74.07 | 6.17 |
| 2 | Medium Industrial Power Supply (MS) | 98.95 | 14.19 | 46.51 | 60.70 | 6.13 |
| 3 | Small Industrial Power Supply (SP) | 16.21 | 0.78 | 7.78 | 8.56 | 5.28 |
| | | | | | | |
| **4** | **AGRICULTURAL PUMPING SUPPLY(AR)** | **1.28** | **0.00** | **0.37** | **0.37** | **2.90** |
| 1 | Agricultural Pumping Supply | 1.28 | 0.00 | 0.37 | 0.37 | 2.90 |
| | | | | | | |
| **5** | **PUBLIC LIGHTING (PL)** | **15.49** | **0.56** | **8.29** | **8.84** | **5.71** |
| | | | | | | |
| **6** | **Bulk Supply (BS)** | **81.22** | **10.00** | **39.80** | **49.79** | **6.13** |
| 1 | Bulk Supply | 81.22 | 10.00 | 39.80 | 49.79 | 6.13 |
| | | | | | | |
| **7** | **Temporary Supply** | **3.87** | **0.00** | **3.13** | **3.13** | **8.09** |
| 1 | Temporary Supply | 3.87 | 0.00 | 3.13 | 3.13 | 8.09 |
| | | | | | | |
| **8** | **Electric Vehicle Charging Station** | - | - | - | - | - |
| 1 | Electric Vehicle Charging Station | - | - | - | - | - |
| | | | | | | |
| | **TOTAL** | **1449.98** | **102.04** | **728.65** | **830.69** | **5.73** |

The variation is mainly due to lower projection in sales by the Commission.

**The Commission has determined revenue from sale of power at existing tariff as INR 830.69 Cr in the APR of the FY 2020-21.**

## 4.22. Standalone Revenue Gap/ (Surplus)

### Petitioner's submission

Based on the ARR and the revenue from retail tariff, the standalone revenue surplus of INR 20.78 Cr is arrived at in the APR for the FY 2020-21.

### Commission analysis

The Standalone Revenue Gap/Surplus is arrived at and approved as follows:

**Table 84: Standalone Revenue Gap/ (Surplus) at existing tariff (In INR Cr)**

| S. No | Particulars | Approved in Tariff Order for FY 2020-21 | Petitioner's Submission | Now Approved by Commission |
|---|---|---|---|---|
| 1 | Annual Revenue Requirement | 789.18 | 910.95 | 773.83 |
| 2 | Revenue from sale of power at existing tariff | 873.29 | 930.57 | 830.69 |
| 3 | FPPCA (From the consumers during the H1 of FY 2020-21) | - | 1.15 | 1.15 |
| 4 | Regulatory Surcharge | - | 0.01 | 0.00 |
| | **Revenue Gap/(Surplus)** | **84.12** | **(20.78)** | **(58.01)** |

**The standalone surplus at existing retail tariff is INR 58.01 Cr in the APR of the FY 2020-21. The estimated surplus is carried over to the next year and has been considered while determining the tariff for the FY 2021-22.**

# 5. Chapter 5: Determination of Aggregate Revenue Requirement for the FY 2021-22

## 5.1. Background

The ARR for FY 2021-22 was approved in the MYT Order issued for the 2nd Control Period (FY 2020-21 to FY 2021-22). In this Chapter the Commission determines the Aggregate Revenue Requirement (ARR) for the FY 2021-22 based on the actual information made available for the previous years and the various norms defined in the MYT Order. The determination of Aggregate Revenue Requirement has been done in accordance with the MYT Regulations, 2018.

## 5.2. Approach for determination of ARR for the FY 2021-22

The Commission has computed the individual elements constituting the Aggregate Revenue Requirement for FY 2021-22 based on figures approved in the Business Plan and MYT Order, the actual information available of various parameters for the FY 2019-20 as per the audited accounts and the provisional information available for the FY 2020-21. The ARR and revenue at existing tariff has been determined for FY 2021-22 to arrive at the revenue gap/surplus for the FY 2021-22.

## 5.3. Projection of Number of consumers, Connected Load and Energy Sales

### Petitioner's Submission

The Petitioner has estimated the energy sales, connected load and number of consumers for the year based on the historical trends observed in the last five years (FY 2014-15 to FY 2019-20) and the actual data for the first 6 months of FY 2020-21. The following table provides the no. of consumers, connected load and energy sales projected by the Petitioner

**Table 85: Projected No. of consumers, Connected Load and Energy Sales**

| Category | Number of Consumers | Connected Load (kW) | Energy Sales (MU) |
|---|---|---|---|
| Domestic | 206427 | 958507 | 805.24 |
| Commercial | 27230 | 497433 | 495.93 |
| Large Supply | 106 | 68639 | 124.24 |
| Medium Supply | 1,370 | 75687 | 111.05 |
| Small Power | 1,412 | 23491 | 18.43 |
| Agriculture | 123 | 906 | 1.41 |
| Public Lighting | 1,420 | 4583 | 14.78 |
| Bulk Supply | 584 | 41955 | 82.97 |
| Others Temporary Supply | 413 | 2587 | 4.20 |
| **Total** | **2,39,085** | **1673788** | **1,658.27** |

## Commission's Analysis

The Commission for projecting the number of consumers, connected load and energy sales for each category has observed the historical trends in the past 6 years (FY 2014-15 to FY 2019-20) and the actual data provided by the Petitioner for the first 6 months of FY 2020-21. The Commission has calculated the Compound Annual Growth Rate (CAGR) and the year on year (y-o-y) increase for each category using appropriate growth rate and has estimated the category wise consumers, connected load and energy sales. The following tables provides the trends observed in the growth of number of consumers, connected load and energy sales for the Petitioner.

### Table 86: Growth in No. of consumers

| | | Y-o-Y growth rate | | | | | CAGR | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Category | FY16/ FY15 | FY17/F Y16 | FY18/ FY17 | FY19/ FY18 | FY20/ FY19 | 5 year | 4 year | 3 year | 2 year | 1 year |
| 1 | Domestic | 2.82% | 1.62% | 11.00% | -8.44% | 1.56% | 1.52% | 1.20% | 1.06% | -3.57% | 1.56% |
| 2 | Commercial | 2.34% | 3.67% | 10.42% | -5.16% | 4.76% | 3.08% | 3.27% | 3.14% | -0.32% | 4.76% |
| 3 | Large supply | -4.63% | -3.88% | -2.02% | 30.93% | -22.83% | -1.92% | -1.24% | -0.34% | 0.51% | -22.83% |
| 4 | Medium supply | 4.85% | 2.63% | 1.32% | 6.82% | -8.90% | 1.19% | 0.30% | -0.47% | -1.35% | -8.90% |
| 5 | Small Power | -0.47% | 0.47% | 0.47% | 10.69% | -7.55% | 0.56% | 0.82% | 0.93% | 1.16% | -7.55% |
| 6 | Agriculture | -0.83% | -0.83% | 4.20% | -1.61% | 0.00% | 0.16% | 0.41% | 0.83% | -0.81% | 0.00% |
| 7 | Public lighting | 10.38% | 10.63% | 7.95% | 4.20% | 7.48% | 8.10% | 7.54% | 6.53% | 5.82% | 7.48% |
| 8 | Bulk supply | 12.67% | 9.75% | -12.98% | -7.85% | -4.60% | -1.11% | -4.28% | -8.54% | -6.24% | -4.60% |
| 9 | Temp. Supply | -7.58% | -23.73% | -11.67% | -7.51% | 15.69% | -7.80% | -7.86% | -1.87% | 3.44% | 15.69% |
| | Total | 2.78% | 1.83% | 10.67% | -7.83% | 1.81% | 1.68% | 1.41% | 1.27% | -3.13% | 1.81% |

### Table 87: Growth in Connected Load

| | | Y-o-Y growth rate | | | | | CAGR | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Category | FY16/ FY15 | FY17/F Y16 | FY18/ FY17 | FY19/ FY18 | FY20/ FY19 | 5 year | 4 year | 3 year | 2 year | 1 year |
| 1 | Domestic | 2.92% | 3.93% | 6.91% | -1.36% | 0.76% | 2.59% | 2.51% | 2.04% | -0.31% | 0.76% |
| 2 | Commercial | 4.40% | 6.07% | 5.01% | 1.92% | -0.28% | 3.40% | 3.15% | 2.19% | 0.81% | -0.28% |
| 3 | Large supply | 0.20% | -2.59% | -0.88% | -0.29% | -0.86% | -0.89% | -1.16% | -0.67% | -0.57% | -0.86% |
| 4 | Medium supply | 6.46% | 1.85% | 1.27% | 5.78% | -9.11% | 1.09% | -0.21% | -0.89% | -1.95% | -9.11% |
| 5 | Small Power | 0.50% | 1.04% | 0.78% | 13.21% | -4.27% | 2.09% | 2.49% | 2.98% | 4.10% | -4.27% |
| 6 | Agriculture | 2.08% | 1.49% | 12.74% | -1.04% | -0.08% | 2.92% | 3.13% | 3.69% | -0.56% | -0.08% |
| 7 | Public lighting | 4.82% | 6.68% | 1.45% | -27.32% | -6.67% | -5.11% | -7.44% | -11.71% | -17.64% | -6.67% |
| 8 | Bulk supply | 1.09% | 1.28% | -0.47% | -0.47% | -0.95% | 0.09% | -0.16% | -0.63% | -0.71% | -0.95% |
| 9 | Temp. Supply | -7.41% | -23.69% | -11.65% | 1384.66 % | -92.05% | -5.92% | -5.55% | 1.41% | 8.66% | -92.05% |
| | Total | 3.25% | 3.93% | 5.38% | 1.98% | -2.11% | 2.46% | 2.26% | 1.71% | -0.08% | -2.11% |

### Table 88: Growth in Energy Sales

| | | Y-o-Y growth rate | | | | | CAGR | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Category | FY16/ FY15 | FY17/F Y16 | FY18/ FY17 | FY19/ FY18 | FY20/ FY19 | 5 year | 4 year | 3 year | 2 year | 1 year |
| 1 | Domestic | 0.48% | 9.60% | 1.42% | -3.73% | 7.74% | 2.99% | 3.62% | 1.70% | 1.85% | 7.74% |
| 2 | Commercial | 0.68% | 7.63% | -0.93% | -4.26% | 2.43% | 1.03% | 1.12% | -0.96% | -0.97% | 2.43% |
| 3 | Large supply | 12.49% | -3.87% | -5.43% | 4.42% | -1.11% | 1.10% | -1.57% | -0.79% | 1.62% | -1.11% |
| 4 | Medium supply | 7.11% | 4.63% | 2.80% | -2.45% | -8.61% | 0.53% | -1.04% | -2.87% | -5.58% | -8.61% |
| 5 | Small Power | -7.27% | 2.74% | -0.13% | -3.26% | -2.31% | -2.10% | -0.77% | -1.91% | -2.78% | -2.31% |
| 6 | Agriculture | -10.78% | -12.75% | 10.03% | -4.60% | 3.64% | -3.27% | -1.30% | 2.85% | -0.57% | 3.64% |
| 7 | Public lighting | 3.83% | -2.98% | -18.80% | -14.85% | -2.10% | -7.37% | -9.98% | -12.20% | -8.70% | -2.10% |
| 8 | Bulk supply | -7.55% | 4.42% | 0.00% | -4.08% | 7.20% | -0.15% | 1.79% | 0.93% | 1.40% | 7.20% |
| 9 | Temp. Supply | -18.19% | -23.62% | -11.65% | -10.76% | 6.96% | -12.03% | -10.41% | -5.52% | -2.30% | 6.96% |
| | Total | 1.34% | 6.71% | -0.17% | -3.34% | 3.89% | 1.63% | 1.70% | 0.09% | 0.21% | 3.89% |

Using the appropriate growth rate from the trends observed above, the number of consumers, connected load and energy sales have been estimated for FY 2020-21. For all categories, the growth rate is applied over the figures obtained in FY 2020-21, as estimated in the previous Chapter.

The growth rate adopted and the revised number of consumers, connected load and energy for each category have been tabulated as follows:

### Table 89: No. of consumers approved by the Commission for FY 2021-22

| S. No. | Category | FY 2020-21 (RE) | Growth Rate | | FY 2021-22 |
|---|---|---|---|---|---|
| 1 | Domestic | 199,690 | 3-year CAGR | 1.06% | 201,809 |
| 2 | Commercial | 26,584 | 3-year CAGR | 3.14% | 27,418 |
| 3 | Large supply | 98 | Subjective Rate | 0.00% | 98 |
| 4 | Medium supply | 1,270 | Subjective Rate | 0.00% | 1,270 |
| 5 | Small Power | 1,323 | 3-year CAGR | 0.93% | 1,336 |
| 6 | Agriculture | 123 | 3-year CAGR | 0.83% | 124 |
| 7 | Public lighting | 1,393 | 3-year CAGR | 6.53% | 1,484 |
| 8 | Bulk supply | 560 | Subjective Rate | 0.00% | 560 |
| 9 | Temp. Supply | 405 | 3-year CAGR | -1.87% | 398 |
| | **Total** | **231,447** | | | **234,497** |

### Table 90: Connected Load (kW) approved by the Commission for FY 2021-22

| S. No. | Category | FY 2020-21 (RE) | Growth Rate | | FY 2021-22 |
|---|---|---|---|---|---|
| 1 | Domestic | 921,905 | 3-year CAGR | 2.04% | 940,716 |
| 2 | Commercial | 463,231 | 3-year CAGR | 2.19% | 473,385 |
| 3 | Large supply | 68,639 | Subjective Rate | 0.00% | 68,639 |
| 4 | Medium supply | 69,572 | Subjective Rate | 0.00% | 69,572 |
| 5 | Small Power | 22,005 | 3-year CAGR | 2.98% | 22,661 |
| 6 | Agriculture | 860 | 4-year CAGR | 3.13% | 887 |
| 7 | Public lighting | 4,675 | Subjective Rate | 2.00% | 4,768 |
| 8 | Bulk supply | 41,653 | Subjective Rate | 0.00% | 41,653 |
| 9 | Temp. Supply | 2,587 | Subjective Rate | 0.00% | 2,587 |
| | **Total** | **1,595,126** | | | **1,624,868** |

**Table 91: Energy Sales (MU) approved by the Commission for FY 2021-22**

| S. No. | Category | FY 2020-21 (RE) | Growth Rate | | FY 2021-22 |
|---|---|---|---|---|---|
| 1 | Domestic | 738.37 | 4-year CAGR | 3.62% | 815.21 |
| 2 | Commercial | 374.44 | 5-year CAGR | 1.03% | 494.56 |
| 3 | Large supply | 120.14 | 5-year CAGR | 1.10% | 126.49 |
| 4 | Medium supply | 98.95 | Subjective Rate | 0.00% | 106.38 |
| 5 | Small Power | 16.21 | Subjective Rate | 0.00% | 18.43 |
| 6 | Agriculture | 1.28 | Subjective Rate | 2.00% | 1.47 |
| 7 | Public lighting | 15.49 | Subjective Rate | 2.00% | 15.37 |
| 8 | Bulk supply | 81.22 | 4-year CAGR | 1.79% | 85.88 |
| 9 | Temp. Supply | 3.87 | Subjective Rate | 0.00% | 4.20 |
| | **Total** | **1,449.98** | | | **1,667.99** |

**The Commission approves number of consumers as 234,497, connected load as 1,624,868 kW and energy sales of 1,667.99 MU in the ARR of FY 2021-22.**

## *5.4. Inter-State transmission loss*

### Petitioner’s submission

The Petitioner has considered the Inter-State Transmission Loss of 4.03% for FY 2021-22 as approved in the True-Up of FY 2019-20.

### Commission’s analysis

The Commission considers the transmission loss levels for FY 2021-22 in line with those approved in the APR of FY 2020-21. The same shall be revised based on actuals during the True-up exercise.

The following table provides the Inter-State Transmission Losses approved in the MYT Order, Petitioner’s Submission and now approved by the Commission.

**Table 92: Inter-State transmission loss approved by the Commission for FY 2021-22 (%)**

| S. No | Particulars | Approved in Tariff Order for FY 2020-21 | Petitioner's Submission | Now Approved by Commission |
|---|---|---|---|---|
| 1 | Inter-State Transmission Losses | 3.60% | 4.03% | 4.03% |

**The Commission approves an Inter-State Transmission Loss of 4.03% in the ARR of FY 2021-22.**

## *5.5. Intra-State Distribution Loss*

### Petitioner’s submission

The Petitioner submitted that the Commission in the Business Plan Order dated 12th November, 2018, had approved the T&D loss of 9.20% for FY 2021-22. While the Petitioner is dedicated for reducing the intra-state T&D losses in the UT of Chandigarh, there are constraints in reducing the T&D loss further. The Petitioner further submitted that losses remained stagnant without much improvement due to majority of the increase in the sales in the LT category.

In addition to the issue of higher LT sales, another important factor is the absence of interconnection point within the UT boundary which has been also submitted to the Commission in its past submissions. The energy input in EWEDC is currently being metered at 400kV Nalagarh, 220kV Mohali and 220kV Dhoolkot (BBMB) which has resulted in higher T&D losses for the Petitioner. The Petitioner has to bear around 3% additional losses of interstate circuit due to not having any interstate point in its boundary. In this regard, the Petitioner submitted that the construction of a 220/66 kV substation at Hallo Majra is under progress by M/s PGCIL. This substation shall cater to the future load growth of Chandigarh resulting in lower losses due to commissioning of an interconnection point within the UT periphery.

Hence, on account of factors as discussed above, the Petitioner has sought revision in the loss target to a level which is achievable under the circumstances discussed above. The Petitioner has Intra-State Distribution loss target as 11.80% for the FY 2021-22.

### Commission's analysis

The Commission has discussed the issue in detail in the Business Plan and MYT Order. The Petitioner has not made any additional submissions to substantiate its claim. Hence, the Commission has considered the same intra-state Distribution Loss target as approved in the Business Plan/MYT Order.

The following table provides the Intra-State Distribution Loss approved for the FY 2021-22.

**Table 93: Intra-State Distribution Loss approved by the Commission for FY 2021-22 (%)**

| S. No | Particulars | Approved in MYT Order | Petitioner's Submission | Now Approved by Commission |
|---|---|---|---|---|
| 1 | Intra-State Distribution Loss | 9.20% | 11.80% | 9.20% |

**The Commission approves the Intra-State Distribution Loss of 9.20% in the ARR of FY 2021-22.**

## *5.6. Power Purchase Quantum & Cost*

### Petitioners Submission

The Petitioner for projecting the energy availability during the FY 2021-22 has considered the firm and infirm allocation from various generating stations. Detailed methodology for projecting the power availability to the Petitioner from various sources is summarized as follows:

**1. Power Purchase Quantum:**

The Petitioner has firm and infirm allocated share in Central Sector Generating Stations (CSGS) of NTPC, NPCIL, NHPC, BBMB, SJVNL, APCPL, MUPNL, etc.

The power availability for each year has been estimated based on the revised allocation issued by the Northern Regional Power Committee letter No. NRPC/OPR/103/02/2020/10081-10108 dated 16.10.2020.

The availability of power from various sources has been considered as per the following methodology:

**NTPC:** The net energy generated from NTPC stations has been estimated by considering average PLF of past three years and normative auxiliary consumption as per CERC Tariff Regulations. Based upon the generated energy from each plant and its corresponding entitlement to the UT of Chandigarh, the energy availability has been calculated.

**NHPC:** The energy generated from NHPC stations has been estimated by considering design energy of the corresponding stations. Based upon the energy generated by each plant and its corresponding entitlement to the UT of Chandigarh, the energy availability has been calculated.

**NPCIL:** The energy generated from NPCIL stations has been estimated by considering the average PLF of the past three years. Based upon the generated energy from each plant and its corresponding entitlement to the UT of Chandigarh, the energy availability has been calculated.

**SJVNL:** The estimation of energy generated from the Nathpa Jhakri generating station has been done based upon the average generation in past three years while for the Rampur hydro station is estimated by considering the design energy of the power plant. Based upon the generated energy from each plant, the energy availability to the UT of Chandigarh has been calculated.

**BBMB:** The UT of Chandigarh has been allocated fix quota of 1 Lakh Units (LU) and 10 LU per day from the BBMB plant. In addition to that 3.50% of the plant capacity has been allocated to the UT of Chandigarh. The availability of power from BBMB has been considered based on the average generation in the past three years.

**THDC:** The energy generation from the Koteshwar and Tehri plants has been estimated based upon the average generation in the past three years while the energy available to the UT of Chandigarh for the Control Period has been calculated based upon the entitlement.

**APCPL:** The energy generated from Jhajjar has been estimated by considering design energy of the stations. Based upon the energy generated by the plant and its corresponding entitlement to the UT of Chandigarh, the unit availability has been calculated.

**MUNPL:** The energy generated from the Meja has been estimated by considering design energy of the stations. Based upon the energy generated by the plant and its corresponding entitlement to the UT of Chandigarh, the unit availability has been calculated.

**Renewable Sources:** The Petitioner has proposed to procure (83.33 MU) Non Solar power from SECI at a rate of INR 2.90/kWh to comply with the non-solar RPO.

**2. Power Purchase Cost:**

The Petitioner has estimated the Power Purchase Cost for FY 2021-22 based on the station wise actual power purchase cost of FY 2019-20, provisional cost of six months for FY 2020-21 and the Tariff Orders issued by CERC. The assumptions considered for projection of power purchase cost from various generating stations are detailed as follows:

- The Fixed Cost for each plant is computed based upon the percentage allocation of the plant capacity to EWEDC and the corresponding annual fixed charges approved for the generating stations by CERC.
- The Energy Charges for thermal plants are computed by escalating the Energy charges for FY 2020-21 by 5.72% and multiplying them with the number of available units for the year.
- In case of hydro plants, the variable charge has been computed based on the annual charges and design energy of the plant
- Variable Charges for BBMB plants have been considered as per the average rate in last twelve months along with the annual fixed charges and operation and maintenance charges towards the allocation of 3.50% share.
- PGCIL Charges, NRLDC Charges, Reactive Energy charges are computed at an escalation of 5.72% y-o-y over actuals billed per unit for FY 2020-21.
- Shortfall in power after accounting for energy availability from all stations and towards a portion of RPO obligation has been considered to be met from short term sources. The rate of short-term power has been projected by escalating the average per unit cost for the FY 2020-21 by 5.72% y-o-y.
- The Petitioner has also projected revenue from sale of surplus power and treated the same as a revenue item however no submission has been made for the same. In absence of any submission the same has been adjusted in the Power Purchase Cost submitted for FY 2021-22.

The projected power purchase cost is as illustrated in the following table:

**Table 94: Power Purchase quantum (MU) and Cost (In INR Cr) submitted by Petitioner**

| S. No | Source | Name of the Project | Units Available (MU) | Fixed Charges (INR Cr) | Energy Charges (INR Cr) | Other Charges (INR Cr) | Total Charges (INR Cr) |
|---|---|---|---|---|---|---|---|
| 1 | NTPC | Singrauli | 10.43 | 1.92 | 5.29 | -0.13 | 7.08 |
| 2 | | Rihand I | 60.17 | 7.69 | 9.58 | -0.86 | 16.41 |
| 3 | | Rihand II | 61.06 | 6.63 | 8.02 | -0.07 | 14.59 |
| 4 | | Rihand III | 46.03 | 8.47 | 5.75 | 0.10 | 14.32 |
| 5 | | Unchahar I | 10.02 | 1.92 | 4.91 | 0.43 | 7.26 |
| 6 | | Unchahar II | 14.93 | 2.95 | 3.73 | 0.44 | 7.11 |
| 7 | | Unchahar III | 7.96 | 1.48 | 6.75 | 0.43 | 8.66 |
| 8 | | Unchahar IV | 27.23 | 6.48 | 4.07 | 0.88 | 11.43 |
| 9 | | Anta | 6.14 | 6.03 | 2.77 | -0.19 | 8.60 |
| 10 | | Auriya | 10.56 | 7.51 | 6.69 | 0.38 | 14.58 |
| 11 | | Dadri | 29.50 | 8.17 | 7.07 | 0.50 | 15.73 |
| 12 | | Kahalgaon II | 19.49 | 1.80 | 2.59 | -0.03 | 4.36 |
| 13 | | Dadri II | 2.85 | 2.67 | 2.28 | 0.28 | 5.23 |
| 14 | | Koldam Hydro | 48.79 | 14.93 | 10.35 | -0.30 | 24.98 |
| 15 | | Singrauli Hydro | 0.26 | 0.00 | 3.20 | 0.03 | 3.23 |
| 16 | | Tanda II | 22.03 | 3.22 | 2.82 | 0.23 | 6.27 |
| | | **Total NTPC** | **377.45** | **81.87** | **85.87** | **2.11** | **169.85** |
| 17 | NHPC | Salal | 9.94 | 0.90 | 0.66 | 0.92 | 2.47 |
| 18 | | Tanakpur | 5.09 | 1.38 | 0.87 | 0.01 | 2.26 |
| 19 | | Chamera I | 97.26 | 11.05 | 11.90 | 0.48 | 23.43 |
| 20 | | Chamera II | 17.22 | 3.30 | 1.87 | 0.06 | 5.23 |
| 21 | | Uri | 21.18 | 1.85 | 1.89 | 0.59 | 4.34 |
| 22 | | Dhauliganga | 27.07 | 4.23 | 3.51 | 1.08 | 8.83 |
| 23 | | Dulhasti | 44.39 | 13.14 | 12.60 | 3.32 | 29.06 |
| 24 | | Sewa II | 13.29 | 4.72 | 3.93 | 7.34 | 15.98 |
| 25 | | Uri II | 21.88 | 4.09 | 3.33 | -2.87 | 4.55 |
| 26 | | Chamara III | 21.26 | 5.74 | 4.13 | -0.56 | 9.31 |
| 27 | | Parbati-III | 13.50 | 6.98 | 2.22 | 0.02 | 9.22 |
| 28 | | Kishanganga | 14.34 | 3.27 | 3.02 | 1.28 | 7.57 |
| | | **Total NHPC** | **306.42** | **60.67** | **49.92** | **11.67** | **122.26** |
| 29 | APCPL | Jhajjar (Aravali) | 11.78 | 13.74 | 4.54 | -0.08 | 18.20 |
| | | **Sub Total** | **11.78** | **13.74** | **4.54** | **-0.08** | **18.20** |
| 30 | NPCIL | NAPP | 82.31 | 0.00 | 26.61 | 1.45 | 28.05 |
| 31 | | RAPP (#3 and #4) | 15.27 | 0.00 | 5.47 | 0.39 | 5.86 |
| 32 | | RAPP (#5 and #6) | 78.88 | 0.00 | 32.61 | 0.92 | 33.53 |
| | | **Total NPCIL** | 176.47 | 0.00 | 64.69 | 3.08 | 67.77 |
| 33 | SJVNL | Nathpa Jhakri | 109.40 | 14.62 | 13.36 | -1.12 | 26.86 |
| 34 | | Rampur | 18.21 | 4.75 | 4.01 | 0.18 | 8.94 |
| | | **Total SJVNL** | **127.61** | **19.37** | **17.36** | **-0.94** | **35.80** |

| S. No | Source | Name of the Project | Units Available (MU) | Fixed Charges (INR Cr) | Energy Charges (INR Cr) | Other Charges (INR Cr) | Total Charges (INR Cr) |
|---|---|---|---|---|---|---|---|
| 35 | BBMB | BBMB 3.5% | 585.18 | 0.00 | 0.00 | 0.00 | 0.00 |
| 36 | | BBMB 1 LU | 85.97 | 0.00 | 14.33 | 0.05 | 14.38 |
| 37 | | BBMB 10 LU | 23.22 | 0.00 | 143.28 | 1.04 | 144.32 |
| 38 | | BBMB O&M Charges | | 0.00 | 0.00 | 15.90 | 15.90 |
| 39 | | BBMB R&MU Charges | | 0.00 | 0.00 | 1.18 | 1.18 |
| 40 | | ULDC etc. | | 0.00 | 0.00 | 0.09 | 0.09 |
| | | **Total BBMB** | 694.37 | 0.00 | 157.61 | 18.26 | 175.87 |
| 41 | THDC | Koteshwar | 15.27 | 4.37 | 3.76 | -0.14 | 7.99 |
| 42 | | Tehri | 168.67 | 40.47 | 40.63 | -1.57 | 79.54 |
| 43 | | THDC Late and supplementary | 0.00 | 0.00 | 0.00 | 9.42 | 9.42 |
| | | **Total THDC** | **183.95** | **44.84** | **44.40** | **7.71** | **96.95** |
| 44 | MUNPL | Meja | 7.70 | 6.47 | 2.59 | -0.20 | 8.86 |
| | | **Total MUNPL** | **7.70** | **6.47** | **2.59** | **-0.20** | **8.86** |
| | | **Annual Total** | **1579.33** | **166.30** | **377.05** | **29.94** | **573.29** |
| 45 | | Open Market | 36.60 | 0.00 | 13.21 | 0.00 | 13.21 |
| 46 | | UI Under-drawal | 228.30 | 0.00 | 71.03 | 0.00 | 71.03 |
| 47 | | SECI | 83.33 | 0.00 | 23.58 | 0.58 | 24.17 |
| 48 | | CREST | 6.94 | 0.00 | 5.85 | 0.00 | 5.85 |
| 49 | | Pvt. Solar (gross) | 1.19 | 0.00 | 1.12 | -0.01 | 1.11 |
| | | Pvt. Solar (Net) | 0.45 | 0.00 | 0.15 | 0.00 | 0.15 |
| 50 | | **Less: Revenue from Sale of Surplus Power** | - | - | - | - | - |
| | | **Grand Total** | **2242.55** | **226.97** | **541.92** | **42.18** | **811.07** |

**Transmission Charges**

The transmission charges payable to PGCIL are projected based on the total capacity allocation in the transmission network.

An y-o-y escalation of 5.72% over the estimated transmission charges for the FY 2020-21 has been considered for projecting the PGCIL transmission charges for FY 2021-22

**Table 95: Transmission charges submitted by Petitioner (In INR Cr)**

| Particulars | Petitioner's Submission |
|---|---|
| PGCIL Charges | 79.22 |
| NRLDC Charges | 0.16 |
| Reactive Energy Charges | 0.09 |
| PSPCL/PSTCL Reactive charges | - |
| **Total** | **79.47** |

## Commission's Analysis

The Commission for the purpose of estimating the quantum and cost of power purchase for FY 2021-22 has relied on the station wise actual energy availability for FY 2017-18, FY 2018-19 and FY 2019-20, provisional energy availability for first six months (H1) of FY 2020-21, actual Plant availability factor (PAF) and Plant Load Factor (PLF) for last 3-5 years for each station, allocated share to the Petitioner and norms and cost approved in Tariff Orders for Central Generating Stations approved by CERC.

The source wise methodology followed for projection of quantum and cost of power procurement has been detailed as follows:

### *5.6.1. Availability of power*

**Availability of energy from APCPL and NTPC Stations:**

- The energy availability from APCPL and the NTPC stations except Singrauli Hydro and tanda II has been estimated based on the average energy available during the past years two/three financial years FY 2017-18 to FY 2019-20 based on the scheduling of stations.

- For Singrauli Hydro, quantum of energy available has been considered same as the average monthly energy available during H1 of FY 2020-21 due to intermittent scheduling.

**Availability of energy from NHPC, THDC, BBMB and SJVNL stations:**

- The energy availability from all stations of NHPC, THDC, BBMB and SJVNL has been estimated based on the average energy available in the last two/three financial years FY 2017-18 to FY 2019-20 based on the scheduling of stations.

**Availability from NPCIL stations:**

- The energy availability from all the stations of NPCIL has been estimated based on the average energy available during the last three financial years from FY 2017-18 to FY 2019-20.

**Availability from MUNPL Meja Thermal station:**

- The Petitioner has started to receive power from this station from April 2019 onwards hence the quantum of energy available has been considered same as the average monthly energy available during H1 of FY 2020-21

**Availability of power from CREST and other Renewable Energy Sources**

- The energy availability from CREST and other Renewable Energy Sources has been considered same as approved in FY 2020-21

- Energy availability from SECI Wind Power station has been assumed to be same as submitted by the Petitioner for FY 2021-22.

**Availability of power from the Open Market, Unscheduled Interchange and Banking**

- The energy surplus for the FY 2021-22, as discussed in the section of energy balance, has been assumed to be sold in the Open Market.

- No power has been projected under UI and Banking.

### 5.6.2. Power Purchase Cost

**Variable Charges:**

- The per unit variable costs for various power stations has been computed by taking the average of the actual per unit variable cost during the first 6 months from April 2020 to September 2020. Y-o-y escalation of 5% has been considered over the actual per unit variable cost to arrive upon the variable per unit cost for FY 2021-22.
- For purchase/sale of power from the Open Market, the Average Round the Clock (RTC) rate for the Northern Region during the financial year 2020 has been considered.

**Fixed Charges:**

- The station wise fixed cost determined for FY 2019-20 has been escalated by 2% y-o-y to determine the fixed cost for each station

**Other Charges:**

Other charges have been considered for the year as submitted by the Petitioner. The same shall be trued-up as per actuals during the True-up/APR of FY 2021-22.

### 5.6.3. Transmission Charges

The Commission has projected the transmission charges payable to PGCIL based on the total capacity allocation of the Petitioner of the transmission network.

The transmission charges for FY 2021-22 have been projected by escalating the approved transmission charges for FY 2020-21 by 2% as done in the case of fixed charges for power procurement.

### 5.6.4. Total power purchase quantum and cost

The energy availability and the power purchase cost approved by the Commission for FY 2021-22 have been shown in the following tables:

**Table 96: Power Purchase Quantum (MU) and cost (INR Cr) approved by the Commission for FY 2021-22**

| Details of the stations | Units Purchased at UT periphery (MU) | Variable Charges (INR. Cr.) | Fixed Charges (INR. Cr.) | Other Charges (INR. Cr.) | Total Charges (INR. Cr.) |
|---|---|---|---|---|---|
| **NTPC** | | | | | |
| Singrauli | 7.94 | 1.23 | 0.92 | -0.13 | 2.02 |
| Rihand I | 60.37 | 9.54 | 6.52 | -0.86 | 15.21 |
| Rihand II | 52.81 | 8.33 | 4.59 | -0.07 | 12.85 |
| Rihand III | 40.44 | 6.24 | 6.94 | 0.10 | 13.29 |
| Unchahar I | 14.86 | 5.07 | 1.63 | 0.43 | 7.13 |
| Unchahar II | 19.64 | 6.80 | 2.44 | 0.44 | 9.68 |
| Unchahar III | 8.87 | 3.11 | 1.20 | 0.43 | 4.74 |
| Unchahar IV | 17.74 | 5.91 | 5.37 | 0.88 | 12.17 |
| Anta | 4.59 | 1.31 | 5.91 | -0.19 | 7.03 |
| Auriya | 5.50 | 1.47 | 6.98 | 0.38 | 8.83 |
| Dadri | 23.81 | 6.87 | 7.62 | 0.50 | 14.98 |
| Kahalgaon II | 20.95 | 4.81 | 1.86 | -0.03 | 6.63 |

| Details of the stations | Units Purchased at UT periphery (MU) | Variable Charges (INR. Cr.) | Fixed Charges (INR. Cr.) | Other Charges (INR. Cr.) | Total Charges (INR. Cr.) |
|---|---|---|---|---|---|
| Dadri II | 3.96 | 1.52 | 1.19 | 0.28 | 3.00 |
| Koldam Hydro | 47.35 | 12.70 | 13.73 | -0.30 | 26.14 |
| Singrauli Hydro | 0.18 | 0.10 | 0.00 | 0.03 | 0.13 |
| Tanda II | 15.62 | 4.33 | 3.28 | 0.23 | 7.85 |
| Supplementary | 1.88 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Subtotal - NTPC** | **346.52** | **79.38** | **70.20** | **2.11** | **151.68** |
| | | | | | |
| **NHPC** | | | | | |
| Salal | 8.74 | 0.59 | 0.79 | 0.92 | 2.30 |
| Tanakpur | 4.46 | 0.80 | 1.58 | 0.01 | 2.39 |
| Chamera I | 91.34 | 11.40 | 11.08 | 0.48 | 22.96 |
| Chamera II | 31.96 | 3.51 | 2.64 | 0.06 | 6.21 |
| Uri | 16.83 | 1.51 | 2.08 | 0.59 | 4.19 |
| Dhauliganga | 24.76 | 3.29 | 3.75 | 1.08 | 8.12 |
| Dulhasti | 39.75 | 11.95 | 12.13 | 3.32 | 27.40 |
| Sewa II | 11.39 | 3.30 | 2.93 | 7.34 | 13.57 |
| Uri II | 22.85 | 5.33 | 5.28 | -2.87 | 7.74 |
| Chamara III | 20.58 | 4.44 | 4.38 | -0.56 | 8.25 |
| Parbati-III | 13.53 | 2.28 | 4.30 | 0.02 | 6.60 |
| Kishanganga | 10.14 | 2.18 | 3.19 | 1.28 | 6.66 |
| **Subtotal- NHPC** | **296.32** | **50.60** | **54.12** | **11.67** | **116.38** |
| | | | | | |
| **NPCIL** | | | | | |
| NAPS | 76.19 | 24.77 | 0.00 | 1.44 | 26.21 |
| RAPP (Unit 3 & 4)-B | 18.73 | 6.47 | 0.00 | 0.39 | 6.86 |
| RAPP (Unit 5 & 6)-C | 81.49 | 33.24 | 0.00 | 0.92 | 34.16 |
| **Subtotal- NPCIL** | **176.40** | **64.49** | **0.00** | **2.75** | **67.23** |
| | | | | | |
| **SJVNL** | | | | | |
| Nathpa Jhakri | 101.31 | 12.61 | 11.24 | -1.64 | 22.21 |
| Rampur | 16.75 | 3.89 | 3.05 | -0.31 | 6.63 |
| **Subtotal- SJVNL** | **118.06** | **16.50** | **14.29** | **-1.95** | **28.84** |
| | | | | | |
| **BBMB** | | | | | |
| BBMB 3.5% | 544.11 | 52.99 | 0.00 | 0.00 | 52.99 |
| BBMB 1 LU- Dehar | 84.08 | 11.85 | 0.00 | 0.05 | 11.90 |
| BBMB 10 LU- Pong | 20.48 | 58.67 | 0.00 | 1.04 | 59.71 |
| BBMB O&M Charges | | | | 15.90 | 15.90 |
| BBMB R&MU Charges | | | | 1.18 | 1.18 |
| **Subtotal- BBMB** | **648.67** | **123.51** | **0.00** | **18.17** | **141.68** |
| | | | | | |
| **APCPL** | | | | | |

| Details of the stations | Units Purchased at UT periphery (MU) | Variable Charges (INR. Cr.) | Fixed Charges (INR. Cr.) | Other Charges (INR. Cr.) | Total Charges (INR. Cr.) |
|---|---|---|---|---|---|
| APCPL Jhajjar | 38.75 | 14.12 | 9.55 | -0.08 | 23.59 |
| **Subtotal- APCPL** | **38.75** | **14.12** | **9.55** | **-0.08** | **23.59** |
| | | | | | |
| **THDC** | | | | | |
| Koteshwar | 14.93 | 3.78 | 6.10 | -0.14 | 9.74 |
| Tehri | 162.97 | 36.52 | 36.73 | -1.57 | 71.68 |
| **Subtotal- THDC** | **177.90** | **40.30** | **42.83** | **-1.71** | **81.42** |
| | | | | | |
| **MUNPL** | | | | | |
| Meja Thermal | 16.49 | 5.45 | 9.38 | -0.20 | 14.64 |
| **Subtotal- MUNPL** | **16.49** | **5.45** | **9.38** | **-0.20** | **14.64** |
| | | | | | |
| PTC | 36.60 | 13.21 | 0.00 | 0.00 | 13.21 |
| | | | | | |
| **RPO** | | | | | |
| Non-Solar SECI | 83.33 | 23.58 | 0.00 | 0.58 | 24.17 |
| Crest | 8.10 | 6.37 | 0.00 | 0.00 | 6.37 |
| Pvt. solar (Gross) | 1.18 | 1.02 | 0.00 | -0.01 | 1.01 |
| Pvt. solar (Net) | 0.33 | 0.10 | 0.00 | 0.00 | 0.10 |
| **Subtotal- Others** | **92.94** | **31.08** | **0** | **0.57** | **31.66** |
| | | | | | |
| **Total- Firm Sources** | **1948.67** | **438.63** | **200.38** | **31.32** | **670.33** |
| | | | | | |
| **Open Market Purchase/(Sale)** | **-111.67** | **-30.64** | **0.00** | **0.00** | **-30.64** |
| | | | | | |
| **Total** | **1837.00** | **407.99** | **200.38** | **31.32** | **639.68** |
| | | | | | |
| **Transmission Charges** | | | | | |
| PGCIL Charges | | | 75.67 | | 75.67 |
| Subtotal | | | 75.67 | | 75.67 |
| | | | | | |
| **Total Power Purchase Cost** | **1837.00** | **407.99** | **276.04** | **31.32** | **715.35** |

**The Commission approves the quantum of power purchase as 1,837.00 MU at the UT Periphery with a total cost of INR 715.35 Cr for the FY 2021-22**

The APPC has been computed at the UT Periphery excluding the transmission charges and cost of purchase of renewable energy. The same shall be used for the purpose of compensation / payment of surplus power at the end of each settlement period in case of Net-metering consumers by the Petitioner. The Average Power Purchase Cost (APPC) for FY 2021-22 has been determined as provided in the following table.

**Table 97: Average Power Purchase Cost (APPC) for FY 2021-22**

| Particular | FY 2021-22 |
|---|---|
| Total Power Purchase Cost (INR Cr) | 715.35 |
| Less: Transmission charges and Power Purchase cost from renewable energy sources (INR Cr) | 120.54 |
| **Net Power Purchase Cost (INR Cr) (A)** | **594.82** |
| Total Power Purchase quantum (MU) | 1,837.00 |
| Less: Quantum from renewable energy sources (MU) | 129.55 |
| **Quantum of energy at State Periphery excluding quantum from renewable energy sources (MU) (B)** | **1,707.45** |
| **APPC (Rs/kWh) (A/B)** | **3.48** |

**The Commission approves the Average Power Purchase Cost (APPC) as INR 3.48/ kWh for the FY 2021-22 for the purpose of compensation/payment to prosumer against surplus generation.**

## *5.7. Renewable Purchase Obligation (RPO)*

### Petitioner's submission:

The Petitioner is required to procure power from renewable sources for meeting the RPO. The Petitioner has tried to comply with the RPO, both solar & non-solar, till the FY 2019-20 and planning to fulfill the standalone RPO requirement of FY 2020-21 in the respective year. The RPO requirement for FY 2021-22 and the compliance status as submitted by the Petitioner has been provided in the following table:

**Table 98: Effective Energy Sales (Excluding Hydro) as submitted by Petitioner**

| S. No. | Particular | Formula | FY 2021-22 |
|---|---|---|---|
| 1 | Energy Sales within UT (In MUs) | a | 1,658.27 |
| 2 | Hydro Power Purchase (In MUs) | b | 1,361.39 |
| 3 | Inter-State Loss | c | 4.03% |
| 4 | Inter-State Loss (In MUs) | d=b*c | 54.86 |
| 5 | Intra-State Loss | e | 11.80% |
| 6 | Intra-State Loss (In MUs) | f=e*(b-d) | 154.17 |
| 7 | Hydro Power Consumed (In MUs) | g=b-d-f | 1,152.36 |
| **8** | **Conventional Power Consumed (In MUs)** | **h=a-g** | **505.91** |

**Table 99: RPO Requirement (Solar and Non-Solar) as submitted by Petitioner**

| Particulars | RPO (%) | Target | | Generation FY 2021-22 | Procurement for RPO fulfilment for FY 2021-22 (MU) |
|---|---|---|---|---|---|
| | | Conventional Power Consumed (MU) | Units (MU) | | |
| Solar | 8.00% | 505.91 | 40.47 | 32.58 | 7.89 |
| Non-Solar | 9.00% | 505.91 | 45.53 | 83.33 | (37.80) |
| **Total** | **17.00%** | | **51.78** | **115.92** | **(29.91)** |

The Petitioner has proposed to fulfill the RPO by way of purchase of physical power. The Petitioner has proposed to fulfill the Solar RPO by way of procuring power from roof-top solar plants and from bilateral agreements and Non-Solar RPO by way of procurement from SECI Wind Power. The quantum and cost of the same has been considered in the Overall Power Purchase cost submitted by the Petitioner for FY 2021-22.

### Commission's analysis:

As per Clause 1, Sub-clause (1) of the JERC for the State of Goa and UTs (Procurement of Renewable Energy) Regulations, 2010

*"Each distribution licensee shall purchase electricity (in kWh) from renewable energy sources, at a defined minimum percentage of the total consumption of all the consumers in its area during a year."*

The Commission notified the JERC (Procurement of Renewable Energy), (Third Amendment) Regulations, 2016 on 22nd August 2016 and approved the revised RPO targets. The quantum as per the revised target has to be determined on the effective energy sales. The energy sales without hydro used for calculation of the RPO has been arrived at as follows:

**Table 100: Effective energy sales (adjusted for hydro) (in MU)**

| S.No. | Particular | Formula | FY 2021-22 |
|---|---|---|---|
| 1 | Energy Sales within UT | a | 1,667.99 |
| 2 | Hydro Power Purchase | b | 1,342.59 |
| 3 | Inter-State Loss (%) | c | 4.03% |
| 4 | Inter-State Loss (MU) | d= c*b | 54.11 |
| 5 | Intra-State Loss (%) | e | 9.20% |
| 6 | Intra-State Loss (MU) | f=e*(b-d) | 118.54 |
| 7 | Hydro Power Consumed (MU) | g=b-d-f | 1,169.94 |
| 8 | Conventional Power consumed | h= a-g | 498.05 |

In accordance with the JERC for the State of Goa and UTs (Procurement of Renewable Energy) Regulations, 2010 and the Petitioner's submission, the Commission has determined the following Renewable Purchase Obligation for the Petitioner for FY 2021-22.

**Table 101: Summary of Renewable Purchase Obligation (RPO) (MU)**

| Description | FY 2021-22 |
|---|---|
| Sales within State from conventional sources (MU) | 498.05 |
| **RPO obligation (in %)** | **17.00%** |
| Solar | 8.00% |
| Non-solar | 9.00% |
| **RPO obligation for the year (in MU)** | **84.67** |
| Solar | 39.84 |
| Non-solar | 44.82 |
| **Backlog upto FY 2020-21** | **8.45** |
| Solar | 0.00 |
| Non Solar | 8.45 |
| **Total RPO to be fulfilled for the year** | **93.12** |
| Solar | 39.84 |
| Non Solar | 53.28 |
| **RPO compliance (Physical purchase)** | **115.91** |
| - Solar | 32.58 |
| -Non-solar | 83.33 |

As can be seen from the table above that the Petitioner is fulfilling the RPO requirement by purchase of physical power. The Commission has considered the energy available from Pvt. Solar (Gross Generated) plants same as submitted by the Petitioner.

The Petitioner is over-achieving the Solar and Non-Solar RPO target in FY 2021-22. The actual compliance in respect of the pending RPO would be reviewed at the time of true-up and the supporting details such as purchase of RECs, bills from Solar/Non-Solar plants for the year must be submitted. The compliance and cost status towards RPO for FY 2021-22 as approved by the Commission is provided in the following table.

**Table 102: Cost towards compliance of Renewable Purchase Obligation for FY 2021-22 (In INR Cr)**

| S. No | Description | RPO (MU) | Total Cost (INR Cr) | Avg. Rate (INR/kWh) |
|---|---|---|---|---|
| **1** | **Solar** | **32.13** | **7.49** | **2.33** |
| (i) | CREST* | 6.94 | 6.37 | 9.18 |
| (ii) | Pvt. Solar* | 25.19 | 1.12 | 0.44 |
| | | | | |
| **2** | **Non-Solar** | **83.33** | **24.17** | **2.90** |
| (i) | SECI | 83.33 | 24.17 | 2.90 |
| | **Total** | **115.46** | **31.66** | **2.74** |

**Includes the Captive Generation*

**The Commission approves INR 31.66 Cr towards compliance of RPO in the ARR of FY 2021-22 and the same has been considered in the Power Purchase cost approved for FY 2021-22.**

## *5.8. Energy Balance*

### Petitioner's submission

The Petitioner has submitted the energy balance as shown in the following page:

**Table 103: Energy Balance submitted by Petitioner (MU)**

| Particulars | Petitioner's Submission |
|---|---|
| | |
| Energy Procured | 2,233.98 |
| Less: Outside Sale - Trading | 265.26 |
| Energy Available | 1,968.72 |
| Inter-State Transmission Loss | 4.03% |
| Transmission Loss (MUs) | 79.34 |
| **Net Energy Available at UT Periphery** | **1,889.38** |
| Power procured from Gross & NET Metering Mode (MUs) | 8.58 |
| **Total Energy Available** | **1,897.95** |
| | |
| **Actual Energy Sales (MUs)** | 1,658.27 |
| T&D Loss (%) | 11.80% |
| T&D Loss (in MUs) | 239.69 |
| **Total Energy Required at UT Periphery (MUs)** | **1,897.95** |

### Commission's analysis

Based on the Energy sales, Power Procurement and Inter & Intra- State Loss as approved in the previous sections, the Energy Balance for FY 2021-22 has been shown in following table:

**Table 104: Energy Balance approved by the Commission for FY 2021-22 (MU)**

| Particulars | Approved in Tariff Order for FY 2020-21 | Petitioner's Submission | Now Approved by Commission |
|---|---|---|---|
| **Energy Requirement** | | | |
| Energy sales within the State/UT (a) | 1,788.45 | 1,658.27 | 1,667.99 |
| **Distribution losses (b)** | | | |
| % | 9.20% | 11.80% | 9.20% |
| MU | 181.21 | 239.69 | 169.00 |
| **Total Energy requirement (c=a/(1-b))** | **1,969.66** | **1,897.95** | **1,837.00** |
| | | | |
| **Energy Availability** | | | |
| Availability from firm sources (d) | 1,969.66 | 1,897.95 | 1948.67 |
| **Deficit/(Surplus) (c-d)** | **0.00** | **0.00** | **(111.67)** |

**The Commission has estimated a surplus of 111.67 MU in FY 2021-22 for sale in the Open Market. The revenue from sale of surplus power has been adjusted by the Commission in power procurement cost approved in the earlier section.**

## *5.9. Operation & Maintenance Expenses*

The Operation & Maintenance Expenses comprise of the Employee Expenses, Administrative & General Expenses (A&G) and the Repair & Maintenance Expenses (R&M). Regulation 51 of the MYT Regulation, 2018 states the following:

*'51.1 The Operation and Maintenance expenses for the Distribution Wires Business shall be computed in accordance with this Regulation.*

*51.2 Operation and Maintenance (O&M) expenses shall comprise of the following:*

*a) Employee expenses - salaries, wages, pension contribution and other employee costs;*

*b) Administrative and General expenses including insurance charges if any; and*

*c) Repairs and Maintenance expenses.*

*51.3 The Distribution Licensee shall submit the required O&M expenses for the Control Period as a part of Multi Year Tariff Petition. O&M expenses for the base Year shall be approved by the Commission considering the latest available audited accounts, business plan filed by the transmission Licensee, estimates of the actuals for the Base Year, prudence check and any other factors considered appropriate by the Commission.*

*51.4 O&M expenses for the nth Year of the Control Period shall be approved based on the formula given below:*

*O&Mn = (R&Mn + EMPn + A&Gn) x (1 - Xn) + Terminal Liabilities*

*Where,*

*R&Mn = K x GFAn-1 x (WPIinflation)*

*EMPn = (EMPn-1) x (1+Gn) x (CPIinflation)*

*A&Gn = (A&Gn-1) x (CPIinflation)*

*'K' is a constant (expressed in %). Value of K for each Year of the Control Period shall be determined by the Commission in the Multi Year Tariff Order based on Licensee's filing, benchmarking of repair and maintenance expenses, approved repair and maintenance expenses vis-à-vis GFA approved by the Commission in past and any other factor considered appropriate by the Commission;*

*CPIinflation – is the average increase in Consumer Price Index (CPI) for immediately preceding three (3) Years before the base Year;*

*WPIinflation – is the average increase in the Wholesale Price Index (CPI) for immediately preceding three (3) Years before the base Year;*

*EMPn – Employee expenses of the Distribution Licensee for the nth Year;*

*A&Gn – Administrative and General expenses of the Distribution Licensee for the nth Year;*

*R&Mn – Repair and Maintenance expenses of the Distribution Licensee for the nth Year;*

*GFAn-1 – Gross Fixed Asset of the transmission Licensee for the n-1th Year;*

*Xn is an efficiency factor for nth Year. Value of Xn shall be determined by the Commission in the Multi Year Tariff Order based on Licensee's filing, benchmarking, approved cost by the Commission in past and any other factor the Commission feels appropriate;*

*Gn is a growth factor for the nthYear. Value of Gn shall be determined by the Commission for each Year in the Multi Year Tariff Order for meeting the additional manpower requirement based on Licensee's filings, benchmarking, approved cost by the Commission in past and any other factor that the Commission feels appropriate:*

*Provided that in case the Distribution Licensee has been in operation for less than three (3) Years as on the date of effectiveness of these Regulations, O&M Expenses shall be determined on case to case basis.*

*51.5 Terminal liabilities of employees of Licensee including pension expenses etc. shall be approved as per actuals submitted by the Licensee, subject to prudence check or be established through actuarial studies. Additionally, any variation due to changes recommended by the pay commission shall be allowed separately by the Commission, subject to prudence check.*

*51.6 For the purpose of estimation, the same value of factors – CPIinflation and WPIinflation shall be used for all Years of the Control Period. However, the Commission shall consider the actual values of the factors – CPIinflation and WPIinflation during the truing up exercise for the Year for which true up is being carried out and true up the O&M Expenses for that Year, only to the extent of inflation."*

### 5.9.1. Employee Expenses

## Petitioner's submission

The Petitioner has considered the same employee expenses of INR 80.32 Cr as approved by the Commission in the MYT Order

## Commission's analysis

In accordance with the MYT Regulations, 2018, the Commission has determined the Employee expenses for each year of the MYT Control Period. The Regulation 6 of the MYT Regulations, 2018 stipulates the following:

*6. Values for Base Year*

*6.1 The values for the Base Year of the Control Period shall be determined on the basis of the audited accounts or provisional accounts of last three (3) Years, and other factors considered relevant by the Commission:*

*Provided that, in absence of availability of audited accounts or provisional accounts of last three (3) Years, the Commission may benchmark the parameters with other similar utilities to establish the values for Base Year:*

*Provided further that the Commission may change the values for Base Year and consequently the trajectory of parameters for Control Period, considering the actual figures from audited accounts.*

The Employee expenses are to be revised to the extent of inflation as stipulated in the MYT Regulations 2018. Accordingly, the Commission has considered the revised Employee expenses as approved in the APR of FY 2020-21 as base and considered the Growth Rate (Gn) same as approved by the Commission in the MYT Order. Based on the latest CPI Inflation, the Commission has arrived on the Employee Expenses for FY 2021-22.

The CPI Inflation has been computed as follows:

**Table 105: Computation of CPI Inflation (%)**

| FY | Average of (Apr-Mar) | Increase in CPI Index | Average increase in CPI indices over 3 years |
|---|---|---|---|
| 2017-18 | 284.42 | 3.08% | |
| 2018-19 | 299.92 | 5.45% | |
| 2019-20 | 322.50 | 7.53% | |
| | | **CPI Inflation** | **5.35%** |

Accordingly, the employee expenses approved by the Commission for FY 2021-22 have been provided in the following table:

**Table 106: Employee Expenses approved by the Commission for FY 2021-22 (In INR Cr)**

| S. No | Particulars | FY 2020-21 | FY 2021-22 |
|---|---|---|---|
| 1 | Employee Expenses base year | | 79.26 |
| 2 | Growth in number of employees (Gn) | | 1.00% |
| 3 | CPI Inflation for preceding three years (CPI) | | 5.35% |
| **4** | **Employee Expenses** | **79.26** | **80.48** |

**The Commission approves Employee Expenses of INR 80.48 Cr in the ARR of FY 2021-22.**

### *5.9.2. Administrative and General (A&G) Expenses*

## Petitioner's submission

The Petitioner has determined the A&G expenses for FY 2021-22 based on the norms specified in the MYT Regulations, 2018. The A&G expenses for the FY 2020-21 have been taken as the base. The average increase in the Consumer Price Index (CPI) has been considered. The following table provides the A&G expenses projected for FY 2021-22 along with various parameters considered.

**Table 107: A&G submitted by Petitioner (In INR Cr)**

| Particular | Unit | Petitioner's Submission |
|---|---|---|
| A&G Expenses of FY 2019-20 | Rs. Cr. | 5.42 |
| A&G Expenses of FY 2020-21 (base year) | Rs. Cr. | 5.73 |
| CPI Inflation | In % | 5.74% |
| **Projected A&G expenses** | **Rs. Cr.** | **6.06** |

## Commission's analysis

Similar to the methodology followed while estimating the employee expenses, the Commission has considered the A&G expenses approved for FY 2020-21 as base and escalated with the latest CPI Inflation figures to arrive upon the A&G expenses for the FY 2021-22.

The A&G expenses approved by the Commission for FY 2021-22 have been provided in the following table:

**Table 108: A&G Expenses approved by the Commission for FY 2021-22 (In INR Cr)**

| S. No | Particulars | FY 2020-21 | FY 2021-22 |
|---|---|---|---|
| 1 | A&G Expenses(n-1) | | 7.30 |
| 2 | CPI Inflation | | 5.35% |
| **3** | **A&G Expenses** | **7.30** | **7.69** |

**The Commission approves the Administrative & General (A&G) expenses of INR 7.69 Cr in the ARR of FY 2021-22.**

### *5.9.3. Repair & Maintenance Expenses (R&M)*

## Petitioner's submission

The Petitioner has considered the R&M Expenses submitted for FY 2020-21 as base and escalated the same with Wholesale Price Index (WPI) to arrive upon the R&M Expenses for FY 2021-22.

The following table provides the R&M expenses proposed for each year of the MYT Control Period along with various parameters considered.

**Table 109: R&M expenses submitted by Petitioner (In INR Cr)**

| Particular | Unit | Petitioner's Submission |
|---|---|---|
| Estimated R&M Expenses for FY 2020-21 | INR. Cr. | 10.81 |
| WPI Inflation | % | 2.96% |
| **Projected R&M Expenses** | **INR. Cr.** | **11.13** |

## Commission's analysis

The Commission has considered the same 'K' factor as approved in the MYT Order. The 'K' factor is then multiplied with the GFA approved for $(n-1)^{th}$ year based on revised capitalisation for FY 2020-21 and FY 2021-22. The resultant amount is then escalated by WPI Inflation to arrive upon the R&M Expenses for FY 2021-22.

The WPI Inflation has been computed as follows:

**Table 110: Computation of WPI Inflation (%)**

| FY | Average of (Apr-Mar) | Increase in WPI Index | Average increase in WPI indices over 3 years |
|---|---|---|---|
| 2017-18 | 114.88 | 2.92% | |
| 2018-19 | 119.79 | 4.28% | |
| 2019-20 | 121.80 | 1.68% | |
| | | **WPI Inflation** | **2.96%** |

The R&M expenses approved by the Commission for FY 2021-22 have been provided in the following table:

**Table 111: R&M Expenses approved by the Commission for FY 2021-22 (In INR Cr)**

| S. No | Particulars | FY 2021-22 |
|---|---|---|
| 1 | Opening GFA ($GFA_{n-1}$) of previous year | 462.92 |
| 2 | K factor approved (K) in MYT Order | 2.32% |
| 3 | WPI Inflation | 2.96% |
| | **R&M Expenses = (K x ($GFA_{n-1}$) x ($1+WPI_{inflation}$)** | **11.06** |

**The Commission approves the Repair & Maintenance (R&M) expenses of INR 11.06 Cr in the ARR of FY 2021-22.**

### 5.9.4. Total Operation and Maintenance Expenses (O&M)

The following table provides the O&M expenses approved in the MYT Order, Petitioner's submission and now approved by the Commission

**Table 112: O&M Expenses approved by the Commission for FY 2021-22 (In INR Cr)**

| S. No | Particulars | Approved in MYT Order | Petitioner's Submission | Now Approved by Commission |
|---|---|---|---|---|
| 1 | Employee Expenses | 80.32 | 80.32 | 80.48 |
| 2 | Administrative & General Expenses (A&G) | 12.19 | 11.13 | 7.69 |
| 3 | Repair & Maintenance Expenses (R&M) | 5.21 | 6.06 | 11.06 |
| | **Total Operation & Maintenance Expenses** | **97.72** | **97.51** | **99.22** |

**The Commission approves Operation & Maintenance (O&M) expenses of INR 99.22 Cr in the ARR of FY 2021-22.**

## 5.10. Capital Expenditure and Capitalisation

### Petitioner's submission

The Petitioner has proposed the capital expenditure and capitalisation as INR 30.89 Cr and INR 5.02 Cr respectively for FY 2021-22.

### Commission's analysis:

The Commission approves the standalone capital expenditure and capitalisation as approved by the Commission in the MYT Order for FY 2021-22.

The following table provides the capital expenditure and capitalisation approved by the Commission for FY 2021-22:

**Table 113: Capital Expenditure and Capitalisation approved by the Commission for FY 2021-22 (In INR Cr)**

| S. No | Particulars | Approved in MYT Order | Petitioner's Submission | Now Approved by Commission |
|---|---|---|---|---|
| 1 | Capital Expenditure | 93.30 | 30.89 | 93.30 |
| 2 | Capitalisation | 57.38 | 5.02 | 57.38 |

**The Commission approves the capital expenditure of INR 93.30 Cr and capitalisation of INR 57.38 Cr in the ARR of FY 2021-22.**

## 5.11. Capital Structure

### Petitioner's Submission

The Petitioner has proposed that the entire capitalisation for FY 2021-22 shall be through deployment of capital equity.

### Commission's analysis

The Regulation 26 of the MYT Regulations, 2018 specifies the following

*26. Debt to Equity Ratio*

*26.1 In case of Existing Projects, debt to equity ratio allowed by the Commission for determination of tariff for the period ending March 31, 2018 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.*

*26.2 For New Projects, the 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 23, after prudence check for determination of tariff:*

*Provided 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 if the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as a normative loan for the Licensee for determination of tariff:*

*Provided also 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 the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment:*

*Provided further that the premium, if any, raised by the Licensee while issuing share capital and investment of internal resources created out of its free reserves, for the funding of the scheme, shall be reckoned as paid up capital for the purpose of computing return on equity, provided such premium amount and internal resources are actually utilized for meeting the capital expenditure of the transmission system or the distribution system, and are within the ceiling of 30% of capital cost approved by the Commission.*

*26.3 Any expenditure incurred or projected to be incurred on or after April 1, 2019, 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 specified in this Regulation.*

In accordance with above, since the Petitioner has submitted that the entire capitalisation is funded through equity, equity higher than 30% of capitalisation has been considered as normative loan. Further, as per the submission of the Petitioner no assets haven been created by way of consumer contribution or Government grant.

Therefore, in accordance with the MYT Regulations, 2018, the Commission has determined the Capital Structure for each year of the MYT Control Period as follows:

**Table 114: Funding Plan approved by the Commission for FY 2021-22 (In INR Cr)**

| S. No | Particulars | Approved in MYT Order | Petitioner's Submission | Now Approved by Commission |
|---|---|---|---|---|
| 1 | Capitalisation | 57.38 | 5.02 | 57.38 |
| 2 | Debt (%) | 70% | 70% | 70% |
| 3 | Equity (%) | 30% | 30% | 30% |
| 4 | Normative Loan | 40.17 | 3.51 | 40.17 |
| 5 | Equity | 17.21 | 1.51 | 17.21 |

**Table 115: GFA addition approved by the Commission (In INR Cr)**

| S. No | Particulars | Approved in MYT Order | Petitioner's Submission | Now Approved by Commission |
|---|---|---|---|---|
| 1 | Opening Gross Fixed Assets | 589.92 | 462.77 | 462.92 |
| 2 | Addition During the FY | 57.38 | 5.02 | 57.38 |
| 3 | Adjustment/Retirement During the FY | - | - | - |
| 4 | Closing Gross Fixed Assets | 647.30 | 467.79 | 520.30 |

**Table 116: Normative Loan addition approved by the Commission (In INR Cr)**

| S. No | Particulars | Approved in MYT Order | Petitioner's Submission | Now Approved by Commission |
|---|---|---|---|---|
| 1 | Opening Normative Loan | 75.24 | 14.18 | 0.00 |
| 2 | Add: Normative Loan During the year | 40.17 | 3.51 | 40.17 |
| 3 | Less: Normative Repayment equivalent to Depreciation | 17.37 | 16.06 | 12.65 |
| 4 | Closing Normative Loan | 98.04 | 1.63 | 27.52 |

**Table 117: Normative Equity addition approved by the Commission (In INR Cr)**

| S. No | Particulars | Approved in MYT Order | Petitioner's Submission | Now Approved by Commission |
|---|---|---|---|---|
| 1 | Opening Equity | 171.02 | 138.83 | 132.93 |
| 2 | Additions on account of new capitalisation | 17.21 | 1.51 | 17.21 |
| 3 | Closing Equity | 188.23 | 140.34 | 150.14 |

## *5.12. Depreciation*

### Petitioner's submission

The Petitioner has determined the depreciation on normative basis considering proposed capitalisation during the year and average of opening and closing GFA for each year. The Depreciation rate has been considered the same as the weighted average rate of depreciation calculated as per addition in GFA. The Depreciation amount has been submitted as follows:

**Table 118: Depreciation submitted by the Petitioner (In INR Cr)**

| S. No | Particulars | Petitioner's Submission |
|---|---|---|
| 1 | Opening Gross Fixed Assets | 462.77 |
| 2 | Add: Assets added during year | 5.02 |
| 3 | Less: Adjustment/With-drawl | - |
| 4 | Closing Gross Fixed Assets | 467.79 |
| 5 | Average Gross Fixed Assets | 465.28 |
| 6 | Average Depreciation Rate | 3.45% |
| | **Depreciation for year** | **16.06** |

### Commission's analysis

Regulation 30 of the MYT Regulations, 2018 stipulates the following:

*30. Depreciation*

*30.1 The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission:*

*Provided that the depreciation shall be allowed after reducing the approved original cost of the retired or replaced or decapitalized assets:*

*Provided also that the no depreciation shall be allowed on the assets financed through consumer contribution, deposit work, capital subsidy or grant.*

*30.2 The salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to a maximum of 90% of the capital cost of the asset.*

*30.3 Land other than the land held under lease shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the assets.*

*30.4 In case of existing assets, the balance depreciable value as on April 1, 2019, shall be worked out by deducting the cumulative depreciation as admitted by the Commission up to March 31, 2018, from the gross depreciable value of the assets.*

*30.5 The depreciation shall be chargeable from the first Year of commercial operations. In case of projected commercial operation of the assets during the Year, depreciation shall be computed based on the average of opening and closing value of assets:*

*Provided that depreciation shall be re-calculated during truing-up for assets capitalised at the time of truing up of each Year of the Control Period, based on documentary evidence of asset capitalised by the Applicant, subject to the prudence check of the Commission.*

*30.6 For Transmission Licensee, the depreciation shall be calculated at rates and norms specified in the prevalent CERC Tariff Regulations for transmission system.*

*30.7 The depreciation for a Distribution Licensee shall be calculated annually, based on the Straight Line Method, over the Useful Life of the asset at rates specified in Appendix I of the Regulations.*

*30.8 In addition to allowable depreciation, the Distribution Licensee shall be entitled to advance against depreciation (AAD), computed in the manner given hereunder:*

*AAD = Loan (raised for capital expenditure) repayment amount based on loan repayment tenure, subject to a ceiling of 1/10th of loan amount minus depreciation as calculated on the basis of these Regulations:*

*Provided that advance against depreciation shall be permitted only if the cumulative repayment upto a particular Year exceeds the cumulative depreciation upto that Year:*

*Provided further that advance against depreciation in a Year shall be restricted to the extent of difference between cumulative repayment and cumulative depreciation upto that Year.*

*30.9 The Distribution Licensee shall provide the list of assets added during each Year of Control Period and list of assets completing 90% of depreciation in the Year along with Petition for annual performance review, true-up and tariff determination for ensuing Year.*

*30.10 The remaining depreciable value for a Distribution Licensee shall be spread over the balance useful life of the asset, on repayment of the entire loan.*

The Commission has derived the weighted average rate of depreciation based on the asset wise depreciation rate prescribed in MYT Regulations, 2018, provided in the following table:

**Table 119: Depreciation Rate (%)**

| Description | Rate |
|---|---|
| Plant & Machinery | 3.60% |
| Buildings | 1.80% |
| Vehicles | 18.00% |
| Furniture & Fixtures | 6.00% |
| Computers & Others | 6.00% |
| Land | 0.00% |

The closing GFA of FY 2020-21 as approved in the APR has been considered as opening GFA of FY 2021-22. Further, depreciation for each year has been computed on average Gross Fixed Assets (GFA) after considering the net addition proposed during each year.

The following table provides the calculation of depreciation during the MYT Control Period.

**Table 120: Depreciation approved by the Commission for FY 2021-22 (In INR Cr)**

| S. No | Particulars | Approved in MYT Order | Petitioner's Submission | Now Approved by Commission |
|---|---|---|---|---|
| 1 | Opening Gross Fixed Assets | 475.72 | 462.77 | 337.89 |
| 2 | Addition During the FY | 57.38 | 5.02 | 57.38 |
| 3 | Adjustment/Retirement During the FY | 0.00 | - | 0.00 |
| 4 | Closing Gross Fixed Assets | 533.10 | 467.79 | 395.27 |
| 5 | Average Gross Fixed Assets | 504.41 | 465.28 | 366.58 |
| 6 | Effective Rate of Depreciation (%) | 3.44% | 3.45% | 3.45% |
| | **Depreciation** | **17.37** | **16.06** | **12.65** |

**The Commission approves a depreciation of INR 12.65 Cr in the ARR of FY 2021-22**

## *5.13. Interest on Loan*

### Petitioner's submission

In line with the methodology adopted for computation of depreciation, the Petitioner has determined the Interest on Loan on normative basis. The Opening loan has been considered equivalent to closing loan based on the submissions in APR of FY 2020-21. Subsequently 70% of capitalisation proposed for FY 2021-22 has been considered to arrive at the opening and closing normative loan for FY 2021-22.

Repayment of the normative loan has been considered equivalent to the depreciation for the respective year in line with the MYT Regulations, 2018.

The interest at the SBI MCLR rate as on 1st April 2020 plus 100 basis point i.e. 8.75% has been applied on the average normative debt in order to project the interest on normative loan for FY 2021-22.

The following table provides the Interest on Loan projected for FY 2021-22.

**Table 121: Interest on Loan submitted by the Petitioner (In INR Cr)**

| Particular | Petitioner's Submission |
|---|---|
| Opening Normative Loan | 14.18 |
| Add: Normative Loan during the year (70% of proposed capitalization) | 3.51 |
| Less: Normative Repayment | 16.06 |
| Closing Normative Loan | 1.63 |
| Average Normative Loan | 7.91 |
| Rate of Interest | 8.75% |
| **Interest on Normative Loan** | **0.69** |

## Commission's analysis:

The Regulation 28 of the MYT Regulations, 2018 specifies the following:

*28. Interest on Loan*

*28.1 The loans arrived at in the manner indicated in Regulation 26 on the assets put to use, shall be considered as gross normative loan for calculation of interest on the loan:*

*Provided that interest and finance charges on capital works in progress shall be excluded:*

*Provided further that in case of De-capitalisation or retirement or replacement of assets, the loan capital shall be reduced to the extent of outstanding loan component of the original cost of the de-capitalised or retired or replaced assets, based on documentary evidence.*

*28.2 The normative loan outstanding as on April 1, 2019, shall be worked out by deducting the cumulative repayment as admitted by the Commission up to March 31, 2018, from the gross normative loan.*

*28.3 Notwithstanding any moratorium period availed by the Transmission Licensee or the Distribution Licensee, as the case may be, the repayment of loan shall be considered from the first Year of commercial operation of the project and shall be equal to the annual depreciation allowed in accordance with Regulation 30.*

*28.4 The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio at the beginning of each Year applicable to the Transmission Licensee or the Distribution Licensee:*

*Provided that at the time of truing up, the weighted average rate of interest calculated on the basis of the actual loan portfolio during the Year applicable to the Transmission Licensee or the Distribution Licensee shall be considered as the rate of interest:*

*Provided also that if there is no actual loan for a particular Year but normative loan is still outstanding, the last available weighted average rate of interest for the actual loan shall be considered:*

*Provided further that if the Transmission Licensee or the Distribution Licensee does not have actual loan, then one (1) Year State Bank of India (SBI) MCLR / any replacement thereof as notified by RBI for the time being in effect applicable for one (1)Year period, as may be applicable as on 1st April of the relevant Year plus 100 basis points shall be considered as the rate of interest for the purpose of allowing the interest on the normative loan.*

*28.5 The interest on loan shall be calculated on the normative average 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 Year shall be considered on the basis of the actual asset capitalisation approved by the Commission for the Year.*

*28.6 For new loans proposed for each Financial Year of the Control Period, interest rate shall be considered as lower of (i) one (1) Year State Bank of India (SBI) MCLR / any replacement thereof as notified by RBI for the time being in effect applicable for one (1)Year period, as may be applicable as on 1st April of the relevant Year plus 100 basis points, and (ii) weighted average rate of interest proposed by the Distribution Licensee.*

*28.7 The above interest computation shall exclude the interest on loan amount, normative or otherwise, to the extent of capital cost funded by consumer contribution, deposit work, capital subsidy or grant, carried out by Transmission Licensee or Distribution Licensee.*

*28.8 The finance charges incurred for obtaining loans from financial institutions for any Year shall be allowed by the Commission at the time of Truing-up, subject to prudence check.*

*28.9 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 Transmission 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.*

*28.10 The Transmission Licensee or the Distribution Licensee, as the case may be, shall make every effort to re-finance the loan as long as it results in net savings on interest and in that event the costs associated with such re-financing shall be borne by the beneficiaries and the net savings shall be shared between the equally between the beneficiaries and the Transmission Licensee or the Distribution Licensee and the Consumers of Distribution Licensee.*

*28.11 Interest shall be allowed on the amount held as security deposit held in cash from Retail Consumers at the Bank Rate as on 1st April of the Financial Year in which the Petition is filed:*

*Provided that at the time of truing-up, the interest on the amount of security deposit for the Year shall be considered on the basis of the actual interest paid by the Licensee during the Year, subject to prudence check by the Commission.*

Hence, the rate of interest to be considered while determining the ARR shall be the weighted average interest rate of the actual loan portfolio. However, the Petitioner has submitted that capitalisation during each year has been funded by the Petitioner's equity and no loan has been taken against any of the capitalised assets.

As per the MYT Regulations 2018, if the equity actually deployed is more than 30% of the capital cost, then equity in excess of 30% would be considered as normative loan. Further, the Commission has considered the capitalisation of assets as approved in the foregoing paragraphs. The Commission for the purpose of funding of the capitalisation has considered the normative debt equity ratio of 70:30.

The Commission has considered the SBI MCLR rate as on 1st April 2020 plus 100 basis points as Rate of Interest, in accordance with the MYT Regulations, 2018. The Interest on Loan has been calculated on the average loan during the year with the opening loan considered equivalent to the closing loan approved for FY 2020-21 in the APR.

The following table provides the Interest on Loan approved in the MYT Order, Petitioner's Submission and now approved by the Commission

**Table 122: Interest on loan approved by the Commission for FY 2021-22 (In INR Cr)**

| S. No | Particulars | Approved in MYT Order | Petitioner's Submission | Now Approved by Commission |
|---|---|---|---|---|
| 1 | Opening Normative Loan | 75.24 | 14.18 | 0.00 |
| 2 | Add: Normative Loan During the year | 40.17 | 3.51 | 40.17 |
| 3 | Less: Normative Repayment equal to Depreciation | 17.27 | 16.06 | 12.65 |
| 4 | Closing Normative Loan | 98.04 | 1.63 | 27.52 |
| 5 | Average Normative Loan | 86.64 | 7.91 | 13.76 |
| 6 | Rate of Interest (%) | 9.55% | 8.75% | 8.00% |
| | **Interest on Loan** | **8.27** | **0.69** | **1.10** |

**The Commission approves Interest on Loan as INR 1.10 Cr in the ARR of FY 2021-22.**

## *5.14. Return on Equity (RoE)*

### Petitioner's submission

The Return on Equity (RoE) is computed in accordance with the MYT Regulations 2018, and is computed on 30% of the capital base. The Petitioner has considered the opening equity equivalent to the closing equity for the FY 2020-21 and has considered added equity to the tune of 30% of assets proposed to be capitalized during the year. Accordingly, the EWEDC has computed the Return on Equity for Wires and Retail Supply Business separately. The following table provides the RoE as submitted by the Petitioner.

**Table 123: RoE submitted by Petitioner (In INR Cr)**

| Particulars | Petitioner's Submission |
|---|---|
| Opening Equity | 138.83 |
| Additions on account of new capitalisation | 1.51 |
| Closing Equity | 140.34 |
| Average Equity | 139.58 |
| Average Equity (Wires Business) | 125.63 |
| Average Equity (Retail Supply Business) | 13.96 |
| Return on Equity for Wires Business (%) | 15.50% |
| Return on Equity for Retail Supply Business (%) | 16.00% |
| Return on Equity for Wires Business | 19.47 |
| Return on Equity for Retail Supply Business | 2.23 |
| **Return on Equity** | **21.71** |

### Commission's analysis:

The Regulations 27.2 and 27.3 of the MYT Regulations, 2018 stipulate the following:

*"27.2 The return on equity for the Distribution Wires Business shall be allowed on the equity capital determined in accordance with Regulation 26 for the assets put to use at post-tax rate of return on equity specified in the prevalent CERC Tariff Regulations for transmission system.*

*27.3 The return on equity for the Retail Supply Business shall be allowed on the equity capital determined in accordance with Regulation 26 for the assets put to use, at the rate of sixteen (16) per cent per annum."*

Further, in this regard, the Regulation 30(2) of the CERC (Terms and Conditions of Tariff) Regulations, 2019 stipulates the following:

*"30. Return on Equity: ......... 30.2 Return on equity shall be computed at the base rate of* ***15.50%*** *for thermal generating station, transmission system including communication system and run-of river hydro generating station, and at the base rate of 16.50% for the storage type hydro generating stations including pumped storage hydro generating stations and run-of river generating station with pondage: ........"* ***(Emphasis supplied)***

The Commission has segregated the approved average equity (average of opening and closing equity) into average equity for Distribution Wires Business and Retail Supply Business based on the Allocation Statement provided in the MYT Regulations, 2018 i.e. 90% allocation for the Distribution Wires Business and 10% allocation for the Retail Supply Business. The Commission has considered a rate of 15.50% for the Distribution Wires Business (as per the prevalent CERC Regulations as mentioned above) and a rate of 16% for the Retail Supply Business. The equity component has been determined in accordance with capital structure as discussed in the section on capital structure. The rate of return on equity for the Distribution Wires Business shall be trued up based on the prevalent CERC Regulations during the True-up of the respective years. The following table provides the total return on equity approved for FY 2021-22.

**Table 124: RoE approved by the Commission for FY 2021-22 (In INR Cr)**

| Particulars | Approved in MYT Order | Petitioner's Submission | Now Approved by Commission |
|---|---|---|---|
| Opening Equity | 171.02 | 138.83 | 132.93 |
| Additions on account of new capitalisation | 17.21 | 1.51 | 17.21 |
| Closing Equity | 188.24 | 140.34 | 150.14 |
| Average Equity | 179.63 | 139.58 | 141.53 |
| Average Equity (Wires Business) (90%) | 161.67 | 125.63 | 127.38 |
| Average Equity (Retail Supply Business) (10%) | 17.96 | 13.96 | 14.15 |
| Return on Equity for Wires Business (%) | 15.50% | 15.50% | 15.50% |
| Return on Equity for Retail Supply Business (%) | 16.00% | 16.00% | 16.00% |
| Return on Equity for Wires Business | 25.06 | 19.47 | 19.74 |
| Return on Equity for Retail Supply Business | 2.87 | 2.23 | 2.26 |
| **Return on Equity** | **27.93** | **21.71** | **22.01** |

**The Commission approves Return on Equity of INR 22.01 Cr in the ARR of FY 2021-22. Any Income Tax, paid by the Petitioner on return on equity, shall be allowed by the Commission at the time of true up based on actual figures.**

## *5.15. Interest on Consumer Security Deposits*

### Petitioner's submission

Interest on consumer security has been calculated on normative basis with addition of INR 8.00 Cr proposed for FY 2021-22. The following table provides the calculation of interest on consumer security deposits proposed for FY 2021-22.

**Table 125: Interest on Consumer Security Deposit submitted by the Petitioner (In INR Cr)**

| Particular | Petitioner's Submission |
|---|---|
| Opening Consumer Security Deposit | 203.72 |
| Net Addition During the year | 8.00 |
| Closing Consumer Security Deposit | 211.72 |
| Average Security Deposit | 207.72 |
| Bank Rate | 6.25% |
| **Interest on Consumer Security Deposit** | 12.98 |

### Commission's analysis:

Regulation 28.11 of the MYT Regulations, 2018 stipulates the following:

*" Interest shall be allowed on the amount held as security deposit held in cash from Retail Consumers at the Bank Rate as on 1st April of the Financial Year in which the Petition is filed:*

*Provided that at the time of truing-up, the interest on the amount of security deposit for the Year shall be considered on the basis of the actual interest paid by the Licensee during the Year, subject to prudence check by the Commission. "*

The Interest on security deposits has been calculated in accordance with the MYT Regulations 2018, based on the average of the opening and closing consumer security deposits during the year. In accordance with the Petitioner's submission, the Commission has considered a net addition of INR 8.00 Cr in the consumer security deposits during the year. The rate of interest has been considered equivalent the RBI Bank Rate as on 1st April of the Financial Year in which the Petition is filed.

The following table provides the computation of interest on consumer security deposits approved for each year of the MYT Control Period.

**Table 126: Interest on Security Deposits approved by the Commission for FY 2021-22 (In INR Cr)**

| S. No | Particulars | Approved in MYT Order | Petitioner's Submission | Now Approved by Commission |
|---|---|---|---|---|
| 1 | Opening Security Deposit | 214.96 | 203.72 | 203.72 |
| 2 | Net addition during the year | 8.00 | 8.00 | 8.00 |
| 3 | Closing Security Deposit | 222.96 | 211.72 | 211.72 |
| 4 | Average Security Deposit | 218.96 | 207.72 | 207.72 |
| 5 | Rate of Interest (%) | 6.25% | 6.25% | 4.65% |
| **6** | **Interest on Security Deposit** | **13.69** | **12.98** | **9.66** |

**The Commission approves Interest on Security Deposit as INR 9.66 Cr in the ARR of FY 2021-22.**

## 5.16. Interest on Working Capital

### Petitioner's submission

The interest on working capital has been calculated based on the normative principles outlined in the MYT Regulations, 2018.

The working capital requirement for the Control Period has been computed considering the following

- Receivable of two months of billing
- O&M Expenses of one month
- Maintenance Spares at 40% of repair and maintenance expenses for one month
- Less consumer security deposit but excluding Bank Guarantee/Fixed Deposit Receipt

The SBI 1 Year MCLR as on 1st April, 2020 plus 200 basis points i.e. 9.75% has been considered for computation of interest on working capital. The following table provides the Interest on working Capital proposed for each year of the Control Period.

**Table 127: Interest on Working Capital submitted by the Petitioner (In INR Cr)**

| Particular | Petitioner's Submission |
|---|---|
| Two months receivables | 158.34 |
| Add: One Month O&M Expenses | 8.13 |
| Add: 40% of repair and maintenance expenses for one month | 0.37 |
| Less: Consumer Security Deposit excl. BG/FDR | 207.72 |
| Total Working after deduction of Security Deposit | 0.00 |
| Interest Rate (%) | 9.75% |
| **Interest on Working Capital** | 0.00 |

### Commission's analysis:

The Regulation 52 of the MYT Regulations, 2018 stipulates the following:

*52. Norms of Working Capital for Distribution Wires Business*
*52.1 The Distribution Licensee shall be allowed interest on the estimated level of working capital for the Distribution Wires Business for the Financial Year, computed as follows:*

*(a) O&M Expenses for one (1) month; plus*
*(b) Maintenance spares at 40% of repair and maintenance expenses for one (1) month; plus*
*(c) Receivables equivalent to two (2) months of the expected revenue from charges for use of distribution wires at the prevailing tariff;*
*Less:*

*(d) Amount, if any, held as security deposits under clause (b) of sub-section (1) of Section 47 of the Act from distribution system users except the security deposits held in the form of Bank Guarantees:*

*Provided that at the time of truing up for any Year, the working capital requirement shall be re-calculated on the basis of the values of components of working capital approved by the Commission in the truing up.*

Further, Regulation 31.3 of the MYT Regulation, 2018 stipulates the following:

*31.3 The interest on working capital shall be a payable on normative basis notwithstanding that the Licensee has not taken working capital loan from any outside agency or has exceeded the working capital loan based on the normative figures. 31.4 The rate of interest on working capital shall be equal one (1)Year State Bank of India (SBI) MCLR / any replacement thereof as notified by RBI for the time being in effect applicable for one (1)Year period, as may be applicable as on 1st April of the Financial Year in which the Petition is filed plus 200 basis points.*

In accordance with the MYT Regulation, 2018, the Commission has computed the Interest on Working Capital for FY 2021-22. The actual Working Capital requirement, after deduction of the average amount of Consumer Security Deposit is coming out to be negative. Thus, the Interest on Working Capital has been considered as Nil, as shown in the following table:

**Table 128: Interest on Working Capital approved by the Commission for FY 2021-22 (In INR Cr)**

| S. No | Particulars | Approved in MYT Order | Petitioner's Submission | Now Approved by Commission |
|---|---|---|---|---|
| 1 | O&M Expense for 1 month | 8.14 | 8.13 | 8.27 |
| 2 | Maintenance spares at 40% of R&M expenses for one (1) month; | 0.41 | 0.37 | 0.37 |
| 3 | Receivables equivalent to two (2) months of the expected revenue from charges at the prevailing tariff | 167.83 | 158.34 | 141.72 |
| 4 | Less: Amount, held as security deposits | 218.96 | 207.72 | 207.72 |
| 5 | Net Working Capital | (42.58) | 0.00 | (57.35) |
| 6 | Rate of Interest (%) | 10.15% | 10.55% | 9.75% |
| | **Interest on Working Capital** | **0.00** | **0.00** | **0.00** |

**The Commission approves the Interest on Working Capital as nil in the ARR of FY 2021-22**

## *5.17. Income Tax*

### Petitioner's submission

No submission has been made in this regard.

### Commission's analysis:

Regulation 32 of MYT Regulations, 2018 stipulates the following:

*32. Tax on Income*

*32.1 The treatment of tax on income for a Transmission Licensee shall be in accordance with the prevalent CERC Tariff Regulations.*

*32.2 The Commission in its MYT Order shall provisionally approve Income Tax payable for each Year of the Control Period, if any, based on the actual income tax paid, including cess and surcharge on the same, if any, as per latest audited accounts available for the Distribution Licensee, subject to prudence check.*

*32.3 Variation between Income Tax actually paid, including cess and surcharge on the same, if any, and approved, if any, on the income stream of the Licensed business of the Distribution Licensees shall be reimbursed to/recovered from the Distribution Licensees, based on the documentary evidence submitted at the time of truing up of each Year of the Control Period, subject to prudence check.*

*32.4 Under-recovery or over-recovery of any amount from the Consumers on account of such tax having been passed on to them shall be adjusted every Year on the basis of income-tax assessment under the Income-Tax Act, 1961, as certified by the statutory auditors. The Distribution Licensee may include this variation in its truing up Petition:*

*Provided that tax on any income stream other than the core business shall not be a pass-through component in tariff and tax on such other income shall be borne by the Distribution Licensee.*

Since no Income tax has been paid by the Petitioner in the previous years, no income tax liability is computed for the FY 2021-22 and the same shall be Trued-up based on the actual income tax paid by the Petitioner.

**Table 129: Income Tax approved by the Commission for FY 2021-22 (In INR Cr)**

| S. No | Particulars | Approved in MYT Order | Petitioner's Submission | Now Approved by Commission |
|---|---|---|---|---|
| 1 | Income Tax | 0.00 | 0.00 | 0.00 |

**The Commission approves Income Tax as nil in the ARR of FY 2021-22.**

## *5.18. Provision for Bad & Doubtful Debts*

### Petitioner's submission

The Petitioner has proposed provision for bad and doubtful debts for FY 2021-22 in accordance with the MYT Regulations, 2018.

In view of the above para & outstanding dues of Rs. 19.12 Crores from permanently disconnected consumers as on 31st March, 2020. The Petitioner has proposed the provision for bad and doubtful debts @ 1% of the estimated receivables of Rs. 950.02 Crores for the FY 2021-22. Accordingly, the Petitioner has estimated the provision of bad debt of Rs. 9.50 Crores for the FY 2021-22.

### Commission's analysis

The Regulation 62 of the MYT Regulations, 2018 stipulates the following

*"62. Provision for bad and doubtful debts*

*62.1 The Commission may allow bad debts written off as a pass through in the Aggregate Revenue Requirement, based on the trend of write off of bad debts in the previous years, subject to prudence check:*

*Provided that the Commission shall true up the bad debts written off in the Aggregate Revenue Requirement, based on the actual write off of bad debts excluding delayed payment charges waived off, if any, during the year, subject to prudence check:*

*Provided also that the provision for bad and doubtful debts shall be limited to 1% of the annual Revenue Requirement of the Distribution Licensee:*

*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 as an uncontrollable item under the Non-Tariff Income of the year in which such revenue is realised."*

The Commission also has not considered any Provision for Bad & Doubtful Debts for the FY 2021-22. The same shall be accounted for as per actuals in the True-up of respective year.

# *5.19. Non-Tariff Income (NTI)*

## Petitioner's submission

The Petitioner has estimated the non-tariff income for FY 2021-22 as provided in the following table:

**Table 130: Non-Tariff Income submitted by the Petitioner (In INR Cr)**

| Particular | Petitioner's Submission |
|---|---|
| **Non-Tariff Income** | **18.66** |

## Commission's analysis:

The Regulation 64 of the MYT Regulations, 2018 stipulates the following:

*"64. Non-Tariff Income*

*64.1 The amount of Non-Tariff Income relating to the retail supply of electricity as approved by the Commission shall be deducted from the Aggregate Revenue Requirement in calculating the tariff for retail supply of electricity by the Distribution Licensee:*

*Provided that the Distribution Licensee shall submit full details of its forecast of Non-Tariff Income to the Commission along with its application for determination of tariff.*

*64.2 The Non-Tariff Income shall inter-alia include:*
*(a) Income from rent of land or buildings;*
*(b) Income from sale of scrap;*
*(c) Income from statutory investments;*
*(d) Interest on advances to suppliers/contractors;*
*(e) Rental from staff quarters;*
*(f) Rental from contractors;*
*(g) Income from hire charges from contactors and others;*
*(h) Income from advertisements, etc.;*
*(i) Meter/metering equipment/service line rentals;*
*(j) Service charges;*
*(k) Consumer charges;*
*(l) Recovery for theft and pilferage of energy;*
*(m) Rebate availed on account of timely payment of bills;*
*(n) Miscellaneous receipts;*
*(o) Deferred Income from grant, subsidy, etc., as per Annual Accounts;*
*(p) Prior period income, etc.:*

*Provided that the interest/dividend earned from investments made out of Return on Equity corresponding to the Retail Supply Business of the Distribution Licensee shall not be included in Non-Tariff Income:*

*Provided further that any income earned by a Distribution Licensee by sale of power to other Distribution Licensees or to Consumers as per Section 49 of the Act using the existing power purchase agreements or bulk supply capacity allocated to the Distribution Licensee's Area of Supply shall be reduced from the Aggregate Revenue Requirement of the Distribution Licensee for the purpose of determination of tariff. Such reduction shall be carried out in accordance with Joint Electricity Regulatory Commission for the State of Goa and Union Territories (Connectivity and Open Access in Intra-State Transmission and Distribution) Regulations, 2017, as amended from time to time."*

The Commission considers the same NTI as approved for FY 2020-21 in the FY 2021-22. The same shall considered as per actuals in True-up/ APR for each year.

The NTI approved in the MYT Order, Petitioner's Submission and now approved by the Commission has been shown in the following table:

**Table 131: Non -Tariff Income approved by the Commission for FY 2021-22 (In INR Cr)**

| S. No | Particulars | Approved in MYT Order | Petitioner's Submission | Now Approved by Commission |
|---|---|---|---|---|
| 1 | **Non- Tariff Income** | **24.97** | **18.66** | **17.77** |

**The Commission approves Non-Tariff Income of INR 17.77 in the ARR of FY 2021-22.**

## *5.20. Aggregate Revenue Requirement (ARR)*

### Petitioner's submission

Based on the expenses detailed above, the Petitioner submitted the net aggregate revenue requirement for FY 2021-22 as shown in the following table:

**Table 132: Aggregate Revenue Requirement (ARR) submitted by the Petitioner (In INR Cr)**

| S. No. | Particular | Petitioner's Submission |
|---|---|---|
| 1 | Cost of power purchase for full year | 890.53 |
| 2 | Employee costs | 80.32 |
| 3 | Administration and General expenses | 6.06 |
| 4 | R&M expenses | 11.13 |
| 5 | Depreciation | 16.06 |
| 6 | Interest and finance charges | 0.69 |
| 7 | Interest on working capital | 0.00 |
| 8 | Interest on Security Deposit | 12.98 |
| 9 | Return on NFA /Equity | 21.71 |
| 10 | Provision for Bad Debt | 9.50 |
| **11** | **Total Revenue Requirement** | **1,048.99** |
| 12 | Less: Non-Tariff Income | 18.66 |
| 13 | Less: Revenue from Sale of UI Power | 64.99 |
| **14** | **Net Revenue Requirement** | **965.34** |

## Commission's analysis

On the basis of the detailed analysis of the cost parameters of the ARR the net revenue requirement for FY 2021-22 along with the ARR approved in the MYT Order and Petitioner's Submission has been shown in the following table:

**Table 133: Aggregate Revenue Requirement approved by the Commission for FY 2021-22 (In INR Cr)**

| S. No | Particulars | Approved in MYT Order | Petitioner's Submission | Now Approved by Commission |
|---|---|---|---|---|
| 1 | Power Purchase Cost inclusive of cost towards RPO | 866.97 | 825.52 | 715.35 |
| 2 | Operation & Maintenance Expenses | 97.72 | 97.51 | 99.22 |
| 3 | Depreciation | 17.37 | 16.06 | 12.65 |
| 4 | Interest on Loan | 8.27 | 0.69 | 1.10 |
| 5 | Return on Equity | 27.93 | 21.71 | 22.01 |
| 6 | Interest on Security Deposit | 13.69 | 12.98 | 9.66 |
| 7 | Interest on Working Capital | 0.00 | 0.00 | 0.00 |
| 8 | Income Tax | 0.00 | 0.00 | 0.00 |
| 9 | Provision for Bad & Doubtful Debt | 0.00 | 9.50 | 0.00 |
| 10 | **Total Revenue Requirement** | **1,031.94** | **984.00** | **860.00** |
| 11 | Less: Non-Tariff Income | 24.97 | 18.66 | 17.77 |
| | **Net Revenue Requirement** | **1,006.97** | **965.34** | **842.23** |

**The Commission approves net ARR of INR 842.23 Cr for FY 2021-22.**

# *5.21. Revenue at existing Retail Tariff*

## Petitioner's submission

The Petitioner has estimated revenue from sale of power at existing tariff as INR 850.02 Cr for FY 2021-22 based on the projected energy sales, connected load and number of consumers.

## Commission's analysis

The category wise/ sub-category wise and slab-wise revenue at existing retail tariff is calculated as per the tariff rates applicable. The revenue from demand charges and the energy charges have been projected for each consumer category/ sub-category and slab. The Commission has considered suitable assumptions wherever necessary. No energy sales and revenue has been considered for Electric Vehicle Charging Station category created in the last Tariff Order as no sales have been booked under the category in H1 FY 2020-21. The revenue from category/ sub-category/ slab-wise revenue as computed by the Commission for FY 2021-22 has been shown in the following table

**Table 134: Revenue at existing tariff computed by the Commission for FY 2021-22 (In INR Cr)**

| S. No. | Category | Sales (MU) | Fixed Charges (INR Cr.) | Energy charges (INR Cr.) | Total Charges (INR. Cr.) |
|---|---|---|---|---|---|
| **1** | **DOMESTIC SUPPLY (DS)** | **815.21** | **11.11** | **397.17** | **408.28** |
| A | LT Domestic | | | | |
| 1 | 0-150 units | 65.13 | 2.74 | 17.91 | 20.65 |
| 2 | 151-400 units | 237.96 | 3.94 | 114.22 | 118.17 |
| 3 | 401 and above units | 480.54 | 4.06 | 249.88 | 253.94 |
| B | HT Domestic | 31.57 | 0.37 | 15.15 | 15.52 |
| | | | | | |
| **2** | **COMMERCIAL / NON RESIDENTIAL (NRS)** | **494.56** | **48.30** | **268.07** | **316.38** |
| A | LT Commercial | | | | |
| 1 | 0-150 units (Single Phase) | 5.16 | 0.47 | 2.58 | 3.05 |
| 2 | 151-400 units (Single Phase) | 12.31 | 0.27 | 6.52 | 6.80 |
| 3 | 401 and above units(Single Phase) | 22.34 | 0.13 | 12.51 | 12.64 |
| 1 | 0-150 units (Three Phase) | 0.26 | 2.85 | 0.13 | 2.98 |
| 2 | 151-400 units (Three Phase) | 5.13 | 2.85 | 2.72 | 5.57 |
| 3 | 401 and above units (Three Phase) | 181.57 | 16.86 | 101.68 | 118.53 |
| B | HT Commercial | 267.80 | 24.88 | 141.93 | 166.81 |
| | | | | | |
| **3** | **INDUSTRY** | **251.30** | **29.00** | **122.09** | **151.09** |
| 1 | Large Industrial Power Supply (LS) | 126.49 | 14.00 | 63.24 | 77.25 |
| 2 | Medium Industrial Power Supply (MS) | 106.38 | 14.19 | 50.00 | 64.19 |
| 3 | Small Industrial Power Supply (SP) | 18.43 | 0.80 | 8.85 | 9.65 |
| | | | | | |
| **4** | **AGRICULTURAL PUMPING SUPPLY(AR)** | **1.47** | **0.00** | **0.43** | **0.43** |
| 1 | Agricultural Pumping Supply | 1.47 | 0.00 | 0.43 | 0.43 |
| | | | | | |
| **5** | **PUBLIC LIGHTING (PL)** | **15.37** | **0.57** | **8.22** | **8.79** |
| | | | | | |
| **6** | **Bulk Supply (BS)** | **85.88** | **10.00** | **42.08** | **52.08** |
| 1 | Bulk Supply | 85.88 | 10.00 | 42.08 | 52.08 |
| | | | | | |
| **7** | **Temporary Supply** | **4.20** | **0.00** | **3.40** | **3.40** |
| 1 | Temporary Supply | 4.20 | 0.00 | 3.40 | 3.40 |
| | | | | | |
| | **TOTAL** | **1667.99** | **98.98** | **841.46** | **940.44** |

**The Commission has determined revenue from sale of power at existing tariff as INR 940.44 Cr in the FY 2021-22.**

## *5.21.1. Standalone Revenue Gap/ (Surplus)*

### Petitioner's submission

Based on the ARR and the revenue from the retail tariff, the standalone revenue gap of INR 15.32 Cr is arrived for FY 2021-22.

## Commission's analysis

The Commission based on the approved ARR and existing retail tariff has derived the following Revenue Gap/Surplus:

**Table 135: Standalone Revenue Gap/ (Surplus) determined at existing tariff for FY 2021-22 (INR Cr)**

| S. No | Particulars | Petitioners submission | Now Approved |
|---|---|---|---|
| 1 | Annual Revenue Requirement | 965.34 | 842.23 |
| 2 | Revenue from Retail Sales at Existing Tariff | 950.02 | 940.44 |
| | **Revenue Gap/(Surplus)** | **15.32** | **(98.21)** |

**The standalone revenue surplus at existing retail tariff is determined as INR 98.21 Cr for FY 2021-22. The treatment of the estimated surplus has been dealt with while determining the retail tariff for FY 2021-22, as discussed in the subsequent Chapter.**

# 6. Chapter 6: Tariff Principles and Design

## 6.1. Overall Approach

The Commission while designing retail tariffs for the FY 2021-22 has kept in view the principles of determination of tariff set out in the Electricity Act, 2003 (EA 2003), Tariff Policy, 2016 and the MYT Regulations, 2018.

The Commission, with this Tariff Order, has tried to meet the objectives of the EA 2003, as set out in its Preamble, including the protection of the interest of consumers, the supply of electricity to all areas and the rationalisation of tariffs. The EA, 2003 also directs to maintain a healthy balance between the interests of the Utilities and the reasonableness of the cost of power being supplied to consumers. The Commission has also taken into consideration the EWEDC's submissions as well as the public responses in these proceedings.

The provision of supply of electricity to all the people is an essential driver for development, and also influences social and economic change.

## 6.2. Applicable Regulations

Regulation 19 of MYT Regulations, 2018 states the following:

"***19. Annual determination of tariff***

*19.1 The Commission shall determine the tariff of a Generating Company, Transmission Licensee and Distribution Licensee covered under a Multi Year Tariff framework for each Year during the Control Period, in accordance with timelines specified in Regulation 17, having regard to the following:*

*a) The approved forecast of Aggregate Revenue Requirement and Expected Revenue from Tariff and Charges of the Generating Company, Transmission Licensee and Distribution Licensee for such Financial Year, including modifications approved at the time of Mid-term Review, if any; and*

*b) Approved gains and losses, including the incentive available, to be passed through in tariff, following the truing up of previous Year.*

"

Further, Regulation 67 of MYT Regulations, 2018 states the following:

"

*67. Determination of Tariff*

*67.1 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 and any other factor as considered appropriate by the Commission.*

*67.2 The Commission shall endeavour to determine cost of supply for each category/ sub-category of Consumers.*

*67.3 The Commission shall endeavour to reduce gradually the cross-subsidy between Consumer categories with respect to the cost of supply in accordance with the provisions of the Act.*

*67.4 The tariff proposal by Licensee and the tariff determination by the Commission shall be based on the following principles:*

*(a) The tariff for all categories shall preferably be two part, consisting of fixed and variable charges.*

*(b) The fixed charges in tariff shall progressively reflect actual fixed cost incurred by Distribution Licensee;*

*(c) The overall retail supply tariff for different Consumer categories shall progressively reflect the cost of supply for respective categories of Consumers;*

*(d) The tariff for residential Consumers shall be set considering the affordability of tariff for various class of Consumers;*

*(e) The tariff shall be set in such a manner that it may not present a tariff shock to any category of Consumers."*

## 6.3. Cumulative Revenue Gap/ (Surplus) at Existing Tariff

### Petitioner's Submission

The Petitioner has proposed a cumulative revenue surplus of INR 198.98 Cr till the FY 2021-22. The standalone and consolidated revenue gap/surplus as submitted by the Petitioner has been tabulated below:

**Table 136: Standalone Revenue Gap/ (Surplus) submitted by Petitioner (In INR Cr)**

| Particulars | FY 2019-20 | FY 2020-21 | FY 2021-22 |
|---|---|---|---|
| Net Revenue Requirement | 817.27 | 910.95 | 965.34 |
| Revenue on existing tariff | 841.96 | 930.57 | 950.02 |
| FPPCA Charges | -0.32 | 1.15 | - |
| Regulatory Surcharge | 9.91 | 0.01 | - |
| **Gap/(Surplus) for the year** | **(34.27)** | **(20.78)** | **15.32** |

**Table 137: Cumulative Revenue Gap/ (Surplus) submitted by Petitioner (In INR Cr)**

| Particular | FY 2019-20 | FY 2020-21 | FY 2021-22 |
|---|---|---|---|
| Opening (Surplus)/Gap | (83.87) | (126.98) | (159.78) |
| Add: (Surplus)/Gap during the year | (34.27) | (20.78) | 15.32 |
| Add: Amortization of Regulatory Asset | 0.00 | 0.00 | 0.00 |
| Closing (Surplus)/Gap | (118.14) | (147.76) | (144.46) |
| Average (Surplus)/Gap | (101.01) | (137.37) | (152.12) |
| Interest Rate | 8.75% | 8.75% | 8.75% |
| Carrying/Holding Cost | (8.84) | (12.02) | (13.31) |
| **Closing (Surplus)/Gap after adjusting Carrying Cost** | (126.98) | (159.78) | (157.77) |

### Commission's analysis

Regulation 8.4 of the MYT Regulation, 2014 stipulates the following:

*"While approving such expenses/revenue to be adjusted in the future years as arising out of the Review and / or Truing up exercises, the Commission may allow the carrying costs as determined by the Commission of such expenses/revenue. Carrying costs shall be limited to the interest rate approved for working capital borrowings."*

The Commission, notices that the Petitioner has not taken any loan till date. As per the preamble of the Electricity Act, 2003, the Commission is required to balance the interest of all the stakeholders while determining the tariff. Keeping in mind all of the above, the Commission has considered the carrying cost @ 9.55% which is the opportunity cost for the Petitioner for the FY 2019-20.

Further, Regulation 11.5 (c) of the MYT Regulation, 2018 stipulates the following:

*"11.5 Upon completion of the exercise, the Commission shall pass an order recording:*

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*c) Carrying cost shall be allowed for a Generating Company, Transmission Licensee or Distribution Licensee on the amount of revenue gap for the period from the date on which such gap has become due, i.e., from the end of the Year for which true-up has been done, till the end of the Year in which it is addressed, on the basis of actual rate of loan taken by the Licensee to fund the deficit in revenue:*

*Provided that carrying cost on the amount of revenue gap shall be allowed subject to prudence check and submission of documentary evidence for having incurred the carrying cost in the years prior to the year in which the revenue gap is addressed:*

*Provided also that if no loan has been taken to fund revenue deficit, the Commission shall allow Carrying Cost on simple interest basis at one (1) Year State Bank of India (SBI) MCLR /any replacement there of as notified by RBI for the time being in effect applicable for 1 Year period, as may be, applicable as on 1st April of the relevant Year plus 100 basis points;*

*Provided further that in case of revenue surplus, the Commission shall charge the Licensee a Carrying Cost from the date on which such surplus has become due, i.e., from the end of the Year for which trueup has been done, till the end of the Year in which it is addressed on simple interest basis at one(1) Year State Bank of India (SBI) MCLR / any replacement thereof as notified by RBI for the time being in effect applicable for 1 Year period, as may be, applicable as on 1st April of the relevant Year plus 100 basis points."*

Since the Petitioner has not borrowed any loan therefore the Commission allows Carrying Cost on simple interest basis at one (1) Year State Bank of India (SBI) MCLR for FY 2020-21 and FY 2021-22.

Accordingly, the Commission determines the standalone revenue gap/surplus for each year and likewise taking into account the previous year's gap/surplus, determines the cumulative revenue gap/ surplus at the end of FY 2021-22 as shown in the table as follows:

**Table 138: Standalone Revenue Gap/ (Surplus) determined by Commission at existing tariff (In INR Cr)**

| Particulars | FY 2019-20 | FY 2020-21 | FY 2021-22 |
|---|---|---|---|
| Net Revenue Requirement | 794.53 | 773.83 | 842.23 |
| Revenue from Retail Sales at Existing Tariff | 841.96 | 830.69 | 940.44 |
| Regulatory Surcharge % | 9.91 | 0.00 | 0.00 |
| FPPCA Charges | -0.32 | 1.15 | 0.00 |
| Total Revenue | 851.54 | 831.84 | 940.44 |
| **Standalone Gap /(Surplus) for the year** | **(57.02)** | **(58.01)** | **(98.21)** |

**Table 139: Cumulative Revenue Gap/ (Surplus) determined by Commission at existing tariff (In INR Cr)**

| Particulars | FY 2019-20 | FY 2020-21 | FY 2021-22 |
|---|---|---|---|
| Opening Gap/(Surplus) | (83.87) | (151.62) | (225.43) |
| Addition Gap/(Surplus) due to standalone year | (57.02) | (58.01) | (98.21) |
| Closing Gap/(Surplus) | (140.89) | (209.63) | (323.65) |
| Average Gap/(Surplus) | (112.38) | (180.63) | (274.54) |
| Rate of Interest | 9.55% | 8.75% | 8.00% |
| Carrying cost | (10.73) | (15.80) | (21.96) |
| **Closing Gap/ (Surplus)** | (151.62) | (225.43) | (345.61) |

**The Commission determines a cumulative revenue surplus of INR 345.61 Cr till the FY 2021-22 at existing tariff.**

## 6.4. Treatment of the cumulative Gap/ (Surplus) and Tariff Design

As derived from above, the resultant cumulative revenue surplus is INR 345.61 Cr. In view of this surplus the Commission has made some modifications in the existing tariff schedule. The approach adopted and the applicability of the same has been discussed in the following sections.

### 6.4.1. Designing of Tariff

#### Petitioner's Submission

1. The Petitioner has proposed no change in tariff for the FY 2021-22 from FY 2020-21.
2. The Petitioner has requested for certain modifications in respect of certain tariff categories as per following:
    a) Applicability for consumer type such as 'Government recognised institutions/ schools etc.' may be changed to 'Government and Government aided institutions/ schools' under the Domestic category
    b) Applicability for consumer type such as 'Hostels, Sports institutions/Gymnasium halls, Pvt. Schools/colleges, coaching institutes, research institutes, Coaching institutes and research institutes etc. may be covered under Commercial/NRS category other than those not covered under the Domestic supply category and those not run by the Chandigarh Administration

The category wise existing and proposed tariff submitted by the Petitioner is as follows:

**Table 140: Retail tariff proposed by the Petitioner (In INR Cr)**

| S. No. | Category | Existing | | Proposed | |
|---|---|---|---|---|---|
| | | Fixed Cost (INR/kW/month) | Variable Cost (INR/kWh) | Fixed Cost (INR/kW/month) | Variable Cost (INR/kWh) |
| **1** | **DOMESTIC SUPPLY (DS)** | | | | |
| **A** | **LT Domestic** | | | | |
| 1 | 0-150 units | 10.00 | 2.75 | 10.00 | 2.75 |
| 2 | 151-400 units | 10.00 | 4.80 | 10.00 | 4.80 |
| 3 | 401 and above units | 10.00 | 5.20 | 10.00 | 5.20 |
| **B** | **HT Domestic** | 10.00 | 4.80 | 10.00 | 4.80 |
| | | | | | |
| **2** | **COMMERCIAL / NON RESIDENTIAL (NRS)** | | | | |
| **A** | **LT Commercial** | | | | |
| 1 | 0-150 units | INR. 20/kW/ month for Single Phase INR. 100/kW/ month for Three Phase | 5.00 | INR. 20/kW/ month for Single Phase INR. 100/kW/ month for Three Phase | 5.00 |
| 2 | 151-400 units | | 5.30 | | 5.30 |
| 3 | 401 and above units | | 5.60 | | 5.60 |
| **B** | **HT Commercial** | 100.00 | 5.30 | 100.00 | 5.30 |
| | | | | | |
| **3** | **INDUSTRY** | | | | |
| 1 | Large Industrial Power Supply (LS) | 200.00 | 5.00 | 200.00 | 5.00 |
| 2 | Medium Industrial Power Supply (MS) | 200.00 | 4.70 | 200.00 | 4.70 |
| 3 | Small Industrial Power Supply (SP) | 30.00 | 4.80 | 30.00 | 4.80 |
| | | | | | |

| S. No. | Category | Existing | | Proposed | |
|---|---|---|---|---|---|
| | | Fixed Cost (INR/kW/month) | Variable Cost (INR/kWh) | Fixed Cost (INR/kW/month) | Variable Cost (INR/kWh) |
| **4** | **AGRICULTURAL PUMPING SUPPLY(AR)** | | | | |
| 1 | Agricultural Pumping Supply | - | 2.90 | - | 2.90 |
| | | | | | |
| **5** | **PUBLIC LIGHTING (PL)** | | | | |
| 1 | Public Lighting system managed by Municipal Corporation, Panchayat and Street Lights maintained / outsourced to an external Agency | 100 | 5.35 | 100 | 5.35 |
| 2 | Advertisement / Neon sign Boards- Advertisement boards, billboards( apart from advertisement boards installed on commercial establishments and charged under commercial tariff) | 100 | 7.10 | 100 | 7.10 |
| | | | | | |
| **6** | **BULK SUPPLY (BS)** | | | | |
| 1 | Bulk Supply | 200.00 | 4.90 | 200.00 | 4.90 |
| | | | | | |
| **7** | **TEMPORARY SUPPLY** | | | | |
| 1 | Temporary Supply | Tariff shall be Fixed/ Demand charges (if any) plus energy charges (for relevant slab, if any) under corresponding permanent supply category plus 50% of both. For multi activity pursuit, applicable Tariff for temporary connection shall be with reference to that of commercial category for permanent supply. | | Tariff shall be Fixed/ Demand charges (if any) plus energy charges (for relevant slab, if any) under corresponding permanent supply category plus 50% of both. For multi activity pursuit, applicable Tariff for temporary connection shall be with reference to that of commercial category for permanent supply. | |
| | | | | | |
| **8** | **ELECTRIC VEHICLE CHARGING STATIONS** | | | | |
| 1 | Electric Vehicle Charging Stations | 100.00 | 4.00 | 100.00 | 4.00 |

## Commission‘s analysis

As discussed above, the Commission has determined the retail tariff for the FY 2021-22 in accordance with the principles stated in the Electricity Act, 2003 Tariff Policy, 2016, and the MYT Regulations, 2018. The Tariff design in general is guided by the following principles:

1. Cost reflective: The tariffs determined should efficiently reflect the cost of supply for each consumer category.

2. Progressive tariffs: Ensuring progressivity among tariffs by having telescopic tariff slabs which encourages efficient consumption and at the same time promotes intra-category cross-subsidy by way of charging higher tariff for higher consumption to subsidise the lower consumption consumers

3. Revenue neutrality: There should be no impact on the utility's yearly revenue due to rationalization of tariffs i.e. the overall status quo should be maintained.

4. Affordability: Assessing affordability of electricity for Domestic & Commercial consumers for defining slab ranges and setting tariffs

5. Revenue stability: Utilities should ensure adequate fixed cost recovery from fixed/demand charges

6. Avoiding tariff shocks: Tariff shocks should be prevented and consumers should be kept informed about the future trends in tariffs

7. Demand management and grid stability: Demand management and grid stability should be ensured with demand-based tariffs

8. Simplified tariff structure: Tariff structure should be simplified to make it easily administrable by the utility and easy to understand for the consumer.

9. Smart tariff design: Tariff rate design should take into consideration trends in electric power such as small-scale renewable generation by consumers, energy efficiency, electric vehicle charging, etc.

While all the above parameters contribute significantly in developing a sustainable tariff framework, there are certain parameters namely Cost of Supply and Tariff Affordability which are of importance and constitute the building blocks in achieving the overall objective. The context and the approach for these parameters have been discussed as follows:

## *1. Cost of Supply*

### a) Context

Due to electricity being a crucial utility item for all consumers, over the period of time, various socio-economic issues have been factored in to determine the end user's tariffs. This has unfortunately led to severe imbalance between the tariffs levied vis-a-vis the cost of supply of the electricity, causing distress to the Discom. For example, in order to ensure that tariffs are kept in check for residential consumers, while still allowing cost recovery for Discoms, cross subsidy is built in between categories. The tariffs so determined, are skewed, with tariff for industrial and commercial consumers being higher and for other categories being lower than their respective costs of supply. The implications of this imbalance in tariffs is twofold – uncompetitive industries owing to higher input costs and inability of Discoms to recover sufficient tariffs from domestic consumers, resulting in financial distress. The issue is more pronounced for rural supply where tariffs are highly subsidized, actual cost of supply is higher and revenue recovery is poor.

It is thus essential that tariffs reflect the true cost to service a category of consumer. As a crucial first step towards cost-reflective tariffs, it is important for distribution utilities to determine the costs of supply (which cascade from generation to transmission and finally to distribution and retail supply of power) that should be prudently recovered from each consumer category. These costs should correspond to the actual costs being imposed by each consumer category on the Discom. By determining consumer category wise costs of supply, the Discom would be in a better position to allocate costs where relevant and determine how tariffs can be levied fairly on each category.

The overall approach that can be followed for accurately determining the Cost of Supply has been discussed as follows:

**b) Approach:**

Presently, the most commonly used approach for determining the cost of supply of electricity for tariff determination is the Average Cost of Supply (ACoS) method. The ACoS is computed by dividing the Annual Revenue Requirement (ARR) determined by the Commission for recovery through tariffs by the total energy sales for the year. However, this methodology doesn't indicate the costs incurred by consumers at different voltage levels using different assets of the network. Therefore, it doesn't help in determining accurate tariffs for particular consumers, eventually resulting in insufficient cost coverage.

As a next logical step, the Voltage wise cost of supply (VCoS) method provides a better reflection of cost to supply to consumers at different voltage levels. A simplified version of the same was suggested by Hon'ble ATE in 2010, to determine VCoS in the absence of all necessary data. In this method, the power purchase costs and other costs (such as network costs, wheeling costs etc.) are allocated to various consumer categories based on energy input or energy sales (as considered appropriate by the State Commission). This approach factors in the voltage level differentiation based on losses, however, it does not factor in asset utilization at different voltage levels.

A more refined version of determination of VCoS uses three parameters for allocating various costs to voltage levels – energy input at each voltage level, energy sales and asset allocation to voltage levels. The losses segregated voltage wise (as percentage of input energy) are to be allocated to different voltage levels based on energy input to each voltage level (as explained in subsequent sections). Subsequently, the cost elements such as power procurement costs, employee expenses, administrative and general expenses and income tax can be allocated to each voltage levels based on total sales at each voltage level. The cost elements, which are dependent on assets such as depreciation, interest costs, return allowed to utility etc. are allocated in ratio of assets allocated to each voltage level. The sum of all the cost components at each voltage level is the cost to supply the particular voltage (EHT/HT/LT).

The Commission is of the opinion that while VCoS differentiates cost allocation based on voltage levels, it does not factor in consumer category level differentiation. For instance, at the same LT level, cost of supplying electricity to a Commercial consumer may be different from that of a Residential consumer. Thus, it believes that the most progressive way forward for EWEDC is to accurately determine the cost of supply is to attempt to determine Cost of Supply at various category level. The Commission notes that States like Andhra Pradesh and Telangana have determined Category wise Cost of Supply albeit with several assumptions and EWEDC must also attempt to determine the same.

On studying the existing methodologies followed internationally, among developing nations with energy access situations like India's, the Commission is of the opinion that the Category wise Cost of Supply methodology is an appropriate starting point. The embedded cost method identifies and appropriately assigns the historical or accounting costs that make up a Discom's revenue requirement to all categories and sub-categories of consumers.

This method involves three steps:

- Cost Functionalization
- Cost Classification
- Cost Allocation

Cost functionalization separates cost data into the functional activities performed in the operation of a utility system - power generation/supply, transmission, distribution and retail supply. Classification determines the portion of the cost that is related to specific cost-causal factors, such as those that are demand-related, energy-related, or customer-related. Finally, the cost allocation step assigns the costs to specific customer categories based on the customer's contribution to the specific classifier selected.

The Commission as part of this Order has determined the tariff according to the Average Cost of Supply (ACoS) due to lack of requisite data. The Commission strongly believes that determination of Category wise Cost of Supply is essential to ensure cost reflectivity in tariffs fixed for different categories. However, the Commission feels that to carry out this exercise a lot of field level information would be required such as Category wise co-incident and non- co-incident demand, Voltage wise value of assets (Voltage wise asset ratio), Voltage wise losses, Category wise break-up of costs related to Metering, Billing and Collection etc. which currently the Petitioner doesn't maintain. Therefore, in absence of the same the Commission is unable to determine the Category wise CoS in this Order but directs the Petitioner to start maintaining this data and submit the same in the tariff proceedings of next year.

## 2. *Tariff Affordability*

### a) Context

The Commission understands that the consumer base of EWEDC is varied and covers a wide spectrum of socio-economic backgrounds, specially the domestic category consumers. It is aware that most low income households spend a substantial share of their income on utility services such as electricity, heating and water. However, any envisaged tariff reforms are often objected to avoid further burdening of these consumers. But to improve the quality of service of electricity, the Discom has to undergo significant capital expenditure which eventually deteriorates the affordability of tariffs. Thus, to tackle this problem and in the spirit of economic wellbeing of all consumer classes, the concept of cross-subsidies has been built into the current tariff structure.

However, the Commission believes that a more scientific and logical approach can be adopted to identify the right categories of consumers and the right cross-subsidy/subsidy requirement that will benefit the end consumers at the same time. Hence, the Commission believes that there is a strong need to develop a scientific methodology to assess the social impact of electricity tariffs.

The overall approach that can be followed for determining the tariff affordability has been discussed as follows.

### b) Approach

On reviewing methodologies adopted globally for social impact assessment of electricity tariffs by studying international research reports and studying model practices internationally, the Commission found that Tariff Affordability Ratio (TAR) is a reliable parameter to measure affordability of electricity in households.

TAR is defined by obtaining the burden incurred by a household for electricity as compared to the overall household expenditure. The rationale behind this concept is that the electricity is basic utility and is unavoidable in today's scenario, however, this does not ensure that the expenditure level is in line with the overall household expenditure. Hence, this concept helps to understand the affordability level of electricity on households with different economic levels.

The electricity expenditure can be determined initially for domestic consumers by computing the average consumption levels across each slab and the household expenditure can be estimated from national surveys of household expenditure across economic levels conducted by organizations like NSSO. Thereafter the distribution of consumers of the Discom across tariff slabs can be mapped across the established economic levels to develop the final affordability ratio matrix for the Discom's domestic consumer base.

Following the identification of the current ratio of Tariff Affordability, the Commission in consultation with the stakeholder's will develop benchmarks for acceptable affordability levels by studying trends across countries with a demography and energy scenario similar to that of India and propose appropriate tariffs. The final output shall help understand the Commission to modify tariffs in cases where there is more room for tariff increase or a need to correct tariffs. The exercise would also help the Commission in setting tariff slabs as per the paying capacity of the consumers which would be beneficial especially for Domestic category consumers. Additionally, this shall also help the Government to formulate better schemes to effectively channelize its intended benefits.

The Commission in these tariff proceedings is not carrying out this exercise due to unavailability of accurate data. The Petitioner is directed to ensure the sanctity of the data maintained pertaining to various categories.

Keeping in view the above principles and based on the category wise information submitted by the Petitioner, the Commission has determined the Retail Tariff applicable for FY 2021-22 as per the following:

1. Since the department has been generating revenue surplus year after year since FY 2016-17, the Commission has decided to reduce the tariff in order to curtail the generation of revenue surplus in the future years. Accordingly, reduction has been made in the retail tariff for existing categories due to standalone revenue surplus in FY 2021-22 so as to recover only the approved ARR This average reduction in tariff works out to be 9.58%.

2. On account of revenue surplus in FY 2021-22, the Petitioner is hereby directed to not recover FPPCA from all consumer categories starting from 1st April 2021 onwards till further orders of the Commission. The Petitioner is, however, directed to submit the quarterly FPPCA calculation to the Commission for review.

## *6.4.2. Tariff Adjustment and Schedule:*

The existing retail tariff and tariff now approved by the Commission for each consumer category has been shown in the following table:

**Table 141: Existing and approved tariff**

| S. No | Consumer Category | Existing Tariff | | Approved Tariff | |
|---|---|---|---|---|---|
| | | Fixed Charge INR/kW/month | Energy Charge INR/kWh | Fixed Charge INR/kW/month | Energy Charge INR/kWh |
| **1.** | **DOMESTIC SUPPLY (DS)** | | | | |
| **I.** | **LT Domestic** | | | | |
| a. | 0-150 kWh per month | 10.00 | 2.75 | 10.00 | 2.50 |
| b. | 151-400 kWh per month | | 4.80 | | 4.25 |
| c. | Above 400 kWh per month | | 5.20 | | 4.65 |
| **II.** | **HT Domestic** | 10.00 | 4.80 | 10.00 | 4.30 |
| | | | | | |
| **2.** | **COMMERCIAL/ NON RESIDENTIAL (NRS)** | | | | |
| **I.** | **LT Commercial** | | | | |
| a. | 0-150 kWh per month | INR. 20/kW/Month for Single Phase INR. 100/kW/Month for Three Phase | 5.00 | INR. 20/kW/Month for Single Phase INR. 100/kW/Month for Three Phase | 4.50 |
| b. | 151-400 kWh per month | | 5.30 | | 4.70 |
| c. | Above 400 kWh per month | | 5.60 | | 5.00 |
| **II.** | **HT Commercial** | 100.00 | 5.30 | 100.00 | 4.70 |
| | | | | | |
| **3.** | **INDUSTRY** | | | | |
| I | Large Industrial Power Supply (LS) | 200.00 | 5.00 | 200.00 | 4.50 |

| S. No | Consumer Category | Existing Tariff | | Approved Tariff | |
|---|---|---|---|---|---|
| | | Fixed Charge INR/kW/month | Energy Charge INR/kWh | Fixed Charge INR/kW/month | Energy Charge INR/kWh |
| II | Medium Industrial Power Supply (MS) | 200.00 | 4.70 | 200.00 | 4.20 |
| III | Small Industrial Power Supply (SP) | 30.00 | 4.80 | 30.00 | 4.30 |
| | | | | | |
| 4. | **AGRICULTURAL PUMPING SUPPLY (AR)** | - | 2.90 | - | 2.60 |
| | | | | | |
| 5. | **PUBLIC LIGHTING (PL)** | | | | |
| I | Public Lighting system managed by Municipal Corporation, Panchayat and Street Lights maintained / outsourced to an external agency | 100.00 | 5.35 | 100.00 | 4.80 |
| II | Advertisement/ Neon-sign Boards Advertisement boards, billboards (apart from advertisement boards installed on commercial establishments and charged under commercial tariff) | 100.00 | 7.10 | 100.00 | 6.40 |
| | | | | | |
| 6. | **BULK SUPPLY (BS)** | 200.00 | 4.90 | 200.00 | 4.40 |
| | | | | | |
| 7. | **TEMPORARY SUPPLY** | Tariff shall be Fixed/ Demand charges (if any) plus energy charges (for relevant slab, if any) under corresponding permanent supply category plus 50% of both. For multi activity pursuit, applicable Tariff for temporary connection shall be with reference to that of commercial category for permanent supply. | | Tariff shall be Fixed/ Demand charges (if any) plus energy charges (for relevant slab, if any) under corresponding permanent supply category plus 50% of both. For multi activity pursuit, applicable Tariff for temporary connection shall be with reference to that of commercial category for permanent supply. | |
| | | | | | |
| 8. | **ELECTRIC VEHICLE CHARGING STATION** | 100.00 | 4.00 | - | 3.60 |

## 6.4.3. Revenue from Approved Retail Tariff for FY 2021-22

Based on the retail tariff approved above, the Revenue from approved tariff is shown in the following table. The Commission has not estimated any revenue for Electric Vehicle Charging Station category and Advertisement/ Hoardings category due to unavailability of requisite data. The Commission as of now approves the k factor for the category as shown in the table, however, directs the Petitioner to submit the requisite data for energy sales, no. of consumers and connected load in case any consumers are identified under this category.

**Table 142: Revenue from approved retail tariff determined by Commission (In INR Cr)**

| S. No | Category | Sales (MUs) | Fixed Charges (INR Cr) | Energy Charges (INR Cr) | Total Charges (INR Cr) | ABR (INR/unit) | K Factor |
|---|---|---|---|---|---|---|---|
| **1** | **DOMESTIC SUPPLY (DS)** | **815.21** | **11.11** | **354.44** | **365.56** | **4.48** | **0.88** |
| **A** | **LT Domestic** | | | | | | |
| 1 | 0-150 units | 65.13 | 2.74 | 16.28 | 19.02 | 2.92 | 0.57 |
| 2 | 151-400 units | 237.96 | 3.94 | 101.13 | 105.08 | 4.42 | 0.87 |
| 3 | 401 and above units | 480.54 | 4.06 | 223.45 | 227.51 | 4.73 | 0.93 |
| **B** | **HT Domestic** | **31.57** | **0.37** | **13.57** | **13.94** | **4.42** | **0.87** |
| | | | | | | | |
| **2** | **COMMERCIAL / NON RESIDENTIAL (NRS)** | **494.56** | **48.30** | **238.45** | **286.76** | **5.80** | **28.27** |
| **A** | **LT Commercial** | | | | | | |
| 1 | 0-150 units (Single Phase) | 5.16 | 0.47 | 2.32 | 2.79 | 5.41 | 1.06 |
| 2 | 151-400 units (Single Phase) | 12.31 | 0.27 | 5.78 | 6.06 | 4.92 | 0.97 |
| 3 | 401 and above units (Single) | 22.34 | 0.13 | 11.17 | 11.30 | 5.06 | 0.99 |
| 1 | 0-150 units (Three Phase) | 0.26 | 2.85 | 0.12 | 2.96 | 112.56 | 22.08 |
| 2 | 151-400 units (Three Phase) | 5.13 | 2.85 | 2.41 | 5.26 | 10.25 | 2.01 |
| 3 | 401 and above units (Three Phase) | 181.57 | 16.86 | 90.78 | 107.64 | 5.93 | 1.16 |
| B | **HT Commercial** | **267.80** | **24.88** | **125.86** | **150.74** | **5.63** | **1.10** |
| | | | | | | | |
| **3** | **INDUSTRY** | **251.30** | **29.00** | **109.52** | **138.52** | **5.51** | **1.08** |
| 1 | Large Industrial Power Supply | 126.49 | 14.00 | 56.92 | 70.92 | 5.61 | 1.10 |
| 2 | Medium Industrial Power Supply | 106.38 | 14.19 | 44.68 | 58.87 | 5.53 | 1.09 |
| 3 | Small Industrial Power Supply | 18.43 | 0.80 | 7.93 | 8.73 | 4.74 | 0.93 |
| | | | | | | | |
| **4** | **AGRICULTURAL PUMPING SUPPLY(AR)** | **1.47** | **0.00** | **0.38** | **0.38** | **2.60** | **0.51** |
| 1 | Agricultural Pumping Supply | 1.47 | 0.00 | 0.38 | 0.38 | 2.60 | 0.51 |
| | | | | | | | |
| **5** | **PUBLIC LIGHTING (PL)** | **15.37** | **0.57** | **7.38** | **7.95** | **5.17** | **1.01** |
| 1 | Public Lighting system managed by Municipal Corporation, Panchayat and Street Lights maintained / outsourced to an external Agency | 15.37 | 0.57 | 7.38 | 7.95 | 5.17 | 1.01 |
| 2 | Advertisement / Neon sign Boards- Advertisement boards, billboards( apart from advertisement boards installed on commercial establishments and charged under commercial tariff) | - | - | - | - | - | 1.00 |
| | | | | | | | |
| **6** | **Bulk Supply (BS)** | **85.88** | **10.00** | **37.79** | **47.79** | **5.56** | **1.09** |
| 1 | Bulk Supply | 85.88 | 10.00 | 37.79 | 47.79 | 5.56 | 1.09 |
| | | | | | | | |
| **7** | **Temporary Supply** | **4.20** | **0.00** | **3.40** | **3.40** | **8.09** | **1.59*** |
| 1 | Temporary Supply | 4.20 | 0.00 | 3.40 | 3.40 | 8.09 | 1.59* |
| | | | | | | | |
| **8** | **Electric Vehicle Charging Station** | - | - | - | - | - | **0.75** |
| | **TOTAL** | **1667.99** | **98.98** | **751.37** | **850.35** | **5.10** | **1.00** |

**1.59 times the k factor of the relevant category in which the connection falls*

**The Commission approves revenue from approved Retail Tariff of INR 850.35 Cr for the FY 2021-22.**

### 6.4.4. Cumulative Revenue Gap/ (Surplus) at Approved Tariff

Accordingly, the resultant cumulative Revenue Gap/Surplus has been shown in the following table:

**Table 143: Cumulative Revenue Gap/ (Surplus) approved by Commission (In INR Cr)**

| Particulars | FY 2019-20 | FY 2020-21 | FY 2021-22 |
|---|---|---|---|
| Net Revenue Requirement (a) | 794.53 | 773.83 | 842.23 |
| Revenue from Retail Sales at Approved Tariff (b) | 841.96 | 830.69 | 850.35 |
| Regulatory Surcharge (c) | 9.91 | 0.0 | 0.00 |
| FPPCA Charges (d) | -0.32 | 1.15 | 0.00 |
| Total Revenue (e= b+c+d) | 851.54 | 831.84 | 850.35 |
| **Standalone Gap /(Surplus) for the year (f=a-e)** | **(57.02)** | **(58.01))** | **(8.12)** |
| | | | |
| Opening Gap /(Surplus) (g) | (83.87) | (151.62) | (225.43) |
| Add: Gap/(Surplus) (f) | (57.02) | (58.01) | (8.12) |
| Closing Gap /(Surplus) (i=f+g) | (140.89) | (209.63) | (233.55) |
| Average Gap/ (Surplus) (j=(g+i)/2) | (112.38) | (180.63) | (229.49) |
| Interest Rate on carrying cost (% ,k) | 9.55% | 8.75% | 8.00% |
| Carrying Cost (l=j*k) | (10.73) | (15.80) | (18.36) |
| **Final Closing Gap/ (Surplus) (i+l)** | **(151.62)** | **(225.43)** | **(251.91)** |

**The Commission approves a cumulative revenue surplus of INR 251.91 Cr till FY 2021-22.**

### 6.4.5. Highlights of the Tariff Structure

The highlights of the tariff structure approved by the Commission for FY 2021-22 are as follows:

1) The Commission observes that the Petitioner had a standalone revenue surplus in each year from FY 2016-17 to FY 2019-20. Further, it is observed that the projected standalone surplus for FY 2021-22 and cumulative revenue surplus till FY 2021-22 at existing tariff is expected to be INR 98.21 Cr and INR 345.61 Cr respectively even after discontinuing the Regulatory Surcharge w.e.f. May 2019 and FPPCA w.e.f. June 2020.

2) In view of the same, the Commission approves a reduction in the retail tariff for existing categories which works out to be 9.58%. Even after a reduction in average tariff the projected standalone revenue surplus at the end of FY 2021-22 is expected to be INR 8.12 Cr.

3) The Commission has approved the Average Billing Rate (ABR) of INR 5.10/kWh against the approved Average Cost of Supply (ACoS) of INR 5.05/kWh.

4) On account of revenue surplus in FY 2021-22, the Petitioner is hereby directed to not recover FPPCA from all consumer categories starting from 1st April 2021 onwards till further orders of the Commission. The Petitioner is, however, directed to submit the quarterly FPPCA calculation to the Commission for review.

# 7. Chapter 7. Open Access Charges for the FY 2021-22

## 7.1. Wheeling Charges

### 7.1.1. Allocation Matrix - Allocation of ARR into Wheeling and Retail Supply of Electricity

**Petitioner's submission:**

The Petitioner has not submitted any computation of Open Access Charges.

**Commission's analysis:**

It is seen from the Petitioner's submission that the Transmission and Distribution business has not been segregated and the Petitioner continues to function as an integrated utility. The Commission has a firm view that there has to be a proper bifurcation of all the expenses pertaining to the Petitioner between the functions of the wheeling business (wire business) and the retail supply business. The Regulation 48 of the MYT Regulations, 2018 stipulates the following:

*"48. Separation of Accounts of Distribution Licensee*

*48.1 Every Distribution Licensee shall segregate accounts for Distribution Wires Business and Retail Supply Business and shall prepare an Allocation Statement. The wheeling charges pertaining to Distribution Wires Business of the Distribution Licensee shall be determined by the Commission on the basis of these segregated accounts:*

*Provided that in case complete accounting segregation has not been done, the following Allocation Statement shall be applicable:*

*Table 1: Allocation Statement for segregation of Distribution Wires Business and Retail Supply Business*

| ***Particulars*** | ***Wires Business (%)*** | ***Retail Supply Business (%)*** |
|---|---|---|
| *Power Purchase Expenses* | *0%* | *100%* |
| *Inter-State Transmission Charges* | *0%* | *100%* |
| *Intra-State Transmission Charges* | *0%* | *100%* |
| *Employee Expenses* | *40%* | *60%* |
| *Administration & General Expenses* | *50%* | *50%* |
| *Repair & Maintenance Expenses* | *90%* | *10%* |
| *Capital Cost* | *90%* | *10%* |
| *Depreciation* | *90%* | *10%* |
| *Interest on Long-term Loan Capital* | *90%* | *10%* |
| *Interest on working capital and on consumer security deposits* | *10%* | *90%* |
| *Bad Debts Written off* | *0%* | *100%* |
| *Income Tax* | *90%* | *10%* |
| *Non-Tariff Income* | *10%* | *90%* |
| *Income from Other Business* | *50%* | *50%* |

"

Therefore, in absence of segregated accounts, the Commission has considered the allocation matrix as provided in the MYT Regulations, 2018

The allocation between wheeling and retail supply business for the FY 2021-22 as per the ARR approved in this Order is provided in the following table:

**Table 144: Allocation matrix approved by Commission**

| Particulars | Allocation (%) | | FY 2021-22 | | |
|---|---|---|---|---|---|
| | Wires Business (%) | Retail Supply Business (%) | Wires Business (INR Cr.) | Retail Supply Business (INR Cr) | Total ARR (INR Cr) |
| Power purchase expenses inclusive of Inter-State Transmission expenses | *0%* | *100%* | 0.00 | 715.35 | 715.35 |
| Employee costs | *40%* | *60%* | 32.26 | 48.29 | 80.48 |
| Administration and General Expenses | *50%* | *50%* | 2.74 | 3.84 | 7.69 |
| Repair and Maintenance Expenses | *90%* | *10%* | 9.95 | 1.11 | 11.06 |
| Depreciation | *90%* | *10%* | 11.38 | 1.26 | 12.65 |
| Interest on Loan | *90%* | *10%* | 0.99 | 0.11 | 1.10 |
| Interest on Working Capital | *10%* | *90%* | 0.00 | 0.00 | 0.00 |
| Interest on consumer security deposit | *10%* | *90%* | 0.97 | 8.69 | 9.66 |
| Return on Equity | *90%* | *10%* | 19.74 | 2.26 | 22.01 |
| Bad & Doubtful Debt written off | *0%* | *100%* | 0.00 | 0.00 | 0.00 |
| Income Tax | *90%* | *10%* | 0.00 | 0.00 | 0.00 |
| **Total Revenue Requirement** | | | **78.04** | **780.92** | **860.00** |
| Less: Non -Tariff Income | *10%* | *90%* | 1.78 | 15.99 | 17.77 |
| **Net Revenue Requirement** | | | **76.26** | **764.93** | **842.23** |

To determine the wheeling charges, the Wires Business cost has been allocated on the basis of voltage levels. The wheeling charges are levied for distribution network utilized by the Open Access consumers and primarily comprises of cost components as provided in the table above.

The methodology adopted for allocating the derived costs of Wires Business at respective voltage levels has been elaborated as follows:

- O&M Expenses consisting of Employee, A&G and R&M expenses are allocated to each voltage level on the basis of number of consumers.

- All expenses other than the O&M expenses are allocated to each voltage level on the basis of voltage wise asset allocation. The Petitioner in this regard was directed to submit the voltage wise asset allocation but has failed to submit the desired information and in the absence of such information, the Commission has assumed the voltage wise asset allocation shown in the Table 144.

- The resultant cost at HT/EHT voltage level is divided among LT and HT/EHT voltage levels on the basis of input energy at respective voltage levels as the HT/EHT network is used by consumers at all voltage levels. The cost at LT voltage level is allocated completely to LT voltage level.

The energy input has been determined assuming the loss level of HT/EHT voltage as 3.95%, same as that approved in the MYT Order. The Petitioner in this regard has failed to submit the Energy Audit Report and voltage wise losses. The resultant losses have been loaded to the LT voltage level in order to maintain the overall Intra-State T&D loss at 9.20% as approved in the ARR of the FY 2021-22 above.

In case the Petitioner submits the voltage wise asset allocation in due course, the Commission shall review the same based on the actual information provided. The voltage wise asset allocation assumed and the number of consumers in each category has been shown as follows:

**Table 145: Parameters assumed for voltage wise allocation of costs for Wires Business**

| Category | No. of Consumers | Sales (MU) | Asset Allocation (%) | Cumulative Voltage wise Losses (%) | Energy Input (MU) |
|---|---|---|---|---|---|
| LT level | 233,129 | 1,135.77 | 60.00% | 11.47% | 1,282.88 |
| HT/EHT level | 1,368 | 532.23 | 40.00% | 3.95% | 554.11 |
| **Total** | **234,497** | **1,667.99** | **100%** | **9.20%** | **1,837.00** |

Accordingly, the Commission approves the Wheeling Charges as follows:

**Table 146: Allocation of costs based on voltage level**

| Category | O&M (INR Cr) | Others (INR Cr) | Total (INR Cr) | Energy Sales (MU) |
|---|---|---|---|---|
| LT level | 45.91 | 27.53 | 73.44 | 1,135.77 |
| HT/EHT level | 0.08 | 3.78 | 3.86 | 532.23 |
| **Total** | **45.99** | **31.31** | **77.30** | **1,667.99** |

**Table 147: Wheeling Charges approved by Commission**

| Category | O&M (INR Cr) | Others (INR Cr) | Total (INR Cr) | Energy Sales (MU) | Wheeling Charges (INR/kWh) |
|---|---|---|---|---|---|
| LT level | 45.91 | 27.53 | 73.44 | 1,135.77 | 0.65 |
| HT/EHT level | 0.08 | 3.78 | 3.86 | 532.23 | 0.07 |
| **Total** | **45.99** | **31.31** | **77.30** | **1,667.99** | |

**The Commission approves wheeling charge of INR 0.65/ kWh at LT voltage level, and INR 0.07/kWh at HT/EHT voltage level for FY 2021-22.**

## *7.2. Additional Surcharge*

### Petitioner's submission:

No submission has been made by the Petitioner in this regard.

### Commission's analysis:

The Commission has notified the Joint Electricity Regulatory Commission for the State of Goa and Union Territories (Connectivity and Open Access in Intra-State Transmission and Distribution) Regulations, 2017. Regulation 4.5 (1) of the said Regulations states the following:

*"An Open Access Consumer, receiving supply of electricity from a person other than the Distribution Licensee of his area of supply, shall pay to the Distribution Licensee an additional surcharge in addition to wheeling charges and cross-subsidy surcharge, to meet the fixed cost of such Distribution Licensee arising out of his obligation to supply as provided under sub-section (4) of Section 42 of the Act."*

Regulation 4.5 (2) of the said Regulations stipulates:

*"This additional surcharge shall become applicable only if the obligation of the Licensee in terms of power purchase commitments has been and continues to be stranded or there is an unavoidable obligation and incidence to bear fixed costs by the Licensee consequent to such a contract. However, the fixed costs related to network assets would be recovered through wheeling charges."*

Further, Regulation 5.2 (1) (b) states the following:

*"The quantum of drawal of electricity by a partial Open Access Consumer from the Distribution Licensee during any Time Block of a Day should not exceed the "Admissible Drawl of Electricity by the Open Access Consumer" which is the difference of Contract Demand and maximum quantum of Open Access for which approval has been granted by the Nodal Agency.*

*[Illustration: If an Open Access Consumer with a Contract Demand of 10 MW has been given an approval for a maximum Open Access quantum of 6MW for a period of 3 Months, the Admissible Drawl of Electricity from the Distribution Licensee during any Time Block shall be 4 MW for any Day during a period of 3 Months.]"*

Therefore, in accordance with the above Regulations, the Commission has determined the Additional Surcharge as follows:

**Table 148: Additional Surcharge approved by Commission**

| Particulars | FY 2021-22 |
|---|---|
| Total Power Purchase cost approved (INR Cr) | 715.35 |
| Fixed Cost component in Power Purchase Cost (excluding Transmission Charges) (INR Cr) | 200.38 |
| Energy Sales (MU) | 1667.99 |
| **Additional Surcharge (INR/kWh)** | **1.20** |

As per the Joint Electricity Regulatory Commission for the State of Goa and Union Territories (Open Access in Transmission and Distribution) Regulations, 2009, a consumer availing Open Access was required to pay fixed charges on contracted load even when the load was drawn partially from the Distribution Licensee. In addition, the consumer was also required to pay wheeling charges, additional surcharge and the cross-subsidy surcharge. **As per the new "Open Access Regulations, 2017", a consumer is now required to pay fixed charges on reduced demand after adjusting for demand drawn through Open Access in accordance with the regulation.**

**The Commission approves an Additional Surcharge of INR 1.20/kwh for the FY 2021-22.**

The Commission directs the Petitioner to submit quarterly details of power stranded on account of consumers opting for open access along with the Additional Surcharge recovered from these consumers. The Commission will analyse the information and revise the applicable Additional Surcharge, if required.

## 7.3. Cross-Subsidy Surcharge

### Petitioner's submission:

The Petitioner has not submitted any computation of Cross subsidy surcharge.

### Commission's analysis:

The Commission in this Order has calculated the cross-subsidy surcharge with respect to voltage wise cost of supply. The following approach has been adopted to determine the voltage wise cost of supply:

- Voltage Wise losses at each voltage level are assumed for LT & HT/EHT voltage categories. The remaining losses are adjusted in the LT voltage level in order to maintain the Intra-State T&D losses at 9.20%, as approved in the ARR for FY 2021-22. Voltage wise losses assumed at each level have been shown in the table as follows:

**Table 149: Voltage Wise Losses considered by the Commission**

| Category | Voltage Level Loss (%) | Cumulative Losses upto that voltage level (%) |
|---|---|---|
| LT level | 7.83% | 11.47% |
| HT/ EHT level | 3.95% | 3.95% |
| **Total** | **9.20%** | **9.20%** |

Using these losses, the energy input at each voltage level is determined based on the energy sales. The following table shows the energy input at each voltage level

**Table 150: Energy Input at each voltage level (MU)**

| Category | Energy Sales (MU) | Cumulative Losses (%) | Energy Input (MU) |
|---|---|---|---|
| LT level | 1,135.77 | 11.47% | 1,282.88 |
| HT/ EHT level | 532.23 | 3.95% | 554.11 |
| **Total** | **1,667.99** | **9.20%** | **1,837.00** |

Now the overall ARR approved for FY 2021-22 is divided into variable and fixed ARR with variable ARR comprising of variable power purchase cost and fixed ARR comprising of all the other costs.

The fixed component comprising of fixed cost of power purchase, O&M etc. is further allocated to each voltage category as per the following principles:

- The fixed cost of power purchase is assigned to each voltage level on the basis of energy input at respective voltage levels.
- The O&M expenses are allocated to each voltage level on the basis of the number of consumers. The resultant cost allocated to HT/EHT level is then further allocated to LT level on the basis of input energy, as the HT/EHT network is utilized by both HT/EHT and LT network consumers.
- The remaining fixed costs are allocated on the basis of voltage wise asset allocation assumed earlier and further allocated to respective voltage levels on the basis of input energy.

**Table 151: Parameters used for allocation of fixed costs**

| Category | Energy Input (MU) | Voltage wise Asset Allocation (%) | Number of Consumers |
|---|---|---|---|
| LT level | 1,282.88 | 60.00% | 233,129 |
| HT/EHT level | 554.11 | 40.00% | 1,368 |
| **Total** | **1,837.00** | **100%** | **234,497** |

The Variable component of the Power purchase cost is allocated on the basis of energy input. The Voltage wise cost of supply (VCoS) is then determined on the basis of energy sales of respective categories.

Accordingly, the VCoS is determined as shown in the following table:

**Table 152: Voltage Wise Cost of Supply (VCoS)**

| Category | Allocated Fixed Cost (INR. Cr.) | Allocated Variable Cost (INR. Cr.) | Total Cost (INR. Cr.) | Energy Sales (MU) | VCoS (INR./kwh) |
|---|---|---|---|---|---|
| LT level | 316.14 | 284.92 | 601.06 | 1,282.88 | 5.29 |
| HT/EHT level | 86.78 | 123.07 | 209.84 | 554.11 | 4.11 |
| **Total** | 402.92 | 407.99 | 810.91 | **1,837.00** | |

The VCoS as determined above is used to determine the Cross-Subsidy Surcharge

**Table 153: Cross-Subsidy Surcharge approved by Commission**

| Category | VCoS (INR/kWh) | ABR (INR./kWh) | Cross- Subsidy (INR./kWh) |
|---|---|---|---|
| LT | 5.29 | 4.89 | - |
| HT & EHT | 4.11 | 5.53 | 1.42 |

**Therefore, the Commission approves Cross-Subsidy Surcharge as nil at LT Voltage level and INR. 1.42/kWh at HT/EHT Voltage level, in FY 2021-22.**

# 8. Chapter 8. Fuel and Power Purchase Adjustment Mechanism

The State of Goa and Union Territories of Andaman & Nicobar Islands, Lakshadweep, Chandigarh, Dadra & Nagar Haveli and Daman & Diu and Puducherry receive power from the Central Generating Stations, State Generating Stations, Independent Power Producer's (IPP's) through the long-term power purchase agreements and short term purchases – through exchange, bilateral purchases etc. The distribution licensees procure power from various available sources and supply power to the consumers at retail tariffs determined by the Commission. Power purchase cost accounts for more than 80% of the Annual Revenue Requirements (ARR) of the distribution licensees and includes the cost paid for procurement of power, transmission charges, Deviation Settlement Mechanism (DSM) charges, State Load Dispatch Center (SLDC)/ Regional Load Dispatch Center (RLDC) charges and is netted off with revenue earned from the sale of surplus power.

The cost of the long term power being procured by the distribution licensees is fixed by the Central Electricity Regulatory Commission (CERC) for plants supplying power to more than one State/UT (for example NTPC, NHPC etc.) and by the JERC for plants located within its territory/state (for IPP's, licensees own generation and other State generating sources). Charges for the Over-drawl/Under-drawl from the Grid and the Inter State Transmission charges, RLDC charges are fixed by the CERC, while Intra-State Transmission charges and SLDC charges are fixed by the JERC. Short term purchase/ sale of power is done through traders, bilateral contracts, banking and power exchanges at market determined prices.

While determining retail tariff for any year, the Commission first determines the ARR based on the projection of various cost elements including power purchase cost. Power purchase cost of the distribution licensee is derived from the power purchase quantum and per unit power purchase cost. Quantum of power purchase depends upon the energy sales to the retail consumer and distribution losses, out of which energy sales is not under the control of the distribution licensee. There is also variation in actual per unit power purchase cost vis-a-vis projected per unit power purchase cost due to change in fuel cost, change in power purchase mix i.e. thermal /hydel/renewable mix, long term/short term power mix etc. This makes power purchase cost uncontrollable in nature.

The Commission undertakes the truing up exercise for the variation in the cost and revenue once the audited accounts of the distribution licensee are available. For example, True-up of the FY 2017-18 will be undertaken by the Commission once the audited accounts of the FY 2017-18 are available. If the audited accounts for the FY 2017-18 are prepared timely, the impact of True-up of various cost and revenue items is allowed in the tariff of the FY 2020-21, along with the carrying cost for 2 years. As the power purchase cost is the major cost element of the ARR of the distribution licensee, adjustment due to change in power purchase cost at regular intervals is important in order to avoid the burden of carrying cost on the additional power purchase cost incurred during the year.

## 8.1. Legal Provisions

The relevant provisions of the Electricity Act, Regulations, Policy document and the ATE judgments, which enable the Commission to devise, adopt and implement a power purchase/ fuel price adjustment mechanism are as follows:-

**(a) Indian Electricity Act, 2003- Section 62 (4)**

*"No tariff or part of any tariff may ordinarily be amended more frequently than once in any financial year, except in respect of any changes expressly permitted under the terms of any fuel surcharge formula as may be specified."*

**(b) Tariff Policy, 2016, clause 5.11 – sub clause (h-4)**

*"Uncontrollable costs should be recovered speedily to ensure that future consumers are not burdened with past costs. Uncontrollable costs would include (but not limited to) fuel costs, costs on account of inflation, taxes and cess, variations in power purchase unit costs including on account of adverse natural events."*

**(c) Tariff Policy, 2016, clause 8.2– sub clause 8.2.1-(1)**

*"8.2 Framework for revenue requirements and costs*
*Actual level of retail sales should be grossed up by normative level of T&D losses as indicated in MYT trajectory for allowing power purchase cost subject to justifiable power purchase mix variation (for example, more energy may be purchased from thermal generation in the event of poor rainfall) and fuel surcharge adjustment as per regulations of the SERC."*

**(d) Hon'ble ATE judgement in OP1 of 2011 dated 11 November, 2011**

The Hon'ble ATE directed the SERCs to develop a power purchase cost adjustment mechanism within six months of the date of the Order. The relevant excerpt of the Order is shown as follows:

*"(vi)Fuel and Power Purchase cost is a major expense of the distribution Company which is uncontrollable. Every State Commission must have in place a mechanism for Fuel and Power Purchase cost in terms of Section 62 (4) of the Act. The Fuel and Power Purchase cost adjustment should preferably be on monthly basis on the lines of the Central Commission's Regulations for the generating companies but in no case exceeding a quarter. Any State Commission which does not already have such formula/mechanism in place must within 6 months of the date of this Order must put in place such formula/mechanism."*

## 8.2. Formula

The following mechanism shall be followed for calculation and passing on of variations in the Fuel and Power Purchase Cost Adjustment (FPPCA) in the end consumer tariff, which shall come into force w.e.f. 1st April 2020 (i.e. Power Purchased by the Licensee from 1st April 2020 onwards).

**1. Periodicity for recovery (Cycle)**

The licensee shall compute the fuel and power procurement cost variations on a quarterly basis. The adjustment shall be made in the consumers bills starting after a month following the end of the quarter on the units billed in the months following the quarter.

For example, FPPCA for the quarter April- June shall be done in the month of July and shall be reflected in the consumer bills raised in the months of August, September and October on the units billed for the months of July, August and September respectively.

**2. Chargeability**

FPPCA charges shall be levied on all consumer categories excluding Below Poverty Line (BPL) and Agriculture category consumers on per unit basis on consumption depending on the billing cycle.

**3. Formula**

The FPPCA formula shall contain the following three components:

1. Power Purchase Cost adjustments which shall contain the following elements:
   - Variation in the Power Purchased from long term/ firm sources viz. CGS, IPP's, State, Own generation etc. This may consist of fixed cost, variable costs, arrears, other charges but excluding any kind of penalties
   - Variation in Short term power purchase cost through IEX, Bilateral etc. (shall be allowed upto a certain ceiling rate as may be fixed in the Tariff Order by the Commission).

- Variation on account of Deviation Settlement Mechanism – Shall be allowed, but the incentive/penalty shall be excluded

2. Transmission cost adjustments which shall contain the following elements:
   - Variation on account of Central Transmission Charges including arrears/ revisions.
   - Variation on account of State Transmission charges including arrears/revisions

3. Other Charges which shall contain all the other elements not forming part of the above two components for example:
   - Any adjustments /reversals due to over recovery of charges
   - Any adjustments due to under recovery of charges in case the Commission decides to limit the FPPCA charges in previous quarters to avoid tariff shock or other reasons
   - Any other adjustments on account of factors not envisaged at the time of tariff fixation

4. Less any revenue from Additional Surcharge collected from Open Access consumer towards the stranded power purchase cost.

Based on the components as defined above, the new FPPCA formula can be represented as follows:

$$\boldsymbol{FPPCA}\left(\frac{\boldsymbol{Rs.}}{\boldsymbol{Unit}}\right)=.\left(\frac{(\boldsymbol{Pact}+\ \boldsymbol{Tact}\ +\boldsymbol{Oact}-\boldsymbol{ASact})*\mathbf{10}}{\{[\boldsymbol{PPOact}*\ (\mathbf{1}-\boldsymbol{TLapp})+\boldsymbol{PPIact}-\boldsymbol{PSOact}]*(\mathbf{1}-\boldsymbol{DLapp})\}-\boldsymbol{Zact}}\right)-\boldsymbol{Rapp}$$

Where:

- $Pact(in\ Rs.Cr.)$: Actual Power purchase cost inclusive of fixed cost, variable costs, arrears, and other charges excluding any kind of penalties incurred in the quarter. This shall include:
  - Cost of procurement from sources outside the State,
  - Cost of procurement from sources within the State,
  - Cost of DSM excluding any penal charges,
  - Cost of procurement from the Bilateral/ exchange etc.
  - Less: Revenue from sale of surplus power/ DSM
- $Tact\ (in\ Rs.Cr.)$: Actual Transmission cost inclusive of any kind of arrears, other charges etc. and excluding any kind of penalties incurred in the quarter. This shall include:
  - Inter-State transmission cost (PGCIL charges),
  - Intra-State transmission cost
- $Oact\ (in\ Rs.Cr.)$: Adjustments from the previous FPPCA quarter on account of over/ under recovery and any other incidental costs not accounted for at the time of retail tariff fixation
- $ASact\ (in\ Rs.Cr.)$: Revenue from Additional Surcharge collected from Open Access consumer towards the stranded power purchase cost
- $PPOact\ (in\ MU)$: Quantum of power purchased in the quarter from sources outside State/ Union Territory
- $TLapp\ (in\ \%)$: Approved Inter- State transmission losses for the year in consideration as provided in the relevant Tariff Order
- $PPIact\ \ (in\ MU)$: Quantum of power purchased in the quarter from sources within State/Union Territory, Bilateral/ Exchange and Over-drawal under the DSM
- $PSOact\ \ (in\ MU)$: Actual quantum of sale of surplus power/ under-drawal under the DSM in the quarter

- $DLapp\ (in\ \%)$: Approved T&D losses for the year in consideration as provided in the relevant Tariff Order
- $Zact\ (in\ MU)$: Actual energy sales for agriculture and BPL category consumers in the quarter

$$Rapp\ (\frac{Rs}{unit}) = \left(\frac{(Papp + Tapp) * 10}{\{[PPOapp * (1 - TLapp) + PPIapp - PSOapp] * (1 - DLapp)\} - Zapp}\right)$$

- $Papp\ (in\ Rs.Cr.)$: Total power purchase cost approved in the Tariff Order for a quarter inclusive of fixed costs, variable costs etc. and containing the following elements:
    - Cost of procurement from sources outside the State,
    - Cost of procurement from sources within the State,
    - Cost of procurement from the Bilateral/ exchange etc.
    - Less: Revenue from sale of surplus power
- $Tapp\ (in\ Rs.Cr.)$: Total transmission charges approved in the Tariff Order for a quarter consisting of the following elements:
    - Inter-State transmission charges (PGCIL charges),
    - Intra-State transmission charges
- $PPOapp\ (in\ MU)$: Quantum of power to be procured from sources outside State/ Union Territory in a quarter as approved in the Tariff Order
- $TLapp\ (in\ \%)$: Approved Inter- State transmission losses for the year in consideration as provided in the relevant Tariff Order
- $PPIapp\ (in\ MU)$: Quantum of power to be procured from sources within the State, bilateral/ exchange in a quarter as approved in the Tariff Order
- $DLapp\ (in\ \%)$: Approved T&D losses for the year in consideration as provided in the Tariff Order
- $PSOapp\ (in\ MU)$: Quantum of sale of surplus power approved in the Tariff Order for a quarter
- $Zapp\ (in\ MU)$: Sales for agriculture and BPL category consumers for a quarter as approved in the relevant Tariff Order

## 4. Other Terms and conditions

1. For the purpose of the Fuel and Power Purchase Cost Adjustment, all the bills admitted and credits, if any, received by the distribution licensee during the period in consideration, irrespective of the period to which they pertain, may be considered.

2. The FPPCA charges determined as per the formula above may be calculated considering the consumers of all categories based on their billed units excluding the BPL and the agriculture category consumers.

3. The per unit FPPCA so worked out is charged differentially as per the approved retail tariff of the consumers. The determination of differential per unit FPPCA is mentioned below:

    - Step 1: Determination of Value of K

$$\frac{Approved\ Retail\ Tariff\ for\ a\ category\ or\ sub\ category\ (\frac{Rs.}{unit})}{Weighted\ Average\ Retail\ Tariff\ (WART)(\frac{Rs.}{unit})}$$

The value of K for different consumer category or sub category for the year in consideration is considered as approved in this Tariff Order.

- Step 2: Determination of proportionate FPPCA (INR/unit) consumer category/sub-category wise

$$FPPCA\left(\frac{Rs.}{Unit}\right) = Average\ FPPCA * K\ for\ that\ consumer\ category\ or\ sub - category$$

5. The Petitioner shall compute fuel and power procurement cost variations, and adjustments shall be made in the consumer bills based on the Fuel and Power Purchase Cost Adjustment (FPPCA) formula notified by the Commission in this Order.

For the purpose of calculation, the approved per unit cost of power purchase ($R_{approved}$) shall be taken as INR 4.05 per unit for the FY 2021-22.

**Table 124: $R_{approved}$ determined by Commission for FY 2021-22**

| Particulars | Amount |
|---|---|
| Total Power Purchase Cost (INR Cr ), Papp | 639.68 |
| Transmission Charges (INR Cr), $T_{app}$ | 75.67 |
| Power Purchase Quantum from CGS Stations at Generator Ex-bus (NTPC, NHPC, SJVNL, BBMB, THDC, NPCIL, APCPL) (MU), $PPO_{app}$ | 1895.51 |
| Approved Weighted Average Inter-State Transmission Loss (%), $TL_{app}$ | 4.03% |
| Power Purchase Quantum from sources within State/ Open Market, $PPI_{app}$ | 9.61 |
| Quantum of Sale of Surplus Power (MU), $PSO_{app}$ | (116.36) |
| Approved Intra-State T&D Loss (%), $DL_{app}$ | 9.20% |
| Energy Sales for Agriculture consumer category (MU), $Z_{app}$ (MU) | 1.47 |
| **$R_{app}$ (INR/kWh)** | **4.05** |

**On account of revenue surplus in FY 2021-22, the Petitioner is hereby directed to stop recovery of FPPCA from all consumer categories starting from 1st April 2021 onwards till further orders of the Commission. The Petitioner is, however, directed to submit the quarterly FPPCA calculation to the Commission for review.**

# 9. Chapter 9: Directives

***Over the years, the Commission has issued various directives to the Petitioner for necessary action at its end. It has been observed that the Petitioner is not fully complying with many of the directives issued by the Commission. In order to strengthen the effective monitoring and ensure timely implementation of all the directives in true spirit, the Commission hereby directs that the Petitioner shall now compulsorily submit:***

- ***The detailed action plan for compliance of all the directives <u>within 1 month of the issuance of this Order</u>.***
- ***The quarterly progress report as per the detailed action plan for all the directives issued in the subsequent sections <u>within 10 days of the end of each quarter of the calendar year</u>.***

## 9.1. Directives continued in this Order

While examining the compliance note and supporting documents submitted by the Petitioner in the present Petition, it is observed that some of the directives issued in the previous Tariff Orders have not been fully complied with by the Petitioner.

The Commission is of the view that substantial time has already been given to the utility for compliance with these directions. Thus, the Commission hereby directs the utility to comply with the directions mentioned below in the given timeframe, failing which the Commission shall be constrained to take appropriate action under Section 142 of the Electricity Act 2003 and various other provisions of the Act, and Regulations framed by JERC.

### 9.1.1. Management Information System

| |
|---|
| **Originally Issued in Tariff Order dated 7th May 2012** |
| **Commission's Latest Directive in Tariff Order Dated 19th May 2020**<br><br>*Earlier, the Commission directed the Petitioner to expedite the process of online generation of MIS. The Petitioner has been submitting the requisite data. The Petitioner is directed to timely submit the reports in prescribed formats as per orders/directions of the Commission.* |
| **Petitioner's Response in the Present Tariff Petition**<br><br>*The M/s NIELIT is already been designated for computerized billing of all types of consumers of Electricity Wing of Engineering Department UT, Chandigarh (EWEDC), who fully support to EWEDC and supplies all types of MIS in required format time to time . However, EWEDC is regularly forwarding the MIS data like monthly SOP details, progress of enforcement under directive-9, metering & billing information, RPO information etc. to Hon'ble commission in prescribed format time to time.*<br><br>***Smart Grid Pilot project: -***<br><br>*The Smart Grid Pilot project is under execution wherein all the existing meters under the jurisdiction of Sub-division No.5 are to be replaced with smart meters. However, more than 5400 single phase meters have already been replaced with smart meters. The SCADA centre has also been installed and various software are under testing.*<br><br>***Smart Grid Pan City project: -***<br><br>*Smart Grid Pan City project is under process in which all the left-out meters shall be replaced with smart meters for which tender has already invited for appointment of Project Development Management Agency (PDMA). The tender is under process for approval of competent authority. The work is targeted for completion in 18 months from the allotment of tender to the executing agency by PDMA.* |

| |
|---|
| **Originally Issued in Tariff Order dated 7th May 2012** |
| *Further, after successful implementation of Smart Grid Project, most of the modules/activities shall become online which will made easier for generation of MIS at any time.* |
| **Commission's Response**<br>*The Commission appreciates the effort undertaken by the Petitioner for compliance of this directive. The Petitioner is directed to ensure timely submission of the reports in prescribed formats as per orders/directions of the Commission. Accordingly, the Commission drops this directive.* |

## *9.1.2. Metering /replacement of Non-Functional or defective/ 11KV Meters*

| |
|---|
| **Originally Issued in Tariff Order dated 16th July 2011** |
| **Commission's Latest Directive in Tariff Order Dated 19th May 2020**<br>*The Commission has observed that the quarterly report is only being submitted for consumer meters. The Commission in the previous order had also emphasized and directed the Petitioner to submit the quarterly report of 11 kV feeder meters and DT meters also. The Petitioner is directed to submit the progress report within one month of issuance of this order.* |
| **Petitioner's Response in the Present Tariff Petition**<br>*The tender for installation of DLMS meters for energy audit in Electricity Wing of Engineering Department UT, Chandigarh (EWEDC) was floated but due to lack of participation, opening date was extended several times.*<br>*In the meantime, Smart Grid Project is started under the NSGM wherein all the meters along with Feeder and DT meter shall be replaced with the Smart Meter and more than 5400 single phase meters have already been replaced with smart meters. Further it has come to the notice that the meters to be procured under DLMS work are not compatible with the new technology of Smart Grid work. Hence, the work for procurement of DLMS meter is under cancellation.* |
| **Commission's Response**<br>*The Petitioner is directed to submit the action plan within one month of issuance of this order.* |

## *9.1.3. Energy Audit*

| |
|---|
| **Originally Issued in Tariff Order dated 16th July 2011** |
| **Commission's Latest Directive in Tariff Order Dated 19th May 2020**<br>*Although DNIT for the work of providing DLMS Energy audit had been approved in Jan 2019, no tender for the same has been initiated till now. The Commission further directs the petitioner to submit the status report on the same within one month from issuance of this order.* |
| **Petitioner's Response in the Present Tariff Petition**<br>*To reduce the transmission and distribution losses, the audit meters are already installed on distribution transformers for energy audit purpose for Industrial Ares phase-I and Phase -II. The energy audit report for the Month of Nov-2020 have already been forwarded to the Hon'ble commission.*<br>*The tender for installation of DLMS meters for energy audit in Electricity Wing of Engineering Department UT, Chandigarh (EWEDC)was floated but due to lack of participation, opening date was extended several times.*<br>*In the meantime, Smart Grid Project is started under the NSGM wherein all the meters along with Feeder and DT meter shall be replaced with the Smart Meter and more than 5400 single phase meters have already been replaced with smart meters and SCADA Centre is also set up for online operation and monitoring of various activities.* |

| |
|---|
| *Further, the smart meters to be installed at the feeder and DT level under Smart Grid project shall enable the Energy Audit.* |
| **Commission's Response** |
| *The Commission has noted with serious concern that the Petitioner is yet to submit the Energy Audit Reports for previous years despite repeated directions. The Commission directs the Petitioner to submit the action plan within one month of issuance of this Order and complete the Annual Energy Audit of the UT on priority.* |

## *9.1.4. Demand Side Management and Energy Conservation*

| **Originally Issued in Tariff Order dated 16th July 2011** |
|---|
| **Commission's Latest Directive in Tariff Order Dated 19th May 2020** |
| *The Commission appreciates the effort undertaken by the Petitioner for compliance of this directive. The Petitioner is directed to expedite the process and submit quarterly reports to the Commission.* |
| **Petitioner's Response in the Present Tariff Petition** |
| *The UJALA scheme for distribution of LED bulb, LED tube light & energy efficient fan has been launched through M/S EESL in Chandigarh on dated 06.03.2017. In the 1st quarter of FY 2020-21 under UJALA scheme for distribution of LED bulb (3851), LED tube light (89) & energy efficient fan (332) and in 2nd quarter distribution of LED bulb (4029), LED tube light (113) & energy efficient fan (225) has been replaced. Further, 5,91,273 Nos. LED bulb, 58,414 Nos. LED tube light and 16,791 Nos. energy efficiency fans has been distributed through this scheme upto 30.11.2020. It is estimated that this is leading to energy savings of more than 71,983 MWh of energy saved per year with monetary savings of over 29 Crore per year.*<br>*Moreover, a tri-party agreement was signed on 25.09.2020 between Bureau of Energy efficiency, Electrical Inspectorate, Administration of UT, Chandigarh (SDA) and electricity Department Chandigarh with aim to provide essential support to DISCOMs for implementation of DSM measures under capacity building programme of DISCOMs. This programme involves various activities including establishment of DSM cell, manpower/consultancy support, capacity building of officials of DISCOMs and implementation of DSM action plan by the DISCOMs.*<br>*Under capacity programme M/s BEE has appointed M/s PWC consultant in the matter. After conducting load survey and load research, M/s PwC has submitted a DSM action plan. Now M/s PwC has been asked to submit a detailed proposal for replacement of conventional fans with energy efficient ceiling fans for consumers of domestic and commercial category.*<br>*Further, smart meters have an additional feature of TOD metering and its allied infrastructure. A pilot project under the area of S/Division No. 5 has already been allotted to M/S RECPDCL and the work is likely to be completed in this Financial Year.* |
| **Commission's Response** |
| *Through the effort undertaken by the Petitioner for compliance of this directive is appreciative, however, on-submission of quarterly report is a lapse on the part of the Petitioner and it is expected the directives to be followed in true spirit and reports to be submitted as directed. The Petitioner is directed to expedite the process and submit the progress report on quarterly basis.* |

## *9.1.5. Manpower Deployment*

| **Originally Issued in Tariff Order dated 16th July 2011** |
|---|
| **Commission's Latest Directive in Tariff Order Dated 19th May 2020** |
| *The Petitioner is directed to expedite the process and submit a status report by next tariff filing.* |
| **Petitioner's Response in the Present Tariff Petition** |
| *The Manpower study has been approved by the Hon'ble JERC vide order dated 29.12.2014. The manpower annexure Group-A, B, C & D are enclosed herewith. Further, the JERC has directed to file half yearly return regarding progress in filling up the vacant posts so that the services to the consumers are provided as per Standard of Performance notified by the JERC. The case for necessary concurrence to the recommendations* |

| |
|---|
| *dated 29.12.2014 of the JERC has been sent to the Govt. of India, Ministry of Power, New Delhi vide Secy. Engg, Chandigarh Admn. Chandigarh Memo No. 4981 dated 14.07.2015. The Govt. of India, Ministry of Power vide letter dated 05.05.2017 has raised some observations which were remained under consideration of the Competent authority as intimated vide Chief Engineer cum Spl. Secy. (Engg.), UT., Chandigarh Memo No. 4494 dated 08.06.2018 and the matter remained in abeyance and could not be approved. The posts sanctioned by the Hon'ble Commission whether on outsource basis or on regular basis are very less than the posts already sanctioned by the Govt. of India but in the absence of approval, either the posts of already sanctioned by GoI or the posts approved by the JERC could not be filled up.*<br>*At present, the matter of shortage of staff in the department was taken up with the competent authority of Chandigarh Administration, however, Chief Engineer cum Spl. Secy. (Engg.), UT., Chandigarh vide his office Memo No. 6741 dated 23.10.2019 has intimated that the process to appoint the consultant to study the feasibility of corporatization of Electricity Wing of Engineering Department UT, Chandigarh (EWEDC) has been undertaken and the manpower study also lies in the scope of said consultancy. However, Govt. of India, Ministry of Power had directed to privatize all the discoms in UTs in India and the process of privatization is under process. Further The case for filling up the posts through direct recruitment were returned by Chief Engineer cum Spl. Secy. (Engg.), UT., Chandigarh with the remarks that privatization of Electricity Wing of Engineering Department, UT, Chandigarh (EWEDC) is under process, as such, it would not be appropriate to carry out direct recruitment at this stage. In view of the decisions as taken at different stages as detailed above, number of posts in the Electricity Wing have come in the purview of deemed abolished/ abolished due to which the working of the Department hampered badly.* |
| **Commission's Response**<br><br>*The Commission appreciates the effort undertaken by the Petitioner for compliance of this directive*. The Commission notes the submission of the Petitioner and accordingly, drops this directive. |

## 9.1.6. Segregation of T&D losses and loss reduction trajectory

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|---|
| **Originally Issued in Tariff Order dated 7th May 2012** |
| **Commission's Latest Directive in Tariff Order Dated 19th May 2020**<br><br>*Earlier, the Commission directed the Petitioner to submit the action plan for installation of interface meters at all feeders.*<br>*The Commission directed the Petitioner to expedite the execution of the study. The Commission also directed the Petitioner to submit a detailed report of voltage wise T&D losses along with the next Tariff Petition.* |
| **Petitioner's Response in the Present Tariff Petition**<br><br>*Smart Grid project is under progress wherein all the meters including the Feeder/DT meters shall be replaced with smart meters which will enable for segregation of T&D losses and its reduction trajectory.* |
| **Commission's Response**<br><br>*The Commission directs the Petitioner to expedite the Smart Grid project. The Commission also directs the Petitioner to submit a detailed report of voltage wise T&D losses along with the next Tariff Petition.* |

## 9.1.7. Assets created from consumer contribution

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|---|
| **Originally Issued in Tariff Order dated 28th March 2018** |
| **Commission's Latest Directive in Tariff Order Dated 19th May 2020**<br><br>*The Commission directed the Petitioner to submit the desired information. Every year the Petitioner submits that the compilation of information is in process. The Petitioner in this regard was directed to submit the desired information positively along with the next Petition.* |
| **Petitioner's Response in the Present Tariff Petition** |

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|---|
| *All the assets created from the consumer contribution are under compilation and same shall be submitted accordingly.* |
| **Commission's Response**<br><br>*The Petitioner, despite repeated directions has failed to submit the desired information. Every year the Petitioner submits that the compilation of information is in process. The Petitioner in this regard is hereby directed to submit the desired information positively along with the next Petition otherwise the Commission will consider the value based on certain assumptions which will have financial repercussions on the Petitioner's ARR* |

## 9.1.8. Creation of SLDC

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|---|
| **Originally Issued in Tariff Order dated 28th March 2018** |
| **Commission's Latest Directive in Tariff Order Dated 19th May 2020**<br><br>*The Commission directed the Petitioner to take up the matter with topmost priority and ensure that the process of creation of SLDC be expedited with help from POSOCO and funds from PSDF.* |
| **Petitioner's Response in the Present Tariff Petition**<br><br>*To comply with the direction of Hon'ble commission, the Assistant power Controller (APC) has been designated as nominee of SLDC and S.E. Electy as nominee of STU for the purpose of open Access vide CEUT office order No-663 dt-16/11/2018.*<br><br>*The EWEDC has already taken the matter with POSOCO for intimating the scheduled of training to the officials of EWEDC with regard to system operators of SLDC, but no schedule for training has been provided by POSOCO till date. Meantime, access of BBMB web based SLDC monitoring system has been made through user ID and password through which all the incoming Nodal Points can be easily monitor by Power Controller (PC) office of U.T. Chandigarh and data of respective CGS can also be made available in prescribed format as desired by the PC U.T. Chandigarh.*<br><br>*However, Govt. of India, Ministry of Power had directed to privatize all the Discoms in UTs in India and the privatization work is under process in U.T. Chandigarh also. The SLDC is being created to meet statutory requirement of Electricity Act, 2003.*<br><br>*Further, UT Power Union, Chandigarh has filed Civil Writ Petition (CWP) in Punjab and Haryana High Court, UT, Chandigarh wherein the Hon'ble Court vide interim order dated 01.12.2020 has stayed the privatization process.* |
| **Commission's Response**<br><br>*The Commission directs the Petitioner to take up the matter with topmost priority and ensure that the process of creation of SLDC be expedited with help from POSOCO and funds from PSDF.* |

## 9.1.9. Operational safety and policy for accidents and compensation

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|---|
| **Originally Issued in Tariff Order dated 28th March 2018** |
| **Commission's Latest Directive in Tariff Order Dated 19th May 2020**<br><br>*The Petitioner was directed to secure the necessary approvals from the Chandigarh Administration and submit the Petition for approval before the Commission.* |
| **Petitioner's Response in the Present Tariff Petition**<br><br>*The Electricity Wing of Engineering Department UT, Chandigarh (EWEDC) is already following the Workmen's Compensation Act, 1923 framed by Govt. of India and is giving Compensation as per* |

| **Originally Issued in Tariff Order dated 28th March 2018** |
|---|
| *Compensation act to the victims of accidents caused. In case of employee dies due to accident, Ex-Gratia as applicable from time to time is also given to the family of the deceased employee. Further, the privilege banking through Axis Bank has been initiated by Electricity Wing of Engineering Department UT, Chandigarh (EWEDC) and the employee drawing their monthly salary are covered under insurance scheme of Rs. 31 Lacs in case of accident and permanent disability. Moreover, a draft petition for seeking approval to implement Group Accident Insurance Policy in Electricity Wing of Engineering Department UT, Chandigarh (EWEDC) is under process of approval with competent authority of Chandigarh Administration and will be filed before the Hon'ble Commission in the near future.* |
| **Commission's Response**<br><br>*The Petitioner is directed to ensure suitable training to all officials as per CEA norms. Further, the Petitioner is directed to submit the training plan for the department employees for FY 2021-22 within three months of issuance of this order.* |

## 9.1.10. Non-achievement of capitalization target

| **Originally Issued in Tariff Order dated 28th March 2018** |
|---|
| **Commission's Latest Directive in Tariff Order Dated 19th May 2020**<br><br>*The Commission directed the Petitioner to increase its efforts towards undertaking capital expenditure activities necessary to improve the service quality and target 24x7 supply to all consumers. Further, the Petitioner was directed to ensure that the capitalisation targets approved in the complete MYT Period as a whole are achieved. In case the Petitioner failed to achieve the target then appropriate penalties shall be imposed at the end of the Control Period.* |
| **Petitioner's Response in the Present Tariff Petition**<br><br>*It is submitted that Capitalization of Rs. 5.46 Cr for FY 2019-20 has been achieved and further, Capitalization of Rs. 3.96 Cr has been achieved during the first two quarters of FY 2020-21.*<br><br>*It is further submitted that due to COVID-19 lockdown was imposed by the Govt. of India which caused halting of various major works. Further the Govt. of India has imposed restriction on the budget/expenditure to be spent under various heads of accounts due to Financial crunch caused by COVID-19 which has resulted in non-achievement of capitalization for the first two quarters of the current financial year. However, efforts are now being made to complete all the project in time.* |
| **Commission's Response**<br><br>*The Commission directs the Petitioner to increase its efforts towards undertaking capital expenditure activities necessary to improve the service quality and target 24x7 supply to all consumers. Further, the Petitioner is directed to ensure that the capitalisation targets approved in the complete MYT Period as a whole are achieved.* |

## 9.1.11. Monthly Billing for Domestic and Commercial/ Non Residential category consumers

| **Originally Issued in Tariff Order dated 20th May 2019** |
|---|
| **Commission's Latest Directive in Tariff Order Dated 19th May 2020**<br><br>*The Petitioner was directed to ensure that monthly billing for all the categories except Agriculture Pumping Supply are implemented in the territory. The Commission suggested that the implementation of monthly billing may be done in a phased manner so that billing of certain number of consumers be shifted to monthly billing cycle every month/quarter. The Petitioner was directed to submit monthly compliance report to the Commission for monitoring.* |
| **Petitioner's Response in the Present Tariff Petition** |

| **Originally Issued in Tariff Order dated 20th May 2019** |
|---|
| *At present, more than 85% consumers (Domestic & Commercial) are billed Bi-Monthly. The conversion of meter reading from Bi-Monthly to Monthly basis will lead to various problems as there is acute shortage of staff. Further, the software is also required to be amended for Monthly billing.*<br>*The work for installation of smart meters under the NSGM is in progress, which will help for Monthly billing of all category of consumers including Domestic and Commercial category.* |
| **Commission's Response**<br>*The Petitioner is directed to expedite the process and submit the action plan within one month of issuance of this order.* |

## 9.1.12. Determination of Category wise/ Voltage wise Cost of supply

| **Originally Issued in Tariff Order dated 20th May 2019** |
|---|
| *The Petitioner is hereby directed to submit a proposal for category wise cost of supply along with the Tariff Petition for the next year. The Petitioner in this regard is directed to start collecting category wise and voltage wise data on losses, connected load, asset allocation etc. for prudent determination of the cost of supply.* |
| **Commission's Latest Directive in Tariff Order Dated 19th May 2020**<br>*The Petitioner was directed to expedite the process to float the RFP and ensure that the study/report for the same is submitted along with the next tariff petition.* |
| **Petitioner's Response in the Present Tariff Petition**<br>*The RFP for category wise cost of supply to start collecting category wise and voltage wise data on losses, connected load, assets allocation is under process.*<br>*In the meantime, the Smart Grid project is come on hand wherein all the existing meters shall be replaced with smart meters and will help for collection of categories wise and voltage wise accurate data for determination of cost of supply.* |
| **Commission's Response**<br>*The Petitioner is again directed to expedite the process and ensure that the study/report for the same is submitted along with the next tariff petition.* |

## 9.1.13. kVAh based tariff

| **Originally Issued in Tariff Order dated 20th May 2019** |
|---|
| **Commission's Latest Directive in Tariff Order Dated 19th May 2020**<br>*The Petitioner is directed to replace all the electro-meters with digital/smart meters enabled with kVAh recording feature at least for consumers connected at HT/EHT voltage. The Petitioner is directed to submit a report consisting of number of consumers still having electro-mechanical meters, roadmap to replace these meters, expenditure to be incurred and the cost benefit analysis of the same to the Commission along with the next tariff petition.* |
| **Petitioner's Response in the Present Tariff Petition**<br>*A number of mechanical and electro-mechanical meters which do not have the feature of kVAh parameter. Therefore, kVAh based billing/tariff may not be started at this point of time.* |

| **Originally Issued in Tariff Order dated 20th May 2019** |
|---|
| *The Smart Grid Pilot project is under process wherein all the existing electronic meters are being replaced with smart meters. More than 5400 single phase smart meters have already been installed. The SCADA centre has also been installed and various software are under testing.*<br><br>*Further, the appointment of PDMA for Smart Grid Pan City project is under process in which all the left-out meters shall be replaced with smart meters.*<br><br>*Accordingly, after, installation of smart meters the kVAh based tariff will be proposed to Hon'ble Commission accordingly.* |
| **Commission's Response**<br><br>*The Petitioner is directed to expedite the Smart Grid Pilot project and submit the progress report within one month of issuance of this order.* |

# 10. Chapter 10: Tariff Schedule

## 10.1. Tariff Schedule

Table 154: Tariff Schedule

| S. No. | Consumer Category | Fixed Charge INR/kW/month | Energy Charge INR/kWh |
|---|---|---|---|
| **1.** | **DOMESTIC SUPPLY (DS)** | | |
| **I.** | **LT Domestic** | | |
| a. | 0-150 kWh per month | 10.00 | 2.50 |
| b. | 151-400 kWh per month | | 4.25 |
| c. | Above 400 kWh per month | | 4.65 |
| **II.** | **HT Domestic** | 10.00 | 4.30 |
| | | | |
| **2.** | **COMMERCIAL/ NON RESIDENTIAL (NRS)** | | |
| **I.** | **LT Commercial** | | |
| a. | 0-150 kWh per month | INR. 20/kW/Month for Single Phase INR. 100/kW/Month for Three Phase | 4.50 |
| b. | 151-400 kWh per month | | 4.70 |
| c. | Above 400 kWh per month | | 5.00 |
| **II.** | **HT Commercial** | 100.00 | 4.70 |
| | | | |
| **3.** | **INDUSTRY** | | |
| I | Large Industrial Power Supply (LS) | 200.00 | 4.50 |
| II | Medium Industrial Power Supply (MS) | 200.00 | 4.20 |
| III | Small Industrial Power Supply (SP) | 30.00 | 4.30 |
| | | | |
| **4.** | **AGRICULTURAL PUMPING SUPPLY (AR)** | - | 2.60 |
| | | | |
| **5.** | **PUBLIC LIGHTING (PL)** | | |
| I | Public Lighting system managed by Municipal Corporation, Panchayat and Street Lights maintained / outsourced to an external agency | 100.00 | 4.80 |
| II | Advertisement/ Neon-sign Boards Advertisement boards, billboards (apart from advertisement boards installed on commercial establishments and charged under commercial tariff) | 100.00 | 6.40 |
| | | | |
| **6.** | **BULK SUPPLY (BS)** | 200.00 | 4.40 |
| | | | |
| **7.** | **TEMPORARY SUPPLY** | Tariff shall be Fixed/ Demand charges (if any) plus energy charges (for relevant slab, if any) under corresponding permanent supply category plus 50% of both. | |



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| | | | |
|---|---|---|---|
| | | For multi activity pursuit, applicable Tariff for temporary connection shall be with reference to that of commercial category for permanent supply. | |
| | | | |
| **8.** | **ELECTRIC VEHICLE CHARGING STATION** | - | 3.60 |

## *10.2. Applicability*

**Table 155: Applicability of Tariff Schedule**

| Applicability | Character of service |
|---|---|
| **DOMESTIC SUPPLY (DS)** | |
| **LT Domestic** | |
| This schedule shall apply for light, fan, domestic pumping sets and household appliances in the following premises:<br>a) Single private houses/flats.<br>b) Government schools along with related facilities.<br>c) Supply to hostels and /or residential quarter attached with the private educational institutions where separately metered.<br>d) Paying Guest (PG) authorized by the Chandigarh Administration<br>e) Administrative Training Institutes/Correctional Institutes/Training Centres exclusively run/managed by the UT/State/Central Government to undertake research, consultancy/Training and allied activities to improve management efficiency<br>f) Government and public sports institutions/Gymnasium halls etc. banks and PCOs exclusively for the use of educational institutions.<br>g) Religious Institutions viz. Temples, Gurudwaras, Mosques, Churches, provided that the Sub Divisional officer concerned authenticates the genuineness of the place being exclusively used for worship by the general public.<br>h) Housing colonies and multi storied flats/buildings as defined in the Electricity Supply Code Regulations notified by the JERC.<br>i) Dispensaries / Hospitals / Public Libraries / Schools / Colleges / Working Women's Hostels / run by the Chandigarh Administration.<br>j) Recognized Centers/ societies for the welfare of blind, deaf and dumb, spastic children, physically handicapped persons, mentally retarded persons, as approved by the Chandigarh Administration.<br>k) Orphanages/ Cheshire Homes/ Old age homes/ charitable homes and Gaushalas.<br>l) Charitable Organizations viz. Schools, Hospitals, Dispensaries, Education and Research Institutes and Hostels attached to such Institutions registered with the Income Tax authorities under Section 80G, or 80 GGA, or 35 AC. The individual organization shall apply in writing to the Electricity Department along with a certificate from the IT Department or getting considered for the tariff in the Domestic Category | AC, 50 cycles, Single phase 230 volts or three phase 400 volts.<br><br>For loads up to 5 KW supply shall be connected on single phase 230 volts and above 5 KW up to 100 kVA supply shall be given on three phase 400 volts. |

| Applicability | Character of service |
|---|---|
| m) Shelter Homes (including Night Shelters) approved by Chandigarh Administration.<br>n) Crematoriums (including electric) and Burial Grounds.<br>The Halls or Gardens/ Lawns or any portion of the premises listed in Para (i) above let out for consideration or used for Commercial activities at any time shall be charged at Commercial Rate of Electricity Tariff.<br>**NOTES:**<br>i. Where a portion of the dwelling is used for mixed load purposes the connection shall be billed for the purpose for which the tariff is higher.<br>ii. Hostels shall be considered as one unit and billed under domestic supply tariff without compounding.<br>iii. Private education institutions not recognized by the Chandigarh Administration shall be billed under Non Domestic Tariff.<br>iv. STD/PCOs, shops attached to Religious Institutions will be billed under Non- Domestic Tariff.<br>v. A room or a part of a residential house utilized by a teacher for imparting tuition work, self-occupied handicapped persons operating from their residences, cooking classes taken by house ladies, beauty parlour run by house ladies, ladies doing tailoring work etc. shall be covered under domestic tariff.<br>vi. For cottage & commercial activities operating in residences such as repair of shoes by cobbler, dhobi, ironing of clothes, stitching/ knitting, paan-shop and bakery products etc. small shops, tea shops etc. with total load (maximum demand) of 5 kW domestic tariff shall be applicable subject to installation of MDI Meters. In cases where total load is more than 5 kW, separate metering shall be done for commercial and domestic use and consumption shall be charged according to the tariff applicable.<br>vii. Professionals such as Doctors, Engineers, Lawyers, CAs, Journalists and Consultants practicing from their residence irrespective of location provided that such use shall not exceed 25% of the area of the premises or as specified in the rules/regulations of their respective State or Union Territory.<br>viii. The load of common amenities for consumers of housing societies may include pumps for pumping water supply, lifts and lighting of common area. The consumption of energy for common services shall be separately metered with meters installed and sealed by the licensee and shall be billed at Domestic Tariff. The user shall inform the details of every non-domestic activity within the residential complex, such as commercial complex, industrial activity, and recreation club, along with the connected load, and shall seek a separate connection for the same under the commercial category. | |
| **HT Domestic** | |
| This schedule shall apply to all the consumer falling under the LT Domestic category above but connected at 11 kV or above voltage level | AC, 50 cycles, Three phase 11 Kilo volts.<br>For loads above 100 KVA, supply shall be connected on 11 KV and a separate transformer of adequate capacity shall be |



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| Applicability | Character of service |
|---|---|
| | installed at consumers cost as per Electricity Supply Code Regulations notified by JERC. In case of consumers where the metering is being done on the low voltage side of the transformer instead of the high voltage side, the consumption should be computed by adding 3% extra on account of transformation/ losses. This arrangement shall be continued for a maximum of one year within which metering shall be shifted to HT(11KV) side of the transformers |
| **COMMERCIAL / NON RESIDENTIAL SUPPLY (NRS)** | |
| **LT Commercial** | |
| This schedule shall apply to all consumers, using electrical energy for light, fans appliances like pumping sets, central air conditioning plant, lift ,welding set, small lathe, electric drill, heater, battery charger, embroidery machine, printing press, ice candy, dry cleaning machines, power press, small motors in non-residential premises such as defined below:<br>a) Hostels (other than those recognized/aided institutions of Chandigarh Administration)<br>b) Schools and colleges (excluding Government schools and related facilities<br>c) Coaching institutes and research institutes (Other than those recognized by the Chandigarh Administration)<br>d) Auditoriums, Hospitals, clinics, dispensaries, nursing homes / diagnostic centers other than those run by the Chandigarh Administration.<br>e) Railways (other than traction)<br>f) Hotels, restaurants, guest houses, boarding / lodging houses, marriage houses<br>g) Cinemas<br>h) Banks<br>i) Petrol pumps.<br>j) Government / Public Sector offices and undertakings<br>k) Public halls, auditoriums, exhibitions, theatres, circus, cinemas etc.<br>l) All other establishments, i.e., shops, chemists, tailors, washing, dyeing etc. which do not come under the Factories Act.<br>m) Cattle farms, fisheries, piggeries, poultry farms, floriculture, horticulture, plant nursery Farm houses being used for commercial activity.<br>n) Ice-cream parlors, bars, coffee houses etc.<br>o) Any other category of commercial consumers not specified/covered in any other category in this Schedule.<br>NRS supply shall also be applicable to multi consumer complexes including commercial complexes as defined in the Electricity Supply | AC, 50 cycles, single phase at 230 Volts or 3 Phase at 400 Volts<br>For loads up to 5 KW, supply shall be connected on single phase 230 volts and above 5 KW up to 100 KVA, supply shall be given on 3 phase 400 volts. |



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| Applicability | Character of service |
|---|---|
| Code Regulations notified by the JERC. No separate circuit/connection for power load including pumping set/central air conditioning plant, lifts etc. is permitted. | |
| **HT Commercial** | AC, 50 cycles, Three phase 11 Kilo volts. |
| This schedule shall apply to all the consumers falling under the LT Commercial category above but connected at 11 kV or above voltage level | For loads above 100 KVA, supply shall be given on 11 KV in case of multi consumer complex including commercial complex and in other cases for load above 100 KVA the supply shall be on 11 KV. In case of consumers where metering is done on the low voltage side of the transformer instead of the high voltage side, the consumption should be computed by adding 3% extra on account of transformation losses. |
| **LARGE INDUSTRIAL POWER SUPPLY (LS)** | |
| The schedule shall apply for consumers having industrial connected load above 100kVA.Their contract demand shall not be less than 100 kVA. No consumers shall increase their connected load without prior approval of the Electricity department. The consumer availing supply at high tension shall indicate rated capacity of all the step down transformers installed in his premises and shall not increase the capacity of such step down transformers without prior approval of the department.<br>**NOTE**<br>i. The above tariff covers supply at 11 kV. Surcharge at 20% on the tariff shall be leviable for all the existing consumers which are being given supply at 400 volts. A consumer getting supply at 33 kV and above will get a rebate of 3%.<br>ii. Surcharge @ 17.5% on the tariff shall be leviable for all the arc furnace consumers which are being given supply at 11 kV. This surcharge at 17.5% shall also be leviable on other industrial consumers having contract demand exceeding 5000 kVA and running at 11kV.<br>iii. In case of steel rolling mills having supply at 400 volts, an additional surcharge of 5% shall be leviable.<br>iv. In case of HT consumers (11kV and above) where maximum demand and energy consumption is recorded on the lower voltage side of the consumer transformer instead of the high voltage side, maximum demand and energy consumption for billing purpose should be computed by adding 3% extra on units on account of transformation/cables losses. However, this agreement shall in no case continue for more than three months and the meter shall be installed on the HT side of the transformer within the said period including such existing connection.<br>v. For new connections, all metering will be on HT side only. | AC, 50 Cycles, 3 phase 11 kV supply for loads above 100 kVA Supply can be given at 33/66/220kV depending on quantum/type of load and contract demand and availability of bus voltage and transformer winding capacity at the feeding substation wherever possible at the discretion of supplier.<br>For arc furnace loads and other loads of equally violent fluctuating nature, voltage of supply will be 33kV and above depending upon availability of bus voltage and transformer winding capacity at the feeding substation wherever possible, at the discretion of supplier.<br><br>**Contract demand** is the load kW, kVA or HP, as the case may be agreed to be supplied by the licenses and contracted by the consumer and specified in the agreement. If the consumer in a month exceeds the contract |



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| Applicability | Character of service |
|---|---|
| | demand, such excess shall be charged at an additional rate of INR 250/kVA. |
| **MEDIUM INDUSTRIAL POWER SUPPLY (MS)** | |
| This tariff schedule shall apply to all industrial power supply consumers having connected load ranging from 21 kVA to 100 kVA | AC, 50 cycles, 3 phase, 400 volts |
| **SMALL INDUSTRIAL POWER SUPPLY (SP)** | |
| This schedule shall apply to small power industries with connected load not exceeding 20 KW (26BHP) in urban and rural areas | AC, 50 cycles, single phase 230 volts, or 3 phase, 400 volts. |
| **AGRICULTURAL PUMPING SUPPLY (AP)** | |
| This schedule shall apply to all consumers for use of electrical energy for irrigation pumping load upto 20 kW (26 BHP). Supply for loads above 26 BHP/20 KW shall be charged in accordance with the relevant industrial tariff (Govt. Tubewells meant for water supply are covered under the relevant Industrial Tariff)<br>**NOTE**<br>• Pumping sets shall be ISI marked. The responsibility for ensuring installation of ISI marked pumping sets as well as shunt capacitors shall be that of the Junior Engineer concerned, who shall verify the same at the time of verification of test reports before the release of the connection.<br>• Supply for agriculture/Irrigation pump sets, at one point, may also be given to a registered co-operative society or to a group of farmers recognized by the competent authority.<br>• An agriculture consumer, if he so desires, may shift the location within his premises of his connection, with the approval of the competent authority, after payment of applicable charges. | AC, 50 Cycles, three phase, 400 volts, Single Phase at 230 volts. |
| **PUBLIC LIGHTING (PL)** | |
| This tariff schedule shall apply for use of Public Lighting system including signaling system, road and park lighting managed by municipal corporation, panchayats, institutions(at the discretion of the supplier)etc.<br>The tariff schedule shall also apply for use of electricity by street lights managed/outsourced to an external agency and advertisement boards, sign boards, bill boards, signages etc., (apart from the advertisement boards installed on commercial establishments & charged under commercial tariff). | AC, 50 cycles, Single phase at 230 Volts or three phase at 400 Volts. |
| **BULK SUPPLY (BS)** | |
| This tariff schedule shall apply to general or mixed loads exceeding 10 kW to MES, Defense establishments, Railways, Central PWD, Institutions, Hospitals, Departmental Colonies and other similar establishments where further distribution is to be done by the consumer. Above schedule shall not be applicable, if 50 % or more of the total sanctioned load is motive/ manufacturing load | AC, 50 cycles, three phase, 400 volts or 11 kV or higher voltage at the option of the department. Loads exceeding 100 kVA shall be released on HT only. |
| **TEMPORARY SUPPLY** | |
| Available to any person requiring power supply for a purpose temporary in nature. The Temporary Tariff is applicable for a temporary period of supply for a period of maximum one (1) year at a time, which may be further extended, as per the provisions of Supply Code Regulations notified by JERC. | AC, 50 cycles, Single phase at 230 Volts or three phase at 400 Volts |

| Applicability | Character of service |
|---|---|
| **ELECTRIC VEHICLE CHARGING STATIONS** | |
| This tariff schedule shall apply to consumers that have set up Public Charging Stations (PCS) in accordance with the technical norms/ standards/specifications laid down by the Ministry of Power, GoI and Central Electricity Authority (CEA) from time to time.<br>The tariff for domestic consumption shall be applicable for domestic charging (LT/HT) | AC, 50 cycles, three phase, 11 kV or higher voltage. |

## *10.3. General Conditions of HT and LT Supply*

The above mentioned LT/HT Tariffs are subjected to the following conditions, applicable to all category of consumers.

1) The tariffs are exclusive of electricity duty, taxes and other charges levied by the Government or other competent authority from time to time which are payable by the consumers in addition to the charges levied as per the tariffs.

2) Unless otherwise agreed to, these tariffs for power supply are applicable for supply at one point only.

3) If energy supplied for a specific purpose under a particular tariff is used for a different purpose, not contemplated in the contract for supply and / or for which higher tariff is applicable, it will be deemed as unauthorized use of electricity and shall be dealt with for assessment under the provisions of section 126 of the Electricity Act, 2003 & Supply Code Regulation notified by JERC.

4) Fixed charges, as applicable, will be charged on pro-rata basis from the date of release of connection.

5) The billing in case of HT/EHT shall be on the maximum demand recorded during the month or 85% of the contracted demand, whichever is higher. If in any month, the recorded maximum demand of the consumer exceeds its contracted demand, that portion of the demand in excess of the contracted demand shall be billed at double the normal rate. Similarly, energy consumption corresponding to excess demand shall also be billed at double the normal rate. The definition of the maximum demand would be in accordance with the provisions of the Supply Code Regulations notified by JERC. If such over-drawl is more than 20% of the contract demand then the connection shall be disconnected immediately.

   **Explanation:** Assuming the contract demand as 100 KVA, maximum demand at 120 KVA and total energy consumption as 12000 kWh, then the consumption corresponding to the contract demand will be 10000 kWh (12000*100/120) and consumption corresponding to the excess demand will be 2000 kWh. This excess demand of 20 KVA and excess consumption of 2000 kWh will be billed at twice the respective normal rate. Such connections drawing more than 120 kVA, shall be disconnected immediately.

6) **Power Factor Charges for HT and EHT**

   (a) Power factor means, the average monthly power factor and shall be the ratio expressed as percentage of total kWh to total kVAh supplied during the month. The ratio shall be rounded up to two figures.

   (b) The consumer shall maintain the monthly average power factor of the supply not less than 90% (lagging). If the monthly average power factor of (a) consumer falls below 90% (0.9 lagging), such consumer shall pay a surcharge in addition to his normal tariff @ 1% on billed demand and energy charges for each fall of 1% in power factor upto 70%(lagging).

   (c) In case the monthly average power factor of the consumer is more than 95% (95% lagging), a power factor incentive @ 1% on demand and energy charges shall be given for each increase of 1% in power factor above 95% (lagging)

   (d) If the average power factor falls below 70% (lagging) consecutively for 3 months, the licensee reserves the right to disconnect the consumer's service connection without prejudice for the levy of the surcharge.



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7) Delayed payment surcharge shall be applicable to all categories of consumers. Delayed payment surcharge of 2% per month or part thereof shall be levied on all arrears of bills. Such surcharge shall be rounded off to the nearest multiple of one rupee. Amounts less than 50 paisa shall be ignored and amounts of 50 paisa or more shall be rounded off to the next rupee. In case of permanent disconnection, delayed payment surcharge shall be charged only upto the month of permanent disconnection.

8) **Advance Payment Rebate**: If full advance payment of the current bill is made before the issue date of previous cycle bill, rebate @1% shall be given on the amount consisting of SOP plus fixed charges plus FPPCA. However, if the advance payment is not adequate as per current bill amount consisting of SOP plus Fixed Charges plus FPPCA or payment made after the issue date of previous cycle bill , such cases shall be treated for prompt payment rebate. Sample calculation for the same has been in Annexure 2 of this Order.

9) **Prompt Payment Rebate:** If payment is made at least 7-days in advance of the due date of payment of the current bill a rebate for prompt payment @ 0.25 % of the bill amount (SOP +Fixed Charges +FPPCA) amount shall be given. Those consumers having arrears shall not be entitled for such rebate. Sample calculation for the same has been in Annexure 2 of this Order.

Provided that in case the payment is made by cheque, the prompt payment discount will be applicable only if the payment by cheque is made 3 days prior to date of availing the prompt payment discount i.e. before 10 days from the due date of payment.

10) The adjustment on account of Fuel and Power Purchase Cost variation shall be calculated in accordance with the FPPCA formula specified in Chapter 8 of this Tariff Order. Such charges shall be recovered / refunded/adjusted in accordance with the terms and conditions specified in the FPPCA mechanism. However, no FPPCA shall be recovered from the consumers from 1st April 2021 onwards till further orders of the Commission.

11) The values of the 'K' factor applicable for the different consumer categories for use in the FPPCA formula shall be as specified in this Tariff Order.

12) **Surcharge for Low Power Factor/Non Installation of Required rated LT Shunt Capacitors**

(a) Consumers with L.T connections where the meter provided by the licensee has the power factor recording feature, shall install shunt capacitors of adequate rating to ensure power factor of 85% or above failing which low power factor surcharge at the rates noted below will be levied.

**Table 156: PF Range for LT consumer**

| S. No. | Power Factor range | Surcharge |
|---|---|---|
| 1. | 85% and above | NIL |
| 2. | Below 85% and upto 80% | 2% of billed energy charges of that month for every 1% fall in P.F from 85% |
| 3. | Below 80% and upto 75% | 2.5% of billed energy charges of the month for every 1% fall in P.F from 80% |
| 4. | Below 75% | 3% of billed energy charges of that month for every 1% fall in P.F from 75% |

The conditions for disconnection of a consumer supply in case of non-achievement of minimum level of power factor as prescribed in the Supply Code Regulations notified by JERC, shall apply.

13) **Unauthorized use of Electricity:** The unauthorized use of electricity shall be treated as specified in the Supply Code Regulations notified by JERC. The penalty applicable shall continue unless the unauthorized use is stopped.

14) **Taxes and duties**

The tariff does not include any tax or duty etc. on electricity energy that may be payable at any time in accordance with any law then in force. Such charges, if any, shall be payable by the consumer in addition



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to the tariff charges.

15) **Time of Day (TOD) tariff**

a) Under the Time of Day (ToD) Tariff, electricity consumption and maximum demand in respect of HT/EHT consumers for different periods of the day, i.e. normal period, peak load period and off-peak load period, shall be recorded by installing a ToD meter.

b) The maximum demand and consumption recorded in different periods shall be billed at the following rates on the tariff applicable to the consumer, as TOD metering is not yet implemented.

**Table 157: Applicability of ToD Charges**

| Period of use | Hrs. | Demand Charges | Energy Charges |
|---|---|---|---|
| Normal period | 6:00 a.m. to 6:00 p.m. | Normal Rate | Normal rate of energy charges |
| Evening peak load period | 6:00 p.m. to 10.00 p.m. | Normal Rate | 120% of Normal rate of energy charges |
| Off-peak load period | 10:00 p.m. to 6:00 a.m. | Normal Rate | 90% of Normal rate of energy charges |

Applicability and Terms and Conditions of TOD tariff:

a) TOD tariff shall be **optional** unless otherwise specifically stated to the contrary in the Tariff Order.

b) The facility of aforesaid TOD tariff shall not be available to HT/EHT consumers having captive power plants and/or availing supply from other sources through wheeling of power.

c) The HT/EHT industrial consumers who have installed standby generating plants shall also be eligible for the aforesaid TOD tariff.

d) In the event of applicability of TOD tariff to a consumer, all other terms and conditions of the applicable tariff shall continue to apply.

## *10.4. Schedule of Other Charges*

**Table 158: Schedule of Other Charges**

| S. No. | Description | Approved |
|---|---|---|
| **A** | **Application processing charges for new connection/ enhancement of load/ reduction of load** | |
| i | Domestic supply (LT) | INR 25/- |
| ii | Non-Domestic Supply (LT) | INR 100/- |
| iii | Small Power, Medium Supply and street lighting supply (LT) | INR 250/- |
| iv | Agriculture Power supply (LT) | INR 25/- |
| v | Temporary metered supply (LT) | Two times the normal rates of category of permanent supply |
| vi | HT/EHT Supply | As specified in Supply Code Regulations specified by JERC |
| **B** | **Charges for Re-fixing/ Changing of meter/Meter Board in the same premise on consumer request when no additional material is required. (When the cause leading to subsequent change/replacement of meter is either manufacturing defect or Department's fault then, it shall be free of cost and further, if shifting of meter is done in the interest of department work then it is free of cost.)** | |
| i | Single Phase Meter | INR 250/- per meter |
| ii | Three Phase Meter without CT | INR 500/- per meter |
| iii | Three Phase Meter (with CTs & PTs) | INR 1,000/- per meter |



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| S. No. | Description | Approved |
|---|---|---|
| iv | Tri-vector and special type meters | INR 1,200/- per meter |
| v | HT/ EHV metering equipment | INR 3,000/- per meter |
| **C** | **Meter Inspection & Testing Charges** | |
| | (In case correctness/accuracy of a meter belonging to the Licensee is challenged by the consumer) | |
| i | Single phase | INR 150/- per meter |
| ii | 3-phase whole current i.e. without C.T | INR 500/- per meter |
| iii | L.T. meter with CTs | INR 1,500/- per meter |
| iv | H.T. & E.H.F metering equipment. | INR 3,000/- per meter |
| | NOTE: If the challenged meter is found to be incorrect / defective, the credit of these charges will be given to the consumer, otherwise these will be forfeited. | |
| **D** | **Re-sealing charges (irrespective of the number of seals involved against each item below and where seals found to have been broken by the consumer):** | |
| i | Meter cupboard | INR 50/- |
| ii | Where cut-out is independently sealed | INR 50/- |
| iii | Meter cover or Meter Terminal cover (Single phase) | INR 150/- |
| iv | Meter cover or Meter Terminal cover (3- phase) | INR 375/- |
| v | Maximum Demand Indicator or C.T.s Chamber | INR 900/- |
| vi | Potential fuses | INR 900/- |
| | Note: If M&T and ME seals are found to be broken/tampered cost of meter shall be recoverable and the case shall be treated as theft case. | |
| **E** | **Reconnection Charges** | |
| A | Reconnecting/connecting the premises of any consumer who was previously disconnected on account of breach of his agreement with the department or of any other provisions of the Act as may be relevant. | |
| i | Domestic supply | INR 250/- |
| ii | Non-Domestic Supply | INR 500/- |
| iii | Small Power, Medium Supply and street lighting supply | INR 500/- |
| iv | Large Supply and bulk supply | INR 1000/- |
| v | Agriculture Power supply | INR 250/- |
| vi | Temporary metered supply | INR 1,500/- |
| **F** | **Testing/ Inspection of Consumer's installation** | |
| A | Initial Test/ Inspection | Free of Cost. |
| B | For subsequent test of a new installation or an extension to an existing installation if the installation is found to be defective or the wiring contractor or his representative fails to be present | |
| i | Single Phase | INR 150/- (Payable in advance for each subsequent visit for the purpose of testing the installation.) |
| ii | Three Phase | INR 200/- |



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| S. No. | Description | Approved |
|---|---|---|
| | | (Payable in advance for each subsequent visit for the purpose of testing the installation) |
| iii | Medium Supply/Bulk Supply loads upto 100 kVA | INR 500/-<br>(Payable in advance for each subsequent visit for the purpose of testing the installation.) |
| iv | Large Supply/Bulk Supply (loads above 100 kVA) | INR 1,000/-<br>(Payable in advance for each subsequent visit for the purpose of testing the installation.) |
| **G** | **Meter Reading Cards/ Passbook (New/ Replacement)** | |
| i | Provision of meter reading cards including PVC jacket | INR 5/- per card |
| ii | Replacement of meter card found to be missing on consumer's premises | |
| iii | Domestic & NRS | INR 5/- per card |
| iv | SP and AP | INR 10/- per card |
| v | MS | INR 25/- per card |
| vi | LS | INR 45/- per card |
| vii | Replacement of Passbook in case it is lost by AP Consumer | INR 60/- each |
| viii | Replacement of identification card missing on the premises of AP Consumer | INR 25/- each |
| ix | Temporary | INR 60/- per card |
| **H** | **Meter Rentals** (In case where consumer opts that licensee should supply meter) | |
| i | Single Phase meter | INR 20/- per month |
| ii | Three Phase LT meter | INR 50/- per month |
| iii | Three Phase LT meter with CT | INR 70/- per month |
| iv | 11 kV Metering System | INR 500/- per month |
| v | 33 kV Metering System | INR 1,000/- per month |
| vi | 66 kV Metering System | INR 2,000/- per month |
| **I** | **Replacement of broken glass** | |
| a | Replacement of broken glass of meter cupboard (when the cause of the breakage is considered to be an act or fault of the consumer). | INR 60/- each |
| b | Replacement of meter glass where the same has been tampered with or broken by the consumer | |
| i | Single phase meter | INR 250/- |
| ii | Three phase meter | INR 450/- |
| **J** | **Amount of Security deposit for new/ extension of load** | **As per the procedure prescribed in clause 5.130 to clause 5.134 of JERC Electricity Supply Code Regulation 2018.** |
| **K** | **Charges recoverable from the consumer when the meter is found damaged / burnt owing to negligence or default on the part of consumer** | |
| i | Single Phase Meter | INR 700/- each |



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| S. No. | Description | Approved |
|---|---|---|
| ii | Three Phase Meter | INR 1,550/- each |
| iii | LT CT operated Solid State Meter. (Without CTs) | INR.3,000/- each |
| iv | LT CTs | |
| | a) Upto 50/5A | INR.1,580/- each |
| | b) Above 50/5 A | INR. 600/- each |
| | c) Solid State HT TPT metering equipment (without CT/PT unit) | INR.20,000/- each |
| | d) H.T.C.T./P.T. Unit | INR. 40,470/- |
| **L** | **Special Meter reading charges in case of change in occupancy/ vacation of premises** | |
| i | Domestic | INR. 50/- |
| ii | Other Consumer-Single phase meter | INR 250/- |
| iii | Other Consumer-Three phase meter | INR 450/- |
| **M** | **Supply of duplicate copies of electricity bills** | |
| i | Domestic consumers | INR 5/- |
| ii | Non-Domestic consumers | INR 10/- |
| iii | Temporary consumers | INR 10/- |
| iv | L.T. Industrial (upto 20 kW) & AP consumer | INR 10/- |
| v | L.T. Industrial (above 20 kW) & Street lighting consumer | INR 15/- |
| vi | H.T. Industrial & bulk supply consumer | INR 20/- |
| **N** | **Review of electricity bills (If the accuracy of licensee's bill is challenged by the consumer and a review of the bills is demanded)** | |
| i | Single Phase Supply | INR 10/- |
| ii | Three Phase Supply | |
| | load upto 20 kW | INR 250/- |
| | load above 20 kW upto 60 kW | INR 450/- |
| | load above 60 kW upto 100 kVA | INR 750/- |
| iii | Large Supply (above 100 kVA) | INR 1,000/- |
| | NOTE: If the challenged bill is found to be incorrect, the credit of the fee will be given to the consumer, otherwise these will be forfeited. | |
| **O** | **Testing and calibration including sealing of energy meter owned /supplied by the consumer** | |
| i | Single Phase | INR 100/- |
| ii | Polyphase whole current meter | INR 500/- |
| iii | Polyphase meters with CTs | INR 1200/- |
| iv | HT and EHT metering equipment | INR 3,500/- |
| **P** | **Checking of the capacitors at the request of the consumer** | |
| i | Consumer receiving supply at 230/440 V | INR 250/- per visit |
| ii | Consumer receiving supply at Above 400 V and up to 11 KV | INR 500/- per visit |
| **Q** | **Demand notice extension fee (for each period of three months)** | |
| i | DS and NRS | INR 50/- |



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| S. No. | Description | Approved |
|---|---|---|
| ii | AP | INR 500/- |
| iii | SP | INR 200/- |
| iv | MS/LS/BS | INR 2,500/- |
| | Note: Demand notice shall be valid for two months initially with an extended/grace period of further three months. After the expiry of grace/extended period of three months, the application shall be deemed as cancelled. Revival fee (one time only) for cancelled application shall be twice the demand notice extension fee as prescribed above and will be done by load sanctioning authority for another three months only | |

## *10.5. Schedule for service connection charges and service rentals*

Service connection charges are provided in the schedule of general and service connection charges and are to be recovered from all prospective consumers and existing consumers seeking extension in load. These charges won't be payable by consumers who have got the works executed at their own expense. Schedule of service connection charges as applicable is given under:

### A. Service connection charges for domestic supply

**Table 159: Service Connection Charges**

| S. No | Particulars | Category | INR |
|---|---|---|---|
| 1 | Single Phase Fixed Per kW Charges | | |
| A | Up to 1 kW | Domestic | 250/- |
| | | Non Residential Supply | 250/- |
| B | Above 1 kW and up to 3 kW | Domestic | 300/- |
| | | Non Residential Supply | 300/- |
| C | Above 3 kW and 5 kW | Domestic | 500/- |
| | | Non Residential Supply | 750/- |
| 2 | Three Phase Fixed Per kW Charges | | |
| A | Above 5 kW | Domestic | 750/- |
| | | Non Residential Supply | 1,000/- |

### B. Variable Charges

No variable charges are leviable upto 75 meters of service line length from the point of interconnection. Beyond 75 meters for all loads variable charges @ INR 125 per meter length of service line shall be recoverable for loads in excess of 5 kW.

a) Domestic and Non Residential consumers falling under the following categories have the option, either to pay in lump sum the service connection charge as mentioned in the preceding clause or to pay monthly service rentals at 1.6 paisa per rupee of the estimated cost of the service line beyond the cost of 30.48 meters.

   (i) Members of Schedule Castes.

   (ii) Religious and Charitable institutions run by recognized/ registered associations or societies registered with Register of Societies

b) All such prospective and existing consumers who will pay or have paid service connection charges in full, shall be exempted from the payment of monthly service rentals.

c) The service rentals to the consumers existing prior to 1st November 2002, if applicable already shall continue.

**C. Service connection charges for industrial and bulk Supply (For new Connections):**

**Table 160: Service Connection Charges for Industrial and Bulk Load Supply**

| S. No | Load | Service Connection |
|---|---|---|
| 1 | Up to 100 kVA | INR 750/kW |

Service connection charges under Para i) shall be applicable for loads upto 100 KVA where the length of new and augmented or both line(s) to be provided is up to 100 meters which will include 11kV line (whether overhead or cable LT line and service cable. Where this limit exceeds 100 meters, the applicant shall be required to pay the actual cost of @ INR 125 per meter of 11 kV line, LT line and service cable in excess of 100 meters as additional service connection charges (nonrefundable).However, no component of the distribution substation transformer to be created would be charged wherever applicable.

**Extension of Load**

a) **Where the consumer is either paying service rentals or had paid the service connection charges on kW basis for the original load.**

i) Extension in load bringing to be charged at INR 750/- per the total load up to 100 kVA for extension part only. However, charges for service line in excess of 100 meters shall be charged @ INR 125 per meter for length of service line (new or augmented or both) feeding such consumer. Rentals on original load, if applicable, already shall continue.

b) **Where the consumers had paid the service connection charge in full.**

i) No charges for extension shall be recoverable where the cost of service/common part of service line had been paid by the applicant at the time of release of the original connection provided. No augmentation of service/common portion of service lines had been carried out ever since the release of connection and also the additional load can be released from the existing line without augmentation and the cost deposited by the consumer at the time of release of original connection is not less than 'per kW charges' payable on the basis of total connected load (including extension in load). For calculating per kW charges, the rate as applicable at the time of release of original connection shall apply for the existing load and prevailing rates for the extension in load. Difference, if any, between the actual cost paid and the recoverable amount 'per KW charges' shall be payable by such consumers at the time of extension in load. This shall also apply to the cases fed through an independent feeder laid at the cost of the consumer. The cost of line/bay (33/66/132/220kV) paid by the consumer or at the time of clubbing/conversion paid by the consumer at the time of clubbing of supply to higher voltage shall be appropriated towards service connection charges at the time of subsequent release of extension in load, if applicable. However, for calculating total 'per kW charges' service connection charges already recovered from the consumer in respect of clubbing cases, applicable rates to different connections as existing immediately prior to clubbing are to be taken into account.

Cases involving augmentation of service/Common portion of service line or if the augmentation had taken place subsequent to release of connection shall be default with as per provisions of sub Para (a)

c) While accessing the connected load for working out service connection charges, both general and industrial loads of an individual consumer at one location shall be taken into account.

d) The "per kW", service charges for extension in load shall be as contained in above and those shall be in addition to the service rentals on the original load, if applicable thereon.



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e) An increase in the connected load even without increase in the contract demand shall call for payment of service connection charges on "per kW" basis as applicable to the category in which total connected load after extension falls and shall be recoverable for extension of the electrical part only. Consumers seeking extension in contract demand within the sanctioned connected load shall not be required to pay service connection charges on KW basis.

f) Consumers seeking contract demand higher than 60% of the connected load, shall be charged one time charge termed 'Contract Demand Charges' as follows :

**Table 161: Charges applicable for contract demand higher than 60% of connected load**

| S. No | Particulars | INR/kVA |
|---|---|---|
| 1 | For Contract Demand above 60% and up to 80% of connected load | 200/- |
| 2 | For Contract Demand above 80% and up to 100% of connected load | 300/- |
| 3 | Large Supply Consumers getting at 33 kV and above are exempted from the payment of one time contract demand charges for purpose of increasing contract demand | |

g) In case of LT connections, Service rentals to the consumer existing prior to 1-11- 2002, if applicable already shall continue.

**D. Recovery of service connection charges for extension of load by consumers who had paid the full cost of the line**

Industrial and Bulk supply consumers availing connection for load exceeding 1 MW have to pay the entire cost of service line laid for them. By virtue of paying the entire cost of the line involved in releasing the connection, the consumer is entitled to avail (within five years) extension in load upto 100% of the original line for which the line had been erected provided that line so erected is capable of carrying the load i.e. original load and extended load up to 100% of the original load. If, however, line already erected is unable to take 100% extension of load, extension in load shall be limited to the capacity of the line. In such an event, the consumer is not required to pay service connection charges for the extension in load, provided the cost of the line already provided by him is more than the per kW charges calculated at the applicable rate from time to time on the total load including extension in load applied by the consumer.

a) If the extension in load applied by the consumer is in excess of the capacity of line already erected or more than 100 % of the original load, consumer shall pay the service connection charges as applicable to the new applicants.

b) If during the period of 5 years from the date of connection some load has already been released from the line, whose entire cost has been paid by the consumer, who seeks extension in load within five years up to the extent of the capacity of the line or 100% of the original load within 5 years up to the extent of the capacity of the line or 100 % of the original load, whichever is lesser, release of additional load shall be regulated as under:

**Load released on voltage above 11 kV and loads 1MW and above:**

Extension in load to the original consumer shall be allowed (within the contract demand for which the line was originally erected for the said consumer) at the cost of the electricity department, even if augmentation/ erection of new lines are required.

**Load less than 1MW released on 11 kV**

In this case care should to taken for a period of 5 years that a margin of 100 % of the load of the original consumer is available in the capacity of the line. If other consumer(s) want connection(s) to be released by utilizing the available margin, new consumer(s) singly or jointly, as the case may be shall pay towards



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the cost of augmentation of the line so that sufficient margin in electricity carrying capacity is available to cater to the additional requirement of the original consumer.

a) Provisions of the preceding Para's of this schedule shall not be applicable where as a result of extension in load the supply voltage level of the consumer changes or when the consumer changes the site of the premises.

## E. Service connection charges for agriculture power

All prospective tube well consumers covered under general category shall pay INR 3,000 per BHP as service connection charges. The above charges are recoverable where the total length of the service line including new 11 kV line, LT line (new/augmented) and service cable is upto 1 Km ( out of which LT line/Service cable route length should not exceed 500 meters from the common pole).Where the total length of the service line is more than 1 km (out of which LT line/Service cable route length should not exceed 500 meters), any applicant under this category shall be required to pay the cost of the new 11 kV line beyond this limit at INR 125 per meter as additional service connection charges. However, no component of distribution substation/transmission cost would be charged.



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# 11. Annexures

## 11.1. Annexure 1: List of Stakeholders who attended the Public hearing held at Chandigarh on 12th February 2020

**Table 162: List of Stakeholders**

| S.No. | Name of Person (Mr./Ms) | Organisation/Address |
|---|---|---|
| 1 | Group Captain R.C. Goyal VSM (Retd.) | Retired from Air Force,<br>Kothi No.1579, Sector 36-D, Chandigarh |
| 2 | S.K. Nayar | President, Indian Citizen's Forum |
| 3 | Narinder Sharma | Secretary, Indian Citizen's Forum |

# 11.2. Annexure 2: Sample calculation for advance and prompt payment rebate

**Table 163: Sample calculation of rebate**

| From | To | Bill issue date | Due date | Total bill amount (INR) | Energy charges + Fixed charges + FPPCA | Bill issue date of previous cycle | Payment date | Payment made (considered under advance payment) (INR) | Payment made (considered under Prompt payment) (INR) | Advance payment rebate (INR) | Prompt payment rebate (INR) | Rest Payment (After adjustment of all dues) (INR) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 20/09/2018 | 20/11/2018 | 20/12/2018 | 07/01/2019 | 2,500 | 2,000 | 20/10/2018 | 19/10/2018 | 6,000 | - | 20 | - | 3,520 |
| 20/11/2018 | 20/01/2019 | 20/02/2019 | 07/03/2019 | 3,000 | 2,500 | 20/12/2018 | - | - | - | 25 | - | 545 |
| 20/01/2019 | 20/03/2019 | 20/04/2019 | 07/05/2019 | 3,500 | 3,000 | 20/02/2019 | 21/02/2019 | - | 3,000 | - | 7.5 | - |

Notes:

1. Prompt Payment Rebate at 0.25% - If bill amount due is paid prior to 7 days of due date and after/as on bill issue date of previous bill
2. Advance Payment Rebate at 1% - If amount is paid in advance before the bill issue of previous bill
3. Prompt and advance payment shall be given on the bill amount (limited to energy charges+ fixed charges+ FPPCA only)
4. Those consumers having positive arrears shall not be entitled for prompt rebate/advance payment
5. Prompt and advance payment rebate to be given only if the payment made by the consumer is more than bill due amount