

# TARIFF ORDER

True-up for the FY 2022-23, Annual Performance Review for FY 2023-24,
Aggregate Revenue Requirement for FY 2024-25, and Determination of Retail
Tariff for FY 2024-25

# Petition No. 116/2023

for

Electricity Department, Government of Puducherry (PED)

12th June, 2024

JOINT ELECTRICITY REGULATORY COMMISSION

For the State of Goa and Union Territories,

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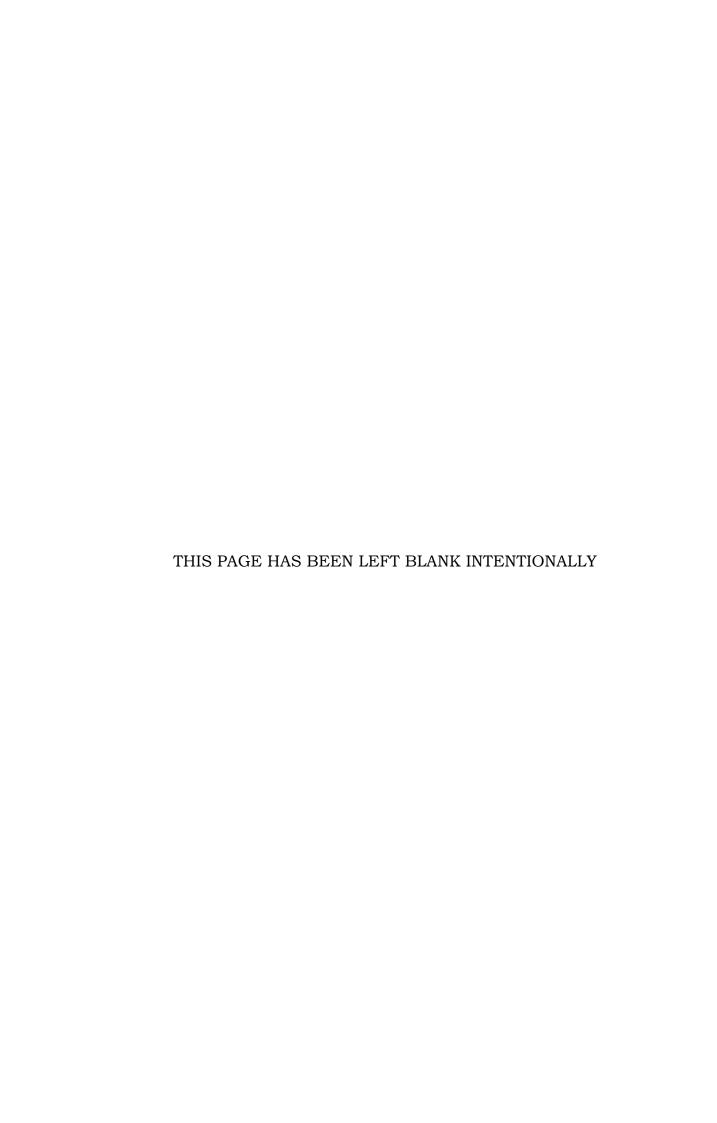


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# List of Abbreviations

Abbreviation	Full Form	
A&G	Administrative & General	
ABR	Average Billing Rate	
ACoS	Average Cost of Supply	
Act	The Electricity Act, 2003	
APR	Annual Performance Review	
ARR	Aggregate Revenue Requirement	
ATE	Appellate Tribunal for Electricity	
BPL	Below Poverty Line	
CAGR	Compound Annualized Growth Rate	
Capex	Capital Expenditure	
CC	Current Consumption	
CEA	Central Electricity Authority	
CERC	Central Electricity Regulatory Commission	
CGRF	Consumer Grievance Redressal Forum	
CGS	Central Generating Stations	
COD	Commercial Operation Date	
Commission/JERC	Joint Electricity Regulatory Commission for the State of Goa and Union	
Cr	Crore	
Discom	Distribution Company	
DDUGJY	Deen Dayal Upadhyaya Gram Jyoti Yojana	
DSM	Deviation Settlement Mechanism	
DT	Distribution Transformer	
EA 2003	The Electricity Act, 2003	
PED	Electricity Department, Pondicherry	
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	
Rs.	Indian Rupee	
IPDS	Integrated Power Development Scheme	
IPP	Independent Power Producer	
ISTS	Inter-State Transmission System	
KSEB	Kerala State Electricity Board Limited	
LT	Low Tension	
MOD	Merit Order Dispatch	

Abbreviation	Full Form	
MU	Million Units	
MW	Mega Watt	
MYT	Multi-Year Tariff	
MCLR	Marginal Cost of funds-based Lending Rate	
NFA	Net Fixed Assets	
NPCIL	Nuclear Power Corporation of India Limited	
NTPC	National Thermal Power Corporation	
O&M	Operation and Maintenance	
PGCIL	Power Grid Corporation of India Ltd.	
PSDF	Power System Development Fund	
PPA	Power Purchase Agreement	
R&M	Repair and Maintenance	
R-APDRP	Restructured Accelerated Power Development and Reforms Programme	
REC	Renewable Energy Certificate	
RLDC	Regional Load Despatch Centre	
RoE	Return on Equity	
RPO	Renewable Purchase Obligation	
RSTPS	Ramagundam Super Thermal Power Station	
RRAS	Reserves Regulation Ancillary Services	
SECI	Solar Energy Corporation of India	
SLDC	State Load Dispatch Centre	
SOP	Standard of Performance	
SRPC	Southern Regional Power Committee	
TAPS	Tarapur Atomic Power Station	
T&D	Transmission & Distribution	
TVS	Technical Validation Session	
UI	Unscheduled Interchange	
UT	Union Territory	

#### Before the

# Joint Electricity Regulatory Commission

# For the State of Goa and Union Territories, Gurugram

#### **CORAM**

Shri Alok Tandon, Chairperson Smt. Jyoti Prasad, Member (Law) Petition No. 116/2023 Dated: 12.06.2024

#### In the matter of

Approval of the True-up for FY 2022-23, Annual Performance Review (APR) for FY 2023-24, Aggregate Revenue Requirement (ARR) and Determination of Retail Tariff for FY 2024-25

#### And in the matter of

Electricity Department, Government of Puducherry (PED) ......Petitioner

#### **ORDER**

- 1. This Order is passed in respect of the Petition filed by the Electricity Department, Government of Puducherry (PED) (herein after referred to as "The Petitioner" or "PED" or "The Licensee") for Approval of True-up for FY 2022-23, Annual Performance Review (APR) for FY 2023-24 Aggregate Revenue Requirement (ARR) and Determination of Retail Tariff for FY 2024-25 before the Joint Electricity Regulatory Commission (herein after 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 21st December 2023. 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 (TVS) to determine sufficiency of data and the veracity of the information submitted. The Public Hearing was held on 14th February

- & 15<sup>th</sup> February 2024 at Puducherry and Karaikal respectively and all the Stakeholders/Electricity Consumers present in the Public Hearing were heard.
- 3. The Commission based on the Petitioner's submission, relevant JERC 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 for FY 2022-23, Annual Performance Review (APR) for FY 2023-24, Aggregate Revenue Requirement (ARR) for FY 2024-25 and determination of Retail Tariff for the FY 2024-25.
- 4. A summary has been provided as follows.

# I. True-Up of FY 2022-23

The following table provides ARR, Revenue and gap as submitted by the Petitioner and approved by the Commission in the True-up of FY 2022-23:

Table 1 Standalone Revenue Gap/ (Surplus) approved for FY 2022-23 (Rs Cr.)

Sr. No.	Particulars	Petitioner's Submission	Approved by the Commission
1.	Net Revenue Requirement	2046.02	2001.22
2.	Revenue from Retail Sales at existing tariff	1822.42	1822.42
3.	Net Gap /(Surplus)	223.60	178.80

#### II. APR of FY 2023-24

The following table provides ARR, Revenue and Standalone Gap/(Surplus) at existing tariff as submitted by the Petitioner and approved by the Commission in the APR of the FY 2023-24:

Table 2 Standalone Revenue Gap/ (Surplus) without regulatory surcharge approved for the FY 2023-24 (Rs Cr.)

Sr. No.	Particulars	Petitioner's Submission	Approved by the Commission
1.	Net Revenue Requirement	2020.03	1904.78
2.	Revenue from Retail Sales at existing Tariff	1874.32	1786.89
3.	Net Gap /(Surplus)	145.71	117.89

#### III. ARR of FY 2024-25

The following table provides ARR, Revenue and Standalone Gap/(Surplus) at existing tariff as submitted by the Petitioner and approved by the Commission in the ARR of the FY 2024-25:

Table 3 Standalone Revenue Gap/ (Surplus) without regulatory surcharge

approved for the FY 2024-25 (Rs Cr.)

Sr. No.	Particulars	Petitioner's Submission	Approved by the Commission
1.	Net Revenue Requirement	1983.78	2009.48
2.	Revenue from Retail Sales at existing Tariff	1866.26	1862.23
3.	Net Gap /(Surplus)	117.52	147.25

- a. To meet the standalone revenue gap of Rs. 147.25 Cr, the Commission has approved an average tariff hike of 7.94 % while the regulatory surcharge is increased to 10 % for the FY 2024-25 to partially recover the previous years gap.
- b. Accordingly, the cumulative revenue gap/ (surplus) at approved tariff by the end of the FY 2024-25, as approved by the Commission is given in the following table:

Table 4 Standalone Revenue Gap/ (Surplus) at approved tariff without

regulatory surcharge for the FY 2024-25 (Rs Cr)

Sr. No.	Particulars	Petitioner's Submission	Approved by the Commission
1.	Net Revenue Requirement	1983.78	2009.48
2.	Revenue from Retail Sales at approved Tariff	2216.10	2010.05
3.	Gap / (Surplus) for the year	(68.17)	(0.58)

Table 5 Revised Revenue Gap/ (Surplus) with Regulatory Surcharge approved

by Commission (Rs Cr)

Particulars	Approved in Existing ARR
Net Revenue Requirement (1)	2,009.48
Revenue from Retail Sales at approved tariff without regulatory surcharge (2)	2010.05
Net Gap /(Surplus) (3) = (1-2)	(0.58)
Previous year Gap (4)	611.77
Carrying cost @8 % for 2 years * (5)	26.80
Gap with carrying cost (6)	638.58
Regulatory Surcharge @10% (7)	193.25
Net Gap /(Surplus) (8)= (3+6-7)	444.75

c. The Commission has made every effort to rationalize the tariffs so that they gradually reflect the true cost to service a category of consumer in accordance with the provisions of the Act. Accordingly, the Commission has approved relatively higher

- percentage increase in tariff for the cross-subsidized categories than the cross-subsidizing categories.
- d. The Commission has approved the Average Billing Rate (ABR) for FY 2024-25 as Rs 6.39 /kWh as against the approved Average Cost of Supply (ACoS) of Rs 6.39/kWh.
- e. This Order shall come into force with effect from 16<sup>th</sup> June, 2024 and shall, unless amended or revoked, continue to be in force till further orders of the Commission.
- 5. 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 its respective areas of supply and also upload the Tariff Order on its website.
- 6. The attached documents giving detailed reasons, grounds and conditions are the Integral part of this Order.

Ordered accordingly.

Sd/-(Jyoti Prasad) Member (Law) Sd/-(Alok Tandon) Chairperson

Place: Gurugram, Haryana

Date: 12.06.2024

# **Chapter 1: Introduction**

# 1.1. About Joint Electricity Regulatory Commission (JERC)

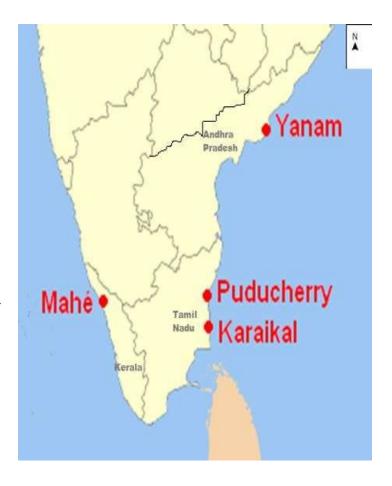
In exercise of powers conferred by the Electricity Act 2003, the Central Government constituted the Joint Electricity Regulatory Commission for all the Union Territories except Delhi to be known as "Joint Electricity Regulatory Commission for the Union Territories" vide notification no. 23/52/2003-R&R dated 2nd 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 "JERC" or "the Commission") vide notification no. 23/52/2003-R&R (Vol. II) dated 30th May, 2008.

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

# 1.2. About Puducherry

The Union Territory of Puducherry comprises of four regions namely Puducherry, Karaikal, Mahe and Yanam, which are not geographically contiguous and is spread over an area of 492 Sq. km with the total population of 12.45 lakhs as per provisional results of census 2011. The basic profiles of four regions are as follows:

- Puducherry is the largest among the four regions and consists of 12 scattered areas interspersed with enclaves of Villupuram and Cuddalore Districts of Tamil Nadu.
- Karaikal is about 150 kms South of Puducherry and is bounded by Nagapattinam and Thiruvarur Districts of Tamil Nadu State.



- Mahe lies almost parallel to Puducherry 653 kms away on the west coast near Kannur District of Kerala State.
- Yanam is located about 840 kms north-east of Puducherry and it is located in the East Godhavari District of Andhra Pradesh State.

# 1.3. About Electricity Department, Govt. of Puducherry

The Electricity Department of the UT Administration of Puducherry (hereinafter referred to as PED), is a deemed licensee under Section 14 of the Electricity Act 2003 and is carrying out the business of transmission, distribution and retail supply of electricity in Puducherry, Karaikal, Yanam and Mahe regions of the Union Territory of Puducherry. PED is divided into three circles, each headed by a Superintending Engineer. There are ten Technical Divisions across the three circles, each headed by an Executive Engineer.

The region wise profile (as on FY 2022-23 of the regions served by ED Puducherry is given below:

Karaikal Mahe Puducherry Yanam Total UT of S. No. Region Region Region Puducherry Region Consumers Nos. 72% 20% 4% 4% 100% Dispersion Connected Load 5% 75% 15% 5% 100% (kW) 14% 1% 100% Energy Sales (MU) 83% 2% Area (Sq. Km) 60% 32% 2% 6% 100% 11.31% 13.50% T&D Losses (%) 8.50% 8.70% 10.88%

Table 6 Region wise profile (as on FY 2022-23) of the regions served by ED Puducherry

The key duties being discharged by ED Puducherry are:

- To develop and maintain an efficient, coordinated and economical transmission and distribution system;
- To supply electricity on an application of the consumer in accordance with the provisions specified in the Electricity Act 2003;
- To provide non-discriminatory open access to the consumers;
- To establish a forum for redressal of grievances of the consumers.

PED does not have its own generation and procures power from various Central Generating Stations (CGS), neighbouring state utilities and the State-owned Puducherry Power Corporation Limited (PPCL), which runs a 32.5 MW gas-based combined cycle power plant in the Karaikal region. The entire power generated from PPCL is consumed within the Karaikal region.

PED operates a transmission network of 230 kV & 110 kV and distribution network at 33 kV, 22 kV, 11 kV and at LT levels. It supplies power to consumers through its 18 EHV substations, 489 km of EHT line, 2294 km of HT line, 2877 distribution transformers and 3845 km of LT line. PED also has 90 km of HT and 535 km of LT underground cabling for certain urban areas.

It monitors grid operation on real time basis and passes on necessary instructions to field staff to control the flow of energy.

# 1.4. Multi-Year Tariff Regulations, 2021

The Commission notified the, "Joint Electricity Regulatory Commission for the State of Goa and Union Territories (Generation, Transmission and Distribution Multi Year Tariff) Regulations, 2021" (hereinafter referred to as JERC MYT Regulations, 2021) on 22nd March 2021. These Regulations are applicable in the 3rd MYT Control Period comprising of three financial years from FY 2022- 23 to FY 2024-25. 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

The present Petition was admitted on 21 December, 2023 and marked as Petition No. 116/2023. The Commission and the Petitioner subsequently uploaded the Petition on their respective websites.

#### 1.6. Interaction with the Petitioner

A preliminary scrutiny/analysis of the Petition was conducted, and certain deficiencies were observed. Accordingly, deficiency notes were issued to the Petitioner. Further, additional information/clarifications/ justifications 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 energy sales, power purchase, capitalisation, revenue from retail tariff, tariff proposal etc. The Petitioner submitted its response on the issue 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 were 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 7 Timelines of the interaction with the Petitioner

S. No.	Subject	Date		
1.	Issue of First Deficiency Note.	25.01.2024		
2.	Public hearing	14.02.2024 & 15.02.2024		
3.	Technical Validation Session (TVS)	12.04.2024		
4.	Replies received from the Petitioner with regard to Discrepancy Note	09.02.2024		
5.	Issue of second Discrepancy Note	28.02.2024		
6.	Replies received from the Petitioner with regard to	07.03.2024		

S. No.	Subject	Date
	second Discrepancy Note	
7.	Issue of queries discussed in TVS session	04.04.02024
8.	Replies received from the Petitioner with regard to TVS queries	06.05.2024

# 1.7. Notice for Public Hearing

Public Notices were published by the Commission in the leading newspapers as tabled below, giving due intimation to the stakeholders, consumers and the public at large about the Public Hearing to be conducted by the Commission.

Table 8 Details of Public Notices published by the Commission

S. No.	Date		Name of News Paper	Languages	Place of Circulation
	Public Notice- 1	Public Notice- 2			
1.			Standard Post	English	Puducherry
2.		Dinakaran	Tamil	Puducherry	
3.	12.01.2024	12.02.2024	Thanthi	Tamil	Puducherry
4.			Deccan Chronicle	English	Chennai

The Public Notice was published by the Petitioner in the following newspapers for inviting Comments/ suggestions from the stakeholders/ electricity consumers on the Tariff Petition:

Table 9 Details of Public Notices published by the Petitioner

S. No.	Date	Name of News Paper	Languages	Place of Circulation
1.	29.12.2023	The Hindu	English	Puducherry
2.		Dinamalar	Tamil	Puducherry
3.	03.01.2024	Kerala Kaumudi	Malayalam	Mahe
4.	04.01.2024	Janamitra	Telegu	Yanam

# 1.8. Public Hearing

The Public Hearing was held on 14<sup>th</sup> February, 2024 at PMMS Hall, No.81, Laporte Street, Puducherry-605001, and on 15<sup>th</sup> February 2024 at National Mahal (opp. To old LIC office), No. 274, Bharthiyar road, Karaikal- 609602. 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. The list of stakeholders is attached at **Annexure-1** of this order.

#### 1.9. Adherence to the Model Code of Conduct

The Commission has noted that in view of the General Elections 2024, the Model Code of Conduct (MCC) was imposed by the Election Commission of India. The MCC was effective from 16.03.2024 to 06.06.2024.

Therefore, in view of enforcement of Model Code of Conduct, the Commission decided to issue the tariff order once the Model Code of Conduct is over.

# CHAPTER 2: Summary of Suggestions/Objections received, Response from the Petitioner and the Commission's View

# 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 "JERC MYT Regulations, 2021". The Public Hearing was held on 14th February 2024 & 15th February 2024 at Puducherry and Karaikal respectively, 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 Hearings is provided in Annexure-I of this order.

# 2.2. Suggestions/ Objections of the stakeholders 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 Sectors process responsive and efficient. The relevant observations of the stakeholders have been suitably considered by the Commission while finalizing this Tariff Order. The submissions of the stakeholders, response of the Petitioner and views of the Commission are summarized below:

# 2.2.1 Collection for Fixed charge, FPPCA and Regulatory Surcharge Stakeholder's Comment:

More clarity is required why Fixed charges, Regulatory surcharge and FPPCA are being collected.

#### Petitioner's Response:

PED informed that general public who approach the Department in person or through writing regarding the levy of Fixed charges, Regulatory surcharge and FPPCA are provided with due reply with explanation.

Hon'ble Commission, during the Public Hearing at Karaikal has also directed the Department to explain in detail about all the charges being collected in local language and the same was explained in detail by the Department during the Public hearing.

#### Commission's View:

The Commission has decided the charges as per provisions given in the Act, Tariff Policy and applicable Regulations, in place. In this order, the Commission has elaborated the approach for determination of Fixed charges, Regulatory surcharge and FPPCA. The Petitioner should take proactive role to engage with the consumers to clear any doubt they have regarding billing. The Petitioner should prepare a short document in local language containing FAQ about the charges they levied for better understanding of the consumers.

# 2.2.2 Scrutinizing of tariff Proposal

#### Stakeholder's Comment:

The tariff should be scrutinized in depth by Commission before passing order. Commission may not hike tariff. Around 65% of the revenue to PED is being gained through HT&LT Industrial consumers. Cost of Raw Material is high, Ease of living for Industrial consumer in Puducherry is hard so don't hike the tariff for Industrial consumers

# Petitioner's Response:

PED submits that the cost of the power which contributes to 90% of the total annual expenditure is increasing every year. As such, PED has to bridge the gap in the tariff petition. However, Hon'ble JERC will pass such increase in tariff only after prudence check of all the calculations / records submitted by PED.

#### Commission's View:

The Commission has noted the concern of the stakeholder.

#### 2.2.3 Prepaid Metering

#### Stakeholder's Comment:

Consent from consumers was not obtained for pre-paid smart meter.

# Petitioner's Response:

Providing prepaid smart meter is as per the direction given by GOI in order to adhere 100% collection efficiency in addition to various other benefits to the consumers. Therefore, consent of the consumer is not required.

#### Commission's View:

The Commission has noted the concern of the Consumers. The Petitioner is directed to inform the consumers about various benefits of smart Meter before installation.

#### 2.2.4 Issue of LT Threshold Limit

# Stakeholder's Comment:

LT threshold limit may be changed from the present level of 129 HP to 150 HP, just like other State Electricity Board (TN)

# Petitioner's Response:

PED submits that on an average Rs.30 lakhs is being spent for erection of one 315 KVA Distribution Transformer along with allied HT/LT line works. Therefore, Electricity Department spends capital investment of around Rs.9500 Per KW for expanding LT network.

It is therefore submitted that the Hon'ble Commission may recommend development charges to be collected from the LT Industrial consumers in order to develop additional distribution infrastructure In case the Commission desires to augment LT limit from 129 HP to 150 HP and those class of LT consumers shall also be directed to pay demand charges and energy charges on par with HT consumer in order to have level playing field between LT Industrial consumers and HT Industrial consumers or the Hon'ble Commission may take appropriate decision as deemed fit without effecting the financials of the department.

#### Commission's View:

The Commission has noted the submission of the consumers. Since the Threshold limit for LT is a matter falling under provision of Supply Code Amendment, the same may be referred to the supply code Review Committee. However, the Commission would like to clarify that, increasing threshold limit for LT may lead to the encouragement/support in increasing the transmission and distribution losses which is against objective of the Electricity Act, 2003.

#### 2.2.5 Public Awareness Camp Regarding CGRF/Ombudsman

# Stakeholder's Comment:

Public is not much aware of the channel of solving the grievances through CGRF/Ombudsman and requesting JERC direct CGRF to conduct Public Awareness camp.

#### **Petitioner's Response:**

Puducherry CGRF is periodically conducting special camps in all four regions of UT of Puducherry (Puducherry, Karaikal, Mahe and Yanam) as well as at Rural and Urban area.

#### Commission's View:

The Commission directs the Petitioner to inform the people in advance for these special camps, so that more people can be engaged.

# 2.2.6 Manpower/ Vacancies

#### Stakeholder's Comment:

Lot of vacancies is yet to be filled in Electricity Department.

# Petitioner's Response:

Action is being taken by the Government of Puducherry to fill up the vacancies.

#### Commission's View:

The Commission has noted the submission of the Stakeholders and response of the Petitioner. The stakeholder may also note the response of the Petitioner.

# 2.2.7 Performance/ Theft of Energy

#### Stakeholder's Comment:

Department may be more vigilant against theft of energy.

# Petitioner's Response:

Periodic Inspection is being conducted by the field officials against theft of energy.

#### Commission's View:

The Commission directs the Petitioner to conduct regular monitoring to prevent theft of energy.

#### 2.2.8 Font Size of Bill

#### Stakeholder's Comment:

The bill served at door step by Department is having very small font.

# Petitioner's Response:

The Meter reader takes a thermal printer along with tablet PC for serving bills at door steps and therefore only smaller font printout is being given. However, detailed billing is available as per Supply Code both in English and local language on the website of the Department (www.pedservice.py.gov.in) where all registered users can view or download the same.

#### Commission's View:

The Commission notes the submission of the Stakeholders and Petitioner. The stakeholder may note the reply of the Petitioner to get the detailed bill.

# 2.2.9 Procurement of power

#### Stakeholder's Comment:

The Electricity Department needs to be directed to buy 100 percent power from Ms PPCL.

# Petitioner's Response:

The Department is taking utmost care to limit the average Power purchase cost based on Merit order dispatch and based on actual energy requirement. Power scheduling is being done on daily basis. However, the entire power generated by M/s. PPCL is purchased by Electricity Department, Puducherry at the tariff fixed by Hon'ble Commission.

#### Commission's View:

The stakeholders may note the reply of the Petitioner.

#### 2.2.10 EHT and HT Tariff Rate

#### Stakeholder's Comment:

The stakeholder has submitted that EHT (HT III) Demand Tariff is more than HT (I) Tariff.

# Petitioner's Response:

PED submits that the EHT tariffs are comparatively lower than other states. PED further submits that determination of retail supply tariff is a prerogative of the Commission under Section 62(3) of the Act and hence appropriate tariff may be determined by the Hon'ble Commission.

#### Commission's View:

The Commission has noted the submission and reply. The Commission determines the retail supply tariff considering the provisions of the Electricity Act and Tariff policy. Following the principles mentioned under Section 61 and 62, the Commission determines the consumer category wise tariff and same is elaborated under Tariff Design chapter No. 10

# 2.2.11 Increased Surcharge

#### Stakeholder's Comment:

The stakeholder has submitted on retaining regulatory surcharge of 4 % instead of 8%.

#### Petitioner's Response:

PED submits that the cumulative Gap up to FY 2022-23 is Rs.704.28 Cr and is expected to go to Rs.756.21 Cr by FY 2023-24. Hence in order bring down the Regulatory gap it is proposed to retain the surcharge at 8% itself. EDP submits that fixing of retail regulatory surcharge is a prerogative of the

Commission. However, PED requests the Hon'ble Commission to consider the burgeoning cumulative Regulatory Gap and requests to retain the Surcharge at 8% in order to cover the revenue gap and to be financially sustainable.

PED submits that last year (FY-23-24) also 8% Regulatory surcharge was collected from all categories of consumers. The Petitioner has requested to allow the same percentage to balance revenue gap to be considered as Regulatory Asset and be allowed to be recovered through Regulatory Surcharge @ 8%.

#### Commission's View:

The Regulatory Surcharge is levied to recover the Regulatory Assets, if any within a fixed time frame as envisaged in the Tariff Policy 2016 and the Electricity (Amendment) Rules, 2024.

# 2.2.12 Additional surcharge and high cross-subsidy-surcharge

#### Stakeholder's Comment:

The stakeholder has submitted that the Additional surcharge & Cross Subsidy Surcharge in Open Access are on higher side.

# Petitioner's Response:

PED submits that the Electricity Act 2003 has provided under section 42(4) the liability for payment of Additional Surcharge by a class of consumers to meet the fixed cost of the distribution licensee arising out of its obligation to supply. The Additional Surcharges have been imposed for Open Access consumers in order to compensate the long-term commitment made by Electricity Department, Puducherry to various GENCO & Transco's whether or not the contracted power is purchased from the GENCO.

The additional surcharge is the under-recovery of fixed cost to meet out the fixed cost obligation towards the power purchase and loss due to open access consumers and therefore PED has claimed the additional surcharge. Therefore, the contention of the Petitioner not to allow the additional surcharge is wrong and liable to be denied.

The Electricity Act, 2003 provides for levy of Cross Subsidy Surcharge at current level of cross subsidy. The National Tariff Policy, 2016 clearly mandates that the Regulatory Commissions ought to strike a balance between the requirements of the commercial viability of Distribution Licensees and the consumer interest. Therefore, the open access consumers are liable to pay cross subsidy surcharge to compensate the distribution utility for any loss of revenue at current level of cross subsidy built in tariffs.

In accordance with the Act, if a consumer opts for Open Access, he needs to pay the cross-subsidy surcharge to compensate the loss of cross subsidy, so as to compensate the subsidized consumers for loss of cross subsidy.

PED is of the view that the Energy Intensive Industries are given a very competitive tariff at the Cost of Service. The industries in this category would be energy intensive with high energy consumption. If these consumers move to Open Access, EDP would not be able to recover the fixed costs which it has invested for the consumers including open access consumers. Hence, reducing the Cross Subsidy Surcharge would result in benefit to these few consumers and would affect the consumers at large who continue to stay with EDP. Loss of revenue due to lower CSS also will have a significant impact on the Cross Subsidy component and thereby affecting the tariffs of consumers at large served by EDP.

EDP also states that the National Tariff Policy clearly states that formula as proposed may not be favourable for all distribution licensee and therefore, SERCs are allowed to review and vary the same keeping the overall objectives of the Electricity Act. Over here also, the primary importance is provided to the Electricity Act 2003 whereby Section 42 of the Electricity Act clearly states that surcharge shall be utilised to meet the requirements of current level of cross subsidy within the area of supply of the distribution licensee. Therefore as per the Electricity Act, the primary importance provided is to meet the loss of current cross subsidy. The proposed methodology will result into under recovery of cross subsidy which is against the provision of the Act and will have a substantial burden upon the consumers of PED which will also adversely affect the financial viability.

Therefore, EDP requests the Hon'ble Commission to continue determining the CSS as per the National Tariff Policy (NTP) Formula without applying any ceiling.

In view of the above submissions, EDP requests the Hon'ble Commission:

- Not to consider the submissions made by M/S.CHEMFAB/SUMANGALA/SNAM/PULKIT and not reduce the present CSS and wheeling charge
- To approve the CSS and wheeling charge as proposed by the PED;

#### Commission's View:

The Electricity Act provides the provisions for non-discriminatory Open Access with certain charges to be paid by such consumers. The detailed rational for Additional surcharge and method considered by the Commission is provided in this order. Adhering the Tariff Policy and the JERC Open Access Regulations, the Commission has decided the charges based on the approved values for FY 2024-25 in Chapter 7 of this order.

# 2.2.13 Filling cost of service-based functionalization assets

#### Stakeholder's Comment:

PED has not filed cost of service based on functionalization of assets. In this regard it is submitted that cost of service is not in accordance with Model MYT Regulation 2023.

# Petitioner's Response:

PED submits that for computing the cost to service, it is necessary to carry out the detailed load study considering the seasonal fluctuations as well as the system load factor. There is also a need to carry out the detailed Demand analysis (incl. analysis on system loading, hourly load curves, peak maximum Demand (PMD), Simultaneous Maximum Demand (SMD), coincidental and non-coincidental peaks) and transmission and distribution loss assessment based on historical and real time data.

Such detailed study is usually carried out on a sample feeder basis selected in a scientific manner whereby selection of such feeders and consumer samples for load studies and loss studies should be representative of the consumer groups/network types etc. As of now the existing Department infrastructure is not in a position to capture the category wise cost of service. Co-incident and non-co-incident demand, losses at feeder level without 100% metering. Voltage wise asset as on 31-3-2023 is detailed below:

Sl. No.	Particulars	Rs. in Cr.
1	EHT assets	GFA as on 31.3.23
2	EHT lines	114.32
3	EHT equipment's such as Power transformers, CVTs and allied equipment's	315.947
4	Land & Bldg	24.14
5	Others which include Vehicles, Furniture's & Fixtures, Office equipment's, IT equipment's, Testing & measuring equipment's etc	2.326
6	Scada & Scada P&M	27.34
7	Total	484.073
8	HT Lines & Cables	74.88
9	Plant & Machinery	57.9
10	Total	132.78
11	Distribution Transformers	312.81
12	LT lines & Cables	109.55
13	Others which include Vehicles, Furniture's & Fixtures, Office equipment's, IT equipment's, Testing & measuring equipment's etc	0.6
14	Total	423.95
15	Grand total	1039.83

Electricity Department, Puducherry is doing integrated operation of Transmission and Distribution and in addition spread over to three different States and therefore working out voltage wise cost of supply may not feasible and more cost imbalance may come between regions of Puducherry, Karaikal, Mahe and Yanam regions.

It is also submitted that as per MYT Regulations, 2021, while allocating the demand related cost, the basis of average coincident peak demand of the tariff categories (average of past 12 months) is required to be undertaken. Therefore, PED humbly submits that considering the above factors, for computation of consumer category-wise cost of supply, a detailed analysis is required which is a time-consuming process. PED is yet to carry out the load research exercise which also needs to undertake the seasonal fluctuation. Therefore, PED requests the Hon'ble Commission to exempt PED from submission of consumer category-wise cost of supply considering the above submission.

Therefore, PED has not filed cost of service based on functionalization of assets under the following categories VIZ Demand related, Energy related and consumer related costs (Table 9.5) for consideration and approval of the Hon'ble Commission.

# Commission's Response

The Commission noted the concern of the Stakeholder and reply of the Petitioner.

#### 2.2.14 Reintroduce the Power Factor

#### Stakeholder's Comment:

Proposal to re-introduce power factor incentive for HT/EHT consumers.

#### Petitioner's Response:

Both Active (kWh) and Reactive (kVArh) energies are consumed simultaneously. Higher Reactive Energy (kVArh) occupies the capacity of electricity network and reduces the useful capacity of system for generation and distribution & hence its consumption also needs to be billed. kWh based billing is associated with PF incentive /penalty mechanism. Considering that the kVAh based billing has an inbuilt incentive /penalty mechanism and separate mechanism for the same is no more required; instead of billing two energies separately, billing of kVAh energy is preferred as a commercial inducement. PED submits that by charging EHT/HT consumers for both active and reactive power, KVAh billing encourages efficient utilization of distribution infrastructure. EHT/HT consumers with poor power factors contribute to higher losses and lower efficiency in the system. KVAh billing incentivizes them to improve their power factor, reducing losses and improving the overall efficiency of the distribution system.

PED submits that levying tariff based on KVAh will ensure maintaining optimum power factor level by industries. The Hon'ble Commission has allowed pf incentive to industries for a long period of 11 years and all stake holders would have recovered the cost and after switching over to KVAh tariff, allowing pf incentive is not reasonable as requested by Stakeholder.

# Commission's Response

The Commission has introduced the kVAh based tariff, which has inbuilt incentive /penalty mechanism.

# 2.2.15 Separate tariff for power intensive and continuous process industry

#### Stakeholder's Comment:

Proposal to introduce a separate tariff for power intensive and continuous process industry.

# Petitioner's Response:

PED submit that there are 11 nos of power intensive consumers in the UT of Puducherry under 110 KV level. These Industries are continuous process industry also These industries are already classified separately as HT-III/EHT. Only few HT industries availing power under 22 KV level are continuous process industry. PED felt that due to the above reason, no separate tariff for power intensive and continuous process industry is required.

#### Commission's Response

The Commission has noted the submission of the stakeholder and reply of the Petitioner.

# CHAPTER 3: True-up of the FY 2022-23

# 3.1. Regulatory Provisions

The True up for the FY 2022-23 has been carried out in accordance with Regulation 12 of the JERC MYT Regulations, 2021, as stated below:

- "12.1 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.
- 12.2 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.

- 12.3 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.
- 12.4 Upon completion of the exercise, the Commission shall attribute any variations or expected variations in performance for variables specified under Regulation 12 below, 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 12 below shall be attributed entirely to controllable factors.

Provided further that, where the Petitioner believes, for any variable not specified under Regulation 13.1, that there is a material variation or expected variation in performance for any year on account of uncontrollable factors, it may apply to the Commission for inclusion of such variable.

- 12.5 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 14 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 15 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 the True-Up of FY 2022-23

The Petitioner has submitted the audited accounts for FY 2022-23 based on audit conducted by statutory auditor. The Commission in this Chapter has carried out the True-up of FY 2022-23 in accordance with the principles laid down in the JERC MYT Regulations, 2021.

# 3.3. Energy Sales

#### **Petitioner's Submission**

The Petitioner has submitted that total actual sales of PED for FY 2022-23 are 2,908.14 MUs. The category wise approved sales in APR tariff order (dated 31th March, 2023) and actual sales for FY 2022-23, as submitted by the Petitioner, are shown in the table below.

No	Particulars	Approved in Tariff Order	Actuals
1	Domestic	823.85	780.40
2	ОНОВ	3.62	1.59
3	Commercial	178.81	206.64
4	Agriculture	61.75	59.34
5	Public Lighting	19.95	18.23
6	LT Industrial & Water Tank	173.47	164.92
7	Temp. LT	3.93	2.78
	Total LT	1265.38	1,233.89
8	HT 1 Industrial & Commercial	923.40	980.98
9	HT 2 Government & Water Tank	58.78	62.68
10	HT 3 EHT	591.19	630.59
	Total HT	1573.37	1,674.25
	Total Sales	2,838.75	2,908.14

Table 10 Energy Sales (MUs) for FY 2022-23

# Commission's analysis

The JERC MYT Regulations, 2021 stipulate that the variation in sales constitutes "uncontrollable factors" that are beyond the control of the Petitioner and cannot be mitigated. Regulation 13.1 of the JERC MYT Regulations, 2021 in this regard stipulates the following:

"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) Inter- state 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:"

As variation in the number or mix of Consumers or quantities of electricity supplied to Consumers are uncontrollable, the actual sales has been approved for true-up of FY 2022-23 in line with the Petitioner's submission. The table below provides the energy sales approved by the Commission in the MYT Order, the Petitioner's Submission and quantum of energy sales now trued-up by the Commission:

Table 11 Energy Sales (MUs) approved by the Commission for FY 2022-23

Particulars	Approved in MYT Order	Petitioner's Submission	Trued-up by Commission
Domestic	826.89	780.40	780.40
ОНОВ	3.50	1.59	1.59
Commercial	210.00	206.64	206.64
Agriculture	61.75	59.34	59.34
Public Lighting	19.00	18.23	18.23
LT Industrial & Water Tank	167.68	164.92	164.92
Temp. LT		2.78	2.78
Total LT	1018.36	1,233.89	1,233.89
HT 1 Industrial & Commercial	76.75	980.98	980.98
HT 2 Government & Water Tank	437.37	62.68	62.68
НТ 3 ЕНТ	5.06	630.59	630.59
Total HT		1,674.25	1,674.25
Total Sales	2826.36	2,908.14	2,908.14

The Commission approves 2908.14 MUs as energy sales in the True-up of the FY 2022-23.

# 3.4. Open Access Sales and Purchase

#### **Petitioner's Submission**

There were NIL Open Access Sales and NIL Open Access Purchase approved by the Commission in its Tariff order for FY 2022-23. The Petitioner has submitted NIL Open Access Sales and NIL Open Access Purchase in the true-up.

#### Commission's analysis

The following table provides the Open Access Sales and Purchase approved by the Commission in the MYT Order, the Petitioner's Submission and sales now trued-up by the Commission based on the information submitted by the Petitioner.

Table 12 Open Access Sales (MU) and purchase trued-up by the Commission

S. No	II: STEGNTV			Trued-up by Commission
1	Open Access Sales	0	0	0
2	Open Access Purchase	0	0	0

The Commission approves NIL Open Access Sale and Purchase in the Trueup of the FY 2022-23.

#### 3.5. Inter-State Transmission Loss

#### **Petitioner's Submission**

The Petitioner has submitted the Inter-State Transmission Loss of 3.26% against an approved figure of 2.50% in the Tariff Order for FY 2022-23.

# Commission's analysis

The Commission directed the Petitioner to submit the supporting documentary evidence to verify the Inter-State loss levels. The Petitioner has wrongly calculated Inter- State transmission loss with respect to schedule energy quantum at DISCOM periphery. Also, the Petitioner has submitted that they have computed the inter-state transmission loss considering the total scheduled energy at Ex-bus and the state periphery. Therefore, the Commission has considered the difference between the total energy scheduled at Ex-Bus periphery and the total energy scheduled at state periphery for computing the transmission losses from the data available from Regional Energy Accounting. The detailed computation can be referred in the energy balance section. The Commission accordingly approves the Inter-State Losses for true-up of FY 2022-23 as shown in the following table:

Table 13 Approved Inter-State Transmission Loss (%)

Patticiliate			Trued-up by Commission
Inter-State Transmission Loss	2.50%	3.26%	3.50%

The Commission approves the Inter-State Transmission Loss as 3.50 % in the True-up of the FY 2022-23.

#### 3.6. Intra- State Transmission & Distribution (T&D) loss

#### **Petitioner's Submission**

PED submitted the actual T&D loss as 10.88% against the Commission's approved energy loss of 11.00% for FY 2022-23. The table below provides the details.

Table 14 Transmission and Distribution Loss for FY 2022-23(MU) as submitted by the Petitioner

S. No.	Particulars	FY 2022-23 Actuals
A	Energy Requirement	
1	Total Sales within the UT	2,908.14
2	Energy Drawal by TANGEDGO	0.00
3	Sales to Electricity Traders / Power Exchange	
4	Sale to Open access Consumers	
5	Total Sales	2,908.14
6	T&D Losses	

S. No.	Particulars	FY 2022-23 Actuals
A	T&D Loss (%)	10.88%
В	T&D Loss (MU)	355.00
7	Total Energy Requirement (state level)	3,263.92

# Commission's analysis

The Commission has noted that the energy audit report for FY 2022-23 has not been furnished in time by the Petitioner. Therefore, the submissions made in tariff petition and subsequent replies to the deficiency note and TVS have only been considered. Further, the Commission, for verification of the Intra-State T&D loss levels has relied on the information of energy drawl at State periphery as registered in the energy meters at the state periphery (data source: Weekly DSM account of 2022-23 as per SRPC) and the energy sales as approved above. The Table below provides the Intra-State T&D loss approved for FY 2022-23:

Table 15 Approved T&D loss for FY 2022-23

Particulars	Approved in MYT Order	Petitioner's Submission	Trued-up by Commission	
T&D Losses (%)	11.00 %	10.88 %	10.88 %	

The Commission, approves the actual Intra-State T&D loss of 10.88% for the FY 2022-23. However, sharing of gain/ (loss) on account of over/under achievement is computed in para no. 3.20.

#### 3.7. Power Purchase Quantum & Cost

#### **Petitioner's Submission**

The table provides a summary of power purchase sources, costs, transmission charges, UI charges, and purchases from traders for FY 2022-23 as submitted by the Petitioner for FY 2022-23:

Table 16 Power Purchase Quantum and Cost submitted by the Petitioner for FY 2022-23

	Particulars	Approved (FY 2022-23)			Actuals (FY 2022-23)		
S. No.		Purchase (MUs)	Cost (Rs. Cr.)	Rate (Rs./unit)	Purchase (MUs)	Cost (Rs. Cr.)	Rate (Rs./unit)
1	NTPC	1013.51	375.41	3.70	1012.85	449.50	4.44
2	NTPL	103.29	68.83	6.66	97.06	72.83	7.50
3	NLC	538.43	207.34	3.85	591.10	255.09	4.32
4	PPCL	196.24	153.46	7.82	220.70	206.54	9.36
5	KAIGA	252.39	87.96	3.49	263.95	92.72	3.51

		Approved (FY 2022-23)		3)	Actuals (FY 2022-23)			
S. No.	Particulars	Purchase (MUs)	Cost (Rs. Cr.)	Rate (Rs./unit)	Purchase (MUs)	Cost (Rs. Cr.)	Rate (Rs./unit)	
6	NTPC - MAPS	23.35	5.61	2.4	25.53	6.59	2.58	
7	NTECL	66.3	51.72	7.8	94.61	58.64	6.20	
8	KKNP	292.98	103.92	3.55	478.95	209.56	4.38	
9	NNTPS	385.15	157.87	4.1	388.33	177.44	4.56	
10	KSEB					0.02		
11	NTPC Solar	280.45	70.39	2.51	207.78	55.27	2.66	
12	SECI Wind	137.56	39.07	2.84	107.55	29.38	2.73	
13	UI Charges					2.05		
14	IEX Purchase / Sale	5.12	2.15	4.19				
15	Open market							
16	OA Power purchase/ (Sale)							
17	PGCIL (POC + Non POC Charges)		176.79			247.69		
18	SRLDC Charges					0.52		
19	SRPC & RPO					0.12		
20	BANK CHARGES					1.65		
21	EESL					3.60		
22	Total Power Purchase Cost	3,256.49	1,475.87	4.53	3488.40	1849.06	5.30	
23	Less: URS Income					33.24		
24	Less: UI/DSM Charges	38.28	24.65			40.85		

	Particulars	Approved (FY 2022-23)			Actuals (FY 2022-23)		
S. No.		Purchase (MUs)	Cost (Rs. Cr.)	Rate (Rs./unit)	Purchase (MUs)	Cost (Rs. Cr.)	Rate (Rs./unit)
25	Less: RRAS Charges					6.49	
27	Sub-total (Additional Income) (23+24+25)					80.58	
28	Net Power Purchase Cost (22- 27)					1788.60	

# Commission's analysis

The JERC MYT Regulations, 2021 stipulate that any variation in the cost of power generation and/or power purchase shall be treated as an uncontrollable factor. The relevant provisions of Regulations 13.1 of JERC MYT Regulations, 2021 is provided below.

"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:

..

- 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;
- *q)* Change in power purchase mix;
- h) Inflation;
- i) Transmission Charges for a Distribution Licensee;"

The Commission has noted that the Petitioner procures power mainly from NTPC Stations, NPCIL stations, KSEB and TANGEDCO. No power has been purchased through IEX/ STOA-Bilateral Purchase etc. The Petitioner submitted the overall Power Purchase cost as Rs. 1788.60 Crore inclusive of transmission charges. Transmission charges and the other charges as submitted by the Petitioner have been considered based on actuals.

The Commission has noted that under the Demand Side Management, for the first time in the country, an innovative scheme namely DSM based Energy Efficient Lighting Programme" (DELP) was been launched in the UT of Puducherry during the year 2014. Under the scheme, three numbers LED bulbs of 7 Watts (equivalent to 60 W incandescent lamp) were distributed by the Energy Efficiency Services Limited (EESL) to the domestic consumers in the entire UT of Puducherry.

The capital investment of Rs.30 Cr. was borne by the EESL and the payout is made by the Electricity Department on quarterly basis as approved by the JERC. Under this program around 6,00,000 LED bulbs have been put into service in the place of equal number of GLS lamps, resulting in estimated energy saving of around 48 million units per annum. Accordingly, the Commission has approved the payment of Rs.3.60 Cr. shown as payment to M/s. EESL's annual payment as per the agreement.

The Commission has considered all-power purchase bills & quantum submitted by the Petitioner in its reply of 1<sup>st</sup> deficiency note with the publicly available information from the Regional Energy Accounts (REA) maintained by Southern Region Power Committee (SRPC) for the Central Generating Stations (CGS). For considering the power purchase cost, the Commission has verified the actual audited account, which was submitted by the petitioner.

The following table provides the summary of the power purchase quantum and the cost approved by the Commission for the FY 2022-23.

Table 17 Power Purchase Cost and Quantum approved by the commission

	Approved in MYT order			Claimed b	Claimed by the Petitioner			Approved in true-up		
Particulars	(FY 2022-2	(FY 2022-23)			(FY 2022-23)			(FY 2022-23)		
raiticulais	Purchase (MUs)	Cost (Rs. Cr.)	Rate (Rs. /unit)	Purchase (MUs)	Cost (Rs. Cr.)	Rate (Rs. /unit)	Purchase (MUs)	Cost (Rs. Cr.)	Rate (Rs. /unit)	
NTPC	1127.81	384.98	3.41	1012.85	449.50	4.44	1012.85	449.50	4.44	
NTPL	0.00	0.00	0.00	97.06	72.83	7.50	97.06	72.83	7.50	
NLC	718.75	318.26	4.42	591.10	255.09	4.32	591.10	255.09	4.32	
PPCL	0.00	0.00	0.00	220.70	206.54	9.36	220.70	206.54	9.36	
KAIGA	295.73	107.19	3.62	263.95	92.72	3.51	263.95	92.72	3.51	
MAPS	24.42	6.23	2.55	25.53	6.59	2.58	25.53	6.59	2.58	
NTECL	0.00	0.00	0.00	94.61	58.64	6.20	94.61	58.64	6.20	
KKNP	313.56	124.05	3.95	478.95	209.56	4.38	478.95	209.56	4.38	
NNTPS	373.99	125.79	3.36	388.33	177.44	4.56	388.33	177.44	4.56	
KSEB					0.02			0.02		
NTPC Solar	118.26	30.94	2.61	207.78	55.27	2.66	207.78	55.27	2.66	
SECI Wind	284.58	81.99	2.88	107.55	29.38	2.73	107.55	29.38	2.73	

	Approved in MYT order			Claimed by the Petitioner			Approved in true-up		
Particulars	(FY 2022-2	23)		(FY 2022-2	23)		(FY 2022-23)		
	Purchase (MUs)	Cost (Rs. Cr.)	Rate (Rs. /unit)	Purchase (MUs)	Cost (Rs. Cr.)	Rate (Rs. /unit)	Purchase (MUs)	Cost (Rs. Cr.)	Rate (Rs. /unit)
Net UI (Underdrawal) Charges				(114.82)	2.05		(114.82)	2.05	
IEX Purchase / Sale									
Open market									
OA Power purchase/ (Sale)									
PGCIL (POC + Non POC Charges)		96.07			247.69			247.69	
SRLDC Charges					0.52			0.52	
SRPC & RPO					0.12			0.12	
Less: Interest Cost					1.65			1.65	
EESL					3.60			3.60	
Total Power Purchase Cost	3257.11	1344.46	4.12	3373.59	1869.18	5.36	3373.59	1869.18	5.36
URS Income					33.24			33.24	
UI/DSM Charges					40.85			40.85	
RRAS Charges					6.49			6.49	
Sub-total (Additional Income)					80.58			80.58	
Net Power Purchase Cost					1788.60			1788.60	

The Commission approves power purchase quantum of 3373.59 MUs and cost of Rs. 1788.60 Cr in the True-up of the FY 2022-23.

# 3.8. Renewable Purchase Obligation (RPO)

The Commission observed that Regulation 3, Sub-regulation (1) of the JERC (Procurement of Renewable Energy) Regulations, 2010 provides as under:

"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), (Fourth Amendment) Regulations, 2022 on 24<sup>th</sup> March 2022 and revised the RPO targets, according to which for FY 2022-23 the Petitioner is obligated to purchase power from renewable sources at minimum percentage of 18.35% of its total annual consumption, out of which 9% must be from the Solar Power.

Based on the above, the Commission has computed the cumulative RPO compliance and the pending backlog at the end of the FY 2022-23 as shown in the following table:

Table 18 Summary of Renewable Purchase Obligation (RPO) (MU) for FY 2022-23

S.No	Description	Unit	Claimed by the Petitioner	Trued-up by the Commission
1	Sales Within State	MUs	2908.14	2908.14
2	RPO Target	%	18.35%	18.35%
	- Solar	%	9.00%	9.00%
	- Non-Solar	%	9.35%	9.35%
3	RPO Obligation	MUs	533.64	533.64
	- Solar	MUs	261.73	261.73
	- Non-Solar	MUs	271.91	271.91
4	RPO Purchase	MUs	369.48	369.48
	Physical Power			
	- Solar	MUs	261.93	261.93
	- Non-Solar	MUs	107.55	107.55
	Renewable Energy Certificate			
	- Solar	MUs	-	-
	- Non-Solar	MUs	-	-
5	Cumulative requirement till current year			
	- Solar	MUs		1030.33
	- Non-Solar	MUs		1545.74
	Total			2576.07
6.	Cumulative Compliance till current year			
	Solar	MUs		393.62
	Non-Solar	MUs		592.31
	Total	MUs		985.93
7.	Net Shortfall in RPO Compliance till current year			
	Solar	MUs	629.74	636.71
	Non-Solar	MUs	936.20	953.43
	Total	MUs	1565.94	1590.14

The Commission notes that there is a net shortfall of 1590.19 MU in RPO compliance till the FY 2022-23.

# 3.9. Energy Balance

## **Petitioner's Submission**

The Petitioner has submitted the energy balance as shown in the following table:

Table 19 Energy Balance submitted by the Petitioner for FY 2022-23

S. No.	Particulars	Value in MU
A	Energy Requirement	
1	Total Sales within the UT	2,908.14
2	Energy Drawal by TANGEDGO	0.00
3	Sales to Electricity Traders / Power Exchange	
4	Sale to Open access Consumers	
5	Total Sales	2,908.14
6	T&D Losses	
7	T&D Loss (%)	10.88%
8	T&D Loss (MU)	355.00
9	Total Energy Requirement	3,263.92
В	Energy Availability	
1	Net Power Purchase (ex-Bus)	2,952.84
2	Own Generation (PPCL+ Renewable)	536.00
3	Power purchase from Common Pool / UI- overdrawal / Traders / Exchange / Others	34.92
4	UI Underdrawal	149.74
5	Open Access Power Purchase at periphery	
6	Net Power Purchased (1+2+3-4+5)	3,374.02
7	Transmission Losses	110.10
	Transmission Losses (%)	3.26%
8	Total Energy Availability	3,263.92

# Commission's analysis

The information submitted by the Petitioner on power purchase quantum, UI over/ under drawl, IEX/ Bilateral purchase etc. has been examined and accordingly the energy balance for FY 2022-23 has been derived. In accordance with the publicly available information from the Regional Energy Accounts (REA) maintained by SRPC and documentary evidence submitted by the Petitioner against the Inter-State Transmission Loss, the Commission has determined the energy balance. The following table provides the energy balance as submitted by the Petitioner and now approved by the Commission.

Table 20 Energy Balance (MUs) approved by Commission for FY 2022-23

			<del></del>		
S. No.	Particulars	Approved in MYT Order	Petitioner submission	Trued Up by the Commission	
A	Energy Requirement				
1	Total Sales within the UT	2826.36	2,908.14	2,908.14	

S. No.	Particulars	Approved in MYT Order	Petitioner submission	Trued Up by the Commission
2	Energy Drawal by TANGEDGO	0.00	0.00	0.00
3	Sales to Electricity Traders / Power Exchange			
4	Sale to Open access Consumers			
5	Total Sales	2826.36	2,908.14	2,908.14
6	T&D Losses			
7	T&D Loss (%)	11.00 %	10.88%	10.88%
8	T&D Loss (MU)	349.32	355.00	355.03
9	Total Energy Requirement at UT Periphery	3175.68	3,263.00	3,263.17
10	Less: Own Generation			220.70
11	Energy Required at State Periphery from inter-state sources			3042.47
В	Energy Availability			
1	Net Power Purchase (ex-Bus and scheduled)	3257.11	2,952.37	2952.37
2	Renewable		536.02 (RE+ Own generation)	315.32
3	Power purchase from Common Pool / UI- overdrawal / Traders / Exchange / Others		34.92	34.92
4	Less: UI Underdrawal		149.74	149.74
5	Open Access Power Purchase at periphery			
6	Net Power Purchased (1+2+3- 4+5)	3257.11	3,374.02	3152.86*
7	Transmission Losses	81.43	110.10	110.39
	Transmission Losses (%)	2.50%	3.26%	3.50 %
8	Total Energy Availability at State Periphery from inter-state sources	3175.68	3263.92	3042.47

<sup>\* (2952.37+315.32+34.92-149.74= 3152.86);</sup> Own state generation (220.70 MUs) is already subtracted in energy requirement section of commission analysis Column.

# 3.10. Operation & Maintenance (O&M) Expenses

Regulation 61 of JERC MYT Regulations, 2021, provides as under:

- "61 Operation and Maintenance (O&M) expenses for Retail Supply Business
- 61.1 The Operation and Maintenance Expenses for the Retail Supply Business shall be computed in accordance with this Regulation.
- 61.2 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.
- 61.3 The 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 Distribution Licensee, estimates of the actuals for the Base Year, prudence check and any other factors considered appropriate by the Commission.
- 61.4 O&M expenses for the nth Year of the Control Period shall be approved based on the formula given below:

 $O\&Mn = (R\&Mn + EMPn + A\&Gn) \times (1 - Xn) + Terminal Liabilities$ 

Where,

 $R\&Mn = K \times GFAn-1 \times (1+WPIinflation)$ 

 $EMPn = (EMPn-1) \times (1+Gn) \times (1+CPIinflation)$ 

 $A\&Gn = (A\&Gn-1) \times (1+CPIinflation)$ 

'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;

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

WPI inflation – 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 Distribution 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 nth Year. Value of Gn shall be determined by the Commission foreach 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 Licensee has been in operation for less than three (3) Years as on the date of effectiveness of these Regulations, the O&M Expenses shall be determined on a case-to-case basis.

- 61.5 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.
- 61.6 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.

Provided that at the time of truing up, the variation in the normative and actual O&M expenses shall be dealt in accordance with Regulation 15."

# 3.10.1 Employee Expenses

# **Petitioner's Submission**

The following table provides the employee expenses as submitted by the Petitioner:

Particulars	Approved by Commission in APR order	Actuals (FY 2022-23)
Salary		147.15
Wages		1.02
Stipend		1.39
Overtime Payment	128.93	0.97
Less: Departmental Charges		0.84
Less: Salary Costs Capitalized		14.85
Net amount		
Add: Amount Payable at end of the		
year		
Total Employee Expenses for PED	128.93	134.83

Table 21 Employee expenses (Rs. Cr.)

# Commission's analysis

In accordance with the JERC MYT Regulations, 2021, the Commission has determined the Employee expenses for the FY 2022-23. Regulation 6 of the JERC MYT Regulations, 2021 stipulates the following:

"6. Values for Base Year

"6.1 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 approved figure of employee expenses for FY 2021-22 as a base figure to determine the normative employee expenses for FY 2022-23. Further, the Commission has deducted on account of the expenses of stipend from employee expenses as the same is a part of A&G Expenses. The Base Year expenses have been escalated by Growth Rate determined based on the manpower plan as submitted by the Petitioner and CPI Inflation to arrive upon the normative employee expenses of FY 2022-23.

**Table 22 CPI Inflation Index** 

FY	Average of (Apr-Mar)	II TO TESSE I MAI	Average Increase in CPI Index over 3 years
2019-20	322.50		
2020-21	338.69	5.02 %	
2021-22	356.06	5.13 %	
2022-23	377.62	6.05 %	5.40 %

**Table 23 Growth Rate of Employee** 

FY		Increase/(Decrease) in employees
2021-22	1772	
2022-23	1710	-3.50%

Table 24 Computation of employee expenses (Rs. Cr.)

s.		(Base Year)	Trued Up
No	Particulars	Trued up FY 2021-22	FY 2022-23
	Normative approved expenses for FY 21-22		88.65
1	Gn (Growth factor)		-3.50%
2	CPI (Actuals for FY 2022-23) (in %)		5.40%
3	Expenses with inflation and growth	88.65	90.17
4	Impact of 7 <sup>th</sup> Pay Commission	22.47	9.19
5	Total Employee Expenses	111.13	99.36

Table 25 Employee expenses approved by Commission for FY 2022-23 (Rs. Cr.)

S. No	Particiliars	- F F		Trued Up by Commission
1	Employee Expenses		134.83	90.17

3	Total Employee Expenses	129.06	134.83	99.36
2	Impact of 7 <sup>th</sup> Pay Commission			9.19

The Commission approves employee expenses of Rs. 99.36 Cr in the true-up of the FY 2022-23.

## 3.10.2 Repair and Maintenance Expenses

#### **Petitioner's Submission**

The Petitioner has claimed R&M expense of Rs 15.00 Crore as per expenses actually incurred during FY 2022-23, against R&M expense of RS 9.87 Crore approved by the Commission. The Petitioner further submitted that R&M expenses are necessary for maintenance of infrastructure and for ensuring proper Standard of Performance of the utility.

# Commission's analysis

The Commission has considered the audited account of FY 2022-23 as submitted by the Petitioner. Further, the Commission has considered the K factor of 0.91% as approved in the 3<sup>rd</sup> MYT Tariff Order dated 31.03.2022 and the same has been multiplied with the opening GFA approved for the (n-1)th year. The resultant amount is then escalated by actual WPI Inflation for FY 2022-23 to arrive upon the normative R&M Expenses for the FY 2022-23. The WPI Inflation has been computed as follows:

Table 26 Computation of WPI Index (%)

FY	Average of (Apr-Mar)	Yearly increase	Average increase in WPI indices over 3 years
2019-20	121.80		
2020-21	123.40	1.31 %	
2021-22	139.40	12.97 %	
2022-23	152.50	9.40 %	7.89%

The Commission has computed the R&M Expenses as given in the following table:

Table 27 Computation of R&M Expenses worked out by the Commission (Rs. Cr.)

S. No	Particulars	FY 2022-23
1	Opening GFA (GFA <sub>n-1</sub> )	1029.54
2	K factor approved (K) (%)	0.91%
3	WPI Inflation (Actuals for FY 2022-23) (%)	7.89 %
4	R&M Expenses = K x (GFA n-1) x (1+WPIinflation)	10.11

The R&M expenses approved by the Commission for FY 2022-23 have been provided in the following table:

Table 28 R&M Expenses approved by the Commission for FY 2022-23 (Rs Cr)

S. No	Particulars	IMIYT		Trued Up by Commission
1	Repair & Maintenance Expenses (R&M)	9.23	15.00	10.11

The Commission approves the Repair & Maintenance (R&M) expenses of Rs. 10.11 Cr in the true- up of FY 2022-23.

## 3.10.3 Administrative and General (A&G) Expenses

## **Petitioner's Submission**

The Petitioner has incurred A&G expenses of Rs. 14.55 Crore against the approved expenses of Rs. 18.53 Crore, as submitted by the Petitioner.

# Commission's analysis

The Commission has considered the approved figure of FY 2021-22 (as approved during true up order dated 30.03.2023) as a base figure to determine the normative A&G expenses for FY 2022-23. The Base Year expenses have been escalated by 3 years average CPI Inflation to arrive upon the normative A&G expenses of FY 2022-23.

Table 29 Computation of A&G expenses (Rs Crore)

S. No	Particulars	Trued Up
		FY 2022-23
	Approved A&G expenses of FY 2021-22 (base value)	14.13
1	CPI (in %)	5.40 %
2	A&G Expenses	14.89

Table 30 A&G Expenses approved by Commission for FY 2022-23 (Rs Cr)

S. No	Patriciliate			Trued Up by Commission
1	A&G Expenses	18.55	14.55	14.89

The Commission approves the Administrative & General (A&G) expenses of Rs. 14.89 Cr in the True-up of FY 2022-23.

# 3.10.4 Total Operation and Maintenance (O&M) Expenses

The Following table provides the O&M expenses, approved by the Commission, Petitioner's submission and O&M expenses now trued up by the Commission.

Table 31 O&M Expenses approved by the Commission for FY 2022-23 (Rs Cr)

Particulars	Approved in MYT Order	Petitioner's Submission (actual)	Trued up by the Commission
A&G Costs	18.55	15.93	14.55

R&M Expenses	9.23	15.00	10.11
Employee Cost	129.06	133.45	90.17
7 <sup>th</sup> Pay Commission			9.19
expenses			9.19
Total O&M			
Expenses for the	156.84	164.38	124.02
Expenses for the purpose of sharing of Gains/Losses	156.84	164.38	124.02

The Commission approves the Operation & Maintenance (O&M) expenses, before sharing of gain and loss, of Rs. 124.02 Cr in the true-up of FY 2022-23. Sharing Gain/ loss is described in para no 3.20.2 of the ARR Table.

# 3.11 Capitalisation

#### **Petitioner's Submission**

The Petitioner has submitted the capitalization of Rs. 10.30 Cr for FY 2022-23 against the approved capitalization of Rs. 12.04 Cr. in MYT Order dated 31.03.2022.

Table 32 Capitalisation for FY 2022-23 (Rs. Cr.)

S. No.	Particulars	Approved by commission in APR order	Actuals (FY 2022-23)
1	Capitalisation	12.04	10.30

## Commission's analysis:

The Commission has considered the audited account submitted by the Petitioner and approves the Capitalization as provided below:

Table 33 Capitalisation approved by the Commission (Rs Cr) for FY 2022-23

S. No	Patticiliate	T T		Trued-up by Commission
1	Capitalisation	12.04	10.30	10.30

The Commission approves the Capitalisation of Rs. 10.30 Cr in the True-up of FY 2022-23.

# 3.12 Capital Structure

#### **Petitioner's Submission**

The Petitioner has submitted that the majority of capital assets are created out of the equity contribution from Government of Puducherry. Further, Petitioner submitted that, for the purpose of ARR, GFA, ROE, Interest on Loan and Depreciation calculation, the consumer contribution/grant has not been considered.

# Commission's analysis

The Commission noted that Regulation 27 of the JERC MYT Regulations, 2021 specifies the following:

"27. Debt to Equity Ratio

27.1 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-capitalization 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-capitalization 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.

27.2 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.

27.3 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 modernization expenditure for life extension shall be serviced in the manner specified in this Regulation."

As submitted by the Petitioner, the capitalisation has been 100% funded through equity. However, in accordance with the JERC MYT Regulations, 2021, 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. Hence, the Commission approves 70:30 ratio as normative loan: equity. Hence, the Commission has determined the Capital Structure for FY 2022-23 as follows:

Table 34 GFA addition approved by Commission (Rs Cr)

	T T		Trued-up by Commission
Opening Gross Fixed Assets	989.63	1029.53	1029.53
Addition During the FY	4.82	10.30	10.30
Adjustment/Retirement During the FY	-	-	_
Closing Gross Fixed Assets	994.45	1039.83	1039.83

Table 35 Capital Structure approved by Commission (Rs Cr) for FY 2022-23

Particulars	Approved in MYT Order	Petitioner's Submission	Trued-up by Commission		
Gross Fixed Assets addition during the year	4.82	10.30	10.30		
Normative loan addition During the FY @70% of GFA addition during year	3.37	7.21	7.21		
Equity addition on account of new Capitalisation @30% of GFA addition during the year	1.44	3.09	3.09		

## 3.13 Depreciation

## **Petitioner's Submission**

The Petitioner has claimed the depreciation of assets as per the Regulation 31 of the JERC MYT Regulations, 2021 for FY 2022-23. The depreciation as claimed by the Petitioner has been tabulated below:

Table 36 Depreciation rate submitted by Petitioner (Rs Cr)

Description of Assets	Rate of Depreciation
Land & Land Rights	0.00%
Buildings	1.80%
Plant & Machinery	3.60%
Transformer	3.60%
Lines & Cables (HT & LT)	3.60%
Vehicles	18.00%
Furniture & Fixtures	6.00%
Office Equipment	6.00%
IT Equipment	6.00%
Testing & Measuring Equipment	6.00%

Description of Assets	Rate of Depreciation
SCADA P&M	6.00%
SCADA building	6.00%

The Petitioner has submitted to approve Rs.25.24 Cr of depreciation as per audited accounts for FY 2022-23.

# Commission's analysis

Regulation 31 of the JERC MYT Regulations, 2021 stipulates the following with respect to depreciation:

- "31. Depreciation
- 31.1 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.

31.2 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.

Provided further that the salvage value of Information Technology equipment and computer software shall be considered at zero (0) per cent of the allowable capital cost.

- 31.3 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.
- 31.4 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.
- 31.5 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.

- 31.6 For Transmission Licensee, the depreciation shall be calculated at rates and norms specified in the prevalent CERC Tariff Regulations for transmission system.
- 31.7 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.
- 31.8 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.

- 31.9 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.
- 31.10 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 specified in JERC MYT Regulations, 2021, provided in the following table:

**Table 37 Approved Depreciation Rate** 

		FY 2022-23	FY 2022-23		
Asset	Rate of Depreciation (A)	Opening GFA (B)	Additional Capitalisati on (C)	Annual Depreciation [D=(B+C/2)*A]	
Land and Land right	0.00%	10.37	-	-	
Building	1.80%	24.53	-	0.44	
Plant & Machinery	3.60%	595.55	10.09	21.62	
Line and Cables	3.60%	344.29	0.06	12.40	
Vehicle	18.00%	2.67	-	0.48	
Furniture and Fixtures	6.00%	0.21	-	0.01	
Office Equipments	6.00%	1.23	0.06	0.08	
IT equipment	15.00%	2.83	0.03	0.43	
Testing & Measuring	6.00%	4.68	_	0.28	

Weighted average rate of depreciation = $D/(B+C/2) = 3.70\%$					
Total		1,029.54	10.31	38.33	
SCADA Centre	6.00%	43.18	0.07	2.59	

It is observed that the Petitioner has claimed Rs 25.24 Cr as depreciation as per the audited account. Therefore, considering the audited account submitted by the Petitioner, the Commission approves depreciation of Rs. 25.24 Cr in the True-up of FY 2022-23.

# 3.14 Interest and Finance Charges

## **Petitioner's Submission**

The Petitioner has referred the Regulation 29, which deals with Interest and Finance Charges on loans. PED stated that most of the assets are funded by Puducherry Government through equity, so interest charges are calculated accordingly on normative basis. The table compares Interest and Finance Charges for FY 2022-23 with the Commission's approved amounts given in tariff order dated 31.03.2022

Table 38 Interest & Finance Charges for FY 2022-23 (Rs. Cr)

S. No.	Particulars	Approved in tariff order	Actuals
1	Opening Normative Loan	167.65	194.81
2	Add: Normative Loan during the Year	3.37	7.21
3	Less: Normative Repayment	36.43	25.23
4	Closing Normative Loan	134.59	176.79
5	Average Normative Loan	151.12	185.80
6	Rate of Interest	8.00%	8.00%
7	Interest on Normative Loan	12.09	14.86
8	Other Finance Charges	-	2.06
9	Total Interest and Finance Charges	12.09	16.93

PED has requested the Commission to approve the Interest & Finance Charges of Rs. 16.93 Cr for FY 2022-23.

# Commission's analysis

Regulation 29 of the JERC MYT Regulations, 2021 stipulates the following:

"29. Interest on Loan

29.1 The loans arrived at in the manner indicated in Regulation 27 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-capitalization 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.

- 29.2 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.
- 29.3 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 31.
- 29.4 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 after prudence check:

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.

29.5 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 capitalization approved by the Commission for the Year.

29.6 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.

- 29.7 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.
- 29.8 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.
- 29.9 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.

- 29.10 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.
- 29.11 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 approved the normative loan and equity amount for FY 2022-23 in the earlier section of this chapter and the same amount is considered here. The Commission has considered the SBI 1 Year MCLR rate i.e. rate applicable as on 01.04.2022 (7.00%) plus 100 basis points as Rate of Interest, in accordance with the JERC MYT Regulations, 2021.

The Commission has also considered the finance charges of Rs. 2.06 Crore as claimed by the Petitioner from its Audited Account and approves the same.

The following table provides the Interest on Loan approved by the Commission:

Table 39 Interest and Finance charges approved by Commission (Rs Cr) for FY 2022-23

Particulars	Approved in MYT Order	Petitioner's Submission	Trued-up by Commission
Opening Normative Loan	167.65	194.81	194.81
Add: Normative Loan During the year	3.37	7.21	7.21
Less: Normative Repayment= Depreciation	36.43	25.23	25.24
Closing Normative Loan	134.59	176.79	176.78
Average Normative Loan	151.12	185.80	185.80
Rate of Interest (%)	8.00%	8.00%	8.00%
Interest on Loan	12.09	14.86	14.86
Financing Charges	-	2.06	2.06
Interest and Finance Charges	12.09	16.92	16.92

The Commission approves the Interest and Finance Charges of Rs. 16.92 Cr in the True-up of the FY 2022-23.

# 3.15 Return on Equity (RoE)

## **Petitioner's Submission**

The Petitioner submitted that Return on Equity (RoE) was computed in accordance with the JERC MYT Regulations 2021. RoE is computed on 30% of the capital base. RoE for FY 2022-23 is calculated based on the average of opening and closing equity at 15.5 % for wired business and 16% for retail supply business (on post-tax basis). PED has calculated the Return on Equity as outlined in the following table for FY 2022-23:

Table 40 Return on Equity for FY 2022-23 (Rs. Cr)

S. No.	Particulars	Approved in tariff order	Actuals
1	Opening Equity Amount	296.89	308.86
2	Equity Addition during year (30% of Capitalization)	1.44	3.09
3	Closing Equity Amount	298.33	311.95
4	Average Equity Amount	297.61	310.41
5	Average Equity-Wires Business	267.85	279.36
6	Average Equity (Retail Supply Business)	29.76	31.04
7	Return on Equity for Wires Business (%)	15.50%	15.5%
8	Return on Equity for Retail Supply Business (%)	16.00%	16.0%
9	Return on Equity for Wires Business 41.52 43.3		43.30
10	Return on Equity for Retail Supply	4.76	4.97

S. No.	Particulars	Approved in tariff order	Actuals
	Business		
11	Total Return on Equity	46.28	48.27

In view of above, the Petitioner requested to allow the above Return on Equity of Rs.48.27 Cr for FY 2022-23.

# Commission's analysis:

The Regulations 28.2 and 28.3 of the JERC MYT Regulations, 2021 stipulate the following:

"28.2 The return on equity for the Distribution Wires Business shall be allowed on the equity capital determined in accordance with Regulation 27 for the assets put to use at post-tax rate of return on equity specified in the prevalent CERC Tariff Regulations for transmission system.

28.3 The return on equity for the Retail Supply Business shall be allowed on the equity capital determined in accordance with Regulation 27 for the assets put to use, at the rate of sixteen (16) per cent per annum."

RoE has been calculated on normative basis on the average of opening and closing of equity during the year at the rate of 16% and 15.50%, as applicable, (on post-tax basis) with an opening equity considered equivalent to the closing equity of FY 2021-22 as approved in the True-up of FY 2021-22. The following table provides the RoE approved in the Tariff Order, the Petitioner's Submission and RoE now approved by the Commission:

Table 41 RoE approved by Commission (Rs Cr)

S. No	Particulars		Approved in MYT Order	Petitioner's Submission	Trued-up by Commission
1	Opening Equity Amount	A	296.89	308.86	308.86
2	Equity Addition during year	В	1.44	3.09	3.09
3	Closing Equity Amount	С	298.33	311.95	311.95
4	Average Equity Amount	D = (A+B)/2	297.61	310.41	310.41
5	Average Equity-Wires Business	E = D*90%	267.85	279.36	279.36
6	Average Equity (Retail Supply Business)	F=D*10 %	29.76	31.04	31.04
7	Return on Equity for Wires Business (%)	G	15.50%	15.50%	15.50%
8	Return on Equity for Retail Supply Business (%)	Н	16.00%	16.00%	16.00%

9	Wires Business	I=G*E	41.52	43.30	43.30
10	Return on Equity for Retail Supply Business	J=H*F	4.76	4.97	4.97
11	Total Return on Equity	K=I+J	46.28	48.27	48.27

The Commission approves a Return on Equity of Rs. 48.27 Cr in the True-up of FY 2022-23.

# 3.16 Interest on Security Deposits

#### **Petitioner's Submission**

The Petitioner submitted that Interest on Security Deposits has been calculated as per JERC MYT Regulations, 2021 using average consumer security deposit amount. Opening deposit of FY 2022-23 is based on approved closing deposit in the True-up of FY 2021-22. Interest rate is equivalent to prevailing RBI Bank rate.

Table 42 Interest on Security Deposit for FY 2022-23 (Rs. Cr)

S. No.	Particulars	Approved in tariff order	Actuals
1	Opening Security Deposit	225.96	232.54
2	Add: Deposits during the year	4.06	15.45
3	Less: Deposits refunded	-	0.34
4	Less: Deposits in the form of BG/FDR	230.02	0.00
5	Closing Security Deposit	227.99	247.65
6	Average Security Deposit	4.25%	240.09
7	Bank Rate	9.69	4.25%
8	Interest on Security Deposit		10.20
9	Interest on Security Paid to Consumers		6.21

The Interest on Security Deposit for FY 2022-23 is Rs.10.20 Cr, but only Rs.6.21Cr has been paid to consumers and requesting to allow the said amount.

## Commission's analysis:

The Interest on Security Deposits has been calculated in accordance with the JERC MYT Regulations, 2021 based on the average of opening and closing consumer security deposits during the year. Regulation 29.11 of the JERC MYT Regulations, 2021 stipulates the following about security deposit:

"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 opening security deposit for FY 2022-23 has been considered based on the closing security deposit as approved in the True-up of FY 2021-22. The addition during the year has been considered as per the audited account of Petitioner. The rate of interest has been considered equivalent to the prevailing RBI Bank rate as on 1.4.2022. The table below provides the calculation of interest on consumer security deposits for the year:

Table 43 Interest on Consumer Security Deposits approved by Commission (Rs Cr)

S. No	Particulars			Trued-up by Commission
1	Opening Security Deposit	225.96	232.54	232.54
2	Add: Deposits During the year	4.06	15.45	15.45
3	Less: Deposits refunded	_	0.34	0.34
5	Closing Security Deposit	230.02	247.65	247.65
6	Average Security Deposit	227.99	240.10	240.10
7	Rate of Interest (%)	4.25%	4.25%	4.25%
	Interest on Security Deposit on normative basis	9.69	10.20	10.20
9	Interest on Security Deposit paid to consumers		6.21	6.21

As actual interest paid on security deposit is lesser than normative value, the Commission approves interest on security deposit as Rs. 6.21 Cr in the True-up of FY 2022-23.

## 3.17 Interest on Working Capital

## **Petitioner's Submission**

Interest on Working Capital has been calculated by the Petitioner based on the normative principles outlined in the JERC MYT Regulations, 2021. The Petitioner has computed the Interest on Working Capital at rate of 9.00% and is claimed as under:

Table 44 Interest on Working Capital submitted by Petitioner (Rs Cr)

S. No.	Particulars	Approved in APR order	Actuals
1	Two Months Receivable	286.62	288.62
2	O&M Expense - 1 month	13.11	13.57
3	Maintenance Spare @ 40% of R&M Expenses of one month	0.33	0.50
4	Less: Amount held as Security Deposit	238.95	240.09
5	Total	(61.88)	62.73

7	Interest on working capital	0.00	5.65
6	Interest Rate	9.00%	9.00%

# Commission's analysis:

The Commission observed that Regulation 53 of the JERC MYT Regulations, 2021 stipulates the following regarding norms of interest on working capital:

- "53. Norms of Working Capital for Distribution Wires Business
- 53.1 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 64 of the JERC MYT Regulation, 2021 stipulates the following:

- "64.1 The Distribution Licensee shall be allowed interest on the estimated level of working capital for the Retail Supply 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 Consumers at the prevailing tariff;

## Less

(d) Power Purchase cost for one (1) month; plus

(e) Amount, if any, held as security deposits under clause (b) of sub-section (1) of Section 47 of the Act from Consumers 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 32.3 of the JERC MYT Regulation, 2021 stipulates the following:

"32.3 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.

32.4 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."

The Commission has observed that for determining the working capital requirement for retail supply business, one month power cost has to be deducted. The Petitioner has not considered the same. The Petitioner has calculated the working capital requirement as per provisions given in the Regulations and the working capital requirement is worked out as negative. The Commission has considered the SBI Base rate as on 1st April 2022 for calculation of interest plus 200 basis points i.e. 9.00% (7.00% + 200 basis points), as stipulated in the MYT Regulations, 2021.

Accordingly, the Interest on Working Capital has been determined by the Commission, as shown in the table below:

Table 45 Interest on Working Capital approved by Commission (Rs Cr) for FY 2022-23

Particulars	Approved in MYT Order	Petitioner's Submission	Trued-up by Commission
O&M Expense for 1 month	13.07	13.57	10.36
Maintenance spares at 40% of R&M expenses for one (1) month;	0.31	0.50	0.34
Receivables equivalent to two (2) months of the expected revenue at prevailing tariff	267.74	288.62	288.63
Total Working Capital Requirement	281.12	302.69	299.33
Less: Amount held as security deposits	227.99	240.09	240.10
Less: Power Purchase Cost			149.05
Net Working Capital	53.14	62.73	-89.82
Rate of Interest (%)	9.00 %	9.00%	9.00%

Interest on Working Capital	4.78	5.65	0.00

Accordingly, The Commission approves the NIL Interest on Working Capital in the True-up of FY 2022-23.

## 3.18 Provision for Bad & Doubtful Debts

## **Petitioner's Submission**

The Petitioner has not claimed any amount towards bad and doubtful debts for FY 2022-23.

# Commission's analysis:

As per Regulation 63 of the JERC MYT Regulations, 2021:

63.1 "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."

It is observed that as per the audited accounts, the licensee has not written off any amount in the FY 2022-23. Therefore, the Commission approved NIL provision for bad and doubtful debts in the True-up of FY 2022-23.

## 3.19 Non-Tariff Income (NTI)

#### **Petitioner's Submission**

The Petitioner has claimed the Non-Tariff Income in FY 2022-23 which includes metering, staff loan interest, trading income, reconnection fee, UI sales, and miscellaneous income. However, the actual Non-Tariff Income is Rs. 9.26Cr, excluding revenue from UI power and other sources. Therefore, the Commission was requested to approve the Non-Tariff Income of Rs. 9.26 Cr for FY 2022-23.

## Commission's analysis:

Regulation 44 of JERC MYT Regulation, 2021 states the following about non-tariff income:

# "44. Non-Tariff Income

44.1 The amount of Non-Tariff Income relating to the transmission business as approved by the Commission shall be deducted from the Aggregate Revenue Requirement in determining annual transmission charges of the Transmission Licensee:

Provided that the Transmission Licensee shall submit full details of its forecast of Non-Tariff Income to the Commission along with its application for determination of Aggregate Revenue Requirement.

- 44.2 The Non-Tariff Income shall inter-alia include:
- a) Income from rent on 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) Miscellaneous receipts like parallel operation charges;
- j) Deferred Income from grant, subsidy, etc., as per Annual Accounts;
- *k)* Excess found on physical verification;
- *Interest on investments, fixed and call deposits and bank balances;*
- *m)* Prior period income, etc.:

Provided that the interest/dividend earned from investments made out of Return on Equity corresponding to the Licensed Business of the Transmission Licensee shall not be included in Non-Tariff Income."

The Commission has considered the submission of the Petitioner from the audited accounts and accordingly, approved NTI as shown in the following table:

Table 46 Non- Tariff Income approved by Commission (Rs Cr) for FY 2022-23

Particulars	Approved in MYT Order	Petitioner's Submission	Trued up by the Commission
Income from Trading of materials			
Interest Income on Margin Money			
Deposit with Bank	4.00	9.26	9.26
Other Receipts	4.00	9.20	9.20
Rebate availed on payment of			
power purchase			

Particiliars			Trued up by the Commission
Total Non-Tariff Income	4.00	9.26	9.26

The Commission approves Non-Tariff Income of Rs. 9.26 Cr in the True-up of FY 2022-23.

## 3.20 Incentive/Disincentive towards over/under-achievement of norms

# 3.20.1 Incentive/Disincentive towards over/under-achievement of norms for T&D Loss

## **Petitioner's Submission:**

No submission has been made in this regard.

# Commission's analysis:

In the MYT Tariff Order for FY 2022-23 dated 31.03.2022, the Commission had approved the T&D loss level of 11.00% for the FY 2022-23. As discussed earlier in approval of T&D loss, the Petitioner has been able to achieve an Intra-State T&D Loss of 10.88 %. Thus, there is an over achievement of the loss target. In accordance with the JERC MYT Regulations, 2021, the Commission has determined the sharing of gains/losses on account of controllable factors. The Regulation 15 of the JERC MYT Regulations, 2021 stipulates the following:

- "15 Mechanism for sharing of gains or losses on account of controllable factors
- 15.1 Approved aggregate gain to the Transmission Licensee or Distribution Licensee on account of controllable factors shall be shared equally between Licensee and Consumers:
- 15.2 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 incentive has been derived by calculating the saving in cost of power procured due to over-achievement of the stipulated Intra-State T&D loss target of 11.00% by the Petitioner, at the Average Power Purchase cost (APPC). The APPC has been derived as follows:

Table 47 Average Power Purchase Cost (APPC) for the FY 2022-23

Particulars Particulars		Amount
Total Power Purchase Cost (Rs Cr)	A	1788.60
Less: Transmission charges and Power Purchase cost from renewable energy sources (Rs Cr)	В	336.06
Net Power Purchase Cost (Rs Cr)	C=A-B	1452.55

APPC (Rs /kWh)	F=C/E*10	4.75
Quantum of energy at UT Periphery excluding from renewable energy sources (MU)	E	3058.26
Quantum of Ex-bus Power Purchase (MU)	D	3373.59

Table 48 Approved incentive towards overachievement of Intra-State distribution loss (Rs Cr) for FY 2022-23

Particulars		Approved in MYT Order	Approved under true-up
Retail Sales (Mus)	A	2,908.14	2,908.14
T&D Loss	В	11.00%	10.88%
Energy purchase at Periphery (Mus)	C=A-B	3,267.57	3,263.17
Gain/(Loss) (Mus)	D		4.40
APPC (Rs. Per unit)	E		4.75
Gain/(Loss) (Rs. Cr)	F=D*E/10		2.09
Sharing (50% to PED in case of gain and 100% in case of loss) (Rs. Cr)			1.04

The Commission approves Rs. 1.01 Cr as an incentive for over-achieving the Intra-State Distribution Loss target in the True-up of FY 2022-23.

# 3.20.2 Incentive/Disincentive towards over/under-achievement of norms for O&M Expenses

In accordance with the JERC MYT Regulations, 2021, the Commission has determined the sharing of gains/losses on account of controllable factors. The Regulation 15 of the JERC MYT Regulations, 2021 stipulates the following:

"15 Mechanism for sharing of gains or losses on account of controllable factors 15.1 Approved aggregate gain to the Transmission Licensee or Distribution Licensee on account of controllable factors shall be shared equally between Licensee and Consumers:

15.2 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."

Considering the above provisions, the Commission has carried out the gain and loss of O&M expenses, which are controllable parameters. The Details are provided below.

Table 49 Sharing Gain/(Loss) approved by the Commission for FY 2022-23

Particulars	Normative	Actual	Gain	Sharing of gain	Now Approved by Commission
Employee Expenses	90.17	134.83	0.00	0.00	90.17
7 <sup>th</sup> Pay					9.19

Commission Expenses					
Administration & General Expenses (A&G)	14.89	14.55	0.34	0.17	14.55
Repair & Maintenance Expenses (R&M)	10.11	15.00	0.00	0.00	10.11
Total	115.59	164.03	0.34	0.17	124.19

# 3.21 Aggregate Revenue Requirement (ARR)

## **Petitioner's Submission**

The Aggregate Revenue Requirement for FY 2022-23 as approved by the Commission was Rs. 1719.65 Cr in the tariff order dated 30.03.2023 against which the ARR for FY 2022-23 on basis of actuals is Rs. 2050.00 Cr. The submission of the Petitioner for Aggregate Revenue Requirement on the basis of actuals for FY 2022-23 is shown below:

Table 50 Calculation of ARR for FY 2022-23 (Rs. Cr)

S. No.	Particulars	Approved by Commission in APR order	Claimed in True-up
1	Cost of power purchase	1475.86	1788.60
2	Employee Costs	128.93	134.83
3	Administration and General Expenses	18.53	14.55
4	R&M expenses	9.87	15.00
5	Depreciation	37.90	25.24
6	Interest & Finance Charges	14.20	16.93
7	Interest on CSD	10.16	10.20
8	Interest on Working Capital	0.00	5.65
10	Return on Equity	48.14	48.27
11	Provision for Bad Debt	0.00	0.00
12	Total Revenue Requirement	1743.58	2059.26
13	Less: Non- Tariff Income	23.93	9.26
14	Net Aggregate Revenue Requirement	1719.65	2050.00

# Commission's analysis

The Commission has noted that the petitioner has made a comparison notes that the Petitioner has made of financial value of all-component wise submission as compared to APR order dated 30.03.2023. The Commission has directed the Petitioner to submit all-component wise submission as compared to ARR tariff order from next year onwards and no such casual approach of the Petitioner will be entertained. However, the Commission

clarified all-component wise submission as provided in the ARR order. The Commission on the basis of the detailed analysis of the cost parameters of the ARR has considered and approved the revenue requirement in the True-up of FY 2022-23 as given in the following table:

Table 51 Aggregate Revenue Requirement approved by Commission for FY 2022-23 (Rs Cr) for FY 2022-23

S. No	Particulars	Approved in MYT Order	Petitioner's Submission	Trued-up by Commission
1	Power Purchase Cost	1344.36	1788.61	1788.61
2	Operation & Maintenance Expenses	156.84	164.38	124.02
3	Depreciation	36.43	25.24	25.24
4	Interest and Finance charges	12.09	16.92	16.92
5	Return on Equity	46.28	48.27	48.27
6	Interest on Security Deposit	9.69	6.21	6.21
7	Interest on Working Capital	4.78	5.65	0.00
9	Add: Incentive/ (Disincentive) on achievement of norms (distribution loss)	0.00	0.00	1.04
10	On account of sharing of gain/ (loss)			0.17
11	Total Revenue Requirement	1610.47	2055.28	2010.48
12	Less: Non-Tariff Income	4.00	9.26	9.26
13	Net Revenue Requirement	1606.46	2046.02	2001.22

The Commission approves net Aggregate Revenue Requirement of Rs. 2001.22 Cr in the True-up of the FY 2022-23.

# 3.22 Revenue at existing Retail Tariff

## **Petitioner's Submission**

The Petitioner submitted the actual revenue earned from tariffs for FY 2022-23, which is shown in the table below:

Table 52 Revenue from Tariff for FY 2022-23

S. No.	Particulars	Sales (MUs)	Revenue (Rs.Cr)		
LT Categ	gory				
1	Domestic	780.40	301.18		
2	ОНОВ	1.59	0.32		
3	Commercial	206.64	165.78		
4	Agriculture	59.34	0.85		
5	Public Lighting	18.23	20.60		

S. No.	Particulars	Sales (MUs)	Revenue (Rs.Cr)
6	LT Industrial & Water Tank	164.92	103.97
7	Temporary Supply - LT&HT	2.78	3.62
8	Total LT	1233.89	596.32
HT Cate	gory		
9	HT 1 Industrial / Commercial	980.98	655.46
10	HT 2 – Government	62.68	54.95
11	HT 3 – EHT–	630.59	361.78
12	Total HT	1674.25	1072.19
13	Total LT and HT	2908.14	1668.51
14	BPSC Charges LT		39.60
15	BPSC Charges HT		1.71
16	Penal Charges		3.01
17	Tariff Subsidy on Sale of Power		9.01
18	5% Regulatory Surcharge		90.67
19	Export to Other Region		0.71
20	Consumption of this Financial Year's March billed in Next FY's April		123.16
21	Consumption of previous FY's March billed Current FY's in April		-113.96
22	Total	2908.14	1822.42

# Commission's analysis

The Commission has considered the audited account of FY 2022-23 as provided by the Petitioner and approved the revenue including regulatory surcharge. Accordingly, the revenue now Trued-up by the Commission is shown in the following table:

Table 53 Revenue at existing tariff approved by Commission for FY 2022-23 (Rs Cr)

	Claimed by the Pe	titioner	Trued Up by the Commission	
Particulars	Sales (MUS)	Revenue (Rs. Crore)	Sales (MUS)	Revenue (Rs. Crore)
Total Revenue	2908.14	1822.42	2908.14	1822.42

The Commission approves the revenue from the sale of power with regulatory surcharge as Rs. 1822.42 Cr in the True-up of the FY 2022-23.

# 3.23 Standalone Revenue Gap/ (Surplus)

## **Petitioner's Submission**

The Petitioner has submitted that the Commission approved a revenue surplus of Rs. 96.64 Cr for FY 2022-23 in the tariff order for FY 2022-23. PED requests approval for a net revenue gap of Rs.318.25 Cr. The table below provides the revenue at existing tariff as submitted by the Petitioner:

Table 54 Revenue at existing tariff submitted by the Petitioner for FY 2022-23 (Rs Cr)

S. No.	Particulars	Approved	Actuals
1	Aggregate Revenue Requirement	1719.66	2050.00
2	Revenue from Sale of Power	1623.02	1822.42
3	Revenue Gap/ (Surplus) excluding Regulatory Surcharge	96.64	233.60

# Commission's analysis

The Commission has considered the audited account submitted by the Petitioner and approved Revenue Gap/(Surplus) as follows:

Table 55 Standalone Revenue Gap/ (Surplus) for FY 2022-23 (Rs Cr)

Patriciliate			Trued-up by Commission
Net Revenue Requirement	1606.47	2046.02	2001.22
Total Revenue	1569.05	1822.42	1822.42
Net Gap / (Surplus)	37.42	233.60	178.80

The Commission, in the True-up of FY 2022-23 approves standalone gap of Rs 178.80 Cr.

Further, considering the cumulative gap approved by the Commission after true-up of FY 2021-22 of Rs 432.97 Cr, the cumulative gap derives as Rs. 611.74 Cr at the end of FY 2022-23.

Table 56 Cumulative Gap/ (surplus) approved for FY 2022-23 (Rs Cr)

Patriciliats	Approved in MYT Order	Petitioner's Submission	Trued-up by Commission
Net Revenue Requirement	1606.47	2046.02	2001.22
Total Revenue	1569.05	1731.75	1822.42
Net Gap / (Surplus)	37.42	233.60	178.80
Previous Year Gap			432.97
Cumulative gap/ (surplus)			611.77

The treatment of the cumulative gap has been discussed in the Chapter of Tariff Principles and Design.

## CHAPTER 4: Annual Performance Review of FY 2023-24

## 4.1. Background

This Chapter covers the Annual Performance Review (APR) of the FY 2023-24 vis-à-vis the cost parameters approved by the Commission in the Tariff Order for FY 2023-24 in its order dated 30<sup>th</sup> March, 2023. The Annual Performance Review for the FY 2023-24 is to be carried out as per the provisions of Joint Electricity Regulatory Commission for the State of Goa and Union Territories (Generation, Transmission and Distribution Multi Year Tariff) Regulations, 2021. (hereinafter referred to as the JERC MYT Regulations, 2021)

# 4.2. Approach for the Review for the FY 2023-24

The review of the Aggregate Revenue Requirement for FY 2023-24 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 2023-24 has been done based on the 6 months' actual data as provided by the Petitioner for the FY 2023-24 of the Power Purchase Quantum and the Cost, Energy Sales, Capitalisation etc. Based on such data, 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 actual information submitted by the Petitioner, in accordance with the JERC MYT Regulations, 2021.

# 4.3. Energy Sales

## **Petitioner's Submission**

The Petitioner submitted that the Commission approved sales of 2894.75 MUs in Tariff order for FY 2023-24 and in the current petition for FY 2023-24, PED has considered the 4% increase in sales over the previous year i.e. FY 2022-23. The revised sales for FY 2023-24 are 3026.32 MUs. PED submits the revised sales figure for FY 2023-24, as details below.

Table 57 Sales (Mus) for FY 2023-24

	Table 07 bales (Mus) for F1 2020-2+				
S. No.	Particulars	Approved in T.O.	FY 2023-24 Revised Estimates		
1	Domestic	844.45	814.91		
2	ОНОВ	3.62	1.58		
3	Commercial	183.28	221.81		
4	Agriculture	62.06	59.83		
5	Public Lighting	19.95	18.22		
6	LT Industrial & Water Tank	176.94	170.68		
7	Temporary Supply - LT&HT	4.01	2.84		
8	Total LT	1294.31	1289.86		

S. No.	Particulars	Approved in T.O.	FY 2023-24 Revised Estimates
9	HT 1 Industrial & Commercial	935.13	1008.60
10	HT 2 Government	62.30	65.80
11	HT 3 EHT	603.02	662.11
12	Total HT	1600.45	1736.51
13	Total LT and HT	2894.75	3026.32

The Petitioner has requested to approve the revised sales of 3026.32 MUs for FY 2023-24.

# Commission's analysis

The Commission has considered the provisional information provided by the Petitioner for H1 of FY 2023-24. Further, the Commission has also determined the compound annual growth rate (CAGR) based on past actual sales as shown in the subsequent chapter (ARR for FY 2024-25). Hence, the Commission considers it prudent to determine the Energy Sales for FY 2023-24 on the basis of trued-up sales of FY 2022-23, which has been escalated with 5 year's CAGR. The following table provides the energy sales approved by the Commission in the Tariff Order, the Petitioner's submission and as now approved by the Commission.

Table 58 Energy Sales (MUs) approved by the Commission for APR of FY 2023-24

Consumer category	Approved in MYT	Petitioner's	Approved in
Consumer category	Order	Submission	APR
Domestic	844.45	814.91	792.35
ОНОВ	3.62	1.58	1.59
Commercial	183.28	221.81	206.65
Agriculture	62.06	59.83	59.92
Public Lighting	19.95	18.22	18.22
LT Industrial + water tank	176.94	170.68	166.79
Temporary	4.01	2.84	3.85
Total LT -Category	1,294.31	1289.86	1,249.38
		1008.60	
HT-1 (HT Industrial/Commercial)	935.13	65.80	989.27
HT-2 (Government & water tank)	62.30	662.11	62.67
HT-3 (Industrial EHT)	603.02	1736.51	719.13
Total HT -Category	1,600.45	3026.32	1,771.07
Total (LT+ HT)	2,894.75	3,026.32	3,020.45

The Commission approves 3020.45 MUs as energy sales in the APR of the FY 2023-24.

## 4.4. Open Access Sales and Purchase

## **Petitioner's Submission**

The Petitioner has not projected or scheduled any energy sales/purchase under Open Access in the FY 2023-24.

## Commission's analysis

The Commission in this regard considers the Petitioner's submission and approves NIL Open Access Sale and Purchase accordingly. The Commission now approves NIL open access sales and purchase in the APR of FY 2023-24.

#### 4.5. Inter-State Transmission Loss

#### **Petitioner's Submission**

The Petitioner has submitted the Inter-State Transmission Loss of 2.50% in its petition for FY 2023-24.

## Commission's analysis

The Commission in the APR of FY 2023-24 considers the transmission loss levels in line with latest submission by the Petitioner, which are in line with the transmission loss levels approved in the MYT Order dated 31st March 2022. The table below provides the Inter-State Transmission Losses submitted by the Petitioner and now approved by the Commission.

Table 59 Approved Inter-State Transmission Loss (%) for FY 2023-24

S. No	Particillare	II I	Petitioner's Submission	Approved in APR
1	Inter-State Transmission Losses	2.50%	2.50%	2.50%

The Commission approves the Inter-State Transmission Loss as 2.50% in the APR of FY 2023-24.

#### 4.6. Intra-State Transmission and Distribution (T&D) loss

#### **Petitioner's Submission**

The Commission had approved T&D loss of 10.75% for FY 2023-24 in the Business Plan for the third MYT control period FY2022-23 to FY 2024-25 and subsequently in Tariff order dated 30<sup>th</sup> March 2023. PED has considered the T&D loss of 10.75% for FY 2023-24.

#### Commission's analysis

The Commission in the APR of FY 2022-23 considered the T&D loss levels in line with the T&D loss levels approved in the MYT Order dated 31st March 2022. The Commission continues to approve the T&D loss for APR of FY 2023-24 as per MYT order. The table below provides the T&D Losses submitted and now approved by the Commission.

Table 60 Approved Intra-State transmission & distribution loss (%) for FY 2023-24

S. No	Particiliare	II	Petitioner's Submission	Approved in APR
1	Intra-State distribution loss	10.75 %	10.75 %	10.75 %

The Commission approves Intra-State T&D loss of 10.75 % in the APR of FY 2023-24.

## 4.7. Energy Balance

#### **Petitioner's Submission**

The Petitioner has submitted the energy balance as shown in the table below:

Table 61 Energy Balance (MUs) submitted by Petitioner

Sr. No.	Particulars	(Revised Estimates)
110.		FY 2023-24
A)	ENERGY REQUIREMENT	
1	Energy sales to metered category within the State	3,026.39
2	Energy exported to TANGEDCO	-
3	Total sales within the State	3,026.39
4	T&D Losses (%)	10.75%
5	T&D Losses (MU)	364.52
6	Energy required at Discom Periphery	3,390.91
B)	ENERGY AVAILABILITY	
1	Net Power Purchase (ex-Bus)	2945.75
2	Own Generation (PPCL)	218.09
3	Power Purchase from Renewable sources	713.81
4	Power purchase from Common Pool / UI- over drawl / Traders / Exchange / Others	0.17
5	UI Under drawl	400.00
6	Open Access Power Purchase at periphery	0.00
7	Net Power Purchased (1+2+3+4-5+6)	3,477.78
8	Inter-state Transmission Losses	86.91
9	Inter-state Transmission Losses (%)	2.50%
10	Total Energy Availability (7-8)	3,390.91

## Commission's analysis

The Commission has determined the Energy Balance based on the revised estimates of energy sales and losses approved in earlier sections. The following table provides the Energy Balance as approved by the Commission in the MYT Tariff Order, the Petitioner's Submission and the Energy Balance now approved by the Commission.

Table 62 Energy Balance (MUs) approved by the Commission for FY 2023-24

145	le 62 Energy Balance (MUS	approved by the	Commission for I	1 2020-24
S. No.	Particulars	Approved in MYT Order	Petitioner's Submission	Approved by the Commission
A	Energy Requirement			
1	Total Sales within the UT	2,894.76	3,026.39	3,020.45
2	Total Sales	2,894.76	3,026.39	3,020.45
A	T&D Loss (%)	10.75%	10.75%	10.75%
3	Total Energy Requirement	3,243.42	3,390.91	3,384.25
4	Less: State Generation (PPCL and others))	199.27	218.09	225.02
5	Energy Required at State Periphery for sale from inter-state sources			3,159.23
В	Energy Availability			
1	Net Power Purchase (ex- Bus)	2459.24	2945.75	3049.73
2	Inter-state Transmission Losses (%)	2.50%	2.50%	2.50 %
3	Energy Scheduled at state periphery through CGS	2397.76	2872.11	2973.49
4	Power purchase from Renewable sources	869.19	713.81	713.80
5	Energy availability at state periphery without open market (sales) / purchase			3687.29
6	Open market (sales)/purchase	221.81		(528.05)
7	Net Energy availability from inter-state sources	3,243.42	3,390.91	3,159.23
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<sup>\* (3049.73+713.80+225.02-528.05) = 3460.50</sup> which is matched with Power Purchase approved Quantum (Table No.- 64)

The Commission has approved energy requirement at state periphery of 3159.23 MUs. for FY 2023-24.

## 4.8. Power Purchase Quantum & Cost

## **Petitioner's Submission**

PED estimates transmission losses of 2.50 % for FY 2023-24 and requests approval from the commission. The revised estimated power purchase for FY 2023-24 is 3477.81 MU.

Table 63 Power Purchase Quantum and cost submitted by the Petitioner

1 8	Actuals	er Purchase	e Quan	tum and cost submitted by the Petitioner  Revised Estimates  Revised Estimates					
	(FY 2023-24) - H1			(FY 2023-24) - H2			(FY 2023-24)		
Particulars	Purchase (MUs)	Cost (Rs. Cr.)	Rate (Rs./ unit)	Purchas e (MUs)	(Rs. Cr.)	Rate (Rs./ unit)	Purchas e (MUs)	Cost (Rs. Cr.)	Rate (Rs./ unit)
NTPC	661.53	301.43	4.56	559.57	220.29	3.94	1221.11	521.72	4.27
NTPL	57.49	33.42	5.81	48.62	24.42	5.02	106.11	57.84	5.45
NLC	283.26	121.14	4.28	239.55	88.53	3.70	522.81	209.68	4.01
PPCL	118.16	136.40	11.5 4	99.92	99.68	9.98	218.09	236.08	10.8
KAIGA	122.73	43.18	3.52	103.79	31.56	3.04	226.52	74.74	3.30
NTPC - MAPS	7.61	1.96	2.58	6.44	1.43	2.22	14.04	3.39	2.41
NTECL	62.44	64.59	10.3 5	52.80	47.20	8.94	115.23	111.79	9.70
KKNP	213.20	91.61	4.30	180.30	66.95	3.71	393.49	158.56	4.03
NNTPS	187.70	122.38	6.52	158.73	89.44	5.63	346.43	211.82	6.11
KSEB	-	-		-	-	-	-	-	-
NTPC Solar	137.22	37.05	2.70	116.04	32.01	2.76	253.26	69.06	2.73
SECI Wind	249.53	78.09	3.13	211.01	58.50	2.77	460.54	136.59	2.97
CTUIL	0.17	102.76			68.74		0.17	171.50	
Power Purchase	2,101.04	1134.02	5.40	1776.77	828.75	4.66	3877.81	1962.77	5.06
Less: RRAS Charges		14.00							
Less Sale / Trading	192.00	90.00		208.00	90.00		400.00	194.00	4.85
Net Power Purchase	1909.04	1030.02	5.40	1568.77	738.75	4.71	3477.81	1768.76	5.09

The Petitioner requested the Commission to approve the revised estimate of power purchase cost of Rs.1768.76 Cr for FY 2023-24 as submitted above.

## Commission's analysis:

The Commission while estimating the power purchase quantum and cost for FY 2023-24 has considered the actual quantum and cost of power till September 2023, as submitted by the Petitioner. The Commission has projected the quantum of energy and cost for the remaining 6 months of the FY 2023-24.

The Commission has reviewed the energy estimation and cost submitted by the Petitioner. The Commission has considered the energy availability from the renewable sources in line with the Petitioner's submission. The Commission observes that the Petitioner has proposed 713.80 MUs of energy purchase from renewable energy sources. This is positive approach towards RPO compliance and not as per the historical trend of Power Purchase for the Petitioner. For Inter-state sources, the Commission has considered availability from must run power projects (NPCIL) as submitted by the Petitioner. Further, for thermal power projects the Commission has derived the availability from those stations with 55% of PLF as technical minimum. The energy excess of requirement is considered to be sold in the power exchange.

The Commission has reviewed the recent bills submitted by the Petitioner. For PPCL (state generator), the cost as approved for PPCL for FY 2024-25 has been considered.

The variable charges for FY 2023-24 for the existing plants have been considered based on the actual cost submitted by the Petitioner for FY 2023-24. (latest month of September)

Similarly, the Commission has considered the first 6 months of fixed cost in line with cost submitted by the Petitioner for latest month available for FY 2023-24 and considered for remaining 6 months as approved in CERC Tariff order for FY 2023-24. PGCIL charges is considered as submitted by the Petitioner for FY 2024-25.

Accordingly, the Commission has approved the power purchase quantum and power purchase cost for FY 2023-24 as given below:

Table 64 Power Purchase Quantum and cost approved by the Commission for FY 2023-24

Details of the stations	PP at Ex Bus (MU)	Variable Charges (Rs/kWh)	Annual Variable Charges (Rs. Cr.)	Annual Fixed charges (Rs. Cr.)	Total (Rs.Cr.)	Avg. Rate (@ Exbus)
NTPC						
RSTPS Stage I & II	361.31	3.97	143.44	40.84	184.28	5.10
RSTPS Stage -III	90.27	3.91	35.29	11.95	47.24	5.23
Talcher Stage- II	309.89	1.82	56.40	35.85	92.25	2.98
Simhadri Stage- II	68.80	3.31	22.77	16.35	39.13	5.69
NTPC Kudgi	106.35	5.14	54.66	58.61	113.27	10.65
Sub Total-NTPC	936.62		312.57	163.60	476.17	5.09
NLC						
NLC TPS II Stage I	347.70	3.21	111.61	30.36	141.97	4.08
NLC TPS II Stage II	124.04	3.21	39.82	9.57	49.39	3.98
NLC TPS I (Expn)	102.98	2.87	29.55	13.65	43.20	4.20
NLC TPS II (Expn)	122.62	3.04	37.28	26.80	64.08	5.23
NTPL (Tuticorin)	83.93	3.35	28.12	21.26	49.38	5.88

Details of the stations	PP at Ex Bus (MU)	Variable Charges (Rs/kWh)	Annual Variable Charges (Rs. Cr.)	Annual Fixed charges (Rs. Cr.)	Total (Rs.Cr.)	Avg. Rate (@ Exbus)
NNTPS	275.59	2.56	70.55	97.14	167.69	6.08
Sub Total-NLC	1056.86		316.93	198.78	515.71	4.79
NPCIL						
MAPS	33.04	2.40	7.93	0.00	7.93	2.40
KAPS Stage I	491.59	3.49	171.57	0.00	171.57	3.49
Kudankulam U1	285.32	3.54	101.00	0.00	101.00	3.54
Kudankulam U2	143.46	3.54	50.78	0.00	50.78	3.54
Sub Total-NPCIL	953.41		331.28	0.00	331.28	4.31
Others						
TNEB (Karaikal)	0.00					
Vallur Thermal Project (NTECL)	102.84	4.00	41.14	24.98	66.12	6.43
State Generation						
PPCL	225.02	7.36	165.62	42.76	208.38	9.26
Open market	(528.05)	4.85	(256.11)		(256.11)	4.85
Renewable	713.80		198.78		198.78	
NTPC Solar	253.26	2.63	66.61		66.61	2.63
SECI Wind	460.54	2.87	132.17		132.17	2.87
Total	3460.50		1110.21		1540.33	4.45
PGCIL Charges					171.50	
RRAS charges					14.00	
Total Cost	3460.50		1110.21	430.12	1697.83	4.91

The Commission approves the revised quantum of power purchase as 3460.50 MUs at ex-bus with total cost of Rs. 1697.83 Cr in the APR of FY 2023-24.

## 4.9. Renewable Purchase Obligations (RPO)

## Petitioner's Submission:

The Petitioner has submitted that cumulative RPO obligation pending as on 01.04.2023 was1575.88 Mus (629.74MUs Solar & 936.20MUs non-Solar). The Total RPO Obligation for FY 2023-24 is 19.91% (i.e.10.00% Solar & 9.91% non-Solar) amounting to stand alone RPO obligation of 602.54 MUs for FY 2023-24 (302.63MUs Solar & 299.91MUs non-Solar). The Petitioner has furnished the following information:

Table 65 RPO Compliance for FY 2023-24

Description	Unit	Current Year	
Description	Unit	FY 2023-24	
Sales Within State	MUs	3026.32	
RPO Obligation	%	19.91%	
- Solar	%	10.00%	
- Non Solar	%	9.91%	
RPO Obligation	MUs	602.54	
- Solar	MUs	302.63	
- Non Solar	MUs	299.91	
RPO Purchase	MUs	893.96	
Physical Power			
- Solar	MUs	317.94	
- Non Solar	MUs	576.02	
Renewable Energy Certificate			
- Solar	MUs	-	
- Non Solar	MUs	-	
Cumulative RPO Obligation			
- Solar	MUs	571.04	
- Non Solar	MUs	629.50	

## **Commission Analysis:**

As per Regulation 3, Sub-regulation (1) of the JERC (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), (Fourth Amendment) Regulations, 2022 on 24th March 2022 and revised the RPO targets, according to which for FY 2023-24 the Petitioner is obligated to purchase power from renewable sources at minimum percentage of 19.91% of its total annual consumption, out of which 10.00% must be from Solar Power.

In accordance with the JERC (Procurement of Renewable Energy) Regulations, 2010, as amended from time to time, and the Petitioner's Submission, the table below provides the Renewable Purchase Obligation for the FY 2023-24 as determined by the Commission based on the revised estimate of energy sales:

Table 66 Renewable Purchase Obligation (RPO) (MUs) approved by the Commission for FY 2023-24

S1 No.				
	Description	Unit	Claimed by the Petitioner	Approved in APR
1	Sales Within State	MUs	3026.32	3020.45
2	RPO Target	%	19.91%	19.91%
3	- Solar	%	10.00%	10.00%
4	- Non-Solar	%	9.91%	9.91%
5	RPO Obligation	MUs	602.54	601.37
6	- Solar	MUs	302.63	302.04
7	- Non-Solar	MUs	299.91	299.33
8	RPO Purchase	MUs	893.96	893.96
9	Physical Power			
10	- Solar	MUs	317.94	317.94
11	- Non-Solar	MUs	576.02	576.02
12	Renewable Energy Certificate			
13	- Solar	MUs	-	-
14	- Non-Solar	MUs	-	-
15	Cumulative requirement till current year			
16	- Solar	MUs		1332.37
17	- Non-Solar	MUs		1845.07
18	Total			3177.44
19	Cumulative Compliance till current year			
20	Solar	MUs		711.56
21	Non-Solar	MUs		1168.33
22	Total	MUs		1,879.89
23	Net Shortfall in RPO Compliance till current year			
24	Solar	MUs	571.04	620.81
25	Non-Solar	MUs	629.50	676.74
26	Total	MUs	1200.54	1297.55

## 4.10. Operation & Maintenance Expenses

As per Regulation 61 of JERC MYT Regulations, 2021, the Commission shall stipulate separate trajectory of norms for each component of O&M expenses.

- "61 Operation and Maintenance (O&M) expenses for Retail Supply Business
- 61.1 The Operation and Maintenance Expenses for the Retail Supply Business shall be computed in accordance with this Regulation.
- 61.2 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.
- 61.3 The 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 Distribution Licensee, estimates of the actuals for the Base Year, prudence check and any other factors considered appropriate by the Commission.
- 61.4 O&M expenses for the nth Year of the Control Period shall be approved based on the formula given below:

 $O\&Mn = (R\&Mn + EMPn + A\&Gn) \times (1 - Xn) + Terminal Liabilities$ 

Where,

 $R\&Mn = K \times GFAn-1 \times (1+WPIinflation)$ 

 $EMPn = (EMPn-1) \times (1+Gn) \times (1+CPIinflation)$ 

 $A\&Gn = (A\&Gn-1) \times (1+CPIinflation)$ 

'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;

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

WPI inflation – 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 Distribution 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 nth Year. Value of Gn shall be determined by the Commission foreach 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 Licensee has been in operation for less than three (3) Years as on the date of effectiveness of these Regulations, the O&M Expenses shall be determined on a case to case basis.

- 61.5 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.
- 61.6 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.

Provided that at the time of truing up, the variation in the normative and actual O&M expenses shall be dealt in accordance with Regulation 15."

Accordingly, the Commission has dealt with components of O&M expenses separately in the following sections.

## 4.10.1. Employee Expenses

#### **Petitioner's Submission**

The PED projected normative employee expenses at Rs. 128.64 Cr. as given below:

Table 67 Computation of Employee Expenses for FY 2023-24 (Rs Cr)

Particulars	Values
Employee Expenses for FY 2022-23 (Rs. Cr)	134.83
Growth factor of (Gn) (%)	-9.48%
CPI (%) (3 previous years' avg.)	5.40%
Employee Expenses for FY 2023-24 (Rs. Cr)	128.64

#### Commission's analysis

In accordance with the JERC MYT Regulations, 2021, the Commission has determined the Employee expenses for the FY 2023-24. Regulation 6 of the JERC MYT Regulations, 2021 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 approved figure of FY 2022-23 as a base figure to determine the employee expenses for FY 2023-24. The Base Year expenses have been escalated by Growth Rate determined based on the manpower plan as submitted by the Petitioner and average CPI Inflation to arrive upon the employee expenses of FY 2023-24.

Table 68 CPI inflation index

FY	Average of (Apr March)	ril – Increase in CPI Index	Average increase In CPI indices over 3 year
FY 2019-20	322.50		
FY 2020-21	338.70	5.02%	
FY 2021-22	356.10	5.13%	5.40 %
FY 2022-23	377.60	6.05%	

Table 69 Computation of employee expenses for FY 2023-24 (Rs Cr)

	Approved
Particulars	FY 2023-24
Base Employee Expenses	90.17
Gn (Growth factor)	-9.65 %*
CPI (%)	5.40%
Total Employee Expenses	85.87

<sup>•</sup> Employee Number for FY 2022-23 is 1710 and for FY 2023-24 is 1545.

Table 70 Approved Employee expenses for FY 2023-24 (Rs. Cr.)

Patticiliate	Approved in MYT Order	Petitioner's Submission	Approved in APR
Employee Expenses	131.76	128.64	85.87
Impact of 7 <sup>th</sup> Pay Commission	-	-	_
Total Employee Expenses	131.76	128.64	85.87

The Commission approves Employee Expenses Rs. 85.87 Cr. for APR of the FY 2023-24.

## 4.10.2. Repair and Maintenance Expenses (R&M)

## **Petitioner's Submission**

The Petitioner has estimated the normative R&M expenses as Rs. 10.22 Cr., which is calculated using an average K factor of 0.91% and an average WPI of 7.90% for the relevant financial years as given below:

Table 71 R&M expenses for FY 2023-24 (Rs Cr) as submitted by the Petitioner

Particulars	Values
Opening GFA (GFAn-1)	1039.83
K factor approved (K) (%)	0.91 %
WPI Inflation (Actuals for FY 2023-24) (%)	7.90
R&M Expenses = K x (GFA n-1) x (1+WPIinflation)	10.22

## Commission's analysis

The Commission had considered the K factor of 0.91 % as approved in the 3rd MYT Tariff Order dated 31.03.2022. The same 'K' factor has been considered and multiplied with the closing GFA approved for the (n-1)-th year (i.e. for FY 2022-23 under true-up). The resultant amount is then escalated by average WPI Inflation for FY 2023-24 to arrive upon the R&M Expenses for the FY 2023-24. The WPI Inflation has been computed as follows:

**Table 72 Computation of WPI Inflation** 

FY	AVETOGE OF LANT-IVIOTI	Average increase in WPI over 3 years
2020-21	123.40	
2021-22	139.40	7.89%
2022-23	152.50	70

The R&M expenses approved by the Commission for FY 2023-24 have been provided in the following table:

Table 73 Computation for R&M Expenses for FY 2023-24 (Rs Cr)

	<b>F</b>
Particulars	Values
Opening GFA (GFA <sub>n-1</sub> )	1039.85
K factor approved (K) (%)	0.91%
WPI Inflation (Actuals for FY 2023-24) (%)	7.89%
R&M Expenses =  K x (GFA n-1) x (1+WPIinflation)	10.21

Table 74 R&M Expenses approved by the Commission for FY 2023-24 (Rs. Cr)

Particiliare	T T		Approved in APR
Repair & Maintenance Expenses (R&M)	10.71	10.22	10.21

The Commission approves the Repair & Maintenance (R&M) expenses of Rs. 10.21 Cr in the APR of FY 2023-24.

## 4.10.3. Administrative and General (A&G) Expenses

#### **Petitioner's Submission**

PED has considered the base year figures for the FY 2022-23 as per the actual incurred A&G expenses of Rs. 14.55 Cr (for FY 2022-23) and the same have been escalated by Growth Rate determined based on the average CPI Inflation of the last three years to arrive upon the employee expenses of FY 2023-24 as given below:

Table 75 A&G Expenses for FY 2023-24 (Rs. Cr)

Particulars	Values
A&Gn-1 (Rs. Cr)	14.55
CPI Inflation (%)	5.40%
A&G Expenses (Rs. Cr)	15.34

## Commission's analysis

The Commission has considered the approved figure of FY 2022-23 as a base figure to determine the A&G expenses for FY 2023-24. The Base Year expenses have been escalated by CPI factor to determine A&G expenses of FY 2023-24.

Table 76 Computation of A&G expenses (Rs Cr)

S. No	Particulars	Approved
		FY 2023-24
1	Base A&G Expenses	14.89
2	CPI (in %)	5.40%
3	A&G Expenses	15.70

Table 77 A&G Expenses approved by Commission (Rs Cr) for FY 2023-24

Patticiliate	· · · · · · · · · · · · · · · · · ·		Approved in APR
A&G Expenses	19.62	15.34	15.70

The Commission approves the Administrative & General (A&G) expenses of Rs. 15.70 Cr in the APR of FY 2023-24.

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

The following table provides the O&M expenses approved in the APR of FY 2023-24, Petitioner's Submission and now approved by the Commission.

Table 78 Total O&M Expenses approved by the Commission for FY 2023-24 (Rs Cr)

Particulars	Approved in MYT Order	Petitioner's Submission (actual)	Approved in APR
A&G Costs	19.62	15.34	15.70
R&M Expenses	10.71	10.22	10.21
Employee Cost	131.76	128.64	85.87
Total O&M Expenses	162.09	154.20	111.78

The Commission approves the Operation & Maintenance (O&M) Expenses of Rs. 111.78 Cr in the APR of FY 2023-24.

## 4.11. Capital Expenditure & Capitalization

#### **Petitioner's Submission**

PED has estimated the net additional capitalisation of Rs. 87.82 Cr during FY 2023-24 as approved by the Commission. Thus, the Petitioner requested the Commission to approve the net additions to GFA for FY 2023-24 of Rs.35.13Cr as provided in the table below:

Table 79 Capitalization estimates for FY 2023-24 (Rs. Cr)

S. No.	Particulars		<u> </u>	imed by itioner	the
1	Capitalization	n 87.82	87.	82	

## Commission's analysis:

In accordance with the submission of the Petitioner and Capitalization approved in Tariff Order, the Commission approves the capital expenditure and capitalization for the year as shown in the following table:

Table 80 Capitalization approved by the Commission (Rs Cr) for FY 2023-24

S. No	Particiliars			Approved in APR
1	Capitalization	87.82	87.82	87.82*

<sup>\*</sup> Out of total, Rs 52.69 Cr will be provided through grant

The Commission approves capitalization of Rs. 87.82 Cr in the APR of FY 2023-24.

## 4.12. Capital Structure

## **Petitioner's Submission**

The Petitioner submitted that the majority of capital assets shall be created out of equity contribution from Government of Puducherry and the actual borrowing of loan is only to the extent of implementing the R-APDRP, DDUGJY and IPDS schemes.

#### Commission's analysis

Regulation 27 of the JERC MYT Regulations, 2021 specifies the following:

## "27. Debt to Equity Ratio

27.1 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-capitalization 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-capitalization 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.

27.2 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.

27.3 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 modernization expenditure for life extension shall be serviced in the manner specified in this Regulation."

In accordance with the JERC MYT Regulations, 2021, the Commission has determined the Capital Structure for FY 2023-24 as follows:

Table 81 GFA addition approved by the Commission (Rs Cr)

Patticiliate	· · · · · · · · · · · · · · · · ·		Approved in APR
Addition During the FY (net of grant)	87.82	87.82	87.82
Grant	52.69	52.69	52.69

37 · 4 1 1 · · · · /37 · · C · · · · ·	05.10	0 = 10	0 = 10
Net Addition (Net of Grant)	B5 13	135-13	35.13
rice madridi (rice di diane)	00.10	00.10	00.10

Table 82 Capital Structure approved by the Commission (Rs. Cr) for FY 2023-24

Patriciliate		Petitioner's Submission	Approved by the Commission
Gross Fixed Assets addition during the year (net of grant)	35.13	35.13	35.13
Normative loan addition During the FY @70% of GFA addition during year	24.59	24.59	24.58
Equity addition on account of new Capitalisation @30% of GFA addition during the year	10.54	10.54	10.54

## 4.13. Depreciation

The Petitioner estimated the depreciation by escalating FY 2022-23 actual depreciation by 4% to Rs. 26.24 Cr. Details are given below:

Table 83 Depreciation for FY 2023-24 (Rs. Cr)

S. No.	Particulars	Approved by Commission	Revised Estimates
1	Net Depreciation for the year	38.63	26.24
2	Rationale	3.67% average depreciation rate	4% escalation on previous year

#### Commission's Analysis

Regulation 31 of the JERC MYT Regulations, 2021 stipulates the following:

- "31. Depreciation
- 31.1 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.

31.2 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.

Provided further that the salvage value of Information Technology equipment and computer software shall be considered at zero (0) per cent of the allowable capital cost.

- 31.3 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.
- 31.4 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.
- 31.5 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.

- 31.6 For Transmission Licensee, the depreciation shall be calculated at rates and norms specified in the prevalent CERC Tariff Regulations for transmission system.
- 31.7 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.
- 31.8 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.

- 31.9 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.
- 31.10 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 specified in JERC MYT Regulations, 2021 for FY 2022-23 under true-up, and considering the same rate has been considered for depreciation in FY 2023-24, as provided in the following table:

Table 84 Depreciation approved by Commission (Rs Cr) for FY 2023-24

	1/		
Particulars		Petitioner's Submission	Approved in APR
Opening Gross Fixed Assets	1,034.35		1,039.85
Addition During the FY	87.82		87.82
Less: Government Grant	52.69		52.69
Closing Gross Fixed Assets	1,069.48		1,074.97
Average Gross Fixed Assets	1,051.92		1,057.41
Weighted Average Depreciation rate (%)	3.67%		3.70%
Depreciation	38.63	26.24	39.16

The Commission approves depreciation of Rs. 39.16 Cr in the APR of the FY 2023-24.

## 4.14. Interest and Finance Charges

#### **Petitioner's Submission**

The summary of Interest and Finance Charges as approved by the Commission for FY 2023-24 along with revised estimates submitted by the Petitioner is tabulated below:

Table 85 Interest & Finance Charges for FY 2023-24, submitted by the Petitioner (Rs. Cr)

S. No.	S. No. Particulars		Revised Estimates
1	Opening Normative Loan	160.28	176.79
2	Add: Normative Loan during the Year		24.59
3	Less: Normative Repayment	38.63	26.24
4	Closing Normative Loan	146.24	175.14
5	Average Normative Loan	153.26	175.96
6	Rate of Interest (@SBI 1 Year MCLR rate+100 Basis Points)		8.00%
7	7 Interest on Normative Loan		14.08
8	Other Finance Charges	0.00	-
9	Total Interest and Finance Charges	12.26	14.08

## Commission's analysis

Regulation 29 of the JERC MYT Regulations, 2021 stipulates the following:

"29. Interest on Loan

29.1 The loans arrived at in the manner indicated in Regulation 27 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-capitalization 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.

- 29.2 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.
- 29.3 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 31.
- 29.4 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 after prudence check:

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.

29.5 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 capitalization approved by the Commission for the Year.

29.6 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.
- 29.7 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.
- 29.8 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.
- 29.9 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.

- 29.10 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.
- 29.11 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."

Accordingly, the Commission has considered the SBI 1 Year MCLR rate i.e. rate applicable as on 01.04.2023 (8.50%) plus 100 basis points which comes to 9.50%.

The following table provides the Interest on Loan approved by the Commission:

Table 86 Interest and Finance charges approved by Commission (Rs Cr) for FY 2023-24

Particulars	Approved in MYT Order	Petitioner's Submission	Approved by the Commission
Opening Normative Loan	160.28	176.79	176.79
Add: Normative Loan During the year	24.59	24.59	24.59
Less: Normative Repayment= Depreciation	38.63	26.24	39.16
Closing Normative Loan	146.24	175.14	162.21
Average Normative Loan	153.26	175.96	169.50
Rate of Interest (%)	8.00%	8.00%	9.50%
Interest on Loan	12.26	14.08	16.10
Financing Charges	-	-	-
Interest and Finance Charges	12.26	14.08	16.10

The Commission approves Interest and Finance Charges of Rs. 16.10 Cr in the APR of the FY 2023-24.

## 4.15. Return on Equity (RoE)

#### **Petitioner's Submission**

The capital base for FY 2022-23 and an equity addition equivalent to 30% of estimated assets for FY 2023-24 are considered by the Petitioner. In line with the JERC MYT regulation 2021 and the methodology adopted in the previous tariff order, PED has calculated the Return on Equity as outlined in the following table for FY 2023-24:

Table 87 Return on Equity for FY 2023-24, submitted by the Petitioner (Rs. Cr)

S. No.	Particulars	Approved	Revised Estimates
1	Opening Equity Amount	310.30	311.95
2	Equity Addition during year (30% of Capitalization)	10.54	10.54
3	Closing Equity Amount	320.84	322.49
4	Average Equity Amount	315.57	317.22
5	Average Equity-Wires Business	284.02	285.50
6	Average Equity (Retail Supply Business)	31.56	31.72
7	Return on Equity for Wires Business (%)	15.50%	15.5%
8	Return on Equity for Retail Supply Business (%)	16.00%	16.0%
9	Return on Equity for Wires Business	44.02	44.25
10	Return on Equity for Retail Supply Business	5.05	5.08
11	Total Return on Equity	49.07	49.33

## Commission's analysis:

The Regulations 28.2 and 28.3 of the JERC MYT Regulations, 2021 stipulate the following:

"28.2 The return on equity for the Distribution Wires Business shall be allowed on the equity capital determined in accordance with Regulation 27 for the assets put to use at post-tax rate of return on equity specified in the prevalent CERC Tariff Regulations for transmission system.

28.3 The return on equity for the Retail Supply Business shall be allowed on the equity capital determined in accordance with Regulation 27 for the assets put to use, at the rate of sixteen (16) per cent per annum."

RoE has been calculated on normative basis on the average of opening and closing of equity during the year at the rate of 15.5% and 16% (on post-tax basis) with an opening equity considered equivalent to the closing equity of FY 2022-23 as approved in the True-up order. The following table provides the RoE approved in the Tariff Order, the Petitioner's Submission and RoE now approved by the Commission.

Table 88 ROE approved by the Commission for FY 2023-24 (Rs Cr.)

	Table 88 ROE approved by the Commission for F1 2023-24 (RS CI.)					
S. No	Particulars		Approved in MYT Order	Petitioner's Submission	Approved in APR	
1	Opening Equity Amount	A	310.30	311.95	311.95	
2	Equity Addition during year	В	10.54	10.54	10.54	
3	Closing Equity Amount	С	320.84	322.49	322.49	
4	Average Equity Amount	D = (A+B)/2	315.57	317.22	317.22	
5	Average Equity-Wires Business	E = D*90%	284.02	285.50	285.50	
6	Average Equity (Retail Supply Business)	F=D*10 %	31.56	31.72	31.72	
7	Return on Equity for Wires Business (%)	G	15.50%	15.50%	15.50%	
8	Return on Equity for Retail Supply Business (%)	Н	16.00%	16.00%	16.00%	
9	Return on Equity for Wires Business	I=G*E	44.02	44.25	44.25	
10	Return on Equity for Retail Supply Business	J=H*F	5.05	5.08	5.08	
11	Total Return on Equity	K=I+J	49.07	49.33	49.33	

The Commission approves the Return on Equity of Rs. 49.33 Cr in the APR of the FY 2023-24.

## 4.16. Interest on Security Deposit

## **Petitioner's Submission**

The prevailing Bank rate is considered by the Petitioner as notified by Reserve Bank of India with effect from 1<sup>st</sup> April of the relevant financial year for estimating the normative interest on Security Deposits for FY 2023-24. The submission of the Petitioner is given below.

Table 89 Interest on Security Deposit for FY 2023-24, submitted by the Petitioner (Rs. Cr)

S. No.	Particulars	Approved	Claimed by the Petitioner
1	Opening Security Deposit	245.35	247.65
2	Add: Deposits during the year	28.61	17.00
3	Less: Deposits refunded	13.19	-
4	Closing Security Deposit	260.77	264.65
5	Bank Rate	4.25%	4.25%
6	Interest on Security Deposit	10.76	10.89

The Petitioner has requested to allow the Interest on Security Deposit for FY 2023-24 is Rs.10.89 Cr.

## Commission's analysis:

Interest on Security Deposits has been calculated in accordance with the JERC MYT Regulations, 2021. Regulation 29.11 of the JERC MYT Regulations, 2021 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 opening security deposit has been derived based on the closing security deposit as approved in FY 2022-23. The addition during the year has been considered as escalation of 10% on the approved value for FY 2022-23. The rate of interest has been considered equivalent to the prevailing RBI Bank rate as on 01.04.2023. The table below provides the calculation of interest on consumer security deposits approved for APR of FY 2023-24:

Table 90 Interest on Security Deposits approved by Commission (Rs Cr) for FY 2023-24

S. No				Approved in APR
1	Opening Security Deposit	245.35	247.65	247.65
2	Add: Deposits During the year	28.61	17.00	17.00

	Interest on Security Deposit on normative basis	10.76	10.89	17.29
7	Rate of Interest (%)	4.25%	4.25%	6.75%
6	Average Security Deposit	253.06	256.15	255.15
5	Closing Security Deposit	260.77	264.65	264.25
3	Less: Deposits refunded	13.19		-

The Commission approves Interest on Security Deposit as Rs. 17.29 Cr in the APR of the FY 2023-24.

## 4.17. Interest on Working Capital

#### **Petitioner's Submission**

The Petitioner submitted that the Commission approved Nil interest on working capital for FY 2023-24, but revised estimates suggest it to be Rs. 6.25 Cr. The interest rate considered is 9.00% (SBI 1-year MCLR as of April 1, 2022, plus 200 basis points). The computation of interest on working capital is shown in the following table:

Table 91 Interest on Working Capital for FY 2023-24 (Rs. Cr)

S. No.	Particulars	Approved	Claimed by the Petitioner
1	Two Months Receivable	285.58	312.39
2	O&M Expense - 1 month	13.51	12.85
3	Maintenance Spare @ 40% of R&M Exp - one month	0.36	0.34
4	Less: Amount held as Security Deposit	253.06	225.58
	Less: Power Purchase cost for one (1) month	123.38	
5	Total	(77.00)	69.43
6	Interest Rate (%)	9.00%	9.00%
7	Interest on working capital	0.00	6.25

## Commission's analysis:

The Regulation 53 of the JERC MYT Regulations, 2021 stipulates the following:

- "53. Norms of Working Capital for Distribution Wires Business
- 53.1 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 64 of the JERC MYT Regulation, 2021 stipulates the following:

"64.1 The Distribution Licensee shall be allowed interest on the estimated level of working capital for the Retail

Supply 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 Consumers at the prevailing tariff;

#### Less

- (d) Power Purchase cost for one (1) month; plus
- (e) Amount, if any, held as security deposits under clause (b) of sub-section (1) of Section 47 of the Act from Consumers 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 32.3 of the JERC MYT Regulation, 2021 stipulates the following:

- "32.3 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.
- 32.4 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."

The Commission has considered the SBI MCLR rate as on 1st April 2023 for calculation of interest plus 200 basis points i.e. 8.5% + 200 basis points, as stipulated in the MYT Regulations, 2021.

Accordingly, the Interest on Working Capital has been determined by the Commission, as shown in the table below:

Table 92 Interest on Working Capital approved by Commission (Rs Cr) for FY 2023-24

Particulars	Approved in ARR Order	Petitioner's Submission	Approved by the Commission
O&M Expense for 1 month	13.51	12.85	9.31
Maintenance spares at 40% of R&M expenses for one (1) month;	0.36	0.34	0.34
Receivables equivalent to two (2) months of the expected revenue at prevailing tariff	285.58	312.39	321.02
Total Working Capital Requirement	299.45	325.58	330.68
Less: Amount held as security deposits	253.06	225.58	256.15
Less: Power Purchase Cost	123.38	-	141.49
Net Working Capital	(77.00)	69.43	(66.73)
Rate of Interest (%)	9.00%	9.00%	10.50%
Interest on Working Capital	0.00	6.25	0.00

Accordingly, the Commission approves the NIL Interest on Working Capital in the APR of FY 2023-24, since, there is negative working capital requirement.

## 4.18. Provisional for Bad & Doubtful Debts

#### **Petitioner's Submission**

The Petitioner has not claimed any amount towards bad and doubtful debts for FY 2023-24.

#### Commission's analysis:

As per Regulation 63 of the JERC MYT Regulations, 2021:

63.1 "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."

Accordingly, the Commission has not considered any provision towards bad and doubtful debts for APR of FY 2023-24. The same shall be accounted for as per actuals in the True-up of FY 2023-24.

## 4.19. Non-Tariff Income (NTI)

#### **Petitioner's Submission**

The Petitioner has claimed the Non-Tariff Income in FY 2023-24 as Rs. 9.73 Cr, escalating the actuals of FY 2022-23 by 5%.

## Commission's analysis:

Regulation 44 of JERC MYT Regulation, 2021 states the following:

"44. Non-Tariff Income

44.1 The amount of Non-Tariff Income relating to the transmission business as approved by the Commission shall be deducted from the Aggregate Revenue Requirement in determining annual transmission charges of the Transmission Licensee:

Provided that the Transmission Licensee shall submit full details of its forecast of Non-Tariff Income to the Commission along with its application for determination of Aggregate Revenue Requirement.

- 44.2 The Non-Tariff Income shall inter-alia include:
- a) Income from rent on 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) Miscellaneous receipts like parallel operation charges;
- j) Deferred Income from grant, subsidy, etc., as per Annual Accounts;

- *k)* Excess found on physical verification;
- *Interest on investments, fixed and call deposits and bank balances;*
- m) Prior period income, etc.:

Provided that the interest/dividend earned from investments made out of Return on Equity corresponding to the Licensed Business of the Transmission Licensee shall not be included in Non-Tariff Income."

The Commission has considered the Petitioner's submission and also consider the rebate of 1% of power purchase cost as Non-Tariff Income. The Non-Tariff Income now approved is shown in the table below:

Table 93 Non-Tariff Income approved by Commission (Rs Cr) for FY 2023-24

Particulars	Approved in MYT Order	Petitioner's Submission	Approved in APR
Misc/Other Receipts	25.13	9.73	9.73
Normative Rebate	14.81		16.98
Non-Tariff Income	39.94	9.73	26.71

The Commission approves Non-Tariff Income of Rs. 26.71 Cr in the APR of the FY 2023-24.

## 4.20. Aggregate Revenue Requirement (ARR)

## **Petitioner's Submission**

The Aggregate Revenue Requirement for FY 2023-24 approved by the Commission in the Tariff order for FY 2023-24 was Rs.1713.46 Cr. The calculation for Aggregate Revenue Requirement on the basis of revised estimates for FY 2023-24 is shown below:

Table 94 ARR submitted by the Petitioner for FY 2023-24 (Rs Cr)

S. No.	Particulars	Approved by Commission	Claimed in APR
1	Cost of power purchase	1,480.59	1768.76
2	Employee Costs	131.76	128.64
3	Administration and General Expenses	19.62	15.34
4	R&M expenses	10.71	10.22
5	Depreciation	38.63	26.25
6	Interest & Finance Charges	12.26	14.08
7	Interest on CSD	0.00	6.25
8	Interest on Working Capital	10.76	10.89
10	Return on Equity	49.07	49.33
11	Provision for Bad Debt	0.00	0.00
12	Total Revenue Requirement	1753.40	2029.74
13	Less: Non- Tariff Income	39.94	9.73
14	Net Aggregate Revenue Requirement	1713.46	2020.01

## Commission's analysis

The Commission on the basis of the detailed analysis of the cost parameters of the ARR has considered and approved the revenue requirement in the APR of FY 2023-24 as given in the following table:

Table 95 Approved in APR of FY 2023-24 (Rs Cr)

Particulars	Approved in MYT Order	Petitioner's Submission	Approved in APR
Cost of power purchase	1,480.59	1768.76	1697.83
Employee Costs	131.76	128.64	85.87
Administration and General Expenses	19.62	15.34	15.70
R&M expenses	10.71	10.22	10.21
Depreciation	38.63	26.25	39.16
Interest & Finance Charges	12.26	14.08	16.10
Interest on CSD	10.76	10.89	17.29
Interest on Working Capital	0.00	6.25	0.00
Return on Equity	49.07	49.33	49.33
Provision for Bad Debt	0.00	0.00	0.00
Total Revenue Requirement	1753.39	2029.74	1931.49
Less: Non- Tariff Income	39.94	9.73	26.71
Net Aggregate Revenue Requirement	1713.45	2020.01	1904.78

The Commission approves net Aggregate Revenue Requirement of Rs. 1904.78 Cr in the APR of FY 2023-24.

## 4.21. Revenue at existing Retail Tariff

#### **Petitioner's Submission**

The Petitioner has submitted the following Table, which provides the category wise revenue for FY 2023-24 as given below:

Table 96 Revenue at existing tariff submitted by Petitioner for FY 2023-24

S. No.	Particulars	Sales (MUs)	Revenue (Rs.Cr)
LT Cate	gory		
1	Domestic	814.91	318.90
2	ОНОВ	1.58	0.00
3	Commercial	221.81	187.63
4	Agriculture	59.83	0.00
5	Public Lighting	18.22	20.04

S. No.	Particulars	Sales (MUs)	Revenue (Rs.Cr)
6	LT Industrial & Water Tank	170.68	121.77
7	Temporary Supply - LT&HT	2.84	0.00
	Total LT	1289.86	648.34
HT Cates	gory		
9	HT 1 Industrial / Commercial	1008.60	691.69
10	HT 2 – Government	65.80	57.13
11	HT 3 – EHT	662.11	401.16
12	Total HT	1736.51	1149.97
13	Total LT and HT	3026.3	1798.32
14	FPPCA charges		76.00
15	BPSC Collected		
16	Regulatory Surcharge		
17	Total Revenue Excluding Regulatory Surcharge (13+14+15)		1874.32

## Commission's Analysis

The category wise/ sub-category wise and slab-wise revenue at existing retail tariff is calculated as per the applicable tariff rates. The revenue from demand charges and the energy charges have been projected for each category/ sub-category and slab-wise. The Commission has not considered the revenue from Regulatory Surcharge along with revenue from Retail Tariff. The total revenue from existing tariff as computed by the Commission for the FY 2023-24 has been shown in the following table:

Table 97 Revenue at existing tariff computed by Commission for FY 2023-24

Category	Sales (MUs)	Revenue from Energy Charges (Rs Cr.)	Revenue from Fixed charges (Rs Cr.)	Total (Rs. Cr)	ABR (Rs./Unit)
DOMESTIC	792.35	276.70	24.45	301.15	3.80
HUT SERVICES/ OHOB	1.59	0.23	0.03	0.26	1.66
COMMERCIAL	206.65	159.43	14.32	173.74	8.41
AGRICULTURE SERVICES	59.92	0.00	3.86	3.86	0.64
PUBLIC LIGHTING	18.22	12.94	0.85	13.79	7.57
LT INDUSTRIAL & WATER WORKS	166.79	101.13	8.27	109.40	6.56
LT Industrial	118.97	75.55	8.27	83.82	7.05

Category	Sales (MUs)	Revenue from Energy Charges (Rs Cr.)	Revenue from Fixed charges (Rs Cr.)	Total (Rs. Cr)	ABR (Rs./Unit)
Water Tanks	47.82	25.58	0.00	25.58	5.35
HIGH TENSION-	989.27	575.74	125.17	700.92	7.09
HT 1 (a) For contract demand up to 5000 kVA/Industrial	904.04	527.36	109.26	636.61	7.04
HT Industries (For Supply at 11 kV, 22 kV or 33 kV)	85.23	48.39	15.92	64.30	7.54
HT Other (HT 2)	62.67	40.80	14.19	54.99	8.77
EHT Industries (For Supply at 110 kV or 132 kV) HT III	719.13	399.51	25.83	425.35	5.91
Temporary Supply	3.85	3.42		3.42	8.90
Total	3016.60	1569.91	216.98	1786.89	5.39

The Commission has determined revenue from sale of power at existing tariff as Rs. 1786.89 Cr in the FY 2023-24.

# 4.22. Revenue gap/ (surplus) at existing Retail Tariff

## **Petitioner's Submission**

The Petitioner estimated the standalone revenue gap of Rs.145.69 Cr in FY 2023-24.

Table 98 Revenue Gap/(Surplus) for FY 2023-24, submitted by the Petitioner (Rs. Cr)

S. No.	Particulars	Approved	Claimed by the Petitioner
1	Aggregate Revenue Requirement	1,713.45	2020.01
2	Revenue from Sale of Power (Excluding Regulatory Surcharge)	1,638.61	1874.32
3	Revenue Gap/ (Surplus)	74.84	145.69

## Commission's Analysis

The Commission based on the approved ARR and existing retail tariff (excluding Regulatory Surcharge) has derived the following Revenue Gap/Surplus:

Table 99 Standalone gap/ (surplus) approved by the Commission (Rs Cr)

S. No.	Particulars	Approved in MYT order	Petitioner's Submission	Approved in APR
1	Aggregate Revenue Requirement	1,713.45	2020.01	1904.78
2	Revenue from Sale of Power (Excluding Regulatory Surcharge)	1,638.61	1874.32	1786.89
3	Revenue Gap/ (Surplus)	74.84	145.69	117.89

The Commission, in the APR of FY 2023-24 approves standalone gap of Rs. 117.89 Cr.

As per the Regulation 12.5 of the JERC (MYT Tariff) Regulations, 2021 the gap/ (surplus) of the trued-up year only shall be carried forward in the tariff for the year for which tariff is to be determined. The relevant excerpt of the aforesaid regulation is stipulated as under:

- "12.5 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 14 of these Regulations:"

Thus, in accordance with above clause, the Commission has not considered the gap/ (surplus) for the APR of FY 2023-24 to be carried forward in the ARR of FY 2024-25.

#### CHAPTER 5: Determination of Aggregate Revenue Requirement for FY 2024-25

## 5.1 Background

The Commission has determined the Aggregate Revenue Requirement for the FY 2024-25 in this chapter. The present chapter provides details of expenditure estimates for PED and Revenue Gap/(Surplus) for FY 2024-25.

## 5.2 Approach for determination of ARR for the FY 2024-25

This chapter provides an overview of the Aggregate Revenue Requirement (ARR) for FY 2024-25, based on figures and norms approved by the Commission in its Business plan order and the MYT Order dated 31.03.2022. The ARR components are determined in line with the JERC MYT Regulations 2021. The Annual Revenue Requirement for FY 2024-25 is projected using the methodology adopted in the MYT Tariff Order, approved by the Commission.

# 5.3 Projection of Number of Consumer, Connected Load and Energy Sales for the FY 2024-25

#### **Petitioner's Submission**

The Petitioner has considered the following number of consumers, connected load and energy sales:

Table 100 Energy Sales proposed by the Petitioner for FY 2024-25 (MU)

able 100 Energy Sales proposed by the Petitioner for F1 2024-25 [M				
S1 No.	Particulars	Approved in MYT Order dated 31st March 2022	Petitioner's Submission	
1	Domestic	868.75	843.28	
2	ОНОВ	3.50	1.58	
3	Commercial	220.63	232.35	
4	Agriculture	62.37	60.127	
5	Public Lighting	19.00	18.22	
6	LT Industrial	174.45	174.10	
7	Temporary supply - LT&HT	5.26	2.84	
8	HT I	1044.39	1059.030	
9	HT II	82.35	67.20	
10	HT III	455.04	688.59	
	Total	2,935.74	3147.37	

Table 101 Number of Consumers proposed by the Petitioner for FY 2024-25

	Particulars	Approved in MYT Order dated 31st March 2022	Petitioner's Submission
1	Domestic	403,639	403,639
2	ОНОВ	8,248	2528
3	Commercial	60,315	61,000
4	Agriculture	7,137	7,137

	Particulars	Approved in MYT Order dated 31st March 2022	Petitioner's Submission
5	Public Lighting	52,077	55,000
6	LT Industrial	4,474	4,600
7	Temporary supply - LT&HT	0	0
8	HT I	475	490
9	HT II	71	74
10	HT III	8	13
	Total	536,444	534,481

Table 102 Connected Load proposed by the Petitioner for FY 2024-25 (kW)

Particulars	Approved in MYT Order dated 31st March 2022	Petitioner's Submission
Domestic	726319.00	726318.00
ОНОВ	2843.00	2843.00
Commercial	164325.00	164325.00
Agriculture	61209.00	61210.00
Public Lighting	6544.00	6544.00
LT Industrial + Water tank	141637.00	141637.00
НТ І	248056.00	248056.00
HT II	24121.00	24122.00
HT III	53723.00	53723.00
Total	1428777.00	1428778.00

## Commission's analysis

The Commission has examined the Petitioner's submission. Based on the previous year's data on consumer number, connected load and energy sales, the Commission considers it prudent to determine the Energy Sales, Consumer No and Connected Load on the basis of CAGR. Considering the values approved in APR of FY 2023-24, the same has been escalated with 5 year's CAGR of respective consumer category. The following table provides the energy sales approved by the Commission in the MYT Order, the Petitioner's submission and as now approved by the Commission.

Table 103 Energy Sales approved by the Commission for FY 2024-25 (MUs)

	Sales Projections (MU)				
Particulars	Approved in MYT Order dated 31st March 2022	Petitioner's Submission	5-year CAGR	Approved by the Commission	
Domestic	868.75	843.28	1.53%	804.49	
ОНОВ	3.50	1.58	0.00%	1.59	
Commercial	220.63	232.35	0.00%	206.65	
Agriculture	62.37	60.127	0.66%	60.32	
Public Lighting	19.00	18.22	0.00%	18.22	
LT Industrial	174.45	174.10	4.09 %	168.75	
Temporary supply - LT&HT	5.26	2.84	0.00%	3.85	
HT I	1044.39	1059.030	0.97%	998.90	
HT II	82.35	67.20	0.00%	62.67	
HT III	455.04	688.59	14.04%	820.11	
Total	2,935.74	3147.37		3145.54	

Table 104 No. of Consumers approved by the Commission for FY 2024-25

No. of Consumers Projections				101 F 1 2024-20
Particulars	Approved in MYT Order dated 31st March 2022	Petitioner's Submission	5-year CAGR	Approved by the Commission
Domestic	403,639	403,639	3.07%	402746.00
ОНОВ	8,248	2528	0.00%	2528.00
Commercial	60,315	61,000	1.80%	61152.00
Agriculture	7,137	7,137	0.48%	7177.00
Public Lighting	52,077	55,000	0.55%	52419.00
LT Industrial+ Water Tanks	4,474	4,600	45.92%	5649.00
Temporary supply - LT&HT	0	0	0.00%	0
HT I	475	490	0.14%	442.00
HT II	71	74	10.86%	89.00
HT III	8	13	17.08 %	15.00
Total	536,444	534,481		532217

Table 105 Connected Load approved by the Commission for FY 2024-25 (KW)

Particulars	ARR approved for FY 2024-25 in Tariff Order dt. 31.03.2022	Petitioner's Submission	5-year CAGR	Approved by Commission
Domestic	726319.00	726318.00	4.60%	710329.10
ОНОВ	2843.00	2843.00	0.00%	2843.00
Commercial	164325.00	164325.00	5.40%	167657.47

Agriculture	61209.00	61210.00	6.30%	66447.31
Public Lighting	6544.00	6544.00	0.96%	6511.91
LT Industrial + Water tank	141637.00	141637.00	1.76%	140309.62
нт і	248056.00	248056.00	0.00%	238424.00
HT II	24121.00	24122.00	0.00%	23646.00
HT III	53723.00	53723.00	0.00%	44399.00
Total	1428778.00	1428778.00		1400567.41

#### 5.4 Inter- State Transmission Loss

#### **Petitioner's Submission**

The Petitioner has submitted Inter-State Transmission Losses of 2.50% in its petition for FY 2024-25.

## Commission's analysis

The Commission in the ARR of FY 2024-25 considered the Inter-State transmission loss as per the MYT Order dated 31st March 2022. The table below provides the Inter-State Transmission Losses submitted and now approved by the Commission.

Table 106 Approved Inter-State Transmission Loss (%) for FY 2024-25

S. No	Particiliare	T T		Now Approved by Commission
1	Inter-State Transmission Losses	2.50%	2.50%	2.50%

The Commission approves the Inter-State Transmission Loss as 2.50% in the ARR of FY 2024-25.

## 5.5 Transmission & Distribution (T&D) Loss

#### **Petitioner's Submission**

The Commission had approved energy loss of 10.50 % for FY 2024-25 in the Business Plan for the third MYT control period FY2022-23 to FY 2024-25 and subsequently in Tariff order dated 30th March 2023. PED has now considered the T&D loss of 10.50% for FY 2024-25.

# Commission's analysis

The Commission in the ARR of FY 2024-25 considers the T & D loss levels as per the T&D loss approved in the MYT Order dated 31st March 2022. The table below provides the T&D Losses submitted and now approved by the Commission.

Table 107 Approved Intra-State T&D loss (%) for FY 2024-25

S. No	Particulare			Now Approved by Commission
1	Intra-State T&D loss	10.50 %	10.50 %	10.50 %

The Commission approves Intra-State T&D loss of 10.50 % in the ARR of FY 2024-25.

# 5.6 Energy Balance

#### **Petitioner's Submission**

The Petitioner has submitted the energy balance as shown in the table below:

Table 108 Energy Balance submitted by the Petitioner for FY 2024-25

Sr. No.	Particulars	(Revised Estimates)
A	ENERGY REQUIREMENT	
1	Energy sales to metered category within the State	3147.37
2	Energy exported to TANGEDCO	
3	Total sales within the State	3147.37
4	T&D Losses (%)	10.50%
5	T&D Losses (MU)	369.24
6	Energy required at Discom Periphery	3516.61
B ENERGY AVAILABILITY		
1	Net Power Purchase (eX-Bus)	3054.99
2	Own Generation (PPCL)	226.18
3	Power Purchase from Renewable sources	737.56
4	Power purchase from Common Pool / UI- over drawl / Traders / Exchange / Others	0.17
5	Less: UI Under drawl	414.83
6	Open Access Power Purchase at periphery	
7	Net Power Purchased (1+2+3+4-5+6)	3604.07
8	Inter-state Transmission Losses	90.17
9	Transmission Losses (%)	2.50%
10	Total Energy Availability (7-8)	3513.90

# Commission's analysis

The Commission has determined the Energy Balance based on the revised estimates of energy sales along with losses approved for FY 2024-25. The following table provides the Energy Balance as approved by the Commission in the MYT Tariff Order, the Petitioner's Submission and the Energy Balance now approved by the Commission.

Table 109 Energy Balance Approved by the Commission for FY 2024-25

	1 4 5 1 6 7 2 1 6 1 5 7 2 1 4 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5					
S1 No	Particulars	ARR approved for FY 2024-25 in Tariff Order dt. 31.03.2022	Petitioner's Submission	Approved by Commission		
A	Energy requirement					

6	Net Energy availability	3364.26	3516.61	3287.18*
5	Net Open market (sales)/purchase		(414.66)	(423.86)
4	Energy availability at state periphery		0.00	3711.05
3	Power purchase from Renewable sources		966.46 (RE+ Own state generation)	737.56
2	Energy Scheduled at state periphery through CGS		2978.62	2973.49
1	Transmission loss (%)	2.50%	2.50%	2.50%
В	Net power purchase (Ex bus)		3054.99	3049.73
7	Energy availability			
6	Energy Required at State Periphery from inter-state sources			3287.18
5	Less: Own state Generation			227.39
4	Energy Requirement @ State periphery (MU)	3280.16	3516.61	3514.57
3	Distribution losses (%)	10.50%	10.50%	10.50%
2	Total Sales	2935.74	3147.37	3145.54
1	Sales Within Territory	2935.74	3147.37	3145.54

<sup>\* (3049.73+737.56+227.39-423.86) = 3590.82</sup> matched in Power Purchase table- 111 ); Own state generation (227.39 MUs) is already subtracted in energy requirement section of commission analysis Column.

In the ARR of FY 2024-25, the Commission has approved energy requirement at state periphery of 3287.18 MUs.

# 5.7 Power Purchase Quantum & Cost

# **Petitioner's Submission**

PED has projected the net power purchase quantum of 3606.78 MUs and cost as Rs. 1733.30 Cr. for FY 2024-25. The cost of power purchase of FY 2024-

25 has been calculated based on the H1 figures of FY 2023-24 and the average rate of power purchase of first 6 month has been considered for calculation of power purchase cost of FY 2024-25. Further, the projections have been done with 6% escalation from FY 2023-24 H1 Cost for purpose of estimation of the power purchase charges for the FY 2024-25. Hence, the Petitioner estimated the power purchase cost for FY 2024-25 as given below:

Table 110 Power Purchase Cost submitted by the Petitioner

_	Power Purchase (MUs)	Total Cost (Rs. Cr)	Rate / Unit	
Source	Projections			
	FY 2024-25			
NTPC	1,155.94	521.86	4.51	
NTPL	100.46	57.86	5.76	
NLC	494.97	209.74	4.24	
PPCL	293.84	236.15	8.04	
KAIGA	214.45	74.76	3.49	
NTPC - MAPS	13.30	3.39	2.55	
NTECL	196.47	111.82	5.69	
KKNP	372.53	158.60	4.26	
NNTPS	432.82	211.87	4.90	
KSEB	-	-	-	
NTPC Solar	274.72	64.14	2.33	
SECI Wind	452.99	135.20	2.98	
CTUIL		177.91		
IEX Purchase / Sale	-400	-230	5.75	
Total Power Purchase Cost	3,606.78	1733.30	4.90	

#### Commission's analysis:

The Commission has reviewed the energy estimation and cost submitted by the Petitioner. The Commission has considered the energy availability from the renewable sources as per the Petitioner's submission. The Commission observes that the Petitioner has proposed 737.56 MUs of energy purchase from renewable energy sources. This is positive approach towards RPO compliance and not as per the historical trend of Power Purchase for the Petitioner. For Inter-state sources, the Commission has considered availability from must run power projects (NPCIL) as submitted by the Petitioner. The Commission has considered the PLF of 85 % of own state generating station (PPCL). Further, for thermal power projects the Commission has derived the availability from those stations with 55% of PLF as technical minimum. The energy excess of requirement is considered to be sold in the power exchange.

The Commission has reviewed the recent bills submitted by the Petitioner. For PPCL (state generator), the cost as approved for PPCL for FY 2024-25 has been considered.

The variable charges for FY 2024-25 for the existing plants have been considered based on the actual cost submitted by the Petitioner for FY 2023-24 with an escalation of 3 %.

Similarly, the Commission has considered the fixed cost as per the cost submitted by the Petitioner for latest month available for FY 2023-24 with an escalation of 3 % for FY 2024-25. PGCIL charges is considered as submitted by the Petitioner for FY 2024-25.

The Commission approves the Power Purchase Quantum and cost for FY 2024-25 as given below:

Table 111 Power Purchase Quantum and Cost approved by the Commission for FY 2024-25

2024-25						
Details of the stations	PP at Ex Bus (MU)	Variable Charges (Rs/Kw h)	Annual Variable Charges (Rs. Cr.)	Annual Fixed charges (Rs. Cr.)	Total (Rs.Cr.)	Avg. Rate (@ Exbus)
NTPC						
RSTPS Stage I & II	361.31	4.09	147.74	42.07	189.81	5.25
RSTPS Stage -III	90.27	4.03	36.35	12.31	48.66	5.39
Talcher Stage- II	309.89	1.87	58.09	36.92	95.02	3.07
Simhadri Stage- II	68.80	3.41	23.46	16.84	40.30	5.86
NTPC Kudgi	106.35	5.29	56.30	60.37	116.67	10.97
Sub Total-NTPC	936.62		321.95	168.51	490.46	5.24
NLC						
NLC TPS II Stage I	347.70	3.31	114.96	31.27	146.23	4.21
NLC TPS II Stage II	124.04	3.31	41.01	9.86	50.87	4.10
NLC TPS I (Expn)	102.98	2.96	30.44	14.06	44.50	4.32
NLC TPS II (Expn)	122.62	3.13	38.39	27.60	66.00	5.38
NTPL (Tuticorin)	83.93	3.45	28.96	21.90	50.86	6.06
NNTPS	275.59	2.64	72.67	100.05	172.72	6.27
Sub Total-NLC	1056.86	18.79	326.44	204.74	531.18	5.03
NPCIL						
MAPS	33.04	2.47	8.17	0.00	8.17	2.47
KAPS Stage I	491.59	3.59	176.71	0.00	176.71	3.59
Kudankulam U1	285.32	3.65	104.03	0.00	104.03	3.65
Kudankulam U2	143.46	3.65	52.31	0.00	52.31	3.65
Sub Total-NPCIL	953.41	13.36	341.22	0.00	341.22	3.58
Others						
TNEB (Karaikal)	0.00					
Vallur Thermal Project (NTECL)	102.84	4.12	42.37	25.73	68.10	6.62
State Generation						
PPCL	227.39	7.58	172.38	44.04	216.42	9.52
Open market	(423.86)	4.85	(205.57)		(205.57)	4.85
Renewable	737.56		205.40		205.40	2.78
NTPC Solar	261.69	2.63	68.82		68.82	2.63

Details of the	PP at Ex Bus (MU)	Variable Charges	Variable	charges		Avg. Rate (@ Exbus)
SECI Non- Solar	475.87	2.87	136.57		136.57	2.87
Total	3590.82		1204.18	443.03	1647.18	4.59
PGCIL Charges					177.91	
Total Cost	3590.82		1204.18	443.03	1825.12	5.08

The Commission approves the power purchase as 3590.82 MUs at ex-bus with total cost of Rs. 1825.12 Cr in the ARR of FY 2024-25.

The Average Power Purchase Cost (APPC) for the FY 2024-25 has been determined as provided in the table below. The APPC has been computed at the UT Periphery excluding the transmission charges and cost of purchase of renewable energy. The Petitioner shall use the same for the purpose of compensation/ payment of surplus power at the end of each settlement period in case of Solar Net-metering consumers.

Table 112 APPC approved for FY 2024-25 by the Commission

Particulars		Amount
Total Power Purchase Cost (Rs Cr)	A	1825.12
Less: Transmission charges and Power Purchase cost from renewable energy sources (Rs Cr)	В	177.91
Net Power Purchase Cost (Rs Cr)	C=A-B	1647.21
Quantum of Ex-bus Power Purchase (MU)	D	3590.82
Quantum of energy at UT Periphery excluding from renewable energy sources (MU)	E	2853.26
APPC (Rs /kWh)	F=C/E*10	5.77

# 5.8 Renewable Purchase Obligation (RPO)

#### **Petitioner's Submission:**

The Petitioner submitted that the JERC (Procurement of Renewable Energy) Regulations, 2010, and fourth amendment dated on 29th March, 2022 specify annual Renewable Purchase Obligations for distribution licensees. Each licensee must purchase electricity from renewable sources at a minimum percentage of the total consumption of consumers in their area. The Commission has approved the Renewable Purchase Obligation targets for FY 2024-25 as 21.58%, including 11% Solar RPO and 10.58% Non-Solar RPO. The PED is obliged to comply with these obligations and plans to fulfil its total

RPO for FY 2024-25 and cumulative RPO up to FY 2024-25. The PED has partnered with SECI for procuring 240 MW of wind power and 50 MW of solar power for 25 years, and with NTPC for 100 MW of solar power for 25 years.

# **Commission Analysis:**

Regulation 3, Sub-regulation (1) of the JERC (Procurement of Renewable Energy) Regulations, 2010 mentioned that:

"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), (Fifth Amendment) Regulations, 2024 on 06.06.2024 and revised the RPO targets, according to which for FY 2024-25 the Petitioner is obligated to purchase power from renewable sources at minimum percentage of 29.91 % of its total annual consumption.

The table below provides the Renewable Purchase Obligation for the FY 2024-25 as determined by the Commission based on the revised estimate of energy sales:

Table 113 Renewable Purchase Obligation (RPO) (MUs) approved by the Commission for FY 2024-25

S1 No.	Particulars	Approved by the Commission
1.	Sales within State (MU)	3145.54
2.	RPO obligation (%)	29.91%
3.	Wind RPO	0.67%
4.	Other RPO	27.35%
5.	НРО	0.38%
6.	Distributed renewable energy RPO	1.50%
7. RPO obligation for the year (MU)		940.52
8.	Wind RPO	21.08
9.	Other RPO	860.31
10.	НРО	11.95
11.	Distributed renewable energy RPO	47.18

In view of the above, the Commission directs the Petitioner to comply with the RPO targets as provided above in accordance with the JERC (Procurement of Renewable Energy) (Fifth Amendment) Regulations, 2024 for the next trueup.

# 5.9 Operation & Maintenances Expenses

Regulation 61 of JERC MYT Regulations, 2021, stipulates as under:

- "61 Operation and Maintenance (O&M) expenses for Retail Supply Business
- 61.1 The Operation and Maintenance Expenses for the Retail Supply Business shall be computed in accordance with this Regulation.
- 61.2 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.
- 61.3 The 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 Distribution Licensee, estimates of the actuals for the Base Year, prudence check and any other factors considered appropriate by the Commission.
- 61.4 O&M expenses for the nth Year of the Control Period shall be approved based on the formula given below:

 $O\&Mn = (R\&Mn + EMPn + A\&Gn) \times (1 - Xn) + Terminal Liabilities$ 

Where,

 $R\&Mn = K \times GFAn-1 \times (1+WPIinflation)$ 

 $EMPn = (EMPn-1) \times (1+Gn) \times (1+CPIinflation)$ 

 $A\&Gn = (A\&Gn-1) \times (1+CPIinflation)$ 

'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;

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

WPI inflation – 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 Distribution 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 nth Year. Value of Gn shall be determined by the Commission foreach 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 Licensee has been in operation for less than three (3) Years as on the date of effectiveness of these Regulations, the O&M Expenses shall be determined on a case to case basis.

- 61.5 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.
- 61.6 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.

Provided that at the time of truing up, the variation in the normative and actual O&M expenses shall be dealt in accordance with Regulation 15."

Accordingly, various components of O&M expenses are dealt with in subsequent sections.

# 5.9.1 Employee Expenses

#### **Petitioner's Submission**

The PED projected normative employee expenses at Rs. 124.54 Cr. as given below:

Table 114 Employee expenses submitted by the Petitioner for FY 2024-25 (Rs Cr)

Patriciliate	Approved as per MYT Order dated 31st March 2022	Petitioner submission
EMPn	110.89	124.54

# Commission's analysis

The Commission has considered the approved employee expenses of the FY 2023-24 as base figure as decided in the APR chapter of this order. The Base Year expenses have been escalated by Growth Rate determined based on the manpower plan as submitted by the Petitioner and the average CPI Inflation of the last three years to arrive upon the employee expenses of FY 2024-25. The Commission has noted that the Petitioner has not submitted that any recruitment plan and mentioned that more recruitment has been planned by them as they are on the verge of privatization. So, based on number of manpower projected by the Petitioner, the growth rate has been derived. The CPI Inflation has been computed as follows:

**Table 115 CPI Inflation Index** 

			Average increase in CPI indices over 3 year
FY 2020-21	339.84	5.21 %	
FY 2021-22	357.12	5.08 %	5.40 %
FY 2022-23	377.28	5.65 %	

Table 116 Computation of Employee Expenses for FY 2024-25 (Rs. Cr.)

	Approved
Particulars	FY 2024-25
Base year expenses	85.87
Gn (Growth factor)	-34.17 % *
CPI (Actuals for FY 2024-25) (in %)	5.40 %
Total Employee Expenses	59.58

<sup>\*</sup> Based on Petitioner submission, Manpower for FY 23-24 is 1545 & Manpower for FY 24-25 is projected as 1017

Table 117 Approved Employee Expenses for FY 2024-25 (Rs. Cr.)

Particulars	Approved in MYT Order	Petitioner's Submission	Approved by the Commission
Employee Expenses	110.89	124.54	59.58
Impact of 7 <sup>th</sup> Pay Commission			
Total Employee Expenses	110.89	124.54	59.58

The Commission has approved Rs. 59.58 Cr. as employee expenses for ARR of the FY 2024-25.

# 5.9.2 Repair and Maintenance Expenses

### **Petitioner's Submission**

The Petitioner has considered the R&M for FY 2024-25 as RS 10.56 Cr as against RS 50.17 Cr (including Rs 40.01 Cr for Facility Management Services (FMS) cost of Smart Meter) approved vide MYT Order dated 31st March 2023.

Table 118 R&M Expenses submitted by the Petitioner (Rs Cr)

Particulars	Approved as per MYT Order dated 31st March 2022	FY 2024-25
GFAn-1	1,089.49	1074.96
K-Factor	0.91%	0.91%
WPI Inflation	2.42%	2.42%
R&M Expenses	10.16	10.56
FMS Cost towards Prepaid smart meters	40.01	-
Total R&M Cost	50.17	10.56

# Commission's Analysis

The Commission had considered the K factor of 0.91% as approved in the 3rd MYT Tariff Order dated 31.03.2022. The same 'K' factor has been considered for FY 2024-25 and the factor is multiplied with the closing GFA approved for the (n-1) th year (closing GFA of FY 2023-24). The resultant amount is then escalated by average WPI Inflation for FY 2024-25 to arrive upon the R&M Expenses for the FY 2024-25. The WPI Inflation has been computed as follows:

Table 119 Computation of WPI Index

FY	Average of IADT-Mari	Average increase over 3 years
2020-21	123.40	
2021-22	139.40	7.89%
2022-23	152.50	1.02/0

The R&M expenses approved by the Commission for FY 2024-25 have been provided in the following table:

Table 120 Computation for R&M Expenses for FY 2024-25 (Rs. Cr.)

Particulars	FY 2023-24
Opening GFA (GFA <sub>n-1</sub> )	1074.97
K factor approved (K) (%)	0.91 %
WPI Inflation (Actuals for FY 2023-24) (%)	7.89 %
R&M Expenses = K x (GFA <sub>n-1</sub> ) x (1+WPI <sub>inflation</sub> )	10.55

Table 121 R&M Expenses approved by the commission for FY 2024-25 (Rs. Cr.)

S. No	Particulars		Petitioner's Submission	Approved by the Commission
1	Repair & Maintenance Expenses (R&M)	50.17	10.56	10.55

The Commission approves the Repair & Maintenance (R&M) expenses of Rs. 10.55 Cr in the ARR of FY 2024-25.

# 5.9.3 Administrative and General Expenses

#### **Petitioner's Submission**

The Petitioner has considered the A&G for FY 2024-25 as RS 16.17 Cr as against RS 20.84 Cr approved vide MYT Order dated 31st March 2022.

Table 122 A&G Expenses submitted by the Petitioner for FY 2024-25 (Rs Cr)

Particulars	Approved as per MYT Order dated 31st March 2022	Petitioner submisison
A&Gn Expenses	20.84	16.17

# Commission's Analysis

The Commission has considered the approved A&G expenses for the FY 2023-24 as base year figure. The Base Year expenses have been escalated by Growth Rate determined based on the average CPI Inflation of the last three years to arrive upon the A&G Expenses of FY 2024-25.

Table 123 Computation of A&G expenses (Rs Crore)

S. No	Particulars	Approved
D. 1.0	- 4-0-04-4-5	FY 2023-24
	Base A&G expenses	15.70
1	CPI (in %)	5.40 %
2	A&G Expenses	16.55

Table 124 A&G Expenses approved by Commission (Rs Cr) for FY 2024-25

S. No	Patticiliate		Petitioner's Submission	Trued Up by Commission
1	A&G Expenses	20.84	16.17	16.55

The Commission approves the Administrative & General (A&G) expenses of Rs. 16.55 Cr in the ARR of FY 2024-25.

# 5.10 Gross Fixed Assets (GFA) and Capitalization

#### **Petitioner's Submission**

The Petitioner has proposed capital expenditure of RS 160.16 Cr and Capitalization of RS 141.92 Cr for the FY 2024-25.

# Commission's Analysis

The Commission has considered the same Capital Expenditure and Capitalisation as proposed by the Petitioner and approved in MYT Tariff Order dated 31.03.2022. Further, the actual capital expenditure and capitalisation for the FY 2024-25 shall be considered at the time of true-up. The following table provides the summary of capital expenditure and capitalization now approved by the Commission vis-à-vis the capital expenditure and capitalisation approved by the Commission in the MYT Order.

Table 125 Capital Expenditure and Capitalization now approved by the Commission (Rs Cr)

	T T	Petitioner's Submission	Now Approved by Commission
Capital Expenditure	160.16	160.16	160.16
Capitalization	141.92	141.92	141.92

Further, the Commission noted that as per Regulation 8 of JERC (Generation, Transmission and Distribution Multi Year Tariff) (first amendment) Regulations, 2023 stated that:

"The following provision shall be added after Regulation 8.3 (b) of the Principal Regulation:

Provided that the Capital Investment Plan of the Transmission System of 66kV & above voltage level shall take into account schemes costing below the threshold limit as given below:

State UT	Threshold Limit
Goa/Chandigarh/ Dadra & Nagar Haveli and Daman & Diu i.e., (DNHDD)	Rs. 50 Crore
Puducherry	Rs. 25 Crore

Provided further that the Capital Investment Plan of Transmission System of 66kV & above voltage level exceeding the threshold limit as mentioned in the above proviso shall be done through Tariff Based Competitive Bidding (TBCB).

Further, the respective State Transmission Utility shall frame the said guidelines within three months from the issue of this notification and notify the same after approval of this Commission."

Therefore, the Commission directs the Petitioner to adopt Tariff Based Competitive Bidding (TBCB) for the transmission scheme "System Modernisation Work" higher than Rs. 25 Cr.

The Commission approves capital expenditure of Rs. 160.16 Cr and Capitalization of Rs. 141.92 Cr for the FY 2024-25.

# 5.10.1 Total Operation and Maintenance Expenses (O&M)

The following table provides the O&M expenses approved in the ARR of FY 2024-25, Petitioner's Submission and now approved by the Commission.

Table 126 Total O&M Expenses approved by the Commission for FY 2024-25 (Rs Cr)

Particulars	Approved in Tariff Order	Petitioner's Submission (actual)	Approved by the Commission
A&G Costs	20.84	16.17	16.55
R&M Expenses	50.17	10.56	10.55
Employee Cost	110.89	124.54	59.58
Total O&M Expenses	181.90	151.27	86.68

The Commission approves the Operation & Maintenance (O&M) Expenses of Rs. 86.68 Cr in the ARR of FY 2024-25.

# 5.11 Capital Structure

#### **Petitioner's Submission**

The estimates of capital expenditure and capitalization has been shown in tables below:

Table 127 GFA and capital structure for FY 2024-25 (Rs Cr) as submitted by the Petitioner

No.	Particulars	FY 2024-25
1	Opening GFA	1029.58
2	Addition	141.92
3	Less: Grant	85.15
4	Less: Consumer Contribution	-
5	Net Additions to GFA	56.77
6	Closing GFA	1086.34

# Commission's analysis:

Regulation 27 of the JERC MYT Regulations, 2021 specifies the following:

"27. Debt to Equity Ratio

27.1 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-capitalization 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-capitalization 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.

27.2 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.

27.3 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 modernization expenditure for life extension shall be serviced in the manner specified in this Regulation."

In accordance with the JERC MYT Regulations, 2021, the Commission has considered the grant amount as submitted by the Petitioner. For remaining asset (non-grant) standard 70:30 ratio for loan: equity has been considered. The Commission has determined the Capital Structure for FY 2024-25 as follows:

Table 128 GFA addition approved by Commission (Rs Cr)

Particiliare	Approved by Commission
Opening Gross Fixed Assets	1074.98

Closing Gross Fixed Assets	1131.75
Adjustment/Retirement During the FY	0.00
Addition During the FY (net of grant)	56.77
Grant	85.15
Addition During the FY	141.92

Table 129 Capital Structure approved by Commission (Rs Cr)

- abio 125 capital belactary approved by commission (115 cr)			
Particulars	Approved by Commission		
Gross Fixed Assets addition during the year (net of grant)	56.77		
Normative loan addition During the FY @70% of GFA addition during year	39.74		
Equity addition on account of new Capitalisation @30% of GFA addition during the year	17.03		

# 5.12 Depreciation

#### **Petitioner's Submission**

The Petitioner estimated depreciation for FY 2024-25 as Rs 27.30 Cr., considering the depreciation of APR year of 2023-24 with 4% escalation.

## Commission's analysis

As per the Regulation 31 of the JERC MYT Regulations, 2021 stipulates the following:

# "31. Depreciation

31.1 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.

31.2 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.

Provided further that the salvage value of Information Technology equipment and computer software shall be considered at zero (0) per cent of the allowable capital cost.

- 31.3 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.
- 31.4 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.
- 31.5 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.

- 31.6 For Transmission Licensee, the depreciation shall be calculated at rates and norms specified in the prevalent CERC Tariff Regulations for transmission system.
- 31.7 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.
- 31.8 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 up to a particular Year exceeds the cumulative depreciation up to 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 up to that Year.

- 31.9 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.
- 31.10 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 observed that instead of asset wise depreciation calculation, the Petitioner escalated the depreciation for FY 2023-24 @4% to estimate the depreciation of FY 2024-25. The Commission has derived the weighted average rate of depreciation based on the asset wise depreciation rate specified in JERC MYT Regulations, 2021, under true-up. The same rate with the approved GFA is considered to approve the depreciation for FY 2024-25. The Details are provided in the following table:

Table 130 Depreciation approved by the Commission for FY 2024-25 (Rs Cr)

Particulars Particulars	MYT	Petitioner's	Now Approved by Commission
Opening Gross Fixed Assets (net of grants)	1029.58		1074.98
Addition During the FY	56.77		141.92
Less: Government Grant	0.00		85.15
Closing Gross Fixed Assets	1086.35		1131.75
Average Gross Fixed Assets	1057.97		1103.36
Weighted Average Depreciation rate (%)	3.67 %		3.70%*
Depreciation	38.83	27.30	40.84

<sup>\*</sup> As computed in the true-up chapter of this order.

The Commission now approves depreciation of Rs. 40.84 Cr in the ARR of the FY 2024-25.

#### 5.13 Interest on Loan

## **Petitioner's Submission**

The following table provides the Interest on Loan projected for the FY 2024-25.

Table 131 Interest on Loan submitted by the Petitioner for FY 2024-25 (Rs Cr)

	Projection		
Particulars	Approved in MYT Order dated 31st March 2022	Petitioner submission	
Opening Normative Loan	122.01	175.14	
Add: Normative Loan during the Year	39.74	39.74	
Less: Normative Repayment	38.85	27.29	
Closing Normative Loan	122.90	187.59	
Average Normative Loan	122.45	181.36	
Rate of Interest (@SBI 1 Year MCLR rate+100 Basis Points)	8.00%	8.00%	
Interest on Normative Loan	9.80	14.51	

## Commission's Analysis

Regulation 29 of the JERC MYT Regulations, 2021 stipulates the following:

"29. Interest on Loan

29.1 The loans arrived at in the manner indicated in Regulation 27 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-capitalization 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.

- 29.2 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.
- 29.3 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 31.
- 29.4 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 after prudence check:

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.

29.5 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 capitalization approved by the Commission for the Year.

29.6 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.
- 29.7 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.
- 29.8 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.
- 29.9 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.

- 29.10 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.
- 29.11 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 SBI 1 Year MCLR rate i.e. is 8.50% plus 100 basis points applicable as on 01.04.2024 which comes to 9.50%

The following table provides the Interest on Loan approved by the Commission:

Table 132 Interest on Loan approved by the Commission for FY 2024-25 (Rs Cr)

	Projection		
Particulars	Approved in MYT Order dated 31st March 2022	Submitted by the Petitioner	Approved by the Commission
Opening Normative Loan	122.01	175.14	162.21
Add: Normative Loan during the Year	39.74	39.74	39.74
Less: Normative Repayment	38.85	27.29	40.84
Closing Normative Loan	122.90	187.59	161.11
Average Normative Loan	122.45	181.36	161.66
Rate of Interest (@SBI 1 Year MCLR rate+100 Basis Points)	8.00%	8.00%	9.50 %
Interest on Normative Loan	9.80	14.51	15.36

The Commission approves Interest and Finance Charges of Rs. 15.36 Cr in the ARR of the FY 2024-25.

# 5.14 Return on Equity (ROE)

#### **Petitioner's Submission**

The Petitioner has estimated ROE as Rs. 51.47 Cr for FY 2024-25.

Table 133 RoE submitted by the Petitioner (Rs Cr)

	Projection		
Particulars	Approved in MYT Order dated 31st March 2022	Petitioner's Submission	
Opening Balance of Equity	308.87	322.49	
Equity Addition during year (30% of Capitalization)	17.03	17.03	
Closing Balance of Equity	325.90	339.52	
Average Equity Amount	317.39	331.01	
Average Equity-Wires Business	285.65	297.90	
Average Equity -Retail Supply Business	31.74	33.10	
Return on Equity for Wires Business (%)	15.50%	15.50%	
Return on Equity for Retail Supply Business (%)	16.00%	16.00%	
Return on Equity for Wires Business	44.28	46.18	
Return on Equity for Retail Supply Business	5.08	5.30	
Total Return on Equity	49.35	51.47	

# Commission's Analysis

The Regulations 28.2 and 28.3 of the JERC MYT Regulations, 2021 stipulate the following:

"28.2 The return on equity for the Distribution Wires Business shall be allowed on the equity capital determined in accordance with Regulation 27 for the assets put to use at post-tax rate of return on equity specified in the prevalent CERC Tariff Regulations for transmission system.

28.3 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."

RoE has been calculated on normative basis on the average of opening and closing of equity during the year at the rate of 15.5% and 16% (on post-tax basis) with an opening equity considered equivalent to the closing equity of FY 2023-24 as approved in the APR. The following table provides the RoE approved in the Tariff Order, the Petitioner's Submission and RoE now approved by the Commission.

Table 134 ROE Approved by the Commission for FY 2024-25 (Rs Cr)

	Projection		
Particulars	Approved in MYT Order dated 31st March 2022	Petitioner's Submission	Approved by the Commission
Opening Balance of Equity	308.87	322.49	322.49
Equity Addition during year (30% of Capitalization) (net of grants)	17.03	17.03	17.03
Closing Balance of Equity	325.90	339.52	339.52
Average Equity Amount	317.39	331.01	331.01
Average Equity-Wires Business (90% of average equity)	285.65	297.90	297.90
Average Equity -Retail Supply Business (10% of average equity)	31.74	33.10	33.10
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	44.28	46.18	46.18
Return on Equity for Retail Supply Business	5.08	5.30	5.30
Total Return on Equity	49.35	51.47	51.47

The Commission approves the Return on Equity of Rs. 51.47 Cr in the ARR of the FY 2024-25.

# 5.15 Interest On Security Deposit

#### **Petitioner's Submission**

The Petitioner submitted that the prevailing Bank rate is considered as notified by Reserve Bank of India with effect from 1stApril of the relevant financial year for estimating the normative interest on Security Deposits as Rs.11.64 Cr. for FY 2024-25.

Table 135 Interest on Consumer Security Deposit submitted by the Petitioner for FY 2024-25 (Rs Cr)

	Projections		
Particulars	Approved in MYT Order dated 31st March 2022	Petitioner's Submission	
Opening Security Deposit	234.29	264.65	
Add: Deposits during the Year	4.48	18.70	
Less: Deposits refunded	0.00	0	
Less: Deposits in form of BG/FDR	0.00	0.00	
Closing Security Deposit	238.77	283.34	
Average Security Deposit	236.53	273.99	
Bank Rate	4.25%	4.25%	
Interest on Security Deposit	10.05	11.64	

# Commission's analysis:

Regulation 29.11 of the JERC MYT Regulations, 2021 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 opening security deposit has been derived based on the closing security deposit as approved in APR of FY 2023-24. The addition of security deposit during the year has been estimated by escalating the approved addition in security deposit value for FY 2023-24 at the rate of 10%. The rate of interest has been considered equivalent to the prevailing RBI Bank rate as on 01.04.2023. The table below provides the calculation of interest on consumer security deposits for the year:

Table 136 Interest on Consumer Security Deposit approved by the commission for FY 2024-25 (Rs Cr)

1 1 202   20 (103 01)			
Particulars	Approved in MYT Order dated 31st March 2022	Petitioner's Submission	Approved by the Commission
Opening Security Deposit	234.29	264.65	264.20
Add: Deposits during the Year	4.48	18.70	18.10
Less: Deposits refunded	0.00	0	0.00
Less: Deposits in form of BG/FDR	0.00	0.00	0.00
Closing Security Deposit	238.77	283.34	288.74
Average Security Deposit	236.53	273.99	273.69
Bank Rate	4.25%	4.25%	6.75 %
Interest on Security Deposit	10.05	11.64	18.47

The Commission approves Interest on Security Deposit as Rs. 18.47 Cr in the ARR of the FY 2024-25.

# 5.16 Interest On Working Capital

#### **Petitioner's Submission**

The Petitioner has estimated the interest on working capital as Rs. 4.50 Cr. The interest rate considered is 9.00% (SBI 1year MCLR as of April 1, 2022, plus 200 basis points). The computation of interest on working capital is shown in the following table:

Table 137 Interest on Working Capital for FY 2024-25 (Rs Cr)

Particulars	Order dated 31st	Petitioner's Submission
Two Months Receivable	290.85	311.04
O&M Expense - 1 month	15.16	12.61
Maintenance Spare @ 40% of R&M Expenses for one month	1.67	0.35
Less: Amount held as Security Deposit	236.53	273.99
Total	71.15	50.01
Interest Rate	9.00 %	9.00 %
Interest on Working Capital	6.40	4.50

#### Commission's Analysis

Regulation 53 of the JERC MYT Regulations, 2021 stipulates the following regarding interest on working capital:

"53. Norms of Working Capital for Distribution Wires Business

- 53.1 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 64 of the JERC MYT Regulation, 2021 stipulates the following:

"64.1 The Distribution Licensee shall be allowed interest on the estimated level of working capital for the Retail

Supply 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 Consumers at the prevailing tariff;

#### Less

- (d) Power Purchase cost for one (1) month; plus
- (e) Amount, if any, held as security deposits under clause (b) of sub-section (1) of Section 47 of the Act from Consumers 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 32.3 of the JERC MYT Regulation, 2021 stipulates the following:

"32.3 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.

32.4 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."

The Commission has considered the provisions given in the Regulations and considered the approved values of FY 2024-25 for deriving the components of working capital. Further, amount held as security deposit and one-month power purchase expenses have been deducted from working capital requirement. The working capital requirement is derived as negative. SBI Base rate as on 1st April 2023 plus 200 basis points is considered for calculation of interest rate on working capital, as stipulated in the MYT Regulations, 2021.

Accordingly, the Interest on Working Capital has been determined by the Commission, as shown in the table below:

Table 138 Interest on Working Capital approved by Commission (Rs Cr) for FY 2024-25

Particulars	Approved in MYT Order dated 31st March 2022	Petitioner's Submission	Approved by the Commission
Two Months Receivable	290.85	311.04	334.58
O&M Expense - 1 month	15.16	12.61	7.22
Maintenance Spare @ 40% of R&M Exp - one month	1.67	0.35	0.35
Less: Amount held as Security Deposit	236.53	273.99	273.69
Less: Power Purchase for one month			152.09
Total	71.15	50.01	-83.63
Interest Rate	9.00 %	9.00 %	10.50 %
Interest on Working Capital	6.40	4.50	0.00

Since, the working capital requirement is negative, accordingly, the Commission approves the NIL Interest on Working Capital in the ARR of FY 2024-25.

#### 5.17 Income Tax

## **Petitioner's Submission**

The Petitioner has not made any submission in this regard.

## Commission's analysis:

Regulation 33 of MYT Regulations, 2021 stipulates the following:

- "33. Tax on Income
- 33.1 The treatment of tax on income for a Transmission Licensee shall be in accordance with the prevalent CERC Tariff Regulations.
- 33.2 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.
- 33.3 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.
- 33.4 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 the Petitioner has not paid any Income tax in the previous years, no income tax liability is computed for the FY 2024-25 and the same shall be Trued-up based on the actual income tax paid by the Petitioner.

# 5.18 Provision for Bad & Doubtful Debts

#### **Petitioner's Submission**

The Petitioner has not proposed any provision for bad and doubtful debts during the FY 2024-25.

#### Commission's analysis

Regulation 63 of the MYT Regulations, 2021 stipulates the following:

"63.1 The Commission may allow bad debts written off as a pass through in the Aggregate Revenue Requirement, based on the trend of bad debts written off 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 realized 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."

Accordingly, the Commission has not considered any Provision for Bad & Doubtful Debts for the FY 2024-25. The same shall be accounted for as per actuals during the True-up of respective year.

## 5.19 Non-Tariff Income

#### **Petitioner's Submission:**

The non-tariff income has been escalated by 5% by considering non-tariff income of FY 2023-24 as base and the Petitioner projected the non-tariff income for FY 2024-25 as Rs. 10.21 Cr.

# Commission's analysis:

Regulation 44 of JERC MYT Regulation, 2021 states the following:

- "44. Non-Tariff Income
- 44.1 The amount of Non-Tariff Income relating to the transmission business as approved by the Commission shall be deducted from the Aggregate Revenue Requirement in determining annual transmission charges of the Transmission Licensee:

Provided that the Transmission Licensee shall submit full details of its forecast of Non-Tariff Income to the Commission along with its application for determination of Aggregate Revenue Requirement.

- 44.2 The Non-Tariff Income shall inter-alia include:
- a) Income from rent on 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) Miscellaneous receipts like parallel operation charges;
- *j)* Deferred Income from grant, subsidy, etc., as per Annual Accounts;

- *k)* Excess found on physical verification;
- l) Interest on investments, fixed and call deposits and bank balances;
- m) Prior period income, etc.:

Provided that the interest/dividend earned from investments made out of Return on Equity corresponding to the Licensed Business of the Transmission Licensee shall not be included in Non-Tariff Income."

The Commission has considered the Petitioner's submission and also consider the rebate of 1% of power purchase cost under non-tariff income. The NTI now approved is shown in the table below:

Table 139 Non-Tariff Income approved by the Commission for FY 2024-25 (Rs Cr)

Particulars	Approved in Tariff Order	Petitioner's Submission	Approved by Commission
Misc/Other Receipts	3.91	10.21	10.21
Normative Rebate of power purchase			18.25
Non-Tariff Income	3.91	10.21	28.46

The Commission approves Non-Tariff Income of Rs. 28.46 Cr in the ARR of the FY 2024-25. The same shall be considered at actuals at the time of True-up.

# 5.20 Aggregate Revenue Requirement (ARR)

#### **Petitioner's Submission**

Based on the expenses as submitted above, the Petitioner submitted the net aggregate revenue requirement as Rs. 1983.78 Cr as shown in the following table:

Table 140 ARR submitted by the Petitioner (Rs Cr)

S. No.	Particulars	Approved in Tariff Order	Claimed in True-up
1	Cost of power purchase	1452.63	1733.30
2	Employee Costs	110.89	124.54
3	Administration and General Expenses	20.84	16.17
4	R&M expenses	50.17	10.56
5	Depreciation	38.83	27.30
6	Interest & Finance Charges	9.80	14.51
7	Interest on CSD	10.05	11.64
8	Interest on Working Capital	6.40	4.50
10	Return on Equity	49.35	51.47
11	Provision for Bad Debt	0.00	0.00
12	Total Revenue Requirement	1748.96	1993.99

S. No.	Particulars	Approved in Tariff Order	Claimed in True-up
13	Less: Non- Tariff Income	3.91	10.21
14	Net Aggregate Revenue Requirement	1745.05	1983.78

# Commission's analysis

The Commission on the basis of the detailed analysis of the cost parameters of the ARR, has considered and approved the revenue requirement in the ARR of FY 2024-25 as given in the following table:

Table 141 ARR approved by the Commission for FY 2024-25 (Rs Cr)

S. No.	Particulars	Approved in Tariff Order	Petitioner's Submission	Approved by the Commission
1	Cost of power purchase	1452.63	1733.30	1825.12
2	Employee Costs	110.89	124.54	59.58
3	Administration and General Expenses	20.84	16.17	16.55
4	R&M expenses	50.17	10.56	10.55
5	Depreciation	38.83	27.30	40.84
6	Interest & Finance Charges	9.80	14.51	15.36
7	Interest on CSD	10.05	11.64	18.47
8	Interest on Working Capital	6.40	4.50	0.00
10	Return on Equity	49.35	51.47	51.47
11	Provision for Bad Debt	0.00	0.00	0.00
12	Total Revenue Requirement	1748.96	1993.99	2037.94
13	Less: Non- Tariff Income	3.91	10.21	28.46
14	Net Aggregate Revenue Requirement	1745.08	1983.78	2009.48

The Commission approves net Aggregate Revenue Requirement of Rs. 2009.48 Cr in the ARR of FY 2024-25.

# 5.21 Revenue at existing Retail Tariff

## **Petitioner's Submission**

The Petitioner has submitted the revenue at existing tariff. The following Table provides the category wise revenue for FY 2024-25:

Table 142 Revenue from Sale of Power at existing tariff for FY 2024-25 submitted by the Petitioner

the Petitioner							
Category	Sales (Mus)	Fixed Charge (Rs. Cr)	Energy Charge (Rs. Cr)	8% Surcharge (Rs. Cr)	Total Revenue (Rs. Cr.)		
LT Category	LT Category						
Domestic & Cottage	843.28	25.00	294.49	25.56	345.05		
OHOB/LifeLine Services	1.58	0.00	0.00	0.00	0.00		
Commercial	232.35	14.79	179.26	15.52	209.58		
Agriculture	60.13	5.51	0.00	0.44	5.95		
Public lighting	18.22	6.25	12.94	1.53	20.72		
LT Industrial	125.60	6.35	79.75	6.89	92.99		
Water tank	48.50	0.15	34.92	2.81	37.87		
Temporary supply - LT&HT	2.89	0.00	0.00	0.00	0.00		
Total LT	1332.55	58.05	601.36	52.75	712.16		
HT Category							
HT-1 Industries and commercial	1059.03	160.33	577.17	59.00	796.50		
HT 2 - Government & non-Industrial & non-Commercial	67.20	17.18	41.95	4.73	63.86		
HT 3 - EHT Industries	688.59	31.50	378.73	32.82	443.04		
Total HT	1814.82	209.00	997.85	96.55	1303.40		
Grand Total	3,147.37	267.05	1,599.21	149.30	2015.56		
BPSC Charges					-		
Total Revenue					2015.56		

# Commission's Analysis

The category wise/ sub-category wise and slab-wise revenue at existing retail tariff is calculated as per the existing tariff rates. The revenue from demand charges and the energy charges have been projected for each category/ sub-category and slab-wise. The Commission has not considered the revenue from Regulatory Surcharge along with revenue from Retail Tariff. The same has been considered while approving the revenue gap/ surplus for the FY 2024-25. The total revenue from existing tariff as computed by the Commission for the FY 2024-25 has been shown in the following table:

Table 143 Revenue from Sale of Power at existing tariff for FY 2024-25 approved by the Commission

Category	Sales (MUs)	Revenue from Energy Charges (Rs Cr.)	Revenue from Fixed charges (Rs Cr.)	Total (Rs. Cr)	ABR (Rs. /Unit)
DOMESTIC	804.49	280.94	25.57	306.51	3.81

Category	Sales (MUs)	Revenue from Energy Charges (Rs Cr.)	Revenue from Fixed charges (Rs Cr.)	Total (Rs. Cr)	ABR (Rs. /Unit)
HUT SERVICES/ OHOB	1.59	0.23	0.03	0.26	1.66
COMMERCIAL	206.65	159.43	15.09	174.51	8.44
AGRICULTURE SERVICES	60.32	0.00	4.11	4.11	0.68
PUBLIC LIGHTING	18.22	12.94	6.92	19.86	10.90
LT INDUSTRIAL & WATER WORKS	168.75	102.18	8.42	110.60	6.55
LT Industrial	118.97	75.55			
Water Tanks	49.78	26.63			
HIGH TENSION-I	998.90	581.35	125.17	706.52	7.07
HT 1 (a) For contract demand up to 5000 kVA/Industrial	912.84	532.49			
HT Industries (For Supply at 11 kV, 22 kV or 33 kV)	86.06	48.86			
HT Other (HT 2)	62.67	40.80	14.19	54.99	8.77
EHT Industries (For Supply at 110 kV or 132 kV) HT III	820.11	455.61	25.83	481.45	5.87
Temporary Supply	3.82	3.42		3.42	8.90
Total	3145.54	1636.90	225.33	1862.23	5.92

The Commission has determined revenue from sale of power at existing tariff as Rs. 1862.23 Cr in the FY 2024-25, without regulatory surcharge.

# 5.22 Standalone Revenue Gap/ (Surplus) for FY 2024-25

## **Petitioner's Submission**

The Petitioner estimated the revenue gap based on the ARR and the revenue from Retail tariff and Open Access sales, the standalone revenue gap of Rs.117.52 Cr is arrived at in FY 2024-25.

Table 144 Revenue Gap/(Surplus) for FY 2024-25 (Rs. Cr)

S. No.	Particulars	Revised Estimates
1	Aggregate Revenue Requirement	1983.78
2	Revenue from Sale of Power (Excluding Regulatory Surcharge)	1866.26
3	Revenue Gap/ (Surplus)	117.52

# Commission's Analysis

The Commission based on the approved ARR and existing retail tariff (excluding Regulatory Surcharge) has derived the following Revenue Gap/Surplus for FY 2024-25.

Table 145 Standalone Revenue Gap/(Surplus) for FY 2024-25 (Rs. Cr)

S. No.	Particulars	Petitioner's Submission	Approved by the Commission
1	Aggregate Revenue Requirement	1983.78	2009.48
2	Revenue from Sale of Power (Excluding Regulatory Surcharge)	1866.26	1862.23
3	Revenue Gap/ (Surplus)	117.52	147.25

The Commission approves the standalone revenue gap at existing retail tariff (excluding regulatory surcharge) as Rs. 147.25 Cr for FY 2024-25.

# **CHAPTER 6: Tariff Principles and Design**

# 6.1. Overall Approach

The Commission while designing retail tariffs for the FY 2024-25 has kept in view the principles of determination of tariff as set out in the Electricity Act, 2003 (EA 2003), Tariff Policy, 2016 and the JERC MYT Regulations, 2021.

The provision of supply of electricity to all the people is an essential driver for development, and also influences social and economic change. In this Tariff Order, the Commission has continued with its endeavour 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 mandates the Commission to strike a fine balance between the interests of various stakeholders including Utilities and consumers. The Commission has also taken into consideration the Petitioner's submissions as well as the public responses in these proceedings.

# 6.2. Applicable Regulations

Regulation 20 of the JERC MYT Regulations, 2021 states the following:

- "20. Annual determination of tariff
- 20.1 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 18, 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 68 of the JERC MYT Regulations, 2021 states the following:

- "68. Determination of Tariff
- 68.1 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.
- 68.2 The Commission shall endeavour to determine cost of supply for each category/ sub-category of Consumers.

- 68.3 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.
- 68.4 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."

# 6.3. Standalone and Consolidated Revenue Gap/ (Surplus) at existing tariff

## **Petitioner's Submission**

The Commission approved a consolidated revenue gap of RS 432.97 Cr till FY 2021-22 based on trued up till FY 2021-22. The Petitioner has submitted that standalone revenue gap/(surplus) for FY 2022-23 based on true-up and standalone gap/(surplus) based on revised estimates for FY 2023-24 and projected gap for the FY 2024-25 comes as under:

Table 146 Standalone Revenue Gap/ (Surplus) at existing tariff (Rs. Cr) submitted by the Petitioner (Rs Cr)

Particulars	FY 2022-23	FY 2023-24	FY 2024-25
Aggregate Revenue Requirement	2050.00	2020.01	1983.78
Revenue from Sale of Power (Excluding Regulatory Surcharge)	1731.75	1874.32	1866.26
Revenue Gap/ (Surplus)	318.25	145.69	117.52

PED has submitted that the Commission vide its tariff order date 30<sup>th</sup> March 2023 had computed the carrying cost for FY 2021-22. In line with the Tariff Order for computation of carrying cost, PED has adopted the same methodology and considered the closing Gap of FY 2021-22 as opening gap for FY 2022-23 and rate of interest at SBI 1-year MCLR + 1% as on 1st April of the relevant year for carrying cost. The detailed computation of carrying cost is shown in the table below:

Table 147 Computation of carrying Cost at existing tariff (Rs. Cr)

Patticillate	FY 2021-22 (Approved)	FY 2022-23	FY 2023-24	FY 2024-25
Opening Gap/(Surplus)	423.16	432.97	704.28	756.21
Regulatory Asset Recovered from Regulatory Surcharge	0.00	90.67	149.95	149.30
Addition Gap/(Surplus) (Standalone Gap)	-23.12	318.25	145.69	117.52
Closing Gap/(Surplus)	400.04	660.54	700.03	724.42

Final Closing Gap/ (Surplus)	432.97	704.28	756.21	783.65
Carrying cost	32.93	43.74	56.17	59.23
Rate of Interest	8.00 %	8.00 %	8.00 %	8.00 %
Average Gap/(Surplus)	411.60	546.76	702.16	740.31

# Commission's analysis

The Commission has considered the submission of the Petitioner. The Commission approved Rs 432.97 Cr as cumulative gap at the end of FY 2021-22 after true-up. During true-up of FY 2022-23, the Commission approves standalone gap as Rs 178.80 Cr and cumulative gap as Rs 611.77 Cr at the end of FY 2022-23 in this tariff order. The Commission observed that the Petitioner is not charging FPPCA as directed vide various previous Orders. The Commission has seriously considered the continuous non-compliance of the Petitioner of not charging FPPCA. Hence, the carrying cost on cumulative gap amount at the end of FY 2022-23 has not been considered. The Commission has observed that the power purchase cost as approved in Tariff order for FY 2022-23 and now trued-up of FY 2022-23 has significant difference of Rs 444.25 Cr. The Petitioner, through FPPCA, could have charged this differential power purchase cost, as per norms, without waiting for true-up which was not done by the Petitioner and therefore, the Commission has taken a decision not to consider carrying cost of such additional power purchase cost. Accordingly, the Commission has considered Rs 167.52 Cr for calculating the carrying cost which is derived as Rs 611.77 Cr of cumulative gap at the end of FY 2022-23 minus amount of Rs 444.25 Cr disallowed by the Commission.

Taking into account the cumulative previous gap of Rs. 432.97 Cr (at the end of FY 2021-22), the Commission determines the standalone and consolidated revenue gap/ surplus at existing tariff at the end of FY 2024-25 as shown below:

Table 148 Consolidated Revenue Gap/ (Surplus) determined by Commission at existing Tariff (Rs Cr) for FY 2024-25

	Particulars	Amount
1	Net Revenue Requirement	2,009.48
2	Revenue from Retail Sales at Existing Tariff without regulatory surcharge	1,862.23
3	Net Gap /(Surplus) (1-2)	147.25
4	Cumulative Previous year Gap (at the end of FY 22-23)	611.77
5	Carrying cost @8 % for 2 years *	26.80
6	Cumulative Gap with carrying cost (4+5)	638.58
7	Regulatory Surcharge @8%	148.70

8	Net Gap /(Surplus) (3+6-7)	637.12
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<sup>\*</sup>Carrying cost is derived as Rs. 167.52 Cr

The Commission determines a consolidated revenue gap of Rs. 637.12 Cr till FY 2024-25 at existing tariff considering Regulatory Surcharge of 8%.

# 6.4. Treatment of the consolidated Gap/ (Surplus) and Tariff Design

As derived from above, the resultant consolidated revenue gap till the end of FY 2024-25 signifies that the revenue from existing tariff is not commensurate with the costs incurred by the Petitioner. In order to cover this revenue deficit and to be financially sustainable, the retail consumer tariff demand a tariff increase. However, the revenue gap being substantial, recovering this entirely from increase in consumer tariffs may lead to a tariff shock. Hence, the Commission decided to recover a certain proportion of this gap by increasing the Regulatory Surcharge from present level of 8% to 10% and the remaining through a marginal increase in retail tariff. The individual approach adopted and the applicability of the same has been discussed in the following sections.

# 6.4.1. Tariff Design

#### **Petitioner's Submission**

In order to bridge the Gap, Petitioner has proposed to increase the tariff for some category of consumers against the tariff for FY 2024-25 approved by the Commission in previous Tariff Order dated 30<sup>th</sup> march, 2023 along with additional surcharge of 8%. PED has proposed an average hike of 11% (excluding Regulatory Surcharge) and requested the commission to approve the tariff schedule as proposed for FY 2024-25 as tabulated below:

Table 149 Tariff schedule proposed by the Petitioner

Category of	Existing Tariff		Proposed Tariff	
Consumers	Fixed Charges	Energy Charges	Fixed Charges	Energy Charges
Life Line Services /OHOB				
0-50 units per month	Rs.10/kW/Month	Rs.1.45/kWh	Rs.10/kW/Month	Rs. 1.95/kWh
Domestic Purposes				
0-100 units per month	Rs 30/kW/Month	Rs. 2.25 /kWh	Rs 30/kW/Month	Rs. 2.75 /kWh
101-200 units per month		Rs. 3.25 /kWh		Rs. 4.00 /kWh
201-300 units per month		Rs. 5.40 /kWh		Rs. 6.00 /kWh
Above 300 units per month		Rs. 6.80 /kWh		Rs. 7.50 /kWh
Commercial				
LT Commercial				

Category of	Existing	Tariff	Proposed Tariff		
Consumers	Fixed Charges	Energy Charges	Fixed Charges	Energy Charges	
0-100 units per month		Rs. 6.00 /kWh	Rs. 100/kW/Month	Rs. 6.50 /kWh	
101-250 units per month	Rs. 75.00 /kW/Month	Rs. 7.05 /kWh	Rs. 200/kW/Month	Rs. 8.00 /kWh	
Above 250 units per month		Rs. 7.80 /kWh	Rs. 200/kW/Month	Rs. 9.00 /kWh	
HT Commercial (For contract demand up to 5000 kVA)	Rs. 420 /kVA / month	Rs. 5.60 /kVAh	Rs. 450 /kVA / month	Rs. 6.00 /kVAh	
Agriculture					
Agriculture					
Small farmers	Rs. 20/HP/month	-	Rs. 20/HP/month	-	
Other Farmers	Rs. 75/HP/month	-	Rs. 75/HP/month	-	
Cottage Industries/Poultr y Farms /Horticulture/ Pisciculture					
0-100 units per month		Rs. 2.25 /kWh		Rs. 2.75 /kWh	
101-200 units per month	Rs 30/kW/Month	Rs. 3.25 /kWh	Rs 30/kW/Month	Rs. 4.00 /kWh	
201-300 units per month	KS 507 KW / WOITH	Rs. 5.40 /kWh	iks 50 / kw / Wolltin	Rs. 6.00 /kWh	
Above 300 units per month		Rs. 6.80 /kWh		Rs. 7.50 /kWh	
Public Lighting					
Public Lighting	Rs.110/pole/ month	Rs. 7.10/kWh	Rs.110/pole/ month	Rs. 7.10/kWh	
Industries					
LT Industries	Rs.50/kW/Month	Rs. 6.35/kWh	Rs.100 /kW/Month	Rs. 7.00/kWh	
HT Industries (For Supply at 11 kV, 22 kV or 33 kV)	Rs. 420 / kVA / month	Rs. 5.45 /KVAh	Rs. 450 / kVA / month	Rs. 6.00/KVAh	
EHT Industries (For Supply at 110 kV or 132 kV)	Rs. 480 / kVA / month	Rs. 5.50 /KVAh	Rs. 500 / kVA / month	Rs. 6.00/KVAh	
LT Water Works	Rs. 150/connection/ month	Rs. 7.20/kWh	Rs. 500/connection/ month	Rs. 7.20/kWh	

Category of	Existing	Tariff	Proposed Tariff		
Consumers	Fixed Charges Energy Charges		Fixed Charges	Energy Charges	
HT Other	Rs. 480/ kVA /month	Rs. 6.25/KVAh	Rs. 500/ kVA /month	Rs. 6.75/KVAh	
Temporary Supply	Tariff for Temporary Connection 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 nondomestic category for permanent supply.		Tariff for Temporary Connection 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 nondomestic category for permanent supply.		
Electric Vehicle Charging Station	-	Rs.5.33/kVAh	-	Rs. 6.00/kVAh	
Hoardings/signb oards	Rs. 140/kVA/ month or part thereof	Rs. 8.00/kWh	Rs. 200/kVA/ month or part thereof	Rs. 9.50/kWh	

# Commission's analysis

The Commission has determined a consolidated gap of Rs 637.12 Cr at the end of FY 2024-25. The Commission has determined the retail tariff for the FY 2024-25 in accordance with the principles stated in the Electricity Act, 2003 Tariff Policy, 2016, and the JERC MYT Regulations, 2021. The Tariff design in general is guided by the following principles:

- o Cost reflective: The tariffs determined should efficiently reflect the cost of supply for each consumer category.
- Progressive tariffs: Ensuring progressivity among tariffs by having telescopic tariff slabs which encourages efficient consumption and at the same time allows intra-category cross-subsidy by way of charging higher tariff for higher consumption to subsidise the lower consumption consumers
- o 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.
- o Affordability: Assessing affordability of electricity for Domestic and Commercial consumers for defining slab ranges and setting tariffs
- o Revenue stability: Tariff should ensure adequate fixed cost recovery for utilities from fixed/demand charges

- Avoiding tariff shocks: Tariff shocks should be avoided and stakeholders should be able to predict the future trends in tariffs
- Demand management and grid stability: Demand management and grid stability should be ensured with demand-based tariffs
- o Simplified tariff structure: Tariff structure should be simplified to make it easily administrable by the utility and easy to understand for the consumer.
- o 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 to 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:

# **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 Distribution Licensee. For example, in order to ensure that tariffs are kept in check for domestic consumers, while still allowing cost recovery for Distribution Licensees, cross subsidy has been 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 two fold – uncompetitive industries owing to higher input costs and inability of Distribution Licensees 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 Licensees 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 Distribution Licensee. By determining consumer category wise costs of supply, the Distribution Licensee would be in a better position to allocate costs where relevant and determine how tariffs can be levied fairly on each category.

# b) Approach:

The overall approach that can be followed for accurately determining the Cost of Supply has been discussed as follows.

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 APTEL 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 domestic consumer. Thus, it believes that the most progressive way forward for the Distribution Licensee is to accurately determine the cost of supply is to attempt to determine Cost of Supply for various consumer categories and also voltage

level. The Commission notes that States like Andhra Pradesh and Telangana have determined Category wise Cost of Supply albeit with several assumptions and the Distribution Licensee 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 for determination of the Category wise Cost of Supply, the embedded cost methodology is an appropriate starting point.

The embedded cost method identifies and appropriately assigns the historical or accounting costs that make up a Distribution Licensee'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. Cost 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 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 notes that to carry out this exercise a lot of field level information would be required such as Category wise coincident 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 Cost of Supply in this Order but directs the Petitioner to start maintaining this data and submit the same in the tariff proceedings of next year. In absence of the requisite data for determination of voltage-wise/category-wise cost of supply as mentioned above, the Commission as part of this Tariff Order has determined the tariff according to the Average Cost of Supply (ACoS).

## **Tariff Affordability**

#### a) Context

The Commission understands that the consumer base of Distribution Licensee is varied and covers a wide spectrum of socio-economic backgrounds, specially the domestic category consumers. It is also 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 Distribution Licensee has to undertake 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 Distribution Licensee across tariff slabs can be mapped across the established economic levels to develop the final affordability ratio matrix for the Distribution Licensee's domestic consumer base.

Following the identification of the current ratio of Tariff Affordability, the Commission in consultation with the stakeholders 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.

Based on the discussions above, the Commission is continuing with its existing approach of determination of tariff for various consumer categories based on the Average Cost of Supply (ACoS) and reduction of Cross Subsidy amongst various consumer categories, ensuring consumer tariffs progressively moving towards the cost.

# **Cross Subsidy**

As per Section 61 (g) of the Electricity Act 2003

"(g) that the tariff progressively reflects the cost of supply of electricity and also, reduces and eliminates cross-subsidies within the period to be specified by the Appropriate Commission;"

For reduction of cross subsidies, the Tariff Policy 2016 in Section 8.3 stipulates as below:

"For achieving the objective that the tariff progressively reflects the cost of supply of electricity, the Appropriate Commission would notify a roadmap such that tariffs are brought within ±20% of the average cost of supply. The road map would also have intermediate milestones, based on the approach of a gradual reduction in cross subsidy."

In order to achieve the objectives of the Tariff Policy 2016 of bringing down the cross-subsidy levels amongst various consumer categories within ±20% of the average cost of supply, the Commission has tried to rationalize the tariff applicable to various consumer categories.

The limit of cross subsidy, as envisaged in the Tariff Policy 2016, can't be achieved by rationalizing the tariff in a single year, as this may lead to tariff shock to the cross subsidized consumers. In this Tariff Order, the Commission has continued its approach of rationalization of the tariff for various consumer categories and reducing the cross subsidy.

Accordingly, in this Tariff Order, the Commission has designed tariff for various consumer categories considering the Average Cost of supply in line with the provisions of the Tariff Policy, 2016. While designing the tariff for FY 2024-25, the Commission has reduced the cross-subsidy levels with an

endeavored to bring the same within range specified in Tariff Policy 2016. To achieve this objective, the Commission has increased the tariff levels for cross-subsidized categories by higher than the average hike and either reduced/maintained the tariff levels or increased tariff at lower than average tariff hike for cross-subsidizing categories.

# 6.4.2. Approved Final Tariff Schedule

As described in earlier section, the current tariff is not covering the entire cost of the Petitioner for FY 2024-25. The adoption of kW-based billings for Domestic consumer category is being continued while designing the tariff schedule. The existing retail tariff and tariff now approved by the Commission for each consumer category has been shown in the table below:

Table 150 Tariff schedule approved by the Commission for FY 2024-25

	Existing	•	Approved Tariff		
Category of Consumers	Fixed Charges	Energy Charges	Fixed Charges	Energy Charges	
Life Line Services /OHOB		3			
0-50 units per month	Rs. 10/kW/Month	Rs. 1.45/kWh	Rs. 10/kW/Month	Rs. 1.95/kWh	
Domestic Purposes					
0-100 units per month		Rs. 2.25 /kWh		Rs. 2.70 /kWh	
101-200 units per month	Rs	Rs. 3.25 /kWh	Rs	Rs. 4.00 /kWh	
201-300 units per month	30/kW/Month	Rs. 5.40 /kWh	35/kW/Month	Rs. 6.00 /kWh	
Above 300 units per month		Rs. 6.80 /kWh		Rs. 7.50 /kWh	
Commercial					
LT Commercial					
0-100 units per month		Rs. 6.00 /kWh		Rs. 6.00 /kWh	
101-250 units per month	Rs. 75.00 /kW/Month	Rs. 7.05 /kWh	Rs. 200.00 /kW/Month	Rs. 7.05 /kWh	
Above 250 units per month		Rs. 7.80 /kWh		Rs. 7.80 /kWh	
HT Commercial (For contract demand up to 5000 kVA)	Rs. 420 /kVA / month	Rs. 5.60 /kVAh	Rs. 450 /kVA / month	Rs. 6.00 /kVAh	
Agriculture					
Agriculture					
Small farmers	Rs. 20/HP/month	-	Rs. 25/HP/month	-	

Category of	Existing	Tariff	Approved Tariff		
Consumers	Fixed Charges	Energy Charges	Fixed Charges	Energy Charges	
Other Farmers	Rs. 75/HP/month	-	Rs. 100 /HP/month	-	
Cottage Industries/Poult ry Farms /Horticulture/ Pisciculture					
0-100 units per month		Rs. 2.25 /kWh		Rs. 2.25 /kWh	
101-200 units per month 201-300 units	Rs 30/kW/Month	Rs. 3.25 /kWh Rs. 5.40	Rs 30/kW/Month	Rs. 3.25 /kWh	
per month Above 300 units	Joy kw / Month	/kWh Rs. 6.80	_ Soy kwy Month	Rs. 5.40 /kWh	
per month		/kWh		Rs. 6.80 /kWh	
Public Lighting					
Public Lighting	Rs.110/pole/ month	Rs. 7.10/kWh	Rs.110/pole/ month	Rs. 7.10/kWh	
Industries					
LT Industries	Rs.50/kW/Mo nth	Rs. 6.35/kWh	Rs.100/kW/Mo nth	Rs. 7.00 /kWh	
HT Industries (For Supply at 11 kV, 22 kV or 33 kV)	Rs. 420 / kVA / month	Rs. 5.45 /KVAh	Rs. 450 / kVA / month	Rs. 6.00 /KVAh	
EHT Industries (For Supply at 110 kV or 132 kV)	Rs. 480 / kVA / month	Rs. 5.50 /KVAh	Rs. 500 / kVA / month	Rs. 6.35 /KVAh	
LT Water Works	Rs. 150/connectio n/ month	Rs. 7.20/kWh	Rs. 500 /connection/ month	Rs. 7.20/kWh	
HT Other	Rs. 480/ kVA /month	Rs. 6.25/KVAh	Rs. 500 Rs./ kVA /month	Rs. 6.25/KVAh	

Category of	Existing	Tariff	Approved Tariff		
Consumers	Fixed Charges	Energy Charges	Fixed Charges	Energy Charges	
Temporary Supply	Connection shat Demand charges energy charges slab, if any corresponding supply category both For multi activ applicable Tariff connection shareference to the domestic cate	Tariff for Temporary Connection 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 non- domestic category for permanent supply.		Tariff for Temporary Connection 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 non-domestic category for permanent supply.	
Electric Vehicle Charging Station	-	Rs.5.33/kV Ah	-	Rs. 5.75/kVAh	
Hoardings/signb oards	Rs. 140/kVA/ month or part thereof	Rs. 8.00/kWh	Rs. 140/kVA/ month or part thereof	Rs. 9.50/kWh	

# 6.4.3. Revenue from Approved Retail Tariff for FY 2024-25

The approved tariff rates shall be applicable from 16<sup>th</sup> June 2024. Therefore, the revenue to be recovered in FY 2024-25, has been computed based on the existing retail tariff of 2.5 months and 9.5 months of the approved tariff. The details are shown in the table below:

Table 151 Revenue from Approved Retail Tariff determined by the Commission for FY 2024-25

Category	Sales (MUs)	Revenue from 2.5 months of Existing Energy Charges (Rs Cr.)	Revenue from 2.5 months of Existing Fixed charges (Rs Cr.)	Revenue from 9.5 months of approved Energy Charges (Rs Cr.)	Revenue from 9.5 months of approved Fixed charges (Rs Cr.)	Total (Rs. Cr)	ABR (Rs./U nit)
DOMESTIC	804.49	58.53	5.33	259.26	23.62	346.74	4.31
0-100 units	391.41	18.35		83.66		102.01	
101-200 units	207.62	14.06		65.75			
201-300 units	102.26	11.50		48.57			
Above 300 units	103.20	14.62		61.27			
HUT SERVICES/ OHOB	1.59	0.05	0.01	0.25	0.03	0.33	2.06

Total	3145.54	340.88	46.94	1404.42	217.81	2010.05	6.39
Temporary Supply	3.82	0.57		3.69		4.26	
EHT Industries (For Supply at 110 kV or 132 kV) HT III	820.11	94.92	5.38	412.27	21.30	533.88	6.51
HT Other (HT 2)	62.67	8.50	2.96	31.01	11.70	54.16	8.64
HT Industries (For Supply at 11 kV, 22 kV or 33 kV)	86.06	10.18		40.88			
HT 1 (a) For contract demand up to 5000 kVA/Industr ial	912.84	110.94		433.60			
HIGH TENSION-I	998.90	121.11	26.08	474.48	106.17	727.84	7.29
Water Tanks	49.78	5.55		21.08			
LT Industrial	118.97	15.74		65.93			
LT INDUSTRIAL & WATER WORKS	168.75	21.29	1.75	87.01	13.33	123.38	7.31
PUBLIC LIGHTING	18.22	2.70	1.44	10.24	5.48	19.86	10.90
AGRICULTU RE SERVICES	60.32	0.00	0.86	0.00	4.32	5.18	0.86
Above 250 units	189.79	30.84		117.20			
101-250 units	12.12	1.78		6.76			
0-100 units	4.74	0.59		2.25			
COMMERCI AL	206.65	33.21	3.14	126.21	31.85	194.42	9.41

The Commission approves revenue from approved Retail Tariff of Rs. 2010.05 Cr for the FY 2024-25.

The cross-subsidy levels for various consumer categories at existing and approved tariff are shown in the table below:

Table 152 Cross-subsidy levels for consumer categories at existing and approved tariff for the FY 2024-25

Category	ACOS	ABR for Existing tariff	Cost Coverage at existing tariff	ABR at approved tariff	Cost Coverage at approved tariff
	Rs/Unit	Rs/Unit	%	Rs/Unit	
HUT SERVICES/ OHOB	6.39	1.66	26.05%	2.06	32.25 %
DOMESTIC	6.39	3.81	59.62%	4.31	67.47 %
COMMERCIAL	6.39	8.44	132.16%	9.41	147.27 %
AGRICULTURE SERVICES	6.39	0.68	10.65%	0.86	13.44 %
PUBLIC LIGHTING	6.39	10.90	170.54%	10.90	170.59 %
LT INDUSTRIAL & WATER WORKS	6.39	6.55	102.56%	7.31	114.45 %
HIGH TENSION-I (Industrial and Commercial)	6.39	7.07	110.69%	7.29	114.06 %
HIGH TENSION- II(HT Others)	6.39	8.77	137.31%	8.64	135.29 %
HIGH TENSION- III (EHT Industries)	6.39	5.87	91.87%	6.51	101.90 %

# 6.4.4. Average Cost of Supply (ACoS) and Average Billing Rate (ABR)

The Commission based on the approved ARR and approved retail tariff (excluding Regulatory Surcharge) has derived the ACoS and overall ABR, as given below:

Table 153 ACoS at approved tariff (excluding Regulatory Surcharge) for the FY 2024-25 (Rs Cr)

S. No	Particulars Particulars		Now Approved
1	Annual Revenue Requirement	A	2009.48
2	Sales (MUs)	В	3145.54
3	ACoS (RS/kWh)	C=A/B*10	6.39
4	ABR at Approved Tariff		6.39
	Average Tariff increase approved		7.94 %

The average increase in the retail tariff approved by the Commission vis-à-vis prevailing tariff is 7.94 %.

# 6.4.5. Regulatory Surcharge

As is evident from the above, with an average tariff increase of 7.94 %, the revenue from Approved Retail Tariff recovers the standalone Net Revenue Requirement of FY 2024-25. The Commission has tried to rationalise the tariff and to gradually move towards cost of supply. However, the cumulative revenue gap till the end of FY 2024-25 is yet to be recovered.

It can be observed that the increase in tariff is not enough to recover the cumulative revenue gap. Therefore, the Commission, in order to recover revenue gap inclusive of the carrying cost, has decided to increase the Regulatory Surcharge of 8% to 10%. The Surcharge shall be applicable on all consumers. The revenue from the Regulatory Surcharge and the resultant gap after factoring both the additional revenue from Regulatory Surcharge has been discussed subsequently. In order to moderate the tariff increase to consumers, the Commission has decided to recover this cumulative gap in FY 2024-25 or till further Orders of the Commission.

Applicability and Conditions of the Regulatory Surcharge

- This Regulatory Surcharge shall be applicable to all consumer categories served by the Petitioner.
- The Surcharge shall also be applicable to consumers opting for open access.
- The Regulatory Surcharge shall be levied in the monthly/ bimonthly bill as a percentage of the total Energy and Demand charges payable by the consumer
- The Surcharge shall be applicable for all the bills raised on or after 16<sup>th</sup> June 2024 and shall continue till further Orders of the Commission.

# 6.4.6. Revised Revenue Gap/ (Surplus)

Considering the additional revenue from tariff increase and Regulatory Surcharge, the resultant Revenue Gap/(Surplus) has been shown in the table below:

Table 154 Consolidated Revenue Gap/ (Surplus) with Regulatory Surcharge at revised tariff approved by Commission (Rs Cr)

Particulars	Approved in Existing ARR
Net Revenue Requirement (1)	2,009.48
Revenue from Retail Sales at revised Tariff without regulatory surcharge (2)	2010.05
Net Gap /(Surplus) (3) = (1-2)	(0.58)
Previous year Gap (4)	611.77
Carrying cost @8 % for 2 years (5)	26.80
Gap with carrying cost (6)	638.58
Regulatory Surcharge @10% (7)	193.25
Net Gap /(Surplus) (8) = (3+6-7)	444.75

The Commission approves a cumulative revenue gap of Rs. 444.75 Cr till FY 2024-25.

# 6.4.7. Highlights of the Tariff Structure

The highlights of the tariff structure approved by the Commission for FY 2024-25 are as follows:

- a. The Commission has made every effort to rationalize the tariffs so that they gradually reflect the true cost of supply to a category of consumer in accordance with the provisions of the Act. Accordingly, the Commission has approved relatively higher percentage increase in tariff for the cross-subsidized categories than the cross-subsidizing categories.
- b. The Commission has approved an average tariff hike of 7.94 % while approving a regulatory surcharge of 10% for the FY 2024-25.
- c. The Commission has approved the Average Billing Rate for FY 2024-25 as Rs 6.39/kWh as against the approved Average Cost of Supply of Rs 6.39/kWh.

# CHAPTER 7: Open Access Charges for the FY 2024-25

# 7.1 Wheeling Charges Allocation Matrix - Allocation of ARR into Wheeling and Retail Supply of Electricity

#### **Petitioner's Submission:**

As per Regulation 49 of JERC MYT Regulations 2021, the distribution licensee needs to maintain separate books of accounts for wheeling and retail supply business. However, the distribution licensee has not segregated the accounts based on the wheeling and retail supply business as yet. The Regulation also states that in the absence of such accounts, the ratio of the segregation may be decided by the Commission based on the data obtained from the distribution licensee. The present accounts of the licensee are maintained in a consolidated manner and the licensee does not have segregated accounts for each of the above businesses. Further, certain segments of business cannot be segregated into two business categories e.g. sub-station catering to both wires and supply business.

Accordingly, it has to rely on certain assumptions for segregation of total expenses into wires and supply business. However, in line with the Regulations, an endeavour has been made to analyse the expenses and incomes attributable to each business and based on assumptions, the ratio for segregation of the expenses under Retail Supply and Wires Business has been worked out and is tabulated below.

Table 155 Allocation Statement Wheeling and Retail Supply for FY 2024-25 submitted by the Petitioner

Item of expense	Wheeling Business	Retail Supply Business	Wheeling Business	Retail Supply Business	Total
	%	%	Rs. Cr.		
Cost of power purchase	0%	100%	-	1,733.30	1,733.30
Employee costs	40%	60%	49.81	74.02	124.54
R&M expenses	90%	10%	9.51	1.06	10.56
Administrati on and General expenses	50%	50%	8.08	8.08	16.17
Depreciation	90%	10%	24.57	2.73	27.302
Interest & Financial charges	90%	10%	13.06	1.45	14.51
Interest on Working Capital	10%	90%	0.45	4.05	4.50
Return on	90%	10%	46.32	5.15	51.47

Item of expense	Wheeling Business	Retail Supply Business	Wheeling Business	Retail Supply Business	Total
	%	%	Rs. Cr.		
NFA /Equity					
Provision for Bad Debt	0%	100%	0.00	0.00	0.00
Interest on Consumer Security Deposit	10%	90%	1.16	10.48	11.64
Total Revenue Requiremen t			152.97	1841.02	1993.99
Less: Non- Tariff Income	10%	90%	1.02	9.19	10.21
Net Revenue Requireme nt (11-12)			151.95	1813.83	1983.78

PED submitted that the apportionment of wheeling charges has to account for losses and therefore in the absence of the voltage wise details, PED has considered the bifurcation of wheeling cost based on the sales and losses at each voltage level. Accordingly, the computation of Wheeling charges as submitted by the Petition has been shown in the following table:

Table 156 Wheeling Charge calculation as submitted by Petitioner

Category	О&М	Others	Total	Total re- distributed cost (based on Input energy)	Sales (MU)	Wheeling Charges (Rs/kWh)
Low Tension (LT) Level	66.87	42.35	109.22	132.39	1332.55	0.99
High Tension (HT)	0.07	33.88	33.95	18.03	1126.15	0.16
Extra High Tension (EHT) Level	0.00	8.47	8.47	1.22	688.59	0.02
Total	66.94	84.70	151.64	151.65	3147.29	

# Commission's analysis:

The allocation between wheeling and retail supply business for the FY 2024-25 as per the ARR approved in this Order and allocation statement given in the JERC MYT Regulations, 2021, is provided in the table below:

Table 157 Allocation Matrix approved by the Commission for FY 2024-25

Item of expense	Wheeling Business	Retail Supply Business	Wheeling Business	Retail Supply Business	Total
	%	%	Rs. Crore		
Cost of power purchase	0%	100%	0.00	1825.12	1825.12
Employee costs	40%	60%	23.83	35.75	59.58
R&M expenses	90%	10%	9.50	1.06	10.55
Administration and General expenses	50%	50%	8.28	8.28	16.55
Depreciation	90%	10%	36.76	4.08	40.84
Interest & Financial charges	90%	10%	13.82	1.54	15.36
Return on NFA /Equity	90%	10%	46.32	5.15	51.47
Interest on Consumer Security Deposit	10%	90%	1.85	16.63	18.47
Interest on Working Capital	10%	90%	0.00	0.00	0.00
Total Revenue Requirement			140.35	1897.59	2037.94
Less: Non-Tariff Income	10%	90%	2.85	25.62	28.46
Net Revenue Requirement			137.51	1871.97	2009.48

To determine the wheeling charges, the wheeling costs are 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 O&M Expenses and other costs as provided in the table above.

The methodology adopted for allocating the derived wheeling costs 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 below.
- The resultant cost at EHT voltage level is divided among LT, HT and EHT voltage levels on the basis of input energy at respective voltage levels as the EHT network is used by consumers at all voltage levels. Similarly, allocated cost at HT voltage level is divided between HT and LT voltage levels. The cost at LT voltage level is allocated completely to LT voltage level

The Parameters assumed for voltage wise allocation of wheeling charges as given below:

Table 158 Parameters assumed for voltage wise allocation of wheeling charges

approved by the commission

Category	Consumers	Asset Allocation (%)	Sales (MU)	Cumulative Voltage wise Losses (%)	Energy Input (MU)
Low Tension (LT) Level	531671	50.00%	1263.87	18.35%	1564.59
High Tension (HT)	531	40.00%	1061.57	5.00%	1117.44
Extra High Tension (EHT) Level	15	10.00%	820.11	1.50%	832.60
Total	532217	100%	3145.54	10.50%	3514.57

Accordingly, the Commission approves the Wheeling Charges as follows:

Table 159 Wheeling Charges approved by Commission

Category	О&М	Others	Total	Total re- distributed cost (based on Input energy)	Sales (MU)	Wheeling Charges (Rs/kWh)
Low Tension (LT) Level	41.56	47.95	89.51	61.21	1263.87	0.71
High Tension (HT)	0.04	38.36	38.40	43.72	1061.57	0.36

Total	41.60	95.91	137.51	137.51	3145.54	
Extra High Tension (EHT) Level	0.00	9.59	9.59	32.57	820.11	0.12

The Commission approves wheeling charge of RS 0.71/ kWh at LT voltage level, RS 0.36/kWh at HT voltage level and RS 0.12/kWh at EHT voltage level.

# 7.2 Additional Surcharge

## Petitioner's Submission:

The Petitioner had proposed an Additional Surcharge of RS 0.99/kWh in the pleading whereas the Petitioner in response to the deficiency note has revised its submission. The Petitioner has proposed additional charges as follows:

Table 160 Additional Surcharge submitted by the Petitioner

Particulars	
Total Power Purchase Cost	1733.30
Fixed cost component in Power Purchase Cost (excluding transmission charges)	311.05
Energy Sales (MU)	3147.37
Additional Surcharge (Rs/kWh)	0.99

## 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 stipulate:

"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 per the following table:

Table 161 Additional Surcharge approved by the Commission

Particulars	
Total Power Purchase Cost	1825.12
Fixed cost component in Power Purchase Cost (excluding transmission charges)	443.03
Energy Sales (MU)	3145.54
Additional Surcharge (Rs/kWh)	1.41

Earlier, 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 Open Access Regulations, 2017, a consumer now is only required to pay fixed charges on Admissible Drawal rather than on total contracted load.

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 Rs 1.41/kWh for the FY 2024-25.

The Commission directs the Petitioner to submit quarterly details of the 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 change the applicable Additional Surcharge, if required.

# 7.3 Cross-Subsidy Surcharge

# **Petitioner's Submission:**

The Cross-Subsidy Surcharge submitted by the Petitioner is shown in the following table:

Table 162 Cross-Subsidy Surcharge as proposed by the Petitioner

Category	VCoS (Rs /kWh)		Cross- Subsidy (Rs /kWh)
Low Tension (LT) Level	7.56	6.30	NIL
High Tension (HT)	5.57	7.95	2.39
Extra High Tension (EHT) Level	5.07	6.99	1.91

# 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:

Table 163 Voltage wise losses considered by the Commission

Category	Cumulative Losses upto that voltage level (%)
Low Tension (LT) Level	18.35%
High Tension (HT)	5.00%
Extra High Tension (EHT) Level	1.50%
Total	10.50%

Using these losses, the energy input at each voltage level is determined based on the energy sales. The table below shows the energy input at each voltage level.

Table 164 Energy Input at each voltage level (MU) approved by the Commission

Category	Energy Sales (MU)	Cumulative Losses (%)	Energy Input (MU)
Low Tension (LT) Level	1263.87	18.35%	1564.53
High Tension (HT)	1061.57	5.00%	1117.44
Extra High Tension (EHT) Level	820.11	1.50%	832.60
Total	3145.54	10.50%	3514.57

Now the overall ARR approved for FY 2024-25 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 EHT level is then further allocated to EHT, HT and LT levels on the basis of input energy, as the EHT network is utilized by all EHT, HT and LT network consumers. Similarly, the cost allocated to HT is distributed to both HT and LT voltage level.
- 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 165 Parameters used for allocation of fixed costs approved by the Commission

Category	Energy Input (MU)	Voltage wise Asset Allocation (%)	Number of Consumers
Low Tension (LT) Level	1564.59	50.00%	531671
High Tension (HT)	1117.41	40.00%	531
Extra High Tension (EHT) Level	832.57	10.00%	15
Total	3514.57	100.00%	532217

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 table below:

Table 166 Voltage Wise Cost of Supply (VCoS) approved by the Commission

Category	Allocated Fixed Cost (Rs Cr)	Allocated Variable Cost (Rs Cr)	Total Cost (Rs Cr)	Energy Sales (MU)	VCoS (Rs /kwh)
	A	В	C=A+B	D	E=C/D*10
Low Tension (LT) Level	359.85	615.25	975.08	1263.87	7.72
High Tension (HT) Level	160.28	439.43	599.71	1061.57	5.65
Extra High Tension (EHT) Level	107.26	327.41	434.68	820.11	5.30
Total	627.39	1382.09	2009.48	3145.54	6.39

The VCoS as determined is used to determine the Cross-Subsidy Surcharge.

Table 167 Cross Subsidy Surcharge approved by the Commission

	770.0	477	Cross-
Category	VCoS (Rs/kWh)	ABR (Rs/kWh)	Subsidy (Rs/kWh)
Low Tension (LT) Level	7.72	5.46	(2.26)
High Tension (HT)	5.65	7.37	1.72
Extra High Tension (EHT) Level	5.30	6.51	1.21

The Cross-Subsidy Surcharge is coming out to be negative for LT voltage level, Rs 1.72/kWh for HT voltage levels and Rs 1.21/kWh for EHT voltage levels.

Therefore, the Commission approves NIL Cross-Subsidy Surcharge at LT Voltage level, Rs 1.72/kWh for HT voltage levels and Rs 1.21/kWh at EHT Voltage levels, in FY 2024-25.

The same Open Access Charges will also be applicable for Green Energy Open Access Consumers.

## CHAPTER 8: Fuel and Power Price Adjustment Mechanism (FPPCA)

The State of Goa and Union Territories of Chandigarh, Dadra & Nagar Haveli and Daman & Diu, and Puducherry receive power from the Central Generating Stations, State Generating Stations, Independent Power Producers (IPPs) through the long-term power purchase agreements and short-term-purchase through exchange, bilateral purchases etc. However, the Union Territories of Andaman & Nicobar Islands and Lakshadweep Islands receive power from Intra-State generation as these two Islands are not connected with the national grid. 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 is the substantial component 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 Despatch Center (SLDC)/ Regional Load Despatch Center (RLDC) charges as the case may be, 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 (other than Andaman & Nicobar Islands and Lakshadweep Islands) (for example NTPC, NHPC etc.), and by JERC for the power plants located within the regions under jurisdiction of this Commission (for IPP's, licensees own generation and other State/UT generating sources).

While determining retail tariff for the ensuing year, the Commission first determines the ARR based on the projection of various cost elements including power purchase cost. The 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 projected by the distribution licensee after accounting for the distribution losses, which is purely a projection for the ensuing year. Hence, a likely 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, the True-up of the FY 2024-25 will be undertaken by the Commission once the audited accounts of the FY 2024-25 are available. If the audited accounts for the FY 2024-25 are prepared timely, the impact of True-up of various cost and revenue items is allowed in the tariff of the FY 2027-28, 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 Relevant Provisions

The relevant provisions of the Electricity Act, Tariff Policy, and the ATE judgments, which enable the Commission to devise, adopt, and implement a power purchase/ fuel price adjustment mechanism are as follows:-

# (a) 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."

## (e) The Electricity (Amendment) Rules, 2022 - Schedule-II

The Ministry of Power vide notification dated 29<sup>th</sup> December, 2022 notified the Electricity (Amendment) Rules, 2022 which prescribes the Fuel and Power Purchase Cost Adjustment (FPPCA) Surcharge mechanism.

# 8.2 Mechanism for Fuel and Power Purchase Cost Adjustment (FPPCA) Surcharge:

The following mechanism shall be followed for calculation and adjusting variations on account of Fuel and Power Purchase Cost Adjustment (FPPCA) Surcharge in the end consumer tariff, which shall come into force w.e.f. the implementation of this tariff order.

# 8.2.1 Periodicity for Recovery (Cycle), Chargeability and related Terms & Conditions:

- i. Fuel and Power Purchase Cost Adjustment (FPPCA) surcharge shall be calculated and billed to consumers automatically, without going through the regulatory approval process, on a monthly basis, according to the formula specified at 8.2.2 subject to true-up, on an annual basis.
  - Provided that the automatic pass-through shall be adjusted in the monthly billing as mentioned below.
- ii. FPPCA surcharge shall be computed and charged by the distribution licensee, in (n+2) th month, on the basis of actual variation, in the cost of fuel and power purchase and Inter-State Transmission Charges for the power procured during the nth month. (For example, the FPPCA surcharge on account of changes in tariff for power supplied during the month of April of any financial year shall be computed and billed in the month of June of the same financial year):

Provided that in case the distribution licensee fails to compute and charge fuel and power purchase cost adjustment surcharge within the timeline as specified above, except in case of any force majeure condition, its right for recovery of costs on account of fuel and power purchase adjustment surcharge shall be forfeited and, in such cases, the right to recover the FPPCA surcharge determined during true-up shall also be forfeited.

iii. The distribution licensee shall submit detailed computation, on monthly basis, of the variation between expenses incurred and the fuel and power purchase cost adjustment surcharge/billed, along with supporting documents to the Commission, for verification/examination of the fuel and power purchase cost adjustment surcharge billed/to be billed.

- iv. Upon verification/examination, if any discrepancies are found by the Commission, in the computation of fuel and power purchase cost adjustment surcharge, the Commission shall inform the Distribution Licensee, of such discrepancy, directing it for counter adjustment in the subsequent month's fuel and power purchase cost adjustment surcharge to be charged.
- v. The revenue recovered on account of pass-through fuel and power purchase cost adjustment surcharge by the distribution licensee, shall be trued up while truing up the expenses of the relevant financial year.
- vi. To ensure smooth implementation of the fuel and power purchase cost adjustment surcharge mechanism and its recovery, the distribution licensee shall ensure that the licensee billing system is updated to take this into account and a unified billing system shall be implemented to ensure that there is a uniform billing system irrespective of the billing and metering vendor through interoperability or use of open-source software as available.
- vii. The distribution licensee shall publish all details including the fuel and power purchase cost adjustment surcharge formula, calculation of monthly fuel and power purchase cost adjustment surcharge, and recovery of fuel and power purchase cost adjustment surcharge on its website and archive the same through a dedicated web address.

# 8.2.2 Fuel and Power Purchase Cost Adjustment Surcharge Formula:

$$\label{eq:monthly FPPCA for nth Month (%) = } \frac{(A-B)*C+(D-E)}{\{Z*(1-Distribution\ losses\ in\ \%/100)\}*ABR}$$
 where,

n<sup>th</sup> month = the month in which billing of fuel and power purchase adjustment surcharge component is done. This fuel and power purchase adjustment surcharge is due to changes in tariff for the power supplied in (n-2) <sup>th</sup> month

A (in kWh) = Total units procured in (n-2) <sup>th</sup> Month from all sources including Long-term, medium-term-term and Short-term Power purchases

B (in kWh) = Bulk sale of power from all Sources in (n-2)<sup>th</sup> Month

C (in Rs. /kWh) = Incremental Average Power Purchase Cost = Actual Average Power Purchase Cost (APPC) from all Sources in (n-2) month - Approved Average Power Purchase Cost (APPC) from all Sources

D (in Rs.) = Actual Inter-State and Intra-State Transmission Charges in the (n-2) <sup>th</sup> Month

E (in Rs.) = Approved Cost of Transmission Charges for (n-2) th Month = (Approved Transmission Charges (in Rs.)/12)

Z (in kWh) = [{Actual Power purchased from all the sources outside the State in (n-2) <sup>th</sup> Month. (in kWh) \* (1 – Approved Inter-State transmission losses in % /100) + Power purchased from all sources within the State (in kWh)} \*(1 – Approved Intra state losses in %) – B]/100

ABR (in Rs. /kWh) = Approved Average Billing Rate for the year

Distribution Losses (in %) = Approved Distribution Losses

#### **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 within 1 month of the issuance of this Order.
- The quarterly progress report as per the detailed action plan for all the directives issued in the subsequent sections and also the quarterly status reports for metering & billing, RPO compliance, FPPCA, SOPs and Capex and Capitalisation within 10 days of the end of each quarter of the calendar year.

#### 9.1 Previous 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 initiate necessary action as per the provisions of the Electricity Act 2003 and the Regulations made thereunder.

## 9.1.1 Energy Audit and T&D Losses

#### Originally Issued in Tariff Order dated 5th February 2010

#### Commission's Latest Directive in MYT Order dated 31.03.2022

The Commission has taken a serious view of the fact that the Petitioner has not submitted the Energy Audit Report along with the Tariff Petition for FY 2022-23. As per the timelines envisaged by the Petitioner the Energy Audit Report should be completed by March 2021 therefore the Commission directs the Petitioner to submit the same within 1 month of issue of this Order.

## Commission's Response in previous tariff order dated 30.03.2023

The Petitioner is directed to submit the status of the Energy Audit being conducted by the appointed energy auditor withing 1 month of issue of this Order.

#### Petitioner's Response in Present Tariff Petition

M/s Zenith Energy India (P) Ltd. has submitted the Base line energy audit for the 4 Financial years from FY 2017-18 to 2020-21 and the same is submitted herewith.

Further it is also to be stated that since BEE has stipulated mandatory conduct of energy audit by DISCOMs through BEE accredited Energy Auditor this Department has floated e tender for carrying out Energy audit for the period from FY 2021-22 to FY 2023-24.

M/s A-Z Energy Engineers Pvt Ltd, New Delhi has been appointed as Energy Auditor.

#### Commission's Response

The Petitioner is directed to submit the Energy Audit Report of FY 2023-24 along with the filing of next tariff Petition.

## 9.1.2 Proposal of the Energy Charges for the agriculture category

## Originally Issued in Tariff Order dated 10th April 2013

#### Commission's Latest Directive in MYT Order dated 31.03.2022

The Commission takes note of the efforts of the Petitioner in this regard and directs the Petitioner to provide 100% metering to all agricultural consumers as proposed by the Petitioner. The Commission directs the Petitioner to submit a report on the same within 1 month of issue of this Order.

## Commission's Response in previous tariff order dated 30.03.2023

The Commission takes note of the efforts of the Petitioner in this regard and directs the Petitioner to provide 100% metering to all agricultural consumers as proposed by the Petitioner. The Commission directs the Petitioner to submit a report on the same within 1 month of issue of this Order.

## Petitioner's Response in Present Tariff Petition

The provision for metering in Agriculture services have been included Under Part A of RDSS scheme - Smart metering – wherein it is proposed to convert 4.06lacs meters into Smart prepaid meters at a cost of Rs.251 Crs. This project is to be implemented through M/s PFCCL as PIA under TOTEX model. The e tender for selection of the Advanced metering Infrastructure provider (AMISP) has been opened on 2/11/2022 and the Technical evaluation of bids is in progress. After award of contract to the successful bidder the project will be completed within 10 months. During the implementation, the AMISP would be requested to provide meters to all agriculture services at the first instant and there on energy charges can be levied to Agriculture consumers.

#### Commission's Response

The Commission notes reply of the Petitioner and the Petitioner is directed to complete 100% metering to all agricultural consumers by FY 2024-25 and action planned towards this compliance to be submitted within 30 days of issued of this order.

# 9.1.3 Determination of Voltage wise Wheeling charges and Category wise/ Voltage wise Cost of supply

#### Originally Issued in Tariff Order dated 24th May 2016

#### Commission's Latest Directive in MYT Order dated 31.03.2022

The Commission has taken a serious view of the fact that the Petitioner has been unable to submit the Voltage wise Asset Register or the Energy Audit Report. In light of the same, the Commission in this Tariff Order has again determined the voltage wise wheeling charges based on certain assumptions. The Commission directs the Petitioner to submit all the requisite information for determination of voltage wise wheeling charges along with petition for determination of tariff for FY 2023-24.

## Commission's Response in previous tariff order dated 30.03.2023

The Commission takes note of the same.

#### Petitioner's Response in Present Tariff Petition

EDP submits that the Voltage wise cost of supply has been submitted with the Commission.

#### Commission's Response

The Commission takes note of the same and directs the Petitioner that this details to be provided along with filing of tariff petition henceforth.

## 9.1.4 New Bill Format

#### Originally Issued in Tariff Order dated 24th May 2016

#### Commission's Latest Directive in MYT Order dated 31.03.2022

The Commission takes note of the efforts by the Petitioner in this regard. The Commission directs the Petitioner to submit a report on the progress of the same within 1 month of issue of this Order.

#### Commission's Response in previous tariff order dated 30.03.2023

The Commission takes note of the efforts by the Petitioner in this regard. The Commission directs the Petitioner to submit a report on the progress of the same within 1 month of issue of this Order.

## Petitioner's Response in Present Tariff Petition

The Department proposes to purchase 200 nos. of handheld blue tooth enabled bill printing machine for issue of on the spot CC bills to the consumers for the remaining areas of the UT of Puducherry. All the consumers of the UT of Puducherry would be served real time CC bills shortly.

#### Commission's Response

The Commission noted the submission of the Petitioner. The Commission has directed the Petitioner vide its letter dated 28.03.2024 fo simplifying the electricity bills for domestic consumers either in English, Hindi or the regional languages. The Commission directs the Petitioner to submit a report on the progress of the same within 7 days of issue of this Order.

## 9.1.5 Time of Day (ToD) Tariff for HT/ EHT consumers

#### Originally Issued in Tariff Order dated 24th May 2016

Commission's Latest Directive in MYT Order dated 31.03.2022

The Commission takes note of the efforts by the Petitioner in this regard. The Department directs the Petitioner to submit a report on the progress of the same within 1 month of issue of this Order.

#### Commission's Response in previous tariff order dated 30.03.2023

The Commission takes note of the efforts by the Petitioner in this regard. The Department directs the Petitioner to submit a report on the progress of the same within 1 month of issue of this Order.

#### Petitioner's Response in Present Tariff Petition

Out of existing 473 Nos. of HT/EHT consumers 441 nos. of consumers have been provided with TOD enabled Energy meters.

Since the Government of India has directed for conversion of all existing meters with Pre paid smart meters before December 2023 and this project is being executed through M/s PFFCL as PIA under TOTEX mode. The tender for selecting the AMISP provider has been opened and the process for selection of the bidder is in progress and on issue of letter of award it is expected that the AMISP would commence the work shortly. EDP proposes to replace the balance 32 nos. HT industries with prepaid smart meter with Time-of-Day facility at the first instant of the project.

#### Commission's Response

The Commission notes reply of the Petitioner and the Petitioner is directed to complete 100% metering to all agricultural consumers by FY 2024-25 and action planned towards this compliance to be submitted within 30 days of issued of this order.

## 9.1.6 Compliance towards Renewable Purchase Obligation (RPO)

### Originally Issued in Tariff Order dated March 28, 2018

#### Commission's Latest Directive in MYT Order dated 31.03.2022

The Commission takes note of the Petitioner's Submission. The Petitioner is directed to expedite the engagement of solar power suppliers to ensure compliance of the RPO obligations and a report thereof to be submitted along with the next tariff petition.

## Commission's Response in previous tariff order dated 30.03.2023

The Commission takes note of the Petitioner's Submission.

# Petitioner's Response in Present Tariff Petition

Presently the Aggregate capacity of grid connected small and rooftop solar PP installed in the UT of Puducherry under the Net-Metering Regulations as on March 2022 is 25.00 MW. The quantum of energy injected into the grid from these plants is accounted for fulfilling a part of the Renewable Purchase Obligation (RPO) of the Department.

Solar Power Developer M/s. Waree Private Limited has set up grid connected solar PV power plant of capacity 10 MW at Polagam, Karaikal for sale of Solar Power to industrial consumer under long term open access. The quantum of energy injected into the grid from this plant is also accounted for fulfilling the Renewable Purchase Obligation (RPO) of the Department.

Further EDP has executed the following PPA:

- 100MW of Solar power from NTPC and has been receiving RE power from 9/5/2022 which is being accounted for RPO
- 50 MW of Solar RE power from SECI
- 240.64 MW of Wind RE power from SECI and EDP is receiving 85.50MW of wind power since August 2022 which is being accounted for RPO.

EDP submits to inform that the RE power from the above sources would be sufficient

to fulfill EDP's RPO obligation.

#### Commission's Response

The Commission noted the submission of the Petitioner and directs that RPO compliance in each category (as mentioned at Chapter 5) needs to be complied with.

## 9.1.7 Utilising the provision of FPPCA formula

#### Originally Issued in Tariff Order dated May 20, 2019

#### Commission's Latest Directive in MYT Order dated 31.03.2022

The Commission takes note of the Petitioner's Submission.

## Commission's Response in previous tariff order dated 30.03.2023

The Commission takes note of the Petitioner's Submission.

#### Petitioner's Response in Present Tariff Petition

The FPPCA calculations for the 2nd to 4<sup>th</sup> Quarter of FY 2021-22 has been submitted to the Commission on 17/8/2022. Since the difference between the Rapp and Ract is 3 paisa/unit for Q2, 6 paisa/unit for Q3, 13 paisa/unit for Q4 EDP has accounted the same in the True up exercise of FY 2021-22.

The FPPCA calculations for the 1st qtr of FY 2022-23 was also submitted to JERC on 5/8/2022 and approval of JERC has also issued directions for collections of the same on 28/10/2022. Since EDP being an integral part of the Govt of Puducherry, the approval of the Government has been sought for levy of 35 paisa/unit for Q1 of FY 2022-23. Upon receipt of Govt approval FPPCA charges would be levied and collected.

# Commission's Response

The Commission directs the Petitioner to levy FPPCA as defined in Chapter 8 of this order.

## 9.1.8 Category-wise per kW/kVA data

#### Originally Issued in Tariff Order dated April 7, 2021

## Commission's Latest Directive in MYT Order dated 31.03.2022

The Commission takes note of the Petitioner's Submission.

### Petitioner's Response in Present Tariff Petition

The same is under preparation and would be submitted shortly.

## Commission's Response

The Commission took a serious view of the non-compliance of the above directives by the Petitioner. Hence, it is directed to submit the complete details within 30 days of issue of this order

## 9.1.9 New billing software

#### Originally Issued in Tariff Order dated April 7, 2021

#### Commission's Latest Directive in MYT Order dated 31.03.2022

The Commission takes note of the Petitioner's Submission and the Petitioner is directed to submit a report on the progress of the same within 1 month of issue of this Order.

#### Petitioner's Response in Present Tariff Petition

The new billing software developed by NIC has been implemented in the outlying regions of Mahe and Yanam. In respect of Puducherry region, the new billing software has been implemented in the Urban Division.

Since the number of services with respect to Karaikal and other divisions of Puducherry region is voluminous the implementation is being done in a phased manner. The same is expected to be completed within 3 months in coordination with NIC. Portable blue tooth printers are being procured to issue real-time spot billing to consumers.

## Commission's Response

The Commission noted the submission of the Petitioner. The Commission has directed the Petitioner vide its letter dated 28.03.2024 fo simplifying the electricity bills for domestic consumers either in English, Hindi or the regional languages. The Commission directs the Petitioner to submit a report on the progress of the same within 7 days of issue of this Order.

## 9.1.10 Fixed Assets Register (FAR)

#### Originally Issued in Tariff Order dated April 7, 2021

#### Commission's Latest MYT Order

The Commission observed that after repeated communication FAR is not received in Soft as well as in hard Copy. The Petitioner is once again directed to submit the same within 1 month of issue of this Order.

## Petitioner's Response in Present Tariff Petition

The link for the soft copy of the Fixed Asset Register has been sent to Hon'ble JERC during the 2nd TVS held on 4.3.2022 in connection with the Tariff Petition 2022-23.

link for Fixed Asset Register furnished below:

https://drive.google.com/drive/folders/1lkytUhnJT2EhKOpN9NjHvrJp9Pjvq7Rl?usp=sh aring

#### Commission's Response

The Commission noted the submission of the Petitioner. Hence, accordingly drops the directive.

### 9.1.11 Quarterly status reports

#### Originally Issued in Tariff Order dated April 7, 2021

## Commission's Latest Directive in Tariff Order for the FY 2021-22

The Commission takes note of the Petitioner's Submission.

#### Petitioner's Response in Present Tariff Petition

PED submits that the all the quarterly report has been submitted in timely manner. The Directive of the Commission will be complied in future also.

#### Commission's Response

The Commission takes directs the Petitioner to maintain the timely submission of all directives in future. According, the Commission drops the directive.

# 9.1.12 DPR for Revamped Distribution Scheme- Reforms Based Results Linked Scheme

#### Commission's Latest Directive in MYT Order dated 31.03.2022

The Commission directs the Petitioner to provide DPR for "Revamped Distribution Scheme- Reforms Based Results Linked Scheme", within 3 months of this Order.

#### Petitioner's Response in Present Tariff Petition

EDP has submitted the details of the RDSS to the commission in the Business Plan for the Control period FY 2022-23 to FY 2024-25. In this connection it is to be stated that the DPR has been approved by the Government only during September 2022. As such the soft copy of the approved DPR has already been submitted to Commission on 22-11-2022.

#### Commission's Response

The Commission takes note of the Petitioner's Submission and accordingly drops the directives.

# 9.1.13 DPR for the project of the metering of all consumers (except Agriculture) with smart meters with prepayment

#### Commission's Latest Directive in MYT Order dated 31.03.2022

The Commission directs the Petitioner to submit the DPR for the project of the metering of all consumers (except Agriculture) with smart meters with prepayment mode by December 2023 as soon as possible for the consideration of the Commission

#### Petitioner's Response in Present Tariff Petition

EDP has submitted the details of the Pre-paid Smart meter part of RDSS to the Commission in the Business Plan for the Control period FY 2022-23 to FY 2024-25. In this connection it is to be stated that the DPR has been approved by the Government only during September 2022. As such the soft copy of the approved DPR has already been submitted to Commission on 22-11-2022.

It is also to be stated that since the percentage of the number of Agriculture services is very meager, fixing of smart meters has also been contemplated for Agriculture services also.

### Commission's Response

The Commission takes note of the Petitioner's Submission. The Petitioner is directed to submit the detailed plan for smart metering within 30 days of issue of this Order.

# 9.1.14 Field level information such as Category wise break-up of costs related to Metering, Billing and Collection etc.

#### Commission's Latest Directive in MYT Order dated 31.03.2022

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, The Commission directs the Petitioner to start maintaining field level information 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. and submit the same in the tariff proceedings of next year

#### Petitioner's Response in Present Tariff Petition

EDP submits that category wise break up of costs relating MBC is very difficult for the Department as no MIS/ERP solution is implemented at the Department. It is therefore requested that Commission may give time to implement ERP & MIS system at Electricity Department through which field level information abstract could be obtained.

#### Commission's Response

The Commission takes note of the Petitioner's Submission. The Petitioner is directed to submit a detailed plan for ERP & MIS system withing 6months of the issue of the order.

## 9.1.15 Separate Accounting for Regulatory Surcharge

#### Commission's Latest Directive in MYT Order dated 31.03.2022

The Commission directs the Petitioner to maintain the separate accounting for Regulatory surcharge.

## Petitioner's Response in Present Tariff Petition

EDP is maintaining separate accounting for Regulatory Surcharge as per the directions.

#### Commission's Response

The Commission takes note of the Petitioner's Submission and accordingly drops the directives.

# 9.1.16 Sale of surplus power in the open market

#### Commission's Latest Directive in MYT Order dated 31.03.2022

The Commission directs the Petitioner to adhere to the MOD schedule and in case surplus power same should be sold in the open market when available open market rates are higher than variable rate of power to be sold else transaction should strictly be avoided.

## Petitioner's Response in Present Tariff Petition

The Department is in the process of appointing M/s. PTC as Consultant for real time power portfolio Management which includes sale of surplus power. Provisional Letter of Award issued to M/s PTC has been accepted and on issue of LOA the Consultant would assist the PED for comprehensive Power Portfolio Management efficiently.

Apart from the above the Un-Requisitioned Surplus Power through from M/s. NLCIL and M/s. NTPC are being traded by the same entities on behalf of PED, on profit sharing basis.

#### Commission's Response

The Commission takes note of the Petitioner's Submission, accordingly drops the directives.

## 9.2 Creation of SLDC

# **New Directives by the Commission**

The Commission directs the Petitioner for segregation of SLDC from its present business on priority. Further, a detailed report shall be furnished within 60 days from the issuance of this tariff order and separate tariff Petition shall be filed from next true- up for FY 2023-24.

# **CHAPTER 10: Tariff Schedule**

# 10.1 Tariff Schedule

Table 168 Tariff Schedule approved by the Commission

Category of Consumers	Approved Tariff	
	Fixed Charges	Energy Charges
Life Line Services /OHOB		
0-50 units per month	Rs. 10/kW/Month	Rs. 1.95/kWh
Domestic Purposes		
0-100 units per month		Rs. 2.70 /kWh
101-200 units per month	D 05/477/25 11	Rs. 4.00 /kWh
201-300 units per month	Rs 35/kW/Month	Rs. 6.00 /kWh
Above 300 units per month		Rs. 7.50 /kWh
Commercial		
LT Commercial		
0-100 units per month		Rs. 6.00 /kWh
101-250 units per month	Rs. 200.00 /kW/Month	Rs. 7.05 /kWh
Above 250 units per month		Rs. 7.80 /kWh
HT Commercial (For contract demand up to 5000 kVA)	Rs. 450 /kVA / month	Rs. 6.00 /kVAh
Agriculture		
Agriculture		
Small farmers	Rs. 25/HP/month	-
Other Farmers	Rs. 100 /HP/month	-
Cottage Industries/Poultry Farms /Horticulture/ Pisciculture		
0-100 units per month		Rs. 2.25 /kWh
101-200 units per month	Rs 30/kW/Month	Rs. 3.25 /kWh
201-300 units per month	KS 50/ KW / WOIIII	Rs. 5.40 /kWh
Above 300 units per month		Rs. 6.80 /kWh
Public Lighting		
Public Lighting	Rs.110/pole/ month	Rs. 7.10/kWh
Industries		
LT Industries	Rs.100/kW/Month	Rs. 7.00 /kWh

	Approved Tariff		
Category of Consumers			
	Fixed Charges	Energy Charges	
HT Industries (For Supply at 11 kV, 22 kV or 33 kV)	Rs. 450 / kVA / month	Rs. 6.00 /KVAh	
EHT Industries (For Supply at 110 kV or 132 kV)	Rs. 500 / kVA / month	Rs. 6.35 /KVAh	
LT Water Works	Rs. 500 /connection/ month	Rs. 7.20/kWh	
HT Other	Rs. 500 Rs./ kVA /month	Rs. 6.25/KVAh	
Temporary Supply	Tariff for Temporary Connection 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 non-domestic category for permanent supply.		
Electric Vehicle Charging Station	-	Rs. 5.75/kVAh	
Hoardings/signboards	Rs. 140/kVA/ month or part thereof	Rs. 9.50/kWh	

# 10.2 Applicability of Tariff Schedule

#### LIFELINE SERVICES

OHOB connections are being converted into metered connections hence they will be charged as per metered

#### LT Supply Limit for all LT categories

For single phase connection, the connected load shall be upto 5 kW, and for three phase connection, the connected load shall be upto 100 kVA

#### **DOMESTIC PURPOSES**

This tariff is applicable to services for lights, fans, Air-conditioning, Heating and other small domestic appliances etc. used for:

- a) Genuine domestic purposes including common services for staircase, lifts, water tanks in the purely domestic apartments.
- b) Supply to actual places of public worship such as temples, mosques, churches etc.
- c) Ashrams and Mutts, Non-commercial orphanage homes and old people homes run by religious and charitable institutions, social welfare and voluntary organizations.
- d) Government schools along with related facilities.
- e) Youth hostels, Harijan hostels, Rehabilitation Centres, Anganwadies and Balwadies run by Social Welfare Department.
- f) For own residences where one room is set apart for the purpose of consultation by doctors, lawyers, engineers, architects and auditors.
- g) To handloom in residence of handloom weavers (regardless of the fact whether outside labour is employed or not) and to handloom in sheds erected.
- h) To the residences where supply from a house is extended to tailoring shops, job typing, document writing, laundry pressing, and small caterers set up in the verandah of the house with small lighting load only (one tube light only).

#### **HUT SERVICES (OHOB)**

OHOB connections are being converted into metered connections hence they will be charged as per metered tariff upto 50 units at Rs. 1.95/ kWh and Fixed Charges at 10 Rs. /kW/Month. If the consumption exceeds 50 units, then Domestic tariff shall be applicable.

#### COMMERCIAL

#### LT Commercial

This tariff is for Lights and combined installation of lights and fans, mixed loads of lights and power, heating and air-conditioning applicable to:

- a) Non-domestic and non-industrial consumers, trade and commercial premises
- b) All educational institutions excluding Government Schools along with related facilities
- c) Hotels, Restaurants, Boarding and Lodging Homes
- d) Hospitals, Private clinics, Nursing Homes, Diagnostic Centres, X-ray Units etc.
- e) IT related development Centres and Service Centres
- f) Common services for Stair-case, lifts, water tanks etc. in the purely commercial/combination of commercial and domestic.

#### **HT Commercial**

For Commercial Establishments including laboratories, hotels, marriage halls, cinema theatres, private educational institutions, private hospitals, shopping malls, telephone exchanges, broadcasting companies with contracted maximum demand upto 5000 kVA. New High-Tension consumers who want to avail a contract demand above 5000 kVA or existing High-Tension consumers who want to enhance their demand beyond total

contract demand of 5000 kVA should avail power at 110 kV or 132 kV as the case may be.

## **Agriculture**

For supply to bonafide agricultural services with a connected load of not less than 3 HP per service

#### Note

- 1. Electricity will be supplied under the tariff category "Small farmers" to those consumers whose families are solely dependent on the income derived from their agricultural land holding, which should not exceed two and half acres of wet land or five acres of dry land. A certificate to this effect from Revenue authority shall be produced. "Small farmer" means a person whose total holding, whether as owner, tenant or mortgaged with possession or partly in one capacity and partly in another, does not exceed two-and-a half acres of wetlands or five acres of dry land. In computing the extent of land held by a person who owns both wet and dry lands, two acres of dry land shall be taken as equivalent to one acre of wet land.
- 2. The above concession will be withdrawn if resale of energy or unauthorized load / extension or use for other purpose is detected by the Department.
- 3. Agricultural power loads below 3 H.P. will be charged under Tariff Category A1. A bonafide farmer may use his motor in the Agricultural Service for allied agricultural purposes such as sugarcane crushing, thrashing etc.
- 4. Power supply to Farmhouses shall be metered separately and charged under domestic tariff (A2).

Payment of Tariff Charges by Agriculture Consumers

- 1. The Tariff shall be collected in three equal instalments payable in April August and December in each year. The instalments shall be payable before the 15th of the respective months.
- 2. For new service, the first instalment shall be proportionate to the number of whole months remaining till the month in which the first instalment is due. Fraction of a month shall be reckoned as a whole month.

#### **PUBLIC LIGHTING**

This tariff will apply to public lighting in markets, bus stands, traffic signals, high mast lights on public ways,

public parks, public lighting in notified industrial estates

#### **INDUSTRIES**

## LT Industries

Applicable to low tension industrial consumers including lighting in the industrial services.

## HT Industries (For Supply at 11 kV, 22 kV or 33 kV)

The supply voltage for HT consumer's upto 5000 kVA will be 33 kV, 22 kV or 11 kV as the case may be. Applicable to industrial establishments, IT and ITES based Companies registered under Factories Act/ Companies Act with contracted maximum demand upto 5000 kVA. New High-Tension consumers who want to avail a contract demand above 5000 kVA or existing High-Tension consumers who want to enhance their demand beyond total contract demand of 5000 kVA should avail power at 110 kV or 132 kV as the case may be.

#### EHT Industries (For Supply at 110 kV or 132 kV)

Applicable to all types of industries supplied at 110 KV or 132 KV as the case may be.

#### LT WATERWORKS

Applicable to low tension consumers with Water Tanks including lighting in the premises maintained by State Government Departments/Undertakings and Local Bodies.

#### **HT OTHERS**

Applicable to State and Central Government establishments of non-industrial and non-commercial nature.

#### **ELECTRIC VEHICLE CHARGING STATIONS**

This tariff schedule shall apply to the Public Charging Stations (PCS) and Captive Charging Stations (CCS) as defined below in accordance with the Ministry of Power, GoI revised consolidated guidelines, and standards for charging infrastructures for Electric Vehicles dated 14th January, 2022.

Public Charging Stations (PCS) shall mean an EV charging station where any electric vehicle can get its battery recharged.

Captive Charging Stations (CCS) shall mean an electric vehicle charging station exclusively for the electric vehicles owned or under the control of the owner of the charging station e.g., Government Departments, Corporate houses, Bus Depots, charging stations owned by the fleet owners etc. shall not be used for commercial purpose of charging other vehicles on paid basis.

The tariff for respective category shall be applicable for respective charging (LT/HT)

#### 10.3 General Terms and Conditions

The above-mentioned LT/HT Tariffs are subjected to the following conditions, applicable to all category of consumers.

- 1) The tariff indicated in this tariff schedule is the tariff rate payable by the consumers of Union Territory of Puducherry.
- 2) A Regulatory Surcharge of 10.00% shall be applicable to all the consumer categories as a percentage of the total Energy and Demand charges payable by the consumer towards recovery of past accumulated deficit.
- 3) These tariffs are exclusive of electricity duty, tax on sale of electricity, taxes and other charges levied by the Government or other competent authorities from time to time.
- 4) Unless otherwise agreed to, these tariffs for power supply are applicable to single point of supply.
- 5) The power supplied to a consumer shall be utilized only for the purpose for which supply is taken and as provided for in the tariff. 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 and the Supply Code Regulations notified by JERC.

#### Provided that

- (a) if a portion of the domestic premises limited to only one room is used for running small household business having connection under domestic category, such connection shall be billed under domestic category provided that the total monthly consumption of the consumer (including consumption for above mentioned small household business) does not exceed 150 kWh
- (b) if either more than one room or only one room having monthly consumption exceeding 150 kWh for consecutive three months is detected in the domestic premises being used for mixed purposes having domestic

connection, such connection shall further be billed under commercial category until a separate connection of appropriate tariff is taken for that portion used for non-domestic purpose.

- 6) If the consumer fails to pay the energy bill presented to him by the due date, the Department shall have the right to disconnect the supply as per the Act & Supply Code Regulations notified by JERC.
- 7) Fixed charges, wherever applicable, will be charged on pro-rata basis from the date of release of connection. Fixed charges, wherever applicable, will be double as and when bi-monthly billing is carried out. Similarly, slabs of energy consumption will also be considered accordingly in case of bi-monthly billing.
- 8) The billing in case of HT/EHT shall be on the maximum demand recorded during the month or 85% of 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-drawal is more than 20% of the contract demand, then the connections shall be disconnected immediately.

Explanation: Assuming the contract demand as 100 KVA, maximum demand at 120 KVA and total energy consumption as 12000 KVAh, then the consumption corresponding to the contract demand will be 10000 KVAh (12000\*100/120) and consumption corresponding to the excess demand will be 2000 kVAh. This excess demand of 20 KVA and excess consumption of 2000 KVAh will be billed at twice the respective normal rate. Such connections drawing more than 120 kVA, shall be disconnected immediately.

- 9) Unless specifically stated to the contrary, the figures of energy charges relate to INR per unit (kWh) charge for energy consumed during the month.
- 10) Late Payment Surcharge shall be applicable to all categories of consumers. Late payment surcharge of 1.5% per month or part thereof shall be levied on all arrears of bills. In case the delay is less than a month, the surcharge will be levied at 1.5% per month on proportionate basis considering a month consists of 30 days. Such surcharge shall be rounded off to the nearest multiple of one rupee. Amount less than 50 paisa shall be ignored and amount of 50 paisa or more shall be rounded off to next rupee. In case of permanent disconnection, late payment surcharge shall be charged only up to the month of permanent disconnection.
- 11) Advance Payment Rebate: If payment is made in advance well before commencement of consumption period for which bill is prepared, a rebate @ 1% per month shall be given on the amount (excluding Consumer Security

Deposit) which remains with the licensee at the end of the month. Such a rebate, after adjusting any amount payable to the licensee, shall be credited to the account of the consumer.

12) Prompt Payment Rebate: If payment is made at least 7 days in advance of the due date of payment a rebate for prompt payment @ 0.25 % of the bill amount shall be given. Those consumers having arrears shall not be entitled for such rebate.

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.

# 13) 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.

Time of use	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

**Table 169 Applicability of TOD Tariff** 

# (c) Applicability and Terms and Conditions of TOD tariff:

- i. The Commission directs the Petitioner to introduce the TOD tariff as mentioned above urgently including installation of the Smart Meters to capture ToD consumption.
- ii. The facility of aforesaid TOD tariff shall not be available to the HT/EHT consumers having captive power plants and/or availing supply from other sources through wheeling of power
- iii. The HT/EHT industrial consumers who have installed standby generating plants shall also be eligible for the aforesaid TOD tariff
- iv. In the event of applicability of the TOD tariff to a consumer, all other terms and conditions of the applicable tariff shall continue to apply.

- 14) 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.
- 15) Schedule of service charges and other charges would be as approved in this Tariff Order.

# 10.4 Schedule of Other Charges

Table 170 Schedule of Other Charges			
S. No.	Description	Charges (Rs.)	
A	Charges for Service Connections		
A1	New LT overhead service lines		
1	One hut one Bulb	Nil	
2	Other single-phase Services	250	
3	Three phase Services	500	
4	L.T C. T operated Meter services	3,000	
5	H.T Services (up to 150 kW)	10,000	
6	H.T Services (more than 150 kW)	11,000	
A2	New LT underground service lines		
1	Single Phase services	500	
2	Three phase Services	1,000	
А3	Rating / re-rating of services		
1	Single phase Services	125	
2	Three phase Services	250	
3	L.T C.T operated Meter service	1,500	
4	H.T Service	2,500	
	te above charges under (A1) & (A2) will be applicable for addition of connected load and enhancement or reduction of CMD or alteration installations.		
В	Testing for Installation		
1	Domestic lighting / Commercial lighting / Agriculture Services	200	

В	Testing for Installation	
1	Domestic lighting / Commercial lighting / Agriculture Services	200
2	Other LT Services	900
3	HT/EHT Services	7,500

Note: Testing for servicing a new installation (or of an extension or alteration) - For the first test No Charge. Subsequent testing warranted due to absence of contractor or his representative (or) due to defects in wiring of consumer's premises or at the request of the consumer or at occasions that warrant testing of installations for the second time for reasons attributable to the consumers

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С	Testing for meters and metering arrangements	
1	Single phase direct meter	150
2	Three phase direct meter up to 50 A	200
3	L.T C.T coil test	800
4	H.T Tri-vector Meter (0.5 class accuracy or CT operated LT meters)	1,500
5	H.T Tri-vector Meter (0.2 class accuracy)	2,000

6	H.T Metering Cubicle	3,500
D	Testing of HT/EHT Consumer Protective Equipment	
1	Testing charges for protective relays (Earth fault, line fault etc.)	4,500
2	Testing charges for one set of current transformers	4,500
3	Testing charges for one set of potential transformers	4,500
4	Testing charges for one set of EHT current transformer	6,000
5	Testing charges for one set of EHT potential transformer/ CVT	6,000
6	Testing charges for one set of HT circuit breaker	4,500
7	Testing charges for one set of EHT circuit breaker	6,000
8	Testing charges for measurement of earth resistance	3,000
9	Testing charges for Transformer oils	500
E	Disconnection/Re-connection Charges	
1	Disconnection of L.T service on request	100
2	Disconnection of HT service on request	500
3	Reconnection of L.T Service (on all occasions)	100
4	Reconnection of HT Service (on all occasions)	1,000
F	Title Transfer of Services	
1	Domestic	250
2	Commercial Lighting Installation	500
3	All other LT installation	1,000
4	HT/EHT Services	2,000
G	Furnishing of Certified Copies (To be issued to the consumer only)	
1	Issue of duplicate/detailed Monthly bills for a month	10
2	Contractor's completion-cum test report	10
3	Ledger Extract	20/calendar year or part thereof
4	Agreement	50
5	Estimate	50
Н	Charges for Replacement of Burnt Meters	
1	LT Single Phase meters	700
2	LT Three Phase meters	1,300
3	Three Phase LT meters with CTs	3,000
4	HT Meter 0.5s class of accuracy	6,500
5	HT Meter 0.2s class of accuracy	30,000
6	HT Metering Cubicle (CT/PT Unit)	70,000
I	Fuse Renewal Charges	
1	Domestic	NIL
2	Commercial	50
3	L.T Industrial	50
4	High Tension/Extra High-Tension Installation	250
J	Shifting of Meter Board at Consumer's Request	
1	LT Single Phase Supply	125
2	LT Three Phase Supply	250

Note: The meter rent has been abolished by the Commission vide its tariff order dated 30.03.2023.

## **Annexures**

# **Annexure 1: List of Stakeholders**

# Table 171 List of Stakeholders

List of	f Stakeholders present during Public Hearing at Puducherry on 14-02-2024
1	Nithya Naryanan
2	Y.J.Franklin (CII)
3	Muruganandam
4	Subburayan
5	Maya krishnan
6	Sundara Srinivasan
7	Vaiapuri Manikandan Ex M.L.A
8	Ravi
9	G.Ramasamy
10	Srinivasan
11	Narayanan
12	Pa.Kmaesh Vasagunan
13	Natarajan
14	R.V.Raja
15	Perumal CITU
16	Salim CITA
17	K.R.Mathew
18	M.Ravi Chandran
19	R.Gopal
20	R.Shanmugam
21	G.Vazamuni
22	Kulandaivel
23	R.Kanagaraj
24	Prem Sangeeth
25	R.Thanigai Thambi
26	V.Selvaraj
27	Gopi
28	K.Chalanthic
29	Karthikeyan
30	Narayana Samy
31	Velmurugan
32	Rajendiran Sabanayagam
33	Shanmugam
List	of Stakeholders present during Public Hearing at Karaikal on 15-02-2024
1	J.Mohammad bilal
2	N.Senthikumar Gandhi
3	P.G.Somu
4	Omalingam Ex.M.L.A
5	Kalaiselvan
6	S.Muthukumaran
7	Krishnamurthy
8	Ronini.G
9	M.Yunuskhan
10	Maliman
11	J.Leninraj
12	Bhairavan
13	Rangarajan
14	Nilavazhagan
15	Senthimurugan

1.0	
16	Suriya
17	Gauthaman
18	P.S.Rajendiran
19	Kannan
20	P.T.Murali
21	Sekar
22	N.Nithiyanandam
23	Rajkumar
24	P.V.Subramaniam
25	P.L.Narayanan
26	S.Murugaiyan
27	M.Dharbaranyam
28	A.Murugan
29	A.Munusamy
30	A.Aja Sagabathi
31	Sagunthala
32	Mohammed Sidiq
33	K.Arivazhagan
34	K.P.Durairajan
35	Umirakani
36	D.Gunabalan
37	Sultan Koushuhammeed
38	Selvakumar
39	B.Velumani
40	M.Kannan
41	Prakash
44	Anwar
45	Murugadoss
46	Shanmugam
47	Premkumar
48	Shanjahan
49	P.Rathinasamy
50	A.Gunselvan
51	T.K.S.M.Kanagasundaram
52	Mohmmed Rafiq
53	R.Sekar
54	N.Manikadan
55	G.Pavadairayan
56	Mohammed Asaruddin