TARIFF ORDER

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

Petition No. 36/2020

for

Electricity Department of Daman & Diu

23rd March, 2021

JOINT ELECTRICITY REGULATORY COMMISSION
For the State of Goa and Union Territories,
3rd and 4th Floor, Plot No. 55-56,
Sector -18, Udyog Vihar - Phase IV
Gurugram, (122015) Haryana
Telephone: +91(124) 4684705 Telefax: +91(124) 4684706
Website: www.jercuts.gov.in
E-mail: secy.jercuts@gov.in

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Secretary, JERC
(For Goa & UTs)

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(For Goa & UTs)

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List of abbreviations

Abbreviation	Full Form
A&G	Administrative and General
ACoS	Average Cost of Supply
APR	Annual Performance Review
ARR	Aggregate Revenue Requirement
ATE	Appellate Tribunal of Electricity
BPL	Below Poverty Line
CAGR	Compound Annualized Growth rate
Capex	Capital Expenditure
CEA	Central Electricity Authority
CERC	Central Electricity Regulatory Commission
CGRF	Consumer Grievance Redressal Forum
CGS	Central Generating Stations
COD	Commercial Operation Date
Cr	Crores
Discom	Distribution Company
EDDD	Electricity Department of Daman & Diu
DSM	Deviation Settlement Mechanism
EA, 2003	The Electricity Act, 2003
ED	Electricity Department
EHT	Extra High Tension
ERP	Enterprise Resource Planning
FPPCA	Fuel and Power Purchase Cost Adjustment
FY	Financial Year
GFA	Gross Fixed Assets
HT	High Tension
IEX	Indian Energy Exchange Limited
IPP	Independent Power Producer
ISTS	Inter State Transmission System
JERC	Joint Electricity Regulatory Commission (for the state of Goa and Union Territories)
JGPP or GGPP	NTPC Jhanor-Gandhar Gas Based Power Station
KAPPS	Kakrapar Atomic Power Station
KGPP	NTPC Kawas Gas Based Power Station
KSTPP	Korba Super Thermal Power Station
LT	Low Tension
MSTPS	Mauda Super Thermal Power Station
MU	Million Units
MYT	Multi Year Tariff
NFA	Net Fixed Assets
NTPC	National Thermal Power Corporation Ltd.

Abbreviation	Full Form
O&M	Operation and Maintenance
PGCIL	Power Grid Corporation of India Limited
PLF	Plant Load Factor
PLR	Prime Lending Rate
LIG	Low Income Group
POSOCO	Power System Operation Corporation Limited
PPA	Power Purchase Agreement
R&M	Repair and Maintenance
REC	Renewable Energy Certificate
RLDC	Regional Load Despatch Centre
RoE	Return on Equity
RPO	Renewable Purchase Obligation
RRAS	Reserves Regulation Ancillary Services
SBI PLR	State Bank of India Prime Lending Rate
SERC	State Electricity Regulatory Commission
Sipat	Sipat Super Thermal Power Station
SLDC	State Load Despatch Center
Solapur or SLP	Solapur Super Thermal Power Station
SOP	Standard of Performance
STU	State Transmission Utility
TAPPS	Tarapur Atomic Power Station
T&D	Transmission & Distribution Loss
TVS	Technical Validation Session
UI	Unscheduled Interchange
UT	Union Territory
VSTPP	Vindhyachal Super Thermal Power Station
WART	Weighted Average Retail Tariff

Before the

Joint Electricity Regulatory Commission

For the State of Goa and Union Territories, Gurugram

CORAM

Shri. M. K. Goel, Chairperson

Petition No. 36/2020

In the matter of

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

And in the matter of

Electricity Department, Daman & Diu (EDDD) **........Petitioner**

ORDER

Dated: 23rd March, 2021

1. This Order is passed in respect of a Petition filed by the Electricity Department, Daman & Diu (EDDD) (herein after referred to as “The Petitioner” or “EDDD” or “The Licensee”) for approval of True-up of FY 2019-20, Annual Performance Review of FY 2020-21, Aggregate Revenue Requirements (ARR) and Retail Tariff for FY 2021-22 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 18th December 2020. The Commission thereafter requisitioned further information/ clarifications on the data gaps observed to take a prudent view of the said Petition. The Commission also held a Technical Validation Session to determine sufficiency of data and the veracity of the information submitted. Further, suggestions/comments/views and objections were invited from the Stakeholders and Electricity Consumers. Further, due to the COVID-19 pandemic that had adversely impacted the movement of people as per the guidelines of GoI which had suggested avoiding of travel and gathering of people as far as possible, the Commission had decided to conduct the Public Hearing virtually. The virtual Public Hearing was held on 28th January, 2021 and all the Stakeholders/Electricity Consumers present in the Public Hearing were heard.

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

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

5. A summary has been provided as follows:

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

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

S. No	Particulars	Petitioner's Submission	Approved by Commission
1	Net Revenue Requirement	1,289.19	1,270.22
2	Revenue from Retail Sales at Existing Tariff	1,112.80	1,112.80
	Net Gap /(Surplus)	**176.39**	**157.42**

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

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

S. No	Particulars	Petitioner's submission	Approved by Commission
1	Net Revenue Requirement	1,056.46	1,075.12
2	Revenue from Retail Sales at Existing Tariff	1,016.92	1,036.89
3	Revenue from FPPCA	38.99	45.63
4	Total Revenue (2+3)	1,055.91	1,082.52
	Net Gap /(Surplus)	**0.55**	**(7.40)**

(c) The following table provides ARR, Revenue and gap/surplus as submitted by the Petitioner and approved by the Commission for FY 2021-22 as approved by the Commission:

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

S. No	Particulars	Petitioner's submission	Approved by Commission
1	Net Revenue Requirement	1,245.33	1,296.54
2	Revenue from Retail Sales at Approved Tariff	1,273.43	1,273.67
	Net Gap/(Surplus)	**(27.91)**	**22.87**

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

Table 4: Cumulative Revenue Gap/ (Surplus) approved for FY 2021-22 (INR Crore)

S. No	Particulars	Formulae	FY 2019-20	FY 2020-21	FY 2021-22
a	Opening Gap/(Surplus)		(144.07)	7.11	0.01
b	Add: Gap/(Surplus)		157.42	(7.40)	22.87
c	Closing Gap/(Surplus)	(c=a+b)	13.35	(0.29)	22.88
d	Average Gap/(Surplus)	(d=(a+c)/2)	(65.36)	3.41	11.45
e	Interest Rate on carrying cost		9.55%	8.75%	8.00%
f	Carrying/Holding Cost	(f=d*e)	(6.24)	0.30	0.92
g	**Final Closing Gap/ (Surplus)**	**(g=c+f)**	**7.11**	**0.01**	**23.80**

(e) As the cumulative revenue gap at the end of FY 2021-22 is marginal (around 1.8% of Revenue), the Commission has not revised the retail tariff in this Order.

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

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

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

Sd/-
(M.K. Goel)
Chairperson

Place: Gurugram
Date: 23rd March, 2021

Certified Copy

(Rakesh Kumar)
Secretary

1. Chapter 1: Introduction

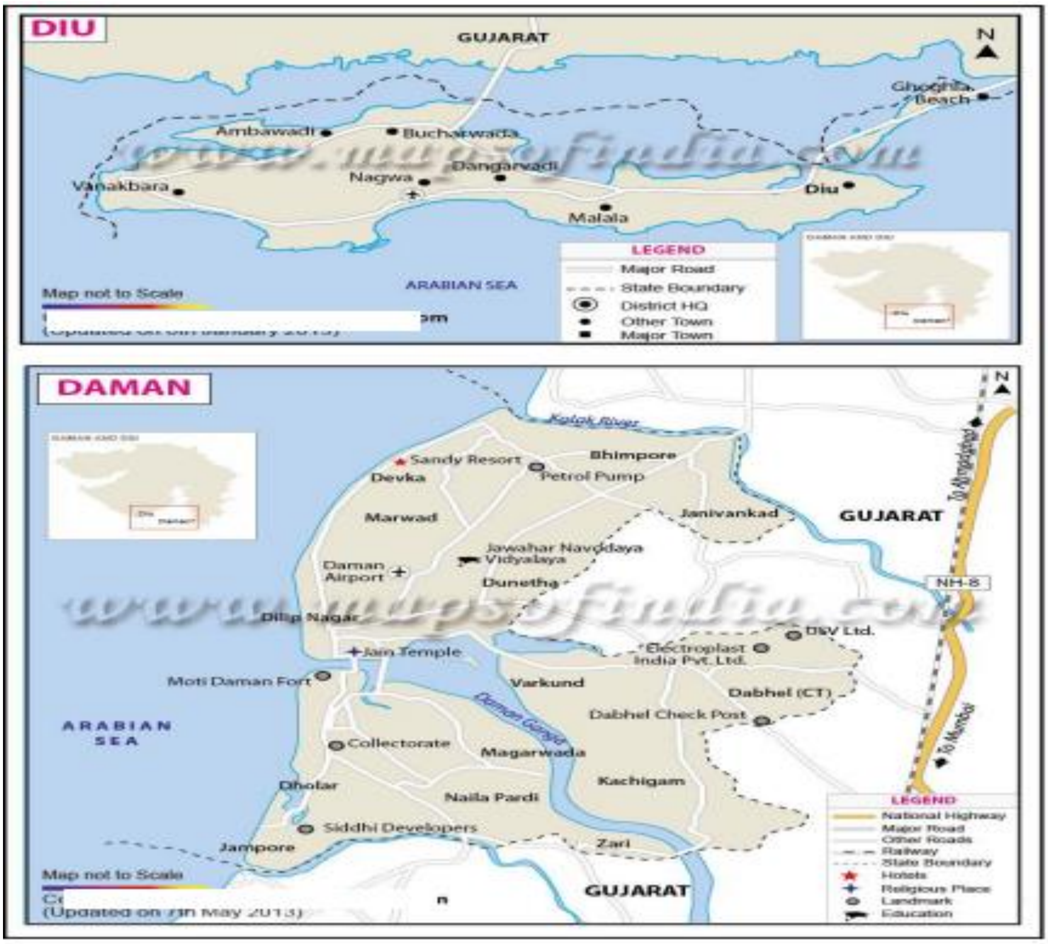
1.1. About Joint Electricity Regulatory Commission (JERC)

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

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

1.2. About Daman & Diu

Daman and Diu (hereinafter referred to as “DD”) covers a total area of 112 sq. km, with the Daman District comprising of an area of 72 sq. km and Diu District of 40 sq. km. In FY 2019-20, the power demand of the DD was predominantly from HT and LT industries, contributing to 91.48% of sales.



1.3. *About Electricity Department of Daman & Diu (ED DD)*

The Electricity Department of Daman and Diu (hereinafter called "EDDD"), is a Deemed Licensee under Section 14 of the Electricity Act 2003, and is carrying on the business of transmission, distribution and retail supply of electricity in Daman & Diu. It is responsible for ensuring quality and continuous power supply to every resident of Daman and Diu at the most economical rates.

The key duties being discharged by Daman & Diu Electricity Department are:

- Laying and operating of such electric line, sub-station and electrical plant that is primarily maintained for the purpose of distributing electricity in the area of supply of 'Daman & Diu Electricity Department', notwithstanding that such line, sub-station or electrical plant are high tension cables or overhead lines or associated with such high tension cables or overhead lines; or used incidentally for the purpose of transmitting electricity for others, in accordance with Electricity Act. 2003 or the Rules framed there under.

- Operating and maintaining sub-stations and dedicated transmission lines connected there with as per the provisions of the Act and the Rules framed there under.

- Arranging, in-coordination with the Generating Company(ies) operating in or outside the State, for the supply of electricity required within the State and for the distribution of the same in the most economical and efficient manner;

- Supplying electricity, as soon as practicable to any person requiring such supply, within its competency to do so under the said Act;

- Preparing and carrying out schemes for distribution and generally for promoting the use of electricity within the State.

EDDD does not have its own power generation station except some solar generation and completely rely on its allocation in the Central Sector Generating Stations (CSGS) in Western and Eastern Region to meet its energy demand. The present power allocation of Daman & Diu is approximately 436 MW from various central generating stations including 38 MW from Ratnagiri Gas and Power Private Limited (RGPPL). Additionally, EDDD has 70 MW allocations from NSPCL Bhilai Power Station.

The total installed solar capacity of Daman and Diu is 14.36 MW out of which 10 MW is ground mounted and the remaining 4.36 MW is solar rooftop plants. It has been submitted that the Department is in the process of adding 27 MW of rooftop solar plant to the existing capacity during the 2020-21 and thus procuring 58 MUs from solar plants during the FY 2020-21 and 60 MUs during the FY 2021-22.

Existing Network

The present distribution system of EDDD consists of 32.60 circuit km of 220 kV Double Circuit (D/C) lines, 88.70 kms of 66kV lines, 447.62 circuit kms of 11kV lines (O/H as well as U/G) and 791.71 circuit kms of LT OH & U/G lines along with 926 transformers. Presently, there are 124 no. 11 kV feeders and 6 no. 66 kV feeders in the network of Daman & Diu.

Daman gets power at 220/66 kV Magarwada Substation and 220/66 kV Ringanwada Substation. The 220/66 kV Magarwada Substation gets power from 220 kV (D/C) Ambethi-Magarwada line and from 220 kV (D/C) Magarwada (POWERGRID) Magarawada, Daman. The 220/66 KV Ringanwada Substation gets power from 220kV (D/C) Magarwada (POWERGRID) Magarawada, Daman. Diu gets power from 66 kV Una Substation through 66 kV double circuit line emanating from 220 /66 kV Kansari Substation of GETCO.

The details of the transmission and distribution network of EDDD are as follows:

Table 5: Transmission and Distribution System of EDDD

S.No.	Details	Daman (ckms)	Diu (ckms)	Total (ckms)
1	220 KV D/C Line	32.60	-	**32.60**
2	66 KV D/C Line	66.70	22.00	**88.70**
3	11 KV Line O/H	180.32	4.00	**184.32**
4	11 KV Line U/G	177.92	85.38	**263.30**
5	L T Line	430.50	77.00	**507.50**
6	LT Line U/G	174.20	110.00	**284.20**
7	Transformer Center (Nos.)	795	131	**926**

1.4. Multi Year Distribution Tariff Regulations, 2014

The Commission notified the Joint Electricity Regulatory Commission for the State of Goa and Union Territories (except Delhi) (Multi-Year Distribution Tariff) Regulations, 2014 on June 30, 2014 applicable for a three-year Control period starting from FY 2015-16 till FY 2017-18. The Commission subsequently notified the Joint Electricity Regulatory Commission for the State of Goa and Union Territories (except Delhi) (Multi-Year Distribution Tariff) (First Amendment) Regulations, 2015 on August 10, 2015 shifting the MYT Control Period to FY 2016-17 to FY 2018-19. These Regulations are applicable to all the 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. Multi Year Tariff Regulations, 2018

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

1.6. Approval of Business Plan for 2nd MYT Control Period

In accordance with the Regulation 8.1 of the JERC MYT Regulations 2018, the Petitioner filed the Petition for approval of Business Plan for 2nd Multi-Year Control Period from FY 2019-20 to FY 2021-22 on September 4, 2018. The Commission issued the Business Plan Order for the MYT Control Period (hereinafter referred to as 'Business Plan Order') on October 31, 2018.

1.7. Multi Year Tariff Order for 2nd MYT Control Period

In accordance with the Regulation 9.1 of the JERC MYT Regulations 2018, the Petitioner filed the Petition for approval of True-up of FY 2017-18, Annual Performance Review for FY 2018-19, Aggregate Revenue Requirements (ARR) for 2nd MYT Control Period (FY 2019-20 to FY 2021-22) and Determination of Retail Tariff for FY 2019-20 (MYT Petition). The Commission issued the Order on MYT Petition for Control Period (hereinafter referred to as 'MYT Order') on May 20, 2019.

1.8. Approval of True Up for FY 2018-19, APR for FY 2019-20 and ARR & Tariff for FY 2020-21

In accordance with the Regulation 11 of the JERC MYT Regulations, 2018, the Petitioner filed the Petition for approval of True-up of FY 2018-19, Annual Performance Review for FY 2019-20, Aggregate Revenue Requirements (ARR) for FY 2020-21 and Retail Tariff for FY 2020-21. The Commission issued the Tariff Order on this Petition on May 18, 2020.

1.9. *Filing and Admission of the Present Petition*

The present Petition was admitted on 18th December 2020 and marked as Petition No. 36/2020. The Commission and the Petitioner subsequently uploaded the Petition on their respective websites.

1.10. *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 were solicited from the Petitioner as and when required. The Commission and the Petitioner also discussed various concerns of the Petitioner and key data gaps, which included retail sales, revenue from retail tariff, capitalisation, tariff proposal etc. The Petitioner submitted its response on the issues through various letters/emails.

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

The following table provides the list of interactions with the Petitioner along with the dates:

Table 6: List of interactions with the Petitioner

S. No.	Subject	Date
1	Issuance of First Discrepancy Note	December 16, 2020
2	Reply received from Petitioner	January 11, 2021
3	Technical Validation Session with the Petitioner at JERC office	January 12, 2021
4	Issuance of Second Discrepancy Note	January 14, 2021
5	Reply received from Petitioner	February 20, 2021
6	Online Public hearing	January 28, 2021

1.11. *Notice for Public Hearing*

Public notices were published by the Petitioner for inviting suggestions/comments from Stakeholders on the Tariff Petition as given below:

Table 7: Details of Public Notices published by the Petitioner

S. No.	Date	Name of Newspaper	Place of circulation
1	January 18, 2021	Savera India Times (Hindi)	Daman
2	January 16, 2021	Vartaman Pravah (Gujarati)	Surat
3	January 16, 2021	Divya Bhaskar (Gujrati)	Surat

The Commission published Public Notices in the leading newspapers as per following table, giving due intimation to the Stakeholders and consumers:

Table 8: Details of Public Notices published by the Commission

S. No.	Date	Name of Newspaper	Place of Circulation
1	December 29, 2020	Gujarat Samachar (Gujarati)	Surat
2	December 29, 2020	Times of India (English)	Ahmedabad
3	December 29, 2020	Savera India Times (Hindi)	Daman
4	December 29, 2020	Asli Azadi (Hindi)	Daman
5	January 24, 2021	Gujarat Samachar (Gujarati)	Surat
6	January 24, 2021	Times of India (English)	Ahmedabad
7	January 24, 2021	Savera India Times (Hindi)	Daman
8	January 24, 2021	Asli Azadi (Hindi)	Daman

The notice was also uploaded on the Commission's website.

1.12. Public Hearing

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

Accordingly, the Virtual Public Hearing was held on January 28th, 2021 from 11 AM onwards to enable the stakeholders to raise 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 stakeholders who attended the Public Hearing are provided as Annexure I. The major issues discussed, the responses of the Petitioner thereon and the views of the Commission have been summarised in Chapter 2 of this Order.

2. Chapter 2: Summary of Suggestions/Comments received, Response from the Petitioner and the Commission's Views

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 duly inviting comments from the Public as per the provisions of the JERC MYT Regulations, 2018.

The Virtual Public Hearing was held on January 28, 2021 on Petition for the True-up of FY 2019-20, Annual Performance Review of FY 2020-21 and Aggregate Revenue Requirements (ARR) for FY 2021-22. During the Public Hearing, stakeholders presented their views in person before the Commission. There were other participants from the general Public, who were also given an equal opportunity to present their views/suggestions in respect to the Petition.

The list of the Stakeholders is attached as Annexure 1 to this Order.

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

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

2.2.1. Financial Loss

Stakeholder's Comment:

According to balance sheet, loss after depreciation is Rs.105 Cr, however, EDDD has taken this loss in a casual manner and neither provided any clarification for why this loss occurred nor have they suggested any remedial measures to prevent losses in future.

Petitioner's Response

It is submitted that due to the cumulative surplus over the past period the retail tariff had been reduced by the Commission to offset the surplus. Further, in the Tariff Order for the FY 2020-21 the retail tariff was increased by the Commission by 18.73% considering the substantial gap between the Average Cost of Supply and Average Billing Rate for the EDDD.

Commission's View

The Commission appreciates the concern of the Stakeholder and informs that the Commission determines the tariff after thorough examination of the Petitioner's submissions, analysis of the audited/provisional accounts, prudence check and other relevant factors submitted before it. Accordingly, based on the resultant gap or surplus, the tariff is approved in a manner so that interest of both the consumers and the Utility are balanced.

2.2.2. *Meter reading*

Stakeholder's Comment

EDDD have smart meters installed with SIM cards so door to door meter reading is a wasteful expenditure.

Petitioner's Response

Meter readers are employed to take the meter reading of all the consumer categories other than industrial category as they still have all the current meters installed at their premises. In the industrial category, AMR meters are installed and hence, meter readers are not required to take the meter reading.

Commission's View

The Commission appreciates the concern of the Stakeholder and informs that as on date Smart Meters are not installed at all the consumer's premises. As clarified by the petitioner that meter readers are employed to take the meter reading of all the consumer categories other than industrial category as they still have non-smart meters installed at their premises. In the industrial category, AMR meters are installed and hence, meter readers are not required to take the meter reading.

2.2.3. *Garden Expenditure*

Stakeholder's Comment

There is no garden in EDDD premises which requires garden expenditure.

Petitioner's Response

The expenditure shown as garden expenditure has been incurred in the maintenance of gardens at the various premises of EDDD.

Commission's View

The Commission has noted the concern of the Stakeholder and informs that the Commission has verified this amount from the annual accounts of FY 2019-20. However, the Commission allows the petitioner only fixed O&M expenses as specified in the Business Plan Order.

2.2.4. *Temporary Connections*

Stakeholder's Comment

The petitioner has not submitted the sales under temporary connections. The petitioner should also submit the details of Revenue collected from temporary connections

Petitioner's Response

The temporary connections are given under the Domestic, Commercial and Industrial connections. The units billed under the temporary connection's category are billed and booked under the respective category under which the connection has been released. All the money billed from temporary connections has gone to the Government Treasury Account.

Commission's View

The Commission has noted that the Petitioner is booking the sales and revenue of temporary connections under the Domestic, Commercial and Industrial categories in which they have been realised. In accordance with the Tariff order of FY 2019-20 dated 20th May 2019, the per unit energy charge of energy consumed under temporary charge is 1.50 times the approved tariff of the relevant category.

The Commission is of the view that the energy supplied to temporary connections and revenue billed to temporary connections should be shown separately instead of booking under the under the Domestic, Commercial and Industrial categories. **The Commission directs the Petitioner to maintain the separate details of energy supplied and revenue billed to temporary connections and show it separately from FY 2021-22 onwards.**

2.2.5. *HT/EHT Category Connection/Consumptions*

Stakeholder's Comment:

The petitioner should explain the negative growth of HT/EHT connection & Consumption and the steps EDDD will take to stop this fall in Sales.

Petitioner's Response:

Demand in energy consumption went down during the FY 2020-21 due to the COVID-19 pandemic. However, the energy sales have now increased and the monthly consumption reached the level attained in FY 2019-20.

Commission's View

The reason for negative growth of HT/EHT consumption during FY 2020-21 is due to the fact that a nationwide lockdown was announced by the Government of India from March 23, 2020. The series of lockdown and general low demand of electricity resulted in negative growth HT/ EHT consumption. The sales have slowly returned to their usual quantum.

2.2.6. *EDDD SLDC*

Stakeholder's Comment:

The petitioner should submit the functioning status of SLDC in EDDD.

Petitioner's Response:

EDDD has a full-fledged SLDC which has been in operation for the last several years.

Commission's View:

The Commission notes that an independent SLDC has already been created by the Petitioner in FY 2019-20 following the directive of the Commission in Tariff order of FY 2019-20 dated May 20, 2019. The Commission in tariff order of FY 2020-21 dated May 18, 2020 directed the petitioner to submit a detailed implementation plan along with the current status in regard to the creation of separate SLDC. The petitioner in this petition has submitted that EDDD is functioning as a vertically integrated utility and looking after the transmission and distribution functions. However, the EDDD has provided a separate head for SLDC along with necessary staff and also the budgetary allocation has been done separately for the functioning of SLDC.

2.2.7. *LIG/ Kutir Jyoti*

Stakeholder's View

LIG/ Kutir Jyoti category was only consuming 1,00,000 units in FY 2017-18 since this category was stopped from representing a consumer category. LIG/ Kutir Jyoti consumer category must be reintroduced to help BPL families.

Petitioner's Response

LIG/Kutir Jyoti consumer category is a separate consumer category and the Department is billing them as per the tariff approved by the Commission.

Commission's View

In the tariff order for FY 2020-21 dated 18th May 2020 separate tariff slab has been provided for consumers under LIG/ Kutir Jyoti category under which these consumers are being charged at nominal rate of INR 15 per service connection per month.

2.2.8. Privatization of EDDD

Stakeholder's View

The sale of 51% stake in distribution and supply Company having license to distribute and supply in the Administration of DNH & DD is opposed and objected. There should also be an investigation in the loss incurred in EDDD balance sheet.

Petitioner's Response

The Government of India has announced an initiative, as a part of Atmanirbhar Bharat Abhiyan to privatize Power Department/utilities in Union Territories on 16th May, 2020. Accordingly, PFC had been engaged a transaction advisor on behalf of Ministry of Power for the privatization of the distribution business of EDDD and DNHPDCL. Accordingly, the tender notice for sale of 51% of shares has been issued by the UT Administration.

Commission's View

The decision to restructure and privatize the power department/utility/Board is the sole prerogative of the State Government, which neither requires nor is contingent upon any prior consultation or approval from JERC under Section 86(2) of the Electricity Act, so long as the applicable provisions under the Electricity Act are duly compiled with.

The limited role of JERC w.r.t the decision of the appropriate government to corporatize and privatize the Electricity Department of Daman & Diu as envisaged under section 86(2) of the Electricity Act is advisory in nature.

2.2.9. Assets created from consumer contribution

Stakeholder's View

In regard to the directives given by the Commission regarding assets created out of Consumer contribution, the petitioner must clearly define consumer contributions.

Petitioner's Response

The assets created from consumer contribution are those assets used in the distribution of energy which have been installed/commissioned by funds provided from the consumers and not from the Department.

Commission's View

In accordance with the Regulations 25.1 of the JERC MYT Regulations, 2018, the Deposit works have been defined as *"The works carried out by the Transmission Licensee and Distribution Licensee after obtaining a part or all of the funds from the users"*. Hence any distribution or sub-transmission asset created by Discom on demand of a consumer for his specific use & on payment of charges for such creation, comes under asset under consumer contribution. The Commission has time and again disallowed any depreciation claimed by petitioner on asset created from consumer contribution.

2.2.10. Information of bad debts & doubtful debts

Stakeholders' Comment

EDDD has shown in Format-17 (Information of Bad and doubtful Debts) that bad & doubtful debt are INR 1,002.47 Cr for FY 2019-20. This is unclear as EDDD keep issuing bills even after application for disconnection is submitted.

Petitioner's Response

The EDDD would like to submit that the figure of Rs. 1002.47 Crore given in format 17 is the total amount billed to the consumers during the FY 2019-20 and not the amount of bad debt.

Commission's View

The Commission agrees with the response of the Petitioner that the amount of Rs 1002.47 is total amount billed to consumers and not the bad & doubtful debts.

In accordance with the Regulations 62.1 of the JERC MYT Regulations, 2018, *"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"*. So, the provision for bad & doubtful debt has been limited to 1% of the Annual Revenue Requirement. Since the petitioner has not claimed any amount under provision for bad & doubtful debt, the Commission has not approved any amount under this head.

2.2.11. Renewable Purchase obligations

Stakeholders' Comment

EDDD has wrongly computed the Renewable Purchase Obligation targets (MUs) in their submission.

Petitioner's Response

Renewable Purchase Obligation has been computed as per the JERC for the State of Goa and UTs (Procurement of Renewable Energy) Regulations, 2010.

Commission's View

The Commission in this Tariff Order has computed the Renewable Purchase Obligation as per the JERC for the State of Goa and UTs (Procurement of Renewable Energy) Regulations, 2010 and subsequent amendments thereof.

2.2.12. Cross Subsidy Surcharge- Capping & Computation

Stakeholders' Comment

For the calculation of Cross Subsidy Surcharge for HT Industry, EDDD has not considered the impact of the proposed decrease in electricity tariff while computing ABR.

Petitioner's Response

Cross Subsidy Surcharge has been computed as per the Methodology adopted by the Hon'ble Commission in its Tariff Order dated 18th May, 2020.

Commission's View

The Commission appreciates the concern of the Stakeholder and informs that the Tariff Orders issued by the Commission clearly specify the methodology for Cross Subsidy Surcharge and the Commission will adopt the same for calculation of CSS.

2.2.13. Additional Surcharge

Stakeholders' Comment

Fixed cost computation in Rs/kWh basis is not reflective of actual fixed cost obligation of Rs./MW basis.

Petitioner's Response

Determination of tariff on the basis of ARR is trued up on the basis of established principles. There is drastic reduction in the PLF of coal based plants and the same is already been demonstrated by the CERC in the recent study report. Hence, the energy projections have been made on the basis of latest available data.

Commission's View

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. Every year in Tariff Orders, the Commission determine the Additional Surcharge with proper illustration and the methodology specified in the aforementioned Regulations.

2.2.14. Power Exchange from Market/Short Term

Stakeholders' Comment

Power purchase from open market & short term power purchase must come under purview of Merit Order Dispatch.

Petitioner's Response

Commission is empowered to take any decision in this regard.

Commission's View

The Commission appreciates the concern of the stakeholder and informs that the concept of Merit Order Dispatch is applicable on power purchased. The petitioner is directed to ensure procuring power efficiently and follow the Merit Order Despatch.

2.2.15. Power purchase of RE from Green- Term Ahead Market

Stakeholders' Comment

The Discom can fulfill its pending RPO obligations as well as the targets in forthcoming years by procuring RE power through the GTAM market also.

Petitioner's Response

EDDD is already purchasing renewable power through G-TAM market and the same is considered to meet the RPO obligation. Quarterly RPO reports are being submitted to the Commission.

Commission's View

The Commission appreciates the concern of the Stakeholder and informs that the petitioner is required to purchase power from Energy Exchange to meet the RPO. The Commission allows the cost of such purchases after carrying out the prudence check.

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

3.1. Background

The Tariff Order determining the True-up for FY 2017-18, Annual Performance review of FY 2018-19 and Aggregate Revenue Requirement and tariff for FY 2019-20 was issued on May 20, 2019 (hereinafter referred to as the "ARR Order" for the purposes of True-up of FY 2019-20). The Tariff Order determining the True-up for FY 2018-19, Annual Performance review of FY 2019-20 and Aggregate Revenue Requirement and tariff for FY 2020-21 was issued on May 18, 2020 (hereinafter referred to as the "APR Order" for the purposes of True-up of FY 2019-20).

As per Regulation 11 of the JERC (Generation, Transmission and Distribution Multi Year Tariff) Regulations, 2018, the review and true-up of revenue and expenses of the Petitioner shall be carried out as follows:

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

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

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

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

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

The Commission now in this Chapter carries out the true-up for FY 2019-20 as per the JERC (Generation, Transmission & Distribution Multi Year Tariff) Regulations, 2018.

3.2. Approach for the True-Up of FY 2019-20

The petitioner has submitted audited accounts based on audit conducted by statutory auditor M/s Sumit Doshi & Co. (Chartered Accountant). The Commission in this Chapter now carries out the True-up of FY 2019-20, the first year of the second Control Period (FY 2019-2021), in accordance with the principles laid down in the JERC MYT Regulations, 2018.

3.3. Energy Sales

Petitioner's Submission

The Petitioner has submitted the total quantum of energy sales for FY 2019-20 as 2,495.67 MU as against approved energy sales quantum of 2,538.27 MU in the APR Order.

Commission's Analysis

Regulation 12.1 of the JERC MYT Regulations, 2018 provides:

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

(a) Force Majeure events:
(b) Change in law;
(c) Variation in the number or mix of Consumers or quantities of electricity supplied to Consumers;
...

"

The Commission had approved the energy sales of 2,538.27 MU in the APR Order, against which actual energy sales of 2,495.67 MU have been submitted by the Petitioner now. The quantum of energy sales was verified from Energy Audit Report and billing data submitted by the Petitioner and the same were found to be in order.

The table below provides the energy sales approved by the Commission in the APR Order, the Petitioner's submission and quantum of energy sales now trued-up by the Commission:

Table 9: Energy Sales trued-up by the Commission (MU)

S. No	Category	Approved in APR Order	Petitioner's Submission	Trued-up by Commission
1	Domestic	150.96	147.83	147.83
2	Low Income Group	0	0	0
3	Commercial	55.63	51.35	51.35
4	Agriculture	4.65	4.35	4.35
5	LT Industry	192.64	204.68	204.68
6	HT/EHT Industry	2,125.12	2,078.33	2,078.33
7	Public Lighting	6.43	6.32	6.32
8	Public Water Works	2.84	2.81	2.81
9	Temp. Supply	0	0	0
10	**Total**	**2,538.27**	**2,495.67**	**2,495.67**

The Commission approves 2,495.67 MU as energy sales in the true-up of FY 2019-20.

3.4. Open Access Sales and Purchase

Petitioner's Submission

The Petitioner has submitted that there was no open access sales and purchase during the FY 2019-20.

Commission's Analysis

The Energy Audit Report submitted by the Petitioner specifies nil Open Access Sales and Purchase for FY 2019-20. Accordingly, the Commission has approved the same.

3.5. Inter-State Transmission Loss

Petitioner's submission

The Petitioner for FY 2019-20 has submitted the Inter-State transmission loss of 1.24%, as against the Commission's approved value of 3.66% in the APR Order.

Commission's Analysis

The Inter-State transmission loss submitted by the Petitioner for FY 2019-20 is 1.24%. It has been observed that the same has been computed on power purchase from energy exchange also. The Commission has determined the energy requirement from tied-up sources at UT periphery (1,975.03 MU) in Energy Balance approved in the "*Section 3.7: **Energy Balance**"* of this Order. The energy requirement from tied-up sources (1,999.85 MU) has been considered as actual energy purchased as approved in "*Section 3.8: **Power Purchase Quantum and Cost**"* of this Order. The difference between the two has been considered as the Inter-State transmission loss.

The following table provides the Inter-State transmission loss as approved in the APR Order, the Petitioner's submission and now approved by the Commission:

Table 10: Inter-State Transmission Loss (%)

S. No	Particulars	Approved in APR Order	Petitioner's Submission	Trued-up by Commission
1	Inter-State transmission loss	3.66%	1.24%	1.24%

The Commission approves the Inter-State transmission loss at 1.24% in the true-up of FY 2019-20.

3.6. Distribution Loss

Petitioner's submission

Distribution loss for FY 2019-20 has been arrived at 4.07% as compared to 6.70% approved by the Commission in the APR Order.

The Petitioner has submitted that it has been constantly endeavoring to reduce the T&D losses. It has arrived at the distribution loss based on actual sales data.

Commission's Analysis

As per the Energy Audit Report submitted by the Petitioner, the distribution loss is 4.07%, which is same as the Petitioner's submission. Accordingly, the Commission has considered the distribution loss as per the Energy Audit Report. Since, the Petitioner has been able to over-achieve the distribution loss target of 6.70% for the year, the incentive for the same has been provided to the Petitioner in accordance with the JERC MYT Regulations, 2018. The calculation of the same has been discussed in detail in *"Section 3.21: Incentive/Disincentive towards over/under-achievement of norms of distribution losses"* of this Order.

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

Table 11: Distribution loss approved by the Commission (%)

S. No	Particulars	Approved in APR Order	Petitioner's Submission	Trued-up by Commission
1	Distribution loss	6.70%	4.07%	4.07%

The Commission approves Distribution loss at 4.07% in the true-up of FY 2019-20.

3.7. Energy Balance

Petitioner's submission

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

Table 12: Energy requirement submitted by the Petitioner (MU)

S. No.	Particulars	Formulae	Petitioner's Submission
(a)	Retail Sales		2495.67
(b)	Open Access Sales		0.00
(c)	Less: Energy Savings		0.00
(d)	**Total Sales**	d = a+b-c	**2,495.67**
(e)	Distribution Loss	e = g-d	105.82
(f)	Distribution Loss (%)	f=e/g	4.07%
(g)	**Energy Required at Periphery**	g = d+e	**2601.49**
(h)	Sale to common pool consumer/UI Sale		20.78
(i)	Own generation		21.69
(j)	**Total energy requirement at state periphery**	j=g+h-i	**2600.57**
(k)	Less: Energy Purchased through UI at Periphery		159.64
(l)	Less: Energy Purchased through exchange at Periphery		**465.91**
(m)	Less: Energy Purchased through Renewable Sources		0.00
(n)	**Energy requirement at state periphery from tied up sources**	n=j-k-l-m	**1,975.02**
(o)	Inter-state transmission loss	o=q-n	24.83
(p)	Inter-state transmission loss (%)	p = o/q	1.24%
(q)	**Energy requirement at state periphery from generator end**	q = n+o	**1,999.85**
(r)	**Total Energy requirement from tied up sources & UI at generator end**	r=q+k+i+m	**2,647.10**
(s)	**Total Energy requirement in UT including Open Access**	s=r+l	**2,647.10**

Commission's Analysis

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

The following table provides the energy balance submitted by the Petitioner and now approved by the Commission.

Table 13: Energy balance approved by the Commission for FY 2019-20 (MU)

S. No	Particulars	Formulae	Petitioner's Submission	Now Approved
(a)	Energy sales within the State/UT		2495.67	2495.67
(b)	Open Access Sales		0.00	0.00
(c)	Less: Energy Savings		0.00	0.00
(d)	**Total Sales within the State/UT**	d=a+b-c	**2495.67**	**2495.67**
	Distribution losses			
(e)	In %	e=f/g	4.07%	4.07%
(f)	In MU	f=g-d	105.82	105.82
(g)	**Energy required at State Periphery**	g=d+f	**2601.49**	**2601.49**
(h)	Add: Sales in Unscheduled Interchange		20.78	20.78
(i)	Add: Sales in Power Exchanges		0.00	0.00
(j)	Less: Own Generation		21.69	21.69
(k)	Less: Purchase under UI		159.64	159.64
(l)	Less: Purchase from Exchange		465.91	465.91
(m)	Less: Open Access Purchase		0.00	0.00
(n)	**Total energy requirement at State Periphery from tied-up Sources**	n=g+h+i-j-k-l-m	**1975.03**	**1975.03**

	Transmission losses			
(o)	In %	o=p/q	1.24%	1.24%
(p)	In MU	p=q-n	24.83	24.83
(q)	**Total energy requirement from tied-up sources at generator end**	q=n+p	**1999.86**	**1999.85**
(r)	**Total requirement from Tied-up sources at generator end & UI/ Traders/Banking/within State**	r=q+j+k+l+m	**2647.10**	**2647.10**

3.8. *Power Purchase Quantum & Cost*

Petitioner's submission:

The Petitioner meets its power requirement from allocations from central generating stations like NTPC, NSPCL, NPCIL and other generating stations such as RGGPL including bilateral agreement and banking arrangements. The allocation from CGS consists of a fixed share of allocation for a year, and the Govt. of India changes the variable share of allocation from the unallocated quota, time to time. Since, during the peak summer seasons the allocation of power from various sources is inadequate, therefore the Petitioner procures power from short–term sources, i.e., Power Exchange, UI, Banking etc.

The Petitioner has submitted that against the power purchase cost of INR 1,202.62 Cr approved by the Commission in the APR Order it has incurred a cost of INR 1,154.43 Cr (inclusive of cost incurred towards meeting the transmission charges, Renewable Purchase Obligation and UI).

The EDDD purchased 465.91 MUs through the energy exchange at the cost of INR 155.17 Crore to meet its energy demand during FY 2019-20. The EDDD has requested the Commission to allow the UI purchase during FY 2019-20 without any penalty as the EDDD has already incurred that amount. The total UI purchase is 159.64 MU at the cost of INR 42.65 Cr, i.e., at Rs 2.67/kWh. Further, the EDDD generated 21.69 MUs of solar energy from its rooftop and ground mounted solar plants during the FY 2019-20 to meet its solar obligation. Further, the EDDD procured 1,147 solar certificates & 64,602 non solar certificates to meet the solar & Non Solar obligation respectively.

The power purchase quantum and cost for FY 2019-20 as submitted by the Petitioner has been shown in the table below:

Table 14: Power Purchase quantum and cost submitted by the Petitioner

Particulars	Units Purchased (MU)	Fixed Charges (INR Cr)	Variable Charges (INR Cr)	Other Charges (INR Cr)	All Charges Total (INR Cr)	Per Unit Cost
NTPC Stations						
KSTPP 1&2	348.20	*23.21*	51.23	0.38	74.82	2.15
KSTPP 3	38.93	5.29	5.60	-0.01	10.89	2.80
VSTPP 1	87.22	7.47	15.97	0.66	24.10	2.76
VSTPP 2	58.86	4.28	10.25	0.45	14.97	2.54
VSTPP 3	80.22	7.97	13.83	0.52	22.31	2.78
VSTPP 4	84.65	12.58	14.56	0.57	27.71	3.27
VSTPP 5	59.52	8.89	10.74	0.33	19.96	3.35
KAWAS GPP	73.21	19.29	20.16	0.25	39.70	5.42
Gandhar GPP	18.03	24.34	4.92	*0.20*	29.46	16.34
SIPAT 1	161.10	20.95	24.67	0.62	46.24	2.87
SIPAT 2	69.56	8.31	10.93	0.15	19.38	2.79
MSTPS-I	80.41	15.39	25.47	1.11	41.98	5.22
MAUDA II	89.57	16.67	28.22	2.73	47.62	5.32
KHSTPS 2	13.83	1.49	2.95	-0.10	4.35	3.15
Solapur	18.38	29.65	6.24	-0.04	35.84	19.50
LARA	31.56	6.85	7.96	0.12	14.93	4.73
GADARWARA	19.79	15.79	6.70	0.03	22.53	11.38

Particulars	Units Purchased (MU)	Fixed Charges (INR Cr)	Variable Charges (INR Cr)	Other Charges (INR Cr)	All Charges Total (INR Cr)	Per Unit Cost
KHTPP	9.40	2.71	2.80	0.00	5.51	5.86
Subtotal	**1342.44**	**231.13**	**263.21**	**7.97**	**502.31**	**3.74**
NSPCL BHILAI	443.76	80.77	152.32	-1.09	231.99	5.23
NPCIL						
KAPPS	58.70	0.00	14.55	0.00	14.55	2.48
TAPPS 3&4	90.39	0.00	29.67	0.00	29.67	3.28
Subtotal	**149.09**	**0.00**	**44.23**	**0.00**	**44.23**	**2.97**
Ratnagiri	64.57	16.10	25.04	0.00	41.14	6.37
Open Market Purchase						
PXIL/IEX	465.91	0.00	155.17	0.00	155.17	3.33
UI Underdrawal/ Overdrawal	159.64	0.00	42.65	0.00	42.65	2.67
Solar	*21.69*	0.00	0.00	0.00	0.00	
Non Solar	0.00	0.00	0.00	0.00	0.00	
Solar REC	0.00	0.00	0.00	0.00	0.28	
Non Solar REC	0.00	0.00	0.00	0.00	12.72	
Solar (SECI, NTPC)	0.00	0.00	0.00	0.00	0.00	
Subtotal	**647.24**	**0.00**	**197.81**	**0.00**	**210.81**	**3.26**
Total Power Purchase	**2647.10**	**328.00**	**682.61**	**6.88**	**1022.24**	**3.86**
PGCIL CHARGES					136.79	
WRLDC					0.40	
MSETCL					0.00	
REC					0.00	
GETCO					0.03	
PGVCL					0.02	
Rebate for Early Payment					-13.30	
Gross Total	**2,647.10**	**328.00**	**682.61**	**6.88**	**1,154.43**	**4.36**

Commission's Analysis

Regulation 12.1 of the JERC MYT Regulations, 2018 provides:

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

(a) Force Majeure events;

(b) Change in law

(c) Variation in the number or mix of Consumers or quantities of electricity supplied to Consumers;

(d) Transmission loss;

(e) Variation in the cost of power purchase due to variation in the rate of power purchase from approved sources, subject to clauses in the power purchase agreement or arrangement approved by the Commission;

…"

The Petitioner procures power mainly from NTPC Stations, NPCIL stations, and IPPs. It has submitted the overall power purchase cost as INR 1,154.43 Cr, inclusive of transmission cost and REC cost.

On examining the power purchase quantum and cost as per the monthly and station-wise bills submitted by the Petitioner for each source, the Commission found that the power purchase cost as per audited accounts amounts to INR 1,141.43 Cr excluding cost against purchase of Renewable Energy Certificates. The Commission has relied on the audited accounts and actual bills of the Petitioner for the purpose of true-up of power purchase cost.

The Petitioner has submitted that the total power purchase cost is inclusive of the cost incurred towards compliance of the Renewable Purchase Obligation (RPO) target for FY 2019-20. The compliance status of RPO has been discussed in detail in the subsequent section. The Commission has considered the total cost of INR 12.99 Crore towards purchase of REC by the Petitioner towards compliance of RPO target in the total power purchase cost approved for FY 2019-20. The Petitioner has submitted that it has received a rebate from NTPC on account of early payment and considered the same as the part of power purchase cost and so, the same have been considered.

The following table provides the power purchase quantum and cost as approved by the Commission in true-up of FY 2019-20:

Table 15: Power Purchase quantum and cost as approved by the Commission for FY 2019-20

Source	Units Purchased (MU)	Fixed Charges (INR Cr)	Variable Charges (INR Cr)	Other Charges (INR Cr)	All Charges Total (INR Cr)	Per Unit Cost
NTPC Stations						
KSTPP 1&2	348.20	23.21	51.23	0.38	74.82	2.15
KSTPP 3	38.93	5.29	5.60	-0.01	10.89	2.80
VSTPP 1	87.22	7.47	15.97	0.66	24.10	2.76
VSTPP 2	58.86	4.28	10.25	0.45	14.97	2.54
VSTPP 3	80.22	7.97	13.83	0.52	22.31	2.78
VSTPP 4	84.65	12.58	14.56	0.57	27.71	3.27
VSTPP 5	59.52	8.89	10.74	0.33	19.96	3.35
KAWAS GPP	73.21	19.29	20.16	0.25	39.70	5.42
Gandhar GPP	18.03	24.34	4.92	0.20	29.46	16.34
SIPAT 1	161.10	20.95	24.67	0.62	46.24	2.87
SIPAT 2	69.56	8.31	10.93	0.15	19.38	2.79
MSTPS-I	80.41	15.39	25.47	1.11	41.98	5.22
MAUDA II	89.57	16.67	28.22	2.73	47.62	5.32
KHSTPS 2	13.83	1.49	2.95	-0.10	4.35	3.15
Solapur	18.38	29.65	6.24	-0.04	35.84	19.50
LARA	31.56	6.85	7.96	0.12	14.93	4.73
GADARWARA	19.79	15.79	6.70	0.03	22.53	11.38
KHTPP	9.40	2.71	2.80	0.00	5.51	5.86
Subtotal	**1,342.44**	**231.13**	**263.21**	**7.97**	**502.31**	**3.74**
NSPCL BHILAI	**443.76**	**80.77**	**152.32**	**-1.09**	**231.99**	**5.23**
NPCIL						
KAPPS	58.70	0.00	14.55	0.00	14.55	2.48
TAPPS 3&4	90.39	0.00	29.67	0.00	29.67	3.28
Subtotal	**149.09**	**0.00**	**44.23**	**0.00**	**44.23**	**2.97**
Ratnagiri	**64.57**	**16.10**	**25.04**	**0.00**	**41.14**	**6.37**
Open Market Purchase						
PXIL/IEX	465.91	0.00	155.17	0.00	155.17	3.33
UI Underdrawal/ Overdrawal	159.64	0.00	42.65	0.00	42.65	2.67
Solar	21.69	0.00	0.00	0.00	0.00	0.00
Non Solar	0.00	0.00	0.00	0.00	0.00	0.00
Solar REC	0.00	0.00	0.28	0.00	0.28	0.00
Non Solar REC	0.00	0.00	12.72	0.00	12.72	0.00
Solar (SECI, NTPC)	0.00	0.00	0.00	0.00	0.00	0.00
Subtotal	647.24	0.00	210.81	0.00	210.81	3.26

Source	Units Purchased (MU)	Fixed Charges (INR Cr)	Variable Charges (INR Cr)	Other Charges (INR Cr)	All Charges Total (INR Cr)	Per Unit Cost
Gross power Purchase	**2,647.10**	**328.00**	**695.60**	**6.88**	**1,022.24**	**3.86**
Total Power Purchase	**2,647.10**	**328.00**	**695.60**	**6.88**	**1,022.24**	**3.86**
PGCIL CHARGES					136.79	
WRLDC					0.40	
MSETCL					0.00	
REC					0.00	
GETCO					0.03	
PGVCL					0.02	
Rebate for Early Payment					-13.30	
Gross Total	**2,647.10**				**1,154.43**	**4.36**

The Commission approves power purchase quantum of 2,647.10 MU (including own Solar generation) and cost of INR 1,154.43 Cr in the true-up of FY 2019-20.

3.9. *Renewable Purchase Obligation (RPO)*

Petitioner's submission

The Petitioner submitted that it has procured 21.69 MUs from its own Solar generation and 1,147 Solar RECs & 64,602 Non-Solar REC's from the exchange towards the RPO compliance.

Commission's Analysis

As per Regulation 1.1 of the JERC for the State of Goa and UTs (Procurement of Renewable Energy) Regulations, 2010:

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

The Commission notified the JERC (Procurement of Renewable Energy) (Third Amendment) Regulations, 2016 on August 22, 2016 and revised the RPO targets, according to which the Petitioner had to purchase 11.50% (Solar-4.70% and Non-Solar-6.80%) of its total consumption (excluding hydro) from renewable sources for FY 2019-20.

As per the above Regulations, for FY 2019-20 the Petitioner had a standalone target of renewable procurement of 287 MU comprising of 117.30 MU Solar and 169.71 MU Non-Solar. Against the target, the Petitioner has generated 21.69 MU of physical Solar power and has purchased REC equivalent to 1.15 MU of Solar RECs & 64.60 MU of Non Solar RECs while procuring Nil physical Non-Solar power.

Based on the above, the Commission has computed the cumulative RPO compliance at the end of FY 2019-20 as shown in the following table:

Table 16: Compliance status of Renewable Purchase Obligation (RPO) (MUs)

S. No	Particulars	FY 11	FY 12	FY 13	FY 14	FY 15	FY 16	FY 17	FY 18	FY19	FY 20
1	Solar Target	0.25%	0.30%	0.40%	0.40%	0.60%	0.85%	1.65%	2.50%	3.60%	4.70%
2	Non-Solar Target	0.75%	1.70%	2.60%	2.60%	2.70%	2.70%	3.20%	4.20%	5.40%	6.80%
	Total Target	**1.00%**	**2.00%**	**3.00%**	**3.00%**	**3.30%**	**3.55%**	**4.85%**	**6.70%**	**9.00%**	11.50%
3	Sales Within UT	1,655.20	1,771.17	1,862.95	1,754.08	1,621.72	1,691.98	1,757.11	2,101.22	2,433.91	2495.67

S. No	Particulars	FY 11	FY 12	FY 13	FY 14	FY 15	FY 16	FY 17	FY 18	FY19	FY 20
	RPO Target										
4	Solar	4.14	5.31	7.45	7.02	9.73	14.38	28.99	52.53	87.62	117.30
5	Non-Solar	12.41	30.11	48.44	45.61	43.79	45.68	56.23	88.25	131.43	169.71
	Total RPO Target	**16.55**	**35.42**	**55.89**	**52.62**	**53.52**	**60.07**	**85.22**	**140.78**	**219.05**	**287.00**
	RPO Compliance (Actual Purchase)										
6	Solar	0.00	0.00	0.00	0.20	0.40	4.42	14.48	18.63	19.02	21.69
7	Non-Solar	0.00	0.00	0.00	0.00	0.00	7.13	24.81	0.00	0.00	0.00
	Total RPO Compliance (Actual Purchase)	**0.00**	**0.00**	**0.00**	**0.20**	**0.40**	**11.55**	**39.29**	**18.63**	**19.02**	**21.69**
	RPO Compliance (REC Certificate Purchase)										
8	Solar	0.00	0.00	0.00	0.00	0.00	57.15	0.00	0.00	26.80	1.15
9	Non-Solar	0.00	0.75	4.70	13.20	79.73	108.23	13.33	85.01	0.00	64.60
	Total RPO Compliance (REC Certificate)	**0.00**	**0.75**	**4.70**	**13.20**	**79.73**	**165.38**	**13.33**	**85.01**	**26.80**	**65.75**
	RPO Compliance (REC+Actual)										
10	Solar	0.00	0.00	0.00	0.20	0.40	61.57	14.48	18.63	45.82	22.84
11	Non-Solar	0.00	0.75	4.70	13.20	79.73	115.36	38.14	85.01	0.00	64.60
	Total RPO Compliance	**0.00**	**0.75**	**4.70**	**13.40**	**80.13**	**176.93**	**52.62**	**103.64**	**45.82**	**87.44**
	Cumulative Requirement till current year										
12	Solar	4.14	9.45	16.90	23.92	33.65	48.03	77.02	129.55	217.18	334.47
13	Non-Solar	12.41	42.52	90.96	136.57	180.35	226.04	282.26	370.52	501.95	671.65
	Total	**16.55**	**51.98**	**107.86**	**160.49**	**214.00**	**274.07**	**359.29**	**500.07**	**719.12**	**1006.12**
	Cumulative Compliance till current year										
14	Solar	0.00	0.00	0.00	0.20	0.60	62.17	62.51	81.13	126.96	149.80
15	Non-Solar	0.00	0.75	5.45	18.65	98.38	213.74	251.88	338.87	336.89	401.49
	Total	**0.00**	**0.75**	**5.45**	**18.85**	**98.98**	**275.91**	**314.39**	**418.03**	**463.85**	**551.29**
	Cumulative Shortfall till current year										
16	Solar	4.14	9.45	16.90	23.72	33.05	-14.14	14.51	48.41	90.21	184.67
17	Non-Solar	12.41	41.77	85.51	117.92	81.97	12.30	30.38	33.63	165.06	270.16
	Total	**16.55**	**51.23**	**102.41**	**141.64**	**115.02**	**-1.84**	**44.90**	**82.04**	**255.27**	**454.83**

The Commission has noticed that out of total RPO target (287 MUs) set for FY 2019-20, the petitioner has only achieved 30% (87.44 MUs) from Solar & Non-Solar Physical and REC purchase. The Commission feels that the petitioner has failed to cover not only the entire RPO shortfall till FY 2019-20 but also the standalone RPO target set for FY 2019-20.

The Commission notes that there is a net shortfall in RPO compliance till FY 2019-20 of 454.83 MU (Solar: 184.67 MU and Non-Solar: 270.16 MU) which includes standalone shortfall of 199.56 MU (Solar: 94.46 MU and Non-Solar: 105.11) for FY 2019-20. The following table provides the cost towards compliance of RPO approved in FY 2019-20.

Table 17: Cost towards compliance of Renewable Purchase Obligation (INR Crore)

S. No.	Description	RPO (MU)	Total Cost (INR Cr)
1	Solar Purchase (Own Generation)	21.69	0.00
2	Solar REC	1.15	0.28
3	Non-Solar Purchase	0.00	0.00
4	Non-Solar REC	64.60	12.72
5	**Total**	**87.44**	**12.99**

The Commission approves the actual cost of INR 12.99 Cr towards compliance of RPO in the true-up of FY 2019-20. The same has been included in Power Purchase Cost.

3.10. Operation & Maintenance Expenses

The Operation & Maintenance Expenses comprises of the Employee Expenses, Administrative and General Expenses (A&G) and the Repair & Maintenance Expenses (R&M). The JERC MYT Regulations, 2018 considers the variation of O&M Expenses to be controllable. Regulation 12.2 and Regulation 14 of the JERC MYT Regulation, 2018 states the following:

"12. Uncontrollable and Controllable factors

……

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

…

(h) Variation in O&M Expenses, except to the extent of inflation…"

Therefore, any variation in O&M Expenses is attributable to the Petitioner and is not passed on in the ARR, other than any cost, which is beyond the control of the Petitioner.

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

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

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

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

Therefore, any approved gain to the Distribution Licensee on account of controllable factors shall be shared equally between Licensee and Consumers in accordance with the JERC MYT Regulations, 2018. The calculation of the same has been discussed in detail in "*Section 3.21: Incentive/Disincentive towards over/under-achievement of norms of distribution losses*" of this Order. Further Regulations 51.6 provides as follows:

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

….

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

3.10.1. Employee Expenses

Petitioner's submission

Employee expenses of INR 16.07 Cr have been incurred against approved expenses of INR 17.19 Cr in the APR Order. The employee expenses comprise of Salaries, Dearness allowance, Bonus, Terminal benefits in the form of Pension and Gratuity, Leave encashment and staff welfare expenses.

Commission's Analysis

As per the audited accounts submitted by the Petitioner, the employee expenses during FY 2019-20 are reflected as INR 16.07 Cr.

The JERC MYT Regulations, 2018, stipulates the variation in operation and maintenance expenditure to be a controllable factor and any approved gain to the Distribution Licensee on account of controllable factors shall be shared equally between Licensee and Consumers.

For sharing of gains purpose the Commission has determined the revised normative Employee Expenses which is based on the employee expenses of FY 2018-19 as approved in order dated 18th May, 2020, and actual CPI Inflation (7.53%) wrt FY 2018-19 & Employee growth rate (Gn) for FY 2019-20 (0%) as per the methodology specified in Regulations 51.6 of the JERC MYT Regulations, 2018 as mentioned above. Accordingly, the employee expenses approved by the Commission are as follows:

Table 18: Employee Expenses approved by the Commission for FY 2019-20 (INR Crore)

S. No	Particulars	Approved in APR Order	Petitioner's Submission	Revised Normative EE	Trued- Up by the Commission
1	**Employee Expenses (EE)**	**17.19**	**16.07**	**14.87**	**16.07**

3.10.2. Administrative and General (A&G) Expenses

Petitioner's submission

The Petitioner has submitted the actual A&G expenses of INR 10.41 Cr as reflected in audited accounts against the approved expenses of INR 8.24 Cr in the APR Order. The Petitioner submitted that an increase in the A&G expenses can be attributed to the license fees paid to the JERC for INR 1.66 Crore and an amount of INR 1.67 Crore incurred towards celebration expenses during the FY 2019-20.

Commission's Analysis

A&G expenses mainly comprises of rents, telephone and other communication expenses, professional charges, conveyance and travelling allowances, etc. As per the audited accounts submitted by the Petitioner the A&G expenses for FY 2019-20 are reflected as INR 10.41 Cr. The Commission through the deficiency note asked the Petitioner to submit the details and write up on celebration expenses claimed by it in A&G expenses amounting to INR 1.67 Crore. The Petitioner in its reply submitted that the celebration expenses have increased during the FY 2019-20 as the Department had to incur expenses on illumination of various places during Independence Day, Raksha Bandhan and Diwali festival. Previously these expenses were borne by the Tourism Department. However, during the FY 2019-20, the Department had to bear the expenses and therefore the celebration expenses increased. The Petitioner requested the Commission to approve the celebration expenses of INR 1.67 Crore as claimed in the True up for the FY 2019-20.

The Commission approves the increase in A&G expenses and also verified the same from the signed Annual Accounts for the year ended 31st March, 2020. Similar to the approach followed while approving the revised normative Employee expenses the Commission has determined revised Normative A&G expenses which is based on the actual A&G expenses of FY 2018-19 and actual CPI Inflation for FY 2019-20 with respect to FY 2018-19. Accordingly, the A&G expenses approved by the Commission are as follows:

Table 19: A&G Expenses approved by the Commission for FY 2019-20 (INR Crore)

S. No	Particulars	Approved in APR Order	Petitioner's Submission	Revised Normative A&G	Trued- Up by the Commission
1	Administration & General Expenses (A&G)	8.24	10.41	8.51	10.41

3.10.3. Repair & Maintenance Expenses (R&M)

Petitioner's submission

Actual R&M expenses of INR 14.34 Cr have been incurred against approved expenses of INR 19.36 Cr in the APR Order. R&M expenses are incurred towards day-to-day maintenance of the transmission and distribution network of the Petitioner and form an integral part of the Licensee's efforts towards providing reliable and quality power supply and reduction of losses in the system.

Commission's Analysis

For sharing of gains purpose the Commission has determined the revised normative R&M Expenses which is based on the Opening GFA of FY 2019-20, actual WPI Inflation (1.68%) for FY 2019-20 with respect to FY 2018-19 & k factor as approved in MYT order dated 20th May, 2019 for FY 2019-20, i.e., 3.26%. Further, similar to the approach followed while approving the Employee expenses above, the Commission approves the R&M Expenses as submitted by the petitioner amounting to INR 14.34 Cr.

Table 20: R&M Expenses approved by the Commission for FY 2019-20 (INR Crore)

S. No	Particulars	Approved in APR Order	Petitioner's Submission	Revised Normative R&M	Trued- Up by the Commission
1	Repair & Maintenance Expenses (R&M)	19.36	14.34	20.13	14.34

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

Any approved gain to the Distribution Licensee on account of controllable factors shall be shared equally between Licensee and Consumers in accordance with the JERC MYT Regulations, 2018. The calculation of the same has been discussed in detail in "Section 3.21: Incentive/Disincentive towards over/under-achievement of Controllable Factors" of this Order.

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

Table 21: O&M Expenses approved by the Commission for FY 2019-20 (INR Crore)

S. No	Particulars	Approved in APR Order	Petitioner's Submission	Revised Normative Expenses	Trued- Up by the Commission
1	Employee Expenses	17.19	16.07	14.87	16.07
2	Administrative & General Expenses (A&G)	8.24	10.41	8.51	10.41
3	Repair & Maintenance Expenses	19.36	14.34	20.13	14.34
4	**Total Operation & Maintenance Expenses**	44.79	40.82	43.51	40.82

The Commission approves the revised normative Operation & Maintenance (O&M) expenses of INR 43.51 Cr and actual O&M expenses of Rs 40.82 in the true-up of FY 2019-20. As the actual O&M expenses are lower than the revised normative expenses, the Commission in accordance

with the provisions of JERC MYT Regulations, 2018 has carried out the sharing of gains on account of O&M Expenses.

3.11. *Capital Expenditure and Capitalisation*

Petitioner's submission

The actual capital expenditure incurred in FY 2019-20 was INR 27.50 Cr and capitalisation achieved during the year was INR 20.24 Cr, against the approved capital expenditure of INR 26.50 Cr and capitalization of INR 10.00 Cr in the APR Order.

Commission's Analysis

The Commission observes that the capitalisation achieved by the Petitioner is higher than that approved by the Commission in the APR Order. The Commission through the deficiency note asked the Petitioner to submit the scheme wise details of the Capitalisation claimed by Petitioner amounting to Rs 20.24 Crore. The Petitioner in its reply submitted that the capitalization amounting to Rs.20.24 Crore claimed in the true up petition pertains to various equipment's like electric lines, solar equipment furniture and fixture, computers and printers etc. capitalised during the FY 2019-20 by the Department and the details of the assets capitalised during the FY 2019-20 have been provided in the fixed asset register submitted by the petitioner.

The Commission has examined the Fixed Asset Register (FAR) as submitted by the Petitioner and accordingly approves the capital expenditure and capitalisation as shown in the table below:

Table 22: Capital Expenditure and Capitalisation approved by the Commission for FY 2019-20 (INR Crore)

S. No	Particulars	Approved in APR Order	Petitioner's Submission	Trued-up by Commission
1	Capital Expenditure	26.50	27.50	27.50
2	Capitalisation	10.00	20.24	20.24

The Commission approves Capital Expenditure and Capitalisation of INR 27.50 Cr and INR 20.24 Cr respectively in the true-up of FY 2019-20.

3.12. *Capital Structure*

Petitioner's Submission

The entire capital deployment by the EDDD is through equity for FY 2019-20.

Commission's Analysis

The JERC MYT Regulations 2018, specify that if the equity actually deployed is more than 30% of the capital cost, then equity in excess of 30% would be considered as normative loan. Regulation 26.2 of the JERC MYT Regulations 2018 states the following:

"*26.2 For New Projects, the debt-equity ratio as on the Date of Commercial Operation shall be 70:30 of the amount of capital cost approved by the Commission under Regulation 23, after prudence check for determination of tariff:*

Provided that where equity actually deployed is less than 30% of the capital cost of the capitalised asset, the actual equity shall be considered for determination of tariff:

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

In accordance with the JERC MYT Regulations, 2018, the Commission has determined the capital structure for FY 2019-20. The opening Gross Fixed Assets for FY 2019-20 has been considered as closing Gross Fixed Assets approved in true-up of FY 2018-19. Further the values of opening loan and equity has been considered as closing loan and equity respectively as approved in true-up of FY 2018-19. The loan and equity addition have been considered on normative basis as 70% and 30% respectively of the approved capitalization for the year.

Table 23: Funding Plan approved by the Commission for FY 2019-20 (INR Crore)

S. No	Particulars	Approved in ARR Order	Petitioner's Submission	Now Approved by Commission
1	Capitalisation	10.00	20.24	20.24
2	Debt (%)	70%	70%	70%
3	Equity (%)	30%	30%	30%
4	Normative Loan	7.00	14.17	14.17
5	Equity	3.00	6.07	6.07

Table 24: GFA addition approved by the Commission for FY 2019-20 (INR Crore)

S. No	Particulars	Approved in APR Order	Petitioner's Submission	Trued-up by Commission
1	Opening Gross Fixed Assets	606.88*	607.45	607.45
2	Addition during FY 2019-20	10.00	20.24	20.24
3	Adjustment/Retirement during FY 2019-20	0.00	0.00	0.00
4	Closing Gross Fixed Assets	616.88	627.29	627.69

** In actual the closing GFA approved in True-up of FY 2018-19 was INR 607.45 Crore, but the number INR 606.88 Crore comes after deduction of assets depreciated upto 90% amounting to INR 0.57 Crore.*

Table 25: Normative Loan addition for FY 2019-20 (INR Crore)

S. No	Particulars	Approved in APR Order	Petitioner's Submission	Trued-up by Commission
1	Opening Normative Loan	143.58	152.14	143.58
2	Add: Normative Loan During the year	7.00	14.17	14.17
3	Less: Normative Repayment equivalent to Depreciation	21.13	31.54	21.40
4	Closing Normative Loan	129.45	134.77	136.34

Table 26: Normative Equity addition for FY 2019-20 (INR Crore)

S. No	Particulars	Approved in APR Order	Petitioner's Submission	Trued-up by Commission
1	Opening Equity	84.18	-	84.18
2	Additions on account of new capitalisation	3.00	-	6.07
3	Closing Equity	87.18	-	90.25

3.13. Depreciation

Petitioner's submission

The Petitioner has submitted that for computation of depreciation, the opening GFA and actual addition during FY 2019-20 have been considered as per the audited annual accounts for FY 2019-20. Further, depreciation for the year has been considered based on the Fixed Asset Register prepared for FY 2019-20.

<u>Commission's Analysis</u>

Regulation 30 of the JERC MYT Regulations 2018, states the following:

"***30. Depreciation***

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

Provided that the depreciation shall be allowed after reducing the approved original cost of the retired or replaced or decapitalized assets:
Provided also that the no depreciation shall be allowed on the assets financed through consumer contribution, deposit work, capital subsidy or grant.

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

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

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

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

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

As per the norms specified in the JERC MYT Regulations, 2018 the Commission has verified the asset wise capitalization of the Petitioner and has accordingly used asset wise depreciation rate prescribed in the JERC MYT Regulations, 2018 as provided in the table as follows:

Table 27: Depreciation Rate (%)

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

The Petitioner as part of this Petition has submitted the Fixed Asset Register (FAR) for FY 2019-20. As the JERC MYT Regulations, 2018 stipulates that the depreciation shall be allowed to a maximum of 90% of the original cost of the asset, therefore the total value of assets depreciated up to 90% as reflected in the FAR of FY 2019-20 will be deducted (if any) from the opening GFA as approved in the previous section.

Accordingly, the revised GFA will be considered and the depreciation on average Gross Fixed Assets (GFA) has been determined. The net addition during the year has been calculated after deducting the value of retired assets. However, there is a Nil value of retired assets.

The following table provides the calculation of revised GFA for the year FY 2019-20:

Table 28: Calculation of revised GFA for FY 2019-20 (INR Crore)

Description	Opening GFA as per audited accounts	Revised Opening GFA	Addition/ Deletion during the year	Closing GFA
Plant & Machinery	542.80	542.80	18.31	561.11
Buildings	23.70	23.70	0.00	23.70
Vehicles	0.67	0.67	0.00	0.67
Furniture & Fixtures	2.82	2.82	0.05	2.87
Computers & Others	12.67	12.67	1.88	14.56

Description	Opening GFA as per audited accounts	Revised Opening GFA	Addition/ Deletion during the year	Closing GFA
Land	24.79	24.79	0.00	24.79
Total	**607.45**	**607.45**	**20.24**	**627.69**

The following table provides the calculation of depreciation during the year FY 2019-20:

Table 29: Depreciation approved by the Commission for FY 2019-20 (INR Crore)

S. No	Particulars	Approved in APR Order	Petitioner's Submission	Trued-up by Commission
1	Opening Gross Fixed Assets for calculation of depreciation	606.88	607.45	607.45
2	Addition during FY	10.00	20.24	20.24
3	Adjustment/Retirement during FY	0.00	0.00	0.00
4	Closing Gross Fixed Assets	616.88	627.29	627.69
5	Average Gross Fixed Assets	611.88	617.57	617.57
6	Rate of Depreciation (%)	3.45%	5.11%	3.47%
7	**Depreciation**	**21.13**	**31.54**	**21.40**

The petitioner while calculating the Depreciation used incorrect value of GFA and Depreciation rates of various assets groups such as Plant & Machinery & Computers & Others. This resulted in higher estimation of depreciation by the petitioner. Hence the significant difference is observed in the depreciation as claimed by the petitioner & approved by the Commission for FY 2019-20.

The Commission approves depreciation of INR 21.40 Cr in the true-up of FY 2019-20.

3.14. Interest on Loan

Petitioner's submission

The Petitioner has submitted the Interest on Loan on normative basis. The normative loan addition in FY 2019-20 has been computed as 70% of the capitalisation for FY 2019-20. The repayment of loans has been considered equal to the depreciation during FY 2019-20.

Further the rate of interest has been considered as the State Bank of India Prime Lending Rate (SBI PLR) of 9.55% on April 1, 2019.

<u>Commission's Analysis</u>

Regulation 28 of the JERC MYT Regulations provides:

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

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

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

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

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

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

28,4 The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio at the beginning of each Year applicable to the Transmission Licensee or the Distribution Licensee:

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

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

Provided further that if the Transmission Licensee or the Distribution Licensee does not have actual loan, then one (1) Year State Bank of India (SBI) MCLR / any replacement thereof as notified by RBI for the time being

in effect applicable for one (1)Year period, as may be applicable as on 1st April of the relevant Year plus 100 basis points shall be considered as the rate of interest for the purpose of allowing the interest on the normative loan.

28.5 The interest on loan shall be calculated on the normative average loan of the Year by applying the weighted average rate of interest:

Provided that at the time of truing up, the normative average loan of the Year shall be considered on the basis of the actual asset capitalisation approved by the Commission for the Year.

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

In accordance with the above, the Commission has considered the values for opening loan and loan addition as approved in the *Section 3.12: Capital Structure* of this Order. Further, the repayment is considered the same as depreciation approved for the year. In accordance with the provisions of JERC MYT Regulations, 2018, the Commission for the purpose of calculation of Interest on Loan has considered the interest rate equivalent to SBI MCLR as on April 1, 2019 (8.55%) plus 100 basis points.

The following table provides the Interest on Loan, approved by the Commission in the APR Order, Petitioner's submission and now trued-up by the Commission.

*Table 30: Interest on Loan approved by the Commission for FY 2019-20 (INR Crore***)**

S. No	Particulars	Approved in APR Order	Petitioner's Submission	Trued-up by Commission
1	Opening Normative Loan	143.58	152.14	143.58
2	Add: Normative Loan During the year	7.00	14.17	14.17
3	Less: Normative Repayment= Depreciation	21.13	31.54	21.40
4	Closing Normative Loan	129.45	134.77	136.34
5	Average Normative Loan	136.52	143.46	139.96
6	Rate of Interest (%)	9.55%	9.55%	9.55%
7	**Interest on Loan**	**13.04**	**13.70**	**13.37**

The Commission approves the Interest of Loan of INR 13.37 Cr in the true-up of FY 2019-20.

3.15. Return on Equity (RoE)

Petitioner's submission

The RoE is calculated in accordance with the JERC MYT Regulations 2018 and is computed on 30% of the capital base. The equity addition has been considered to the tune of 30% of assets capitalized during the year. The Petitioner has computed the Return on Equity at 16% on post-tax basis.

Commission's Analysis

The Regulation 27.2 and 27.3 of the JERC MYT Regulations, 2018 specifies the following:

*"***27. Return on Equity**

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

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

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

"30. Return on Equity:

………

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

The Commission has segregated the approved average equity (average of opening and closing equity) into average equity for Distribution Wires Business and Retail Supply Business based on the Allocation Statement provided in the JERC MYT Regulations, 2018, i.e., 90% allocation for the Distribution Wires Business and 10% allocation for the Retail Supply Business. The Commission has considered a rate of 15.50% for the Distribution Wires Business (as per the prevalent CERC Regulations mentioned above) and a rate of 16% for the Retail Supply Business.

The RoE has been calculated on the average of opening and closing of equity during the year at the rate of 16% on post-tax basis for Retail Supply Business and 15.50% on post-tax basis for wires business, with the opening equity considered equivalent to the closing equity of FY 2018-19 approved in the True-up of the same. The following table provides the return on equity approved in the APR Order, the Petitioner's submission and the RoE now approved by the Commission.

Table 31 RoE approved by the Commission for FY 2019-20 (INR Crore)

S. No	Particulars	Approved in ARR Order	Petitioner's Submission	Now Approved by Commission
1	Opening Equity	84.18	-	84.18
2	Additions on account of new capitalisation	3.00		6.07
3	Closing Equity	87.18		90.25

S. No	Particulars	Approved in ARR Order	Petitioner's Submission	Now Approved by Commission
4	Average Equity	85.68		87.22
5	Average Equity (Wires Business)	77.11		78.49
6	Average Equity (Retail Supply Business)	8.57		8.72
7	Return on Equity for Wires Business (%)	15.50%		15.50%
8	Return on Equity for Retail Supply Business (%)	16.00%		16.00%
9	Return on Equity for Wires Business	11.95		12.17
10	Return on Equity for Retail Supply Business	1.37		1.40
11	**Return on Equity**	**13.32**	**13.10**	**13.56**

The Commission approves a Return on Equity of INR 13.56 Cr in the true-up of FY 2019-20.

3.16. *Interest on Security Deposits*

Petitioner's submission

Payments of INR 4.68 Cr were released to the consumers towards interest on security deposits during FY 2019-20 against INR 4.24 Cr approved by the Commission in the APR Order.

Commission's Analysis

As per Regulation 5.135 of the JERC Electricity Supply Code Regulations, 2018-

"5.135 The Licensee shall pay interest to the consumer at the State Bank of India Base Rate prevailing on the 1st of April for the year, payable annually on the consumer's security deposit with effect from date of such deposit in case of new connections energized after the date of this notification, or in other cases, from the date of notification of this Supply Code, 2018. The interest accrued during the year shall be adjusted in the consumer's bill for the first billing cycle of the ensuing financial year. If the Security Deposit is submitted in the form of Bank Guarantee or by providing lien against fixed deposits, no interest shall be payable to the consumer."

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

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

Table 32: Interest on Consumer Security Deposits approved by the Commission for FY 2019-20 (INR Crore)

S. No	Particulars	Approved in APR Order	Petitioner's Submission	Trued-up by Commission
1	**Interest on Security Deposit**	4.24	4.68	4.68

The Commission approves interest on security deposit as INR 4.68 Cr in the true-up of FY 2019-20.

3.17. *Interest on Working Capital*

Petitioner's submission

The interest on working capital has been calculated based on the normative principles outlined in the JERC (Multi-Year Tariff) Regulations, 2018.

The working capital requirement has been computed considering the following parameters:

(a) O&M Expense for 1 month
(b) Maintenance spares at 40% of R&M expenses for one (1) month
(c) Receivables equivalent to two (2) months of the expected revenue requirement
(d) Amount, held as security deposits

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

Table 33: Interest on Working Capital submitted by Petitioner for FY 2019-20 (INR Crore)

S. No	Particulars	Petitioner's Submission
1	O&M Expense for 1 month	3.40
2	Maintenance spares at 40% of R&M expenses for one (1) month	0.48
3	Receivables equivalent to two (2) months of the expected revenue requirement	185.47
4	Total Working Capital Requirement	189.35
5	Less: Amount, held as security deposits	87.32
6	Net Working Capital	102.03
7	Rate of Interest (%)	10.55%
8	**Interest on Working Capital**	**10.76**

Commission's Analysis

The computation of working capital requirements and the rate of interest to be considered are stipulated in the JERC MYT Regulations, 2018. Regulation 52.1 & 31 of the JERC MYT Regulations 2018 states the following:

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

(a) O&M Expense for 1 month; plus
(b) Maintenance spares at 40% of R&M 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, held as security deposits

....

31.4 The rate of interest on working capital shall be equal one (1)Year State Bank of India (SBI) MCLR / any replacement thereof as notified by RBI for the time being in effect applicable for one (1)Year period, as may be applicable as on 1stApril of the Financial Year in which the Petition is filed plus 200 basis points."

The Commission, for determination of working capital requirements of the Petitioner during the year, has considered the receivables equivalent to two months of the expected revenue requirement, the consumer security deposit, the O&M Expenses for one month & Maintenance spares as 40% of R&M expenses as approved for FY 2019-20.

The Commission noticed that in audited balance sheet the amount against security deposit is INR 87.51 Crore, accordingly the Commission asked the petitioner regarding basis of claiming INR 87.32 Crore instead of INR 87.51 Crore. The petitioner submitted that in INR 87.51 crore, consumer security deposits is INR 87.32 Crore only and remaining amount is not pertaining to consumer security deposit.

With regards to the interest rate, the Commission has considered the SBI MCLR rates (One Year) as on April 1, 2019 plus 200 basis points which is 10.55%.

The computation of Interest on Working Capital as shown in the table below in the following table:

Table 34: Interest on Working Capital approved by the Commission for FY 2019-20 (INR Crore)

S. No	Particulars	Approved in ARR Order	Petitioner's Submission	Now Approved by Commission
1	O&M Expenses for One Month	3.73	3.40	3.40
2	Maintenance spares at 40% of R&M expenses for one (1) month	0.65	0.48	0.48
3	Receivables equivalent to two (2) months of the expected revenue requirement	194.33	185.47	185.47
4	Less: Amount, held as security deposits	67.82	87.32	87.32
5	Net Working Capital	130.90	102.03	102.03
6	Rate of Interest (%)	10.55%	10.55%	10.55%
7	**Interest on Working Capital**	**13.81**	**10.76**	**10.76**

The Commission approves the Interest on Working Capital as INR 10.76 Cr in the True-Up of FY 2019-20.

3.18. Income Tax

Petitioner's submission

No submission has been made in this regard.

Commission's Analysis

Regulation 32 of the JERC MYT Regulations, 2018 provides for allowance of provisional Income Tax based on the actual income tax paid in previous year, if any, as per the latest audited accounts available. The Commission has observed that the actual tax payment as per the latest audited accounts available for FY 2019-20 is nil. Accordingly, for FY 2019-20, no income tax liability has been considered

Table 35: Income Tax approved by the Commission for FY 2019-20 (INR Crore)

S. No	Particulars	Approved in APR Order	Petitioner's Submission	Trued-up by Commission
1	**Income Tax**	**0.00**	**0.00**	**0.00**

The Commission approves Income Tax liability as Nil for FY 2019-20.

3.19. Non-Tariff Income (NTI)

Petitioner's submission

The Petitioner has submitted the actual Non-Tariff Income of INR 4.04 Cr for FY 2019-20 as against INR 10.45 Cr approved in APR for FY 2019-20.

Commission's Analysis

The Regulation 64 of the JERC MYT Regulations, 2018 stipulates the following:

*"**64. Non-Tariff Income***

64.1 The amount of Non-Tariff Income relating to the retail supply of electricity as approved by the Commission shall be deducted from the Aggregate Revenue Requirement in calculating the tariff for retail supply of electricity by the Distribution Licensee:

Provided that the Distribution Licensee shall submit full details of its forecast of Non-Tariff Income to the Commission along with its application for determination of tariff.

64.2 The Non-Tariff Income shall inter-alia include:

(a) Income from rent of land or buildings;

(b) Income from sale of scrap;

(c) Income from statutory investments;

(d) Interest on advances to suppliers/contractors;

(e) Rental from staff quarters;

(f) Rental from contractors;

(g) Income from hire charges from contactors and others;

(h) Income from advertisements, etc.;

(i) Meter/metering equipment/service line rentals;

(j) Service charges;

(k) Consumer charges;

(l) Recovery for theft and pilferage of energy;

(m) Rebate availed on account of timely payment of bills;

(n) Miscellaneous receipts;

(o) Deferred Income from grant, subsidy, etc., as per Annual Accounts;

(p) Prior period income, etc.:

Provided that the interest/dividend earned from investments made out of Return on Equity corresponding to the Retail Supply Business of the Distribution Licensee shall not be included in Non-Tariff Income:

Provided further that any income earned by a Distribution Licensee by sale of power to other Distribution Licensees or to Consumers as per Section 49 of the Act using the existing power purchase agreements or bulk supply capacity allocated to the Distribution Licensee's Area of Supply shall be reduced from the Aggregate Revenue Requirement of the Distribution Licensee for the purpose of determination of tariff. Such reduction shall be carried out in accordance with Joint Electricity Regulatory Commission for the State of Goa and Union Territories (Connectivity and Open Access in Intra-State Transmission and Distribution) Regulations, 2017, as amended from time to time."

In accordance with the above, Delayed Payment Surcharge & Interest on FD & others are not to be considered as Non-Tariff Income. Hence, for the true up of FY 2019-20, the Commission has considered the Non-Tariff Income same as submitted by the petitioner. The same has been verified with the audited accounts.

The NTI approved in the APR Order, the Petitioner's submission and now approved by the Commission is shown in the following table:

Table 36: Non- Tariff Income approved by the Commission for FY 2019-20 (INR Crore)

S. No	Particulars	Approved in APR Order	Petitioner's Submission	Trued-up by Commission
1	**Non-tariff income**	10.45	4.04	4.04

The Commission approves Non-Tariff Income of INR 4.04 Cr in the true-up of FY 2019-20.

3.20. *Revenue from sale of Surplus Power*

Petitioner's submission:

The revenue on account of surplus power sale/UI underdrawal has been considered INR 2.21 Cr by the Petitioner and reduced from ARR to arrive at net ARR.

Commission's Analysis

In line with the Petitioner's submission, the Commission has considered revenue of Rs 2.21 Cr on account of surplus power sale/UI underdrawal as per the audited accounts of the Petitioner and considered the same in the calculation of net Aggregate Revenue Requirement.

3.21. *Incentive/Disincentive towards over/under achievement of Controllable Factors*

Petitioner's submission:

The Incentive towards over achievement of norms of distribution losses has been considered INR 26.42 Cr by the Petitioner and added to ARR.

Commission's Analysis

In the APR for FY 2019-20, the Commission had approved the T&D loss level of 6.70%. The Petitioner has achieved T&D loss of 4.07% against the approved loss level of 6.70%. The Commission, in accordance with Regulation 14.1 of the JERC MYT Regulations, 2018 (reproduced below) has determined the incentive towards the over-achievement of the target of distribution loss for FY 2019-20 as follows:

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

The incentive has been considered at INR 4.39/kWh, which is the Average Power Purchase cost (APPC) of the Petitioner for FY 2019-20. The APPC has been derived at State/UT Periphery based on the Power Purchase cost less cost of Renewable Energy Certificates to meet RPO approved in the true-up and the Energy at the State/UT Periphery that has been computed after grossing up the retail energy sales (2,601.49 MU) with the actual Intra-State T&D Loss (4.07%).

Further, the JERC MYT Regulations, 2018 stipulate the variation in operation and maintenance expenditure to be a controllable factor and any approved gain to the Distribution Licensee on account of controllable factors shall be shared equally between Licensee and Consumers.

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

Table 37: Incentive due to over-achievement of Distribution Loss target and Operation & Maintenance Expenses for FY 2019-20 (INR Crore)

Incentive due to over-achievement of Distribution Loss target			
S. No	**Particulars**	**Approved in APR**	**Trued-up by Commission**
1	Retail Sales (MU)	2495.67	2495.67
2	T&D Loss (%)	6.70%	4.07%
3	Power Purchase at State/UT Periphery (MU)	2674.89	2601.49
4	Gain/(Loss) (MU)		73.40
5	Average Power Purchase Cost (APPC)		4.39
6	Gain/ (Loss) (INR Cr)		32.20
7	Sharing of 50% of gain with the Petitioner		**16.10**
Incentive due to over-achievement of Operation & Maintenance Expenses			
S. No	**Particulars**	**Revised Normative O&M Expenses**	**Actual Considered by the Commission**
1	Total O&M Expenses	43.51	40.82
2	Gain/ (loss)		2.69

Incentive due to over-achievement of Distribution Loss target			
S. No	**Particulars**	**Approved in APR**	**Trued-up by Commission**
3	Sharing of 50% of gain with the Petitioner		**1.35**
	Total Incentive due to over-achievement		**17.45**

The Commission approves INR 17.45 Cr as incentive for over-achieving the distribution loss target and savings in O&M Expenses for FY 2019-20.

3.22. *Provision for Bad & Doubtful Debts*

Petitioner's submission

The Petitioner has not claimed any amount towards provision for bad and doubtful debts.

Commission's Analysis

As per Regulation 62.1 of the MYT Regulations, 2018:

"62.1 Bad and Doubtful Debts shall be limited to 1% of receivables in the True-up, subject to the condition that amount of bad and doubtful debts have actually been written off in the licensee books of accounts."

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."

As the Petitioner has not claimed any amount towards Bad Debts, the Commission therefore has not considered any bad and doubtful debts in the true-up of FY 2019-20.

3.23. *Aggregate Revenue Requirement (ARR)*

Petitioner's submission

Based on the expenses as detailed above, the Petitioner has submitted the Net Aggregate Revenue Requirement of INR 1,289.19 Cr for approval in the true-up of FY 2019-20.

Commission's Analysis

The Commission based on the detailed analysis of the cost parameters of the ARR approves the Net Revenue Requirement in the true-up of FY 2019-20 as given in the following table:

Table 38: Aggregate Revenue Requirement approved by the Commission for FY 2019-20 (INR Crore)

S. No	Particulars	Approved in APR Order	Petitioner's Submission	Trued-up by Commission
1	Power Purchase Cost including cost of RECs purchased	1202.62	1154.43	1154.43

S. No	Particulars	Approved in APR Order	Petitioner's Submission	Trued-up by Commission
2	Operation & Maintenance Expenses	44.79	40.82	40.82
3	Depreciation	21.13	31.54	21.40
4	Interest and Finance charges	13.04	13.70	13.37
5	Return on Equity	13.32	13.10	13.56
6	Interest on Security Deposit	4.24	4.68	4.68
7	Interest on Working Capital	13.81	10.76	10.76
8	Income Tax	0.00	0.00	0.00
9	Provision for Bad Debt	0.00	0.00	0.00
10	Incentive/ (Disincentive)on achievement of norms	0.00	26.42	17.45
11	**Total Revenue Requirement**	**1312.95**	**1295.45**	**1276.47**
12	Less: Non-Tariff Income	10.45	4.04	4.04
13	Less: Revenue from Surplus Power Sale/UI		2.21	2.21
14	**Net Revenue Requirement**	**1302.50**	**1289.19**	**1270.22**

The Commission approves net Aggregate Revenue Requirement of INR 1,270.22 Cr in the true-up of FY 2019-20.

3.24. Revenue at existing Retail Tariff

Petitioner's submission

The actual revenue from retail sale for FY 2019-20 is INR 1,112.80 Cr as against INR 1,165.98 Cr approved by the Commission in the APR Order. The detailed reconciled statement of revenue from the sale of power at existing tariff with reference to the final actual figures of income & expenditure as per the audited accounts of FY 2019-20 has also been submitted.

Commission's Analysis

The Commission has analyzed the sales and revenue figures for each consumer category and verified the revenue from audited accounts. The total revenue as submitted by the Petitioner and approved by the Commission is shown in the following table:

Table 39: Revenue at existing tariff approved by the Commission for FY 2019-20 (INR Crore)

S. No	Particulars	Approved in APR Order	Petitioner's Submission	Trued-up by Commission
1	**Total Revenue**	**1,165.98**	**1,112.80**	**1,112.80**
2	OA Charges	0.00	0.00	0.00
3	**Grand total**	**1,165.98**	**1,112.80**	**1,112.80**

The Commission approves the revenue from sale of power as INR 1,112.80 Cr in the true-up of FY 2019-20.

3.25. Standalone Revenue Gap/ Surplus

Petitioner's submission

Based on the ARR and the revenue from retail tariff, the standalone revenue gap of INR 176.39 Cr is arrived in the true-up of FY 2019-20.

Commission's Analysis

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

Table 40: Standalone Revenue Gap/ (Surplus) for FY 2019-20 (INR Crore)

S. No	Particulars	Approved in APR Order	Petitioner's Submission	Trued-up by Commission
1	Net Revenue Requirement	1,302.50	1,289.19	1,270.22
2	Revenue from Retail Sales at Existing Tariff	1,165.98	1,112.80	1,112.80
3	Open Access Charges	0.00	0.00	0.00
4	Total Revenue	1,165.98	1,112.80	1,112.80
5	**Net Gap /(Surplus)**	**136.52**	**176.39**	**157.42**

The Commission, in the true-up of FY 2019-20 approves a standalone Gap of INR 157.42 Cr. This standalone Gap has been carried over in the subsequent years and has been dealt with while determining the tariff for FY 2021-22.

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

4.1. Background

The Tariff Order for FY 2020-21 was issued by the Commission on May 18, 2020 approving the Aggregate Revenue Requirement and retail tariff for FY 2020-21 (hereinafter referred to as "ARR Order" for the purpose of APR of FY 2020-21). This Chapter covers the Annual Performance Review for FY 2020-21 vis-à-vis the cost parameters approved by the Commission in the ARR Order. The Annual Performance Review for FY 2020-21 is to be carried out as per the following provisions of Regulation 11 of the JERC (Multi-Year Tariff) Regulations, 2018:

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

....

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

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

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

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

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

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

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

e) Other relevant details, if any.

........."

4.2. Approach for the Review for FY 2020-21

The review of the Aggregate Revenue Requirement requires assessment of the quantum of Energy Sales, Energy Loss as well as the various cost elements like Power Purchase Cost, O&M expenses, Interest on long term loans, Interest on Working capital loans, Depreciation etc. The Annual Performance Review for FY 2020-21 has been done based on actual Power Purchase Quantum and Cost of the first 9 months of FY 2020-21, actual Energy Sales for the first 9 months, etc. depending on which the estimates for the remaining months of the financial year have been made. The various cost elements constituting the Aggregate Revenue Requirement have been approved based on the actual information submitted by the Petitioner, the JERC MYT Regulations, 2018 and based on the norms approved in the ARR Order dated May 18, 2020.

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

4.3. *Energy Sales*

Petitioner's Submission

The Petitioner in its Petition has submitted the revised estimates of 2,102.14 MUs of energy sales for FY 2020-21 based on actual sales for first six months and revised estimates for next six months against 2,684.11 MUs as approved by the Commission in the ARR Order for FY 2020-21. The Petitioner submitted that its overall energy sales are significantly dependent upon HT/EHT industries to the extent of 81.55%.

Commission's Analysis

The Commission through the deficiency note asked the Petitioner to submit the category-wise actual sales for first 9 months of FY 2020-21 i.e., from April 2020 to December 2020. The Commission has noted the audited figures for FY 2019-20 and provisional information provided by the Petitioner for the first 9 months of FY 2020-21. For all the consumer categories, the Commission has estimated the proportion of actual energy sales till the month of December over total energy sales during the financial year, for the last three years. Using this average proportion of sales, the Commission has extrapolated the actual energy sales till the month of December for the full year to determine the annual energy sales for FY 2020-21.

However, while applying the method as mentioned in above Para, the Commission has re-calculated the sales for March 2020. Since the national lockdown was announced on March 22nd 2020, the sales for remaining part of the month of March, i.e., from 22.03.2020 to 31.03.2020, were not included in the sales for FY 2019-20. The Commission decided to project sales for FY 2020-21 considering business as usual scenario in FY 2019-20. Hence it was necessary to 'normalize' the sales for months of March for FY 2019-20.

The Commission calculated 'Expected sales for March' 2020 by simply escalating the sales of February, 2020, by a percentage to arrive at normal sales for March 2020. This percentage is growth percentage of sales for month of April 2019 to Mar 2020 over sales for month of April 2018 to Feb 2019. This resulted in projection of sales for FY 2019-20 in business as usual scenario.

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

Table 41: Energy Sales approved by the Commission for FY 2020-21 (MU)

S. No.	Category	Approved in ARR Order	Petitioner's Submission	Now Approved
1	Domestic	165.80	152.91	139.50
2	LIG/ Kutir Jyoti	0.00	0.00	0.00

S. No.	Category	Approved in ARR Order	Petitioner's Submission	Now Approved
3	Commercial	59.19	42.07	41.90
4	Agriculture	5.12	3.27	3.61
5	LT Industry	205.19	181.58	178.06
6	HT/EHT Industry	2,239.12	1,714.33	1,712.71
7	Public Lighting	6.66	5.52	6.06
8	Public Water Works	3.03	2.46	2.61
9	Temp. Supply	0.00	0.00	0.00
	Gross Total	**2,684.11**	**2,102.14**	**2,084.46**

The Commission approves energy sales of 2,084.46 MUs in the APR of FY 2020-21.

4.4. Inter-State Transmission Loss

Petitioner's submission

The Petitioner has considered the Inter-State transmission loss of 3.66%, same as approved in ARR of FY 2020-21.

Commission's Analysis

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

The following table provides the Inter-State transmission loss submitted and now approved by the Commission.

Table 42: Inter-State Transmission Loss approved by the Commission for FY 2020-21 (%)

S. No	Particulars	Approved in ARR Order	Petitioner's Submission	Now Approved
1	Inter-State transmission losses	3.66%	3.66%	3.66%

The Commission approves Inter-State transmission loss of 3.66% in the APR of FY 2020-21.

4.5. Distribution Loss

Petitioner's submission

The Petitioner has considered the distribution loss of 4.05% against the approved distribution loss of 6.60% in the ARR of FY 2020-21.

Commission's Analysis

As distribution loss is a controllable factor, the Commission approves the same as approved in the ARR Order. The Petitioner shall be allowed an incentive/disincentive in the true-up Order considering the actual distribution loss achieved by the Petitioner in the year. Hence, for FY 2020-21 the Commission retains the distribution loss level of 6.60% as approved in the ARR Order dated May 18, 2020.

The following table provides the distribution loss approved in the ARR Order, the Petitioner's submission and now approved by the Commission.

Table 43: Distribution Loss approved by the Commission for FY 2020-21 (%)

S. No	Particulars	Approved in ARR Order	Petitioner's Submission	Now Approved
1	Distribution loss	**6.60%**	**4.05%**	**6.60%**

The Commission approves distribution loss of 6.60% in the APR of FY 2020-21.

4.6. *Energy Balance*

Petitioner's submission

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

Table 44: Energy Requirement of the System for FY 2020-21 as submitted by the Petitioner (MU)

	Particulars	Formulae	ARR Order	Petitioner's Submission
(a)	Retail Sales		2684.11	2102.14
(b)	Open Access Sales		0.00	0.00
(c)	Less: Energy Savings		0.00	0.00
(d)	**Total Sales**	d = a+b-c	2684.11	2102.14
(e)	Distribution Loss	e = g-d	189.67	88.73
(f)	Distribution Loss (%)	f=e/g	6.60%	4.05%
(g)	**Energy Required at Periphery**	g = d+e	2873.78	2190.87
(h)	Sale to common pool consumer/UI Sale		0.75	0.93
(i)	Own generation		63.02	58.04
(j)	**Total energy requirement at state periphery**	j=g+h-i	2811.51	2133.76
(k)	Less: Energy Purchased through UI at Periphery		0.00	37.06
(l)	Less: Open Access Purchase at Periphery		0.00	102.76
(m)	Less: Energy Purchased through Renewable Sources		352.95	0.00
(n)	**Energy requirement at state periphery from tied up sources**	n=j-k-l-m	2458.56	1993.94
(o)	Inter-state loss	o=q-n	93.40	87.18
(p)	Inter-state loss (%)	p = o/q	3.66%	3.66%
(q)	**Energy requirement at state periphery from generator end**	q = n+o	2551.96	2381.93
(r)	**Total Energy requirement from tied up sources & UI at generator end**	r=q+k+i+m	2967.93	2794.93
(s)	**Total Energy requirement in UT including Open Access**	s=r+l	2967.93	2794.93

Commission's Analysis

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

Table 45: Energy Balance approved by the Commission for FY 2020-21 (MU)

S. No	Particulars	Formulae	Petitioner's Submission	Now Approved by Commission
(a)	Retail Sales		2102.14	2084.46
(b)	Open Access Sales		0.00	0.00
(c)	Less: Energy Savings		0.00	0.00
(d)	**Total Sales**	d = a+b-c	2102.14	2084.46
(e)	Distribution Loss (%)		4.05%	6.60%

S. No	Particulars	Formulae	Petitioner's Submission	Now Approved by Commission
(f)	Distribution Loss in MU	f=g-d	88.73	147.30
(g)	**Energy Required at Periphery**	g=d/(1-e)	2190.87	2231.75
(h)	Sale to common pool consumer/UI Sale		0.93	0.00
(i)	Own generation		58.04	15.69
(j)	**Total energy requirement at state periphery**	j=g+h-i	2133.76	2216.06
(k)	Less: Energy Purchased through UI at Periphery		37.06	56.33
(l)	Less: Energy Purchased through IEX		102.76	112.59
(m)	Less: Energy Purchased through Renewable Sources		0.00	0.00
(n)	**Energy requirement at state periphery from tied up sources**	n=j-k-l-m	1993.94	2047.14
(o)	Inter-state loss (%)		3.66%	3.66%
(p)	Inter-state loss	p=q-n	75.75*	77.77
(q)	Energy requirement at state periphery from generator end	q= n/(1-o)	2069.69*	2124.91
(r)	**Total requirement from Tied-up sources at generator end & UI/ Traders/ Banking within State**	r=q+i+k+l+m	2267.55*	2309.52
(s)	**Total availability from tied up sources at generator end (MU)**	s=r-l		**2196.93**
(t)	**Deficit/(surplus)**	t=r-s		**112.59**

**There was an arithmetic error while computing the values as shown in the Table above. The same has been rectified here.*

The Commission approves the Total Energy Requirement at the generator end (including own generation) as 2,309.52 MU in the APR for FY 2020-21. The Commission has estimated a deficit of 112.59 MU and has assumed that the deficit power will be purchased from the Open Market.

4.7. *Power Purchase Quantum & Cost*

Petitioner's submission:

The EDDD has no generating stations of its own other than some Solar plants and relies on firm and infirm allocation of power from Central Generating Stations like Korba, Vindhyachal, Kahalgaon, Kawas, Sipat, Tarapur, Kakrapar, Sholapur, etc. to meet its energy requirement.

The EDDD for the purpose of estimation of the power availability during FY 2020-21 has considered the following sources of power:

- NTPC Western Region Generating Stations
- NTPC Eastern Region Generating Stations
- NSPCL (NTPC-SAIL Power Company Ltd)
- Nuclear Power Corporation of India Limited
- Ratnagiri Gas Power Plant (RGPPL)
- Private Sector Power Generating Companies
- Renewable energy sources - Solar and Non-Solar
- Other open market sources

The Petitioner has allocation from western as well as eastern regions from coal, gas and nuclear power stations. However, for meeting the supply-demand gap during the peak hours, the Petitioner has relied on energy exchange and over-drawl from the Grid.

For projecting of the energy availability for FY 2020-21, six months actual power purchase has been considered by the Petitioner in its Petition. For projection of remaining six months of power purchase for FY 2020-21, firm and infirm allocation from various generating stations has been considered as per the allocation specified in the notification nos. WRPC/Comml-I/6/Alloc/2020 dated 15/10/2020 of Western Regional Power Committee. The energy allocation from central generating station and revised estimated power purchase cost for FY 2020-21 as submitted by the Petitioner is presented in the following table:

Table 46: Energy Allocation to EDDD as submitted by the Petitioner for FY 2020-21

Name of plant	Plant Capacity	EDDD Allocation	Avg. EDDD Allocation
	(MW)	(MW)	(%)
NTPC Stations			
KSTPP	2,100	48	2.30%
KSTPP-III	500	6	1.16%
VSTPP-I	1,260	13	1.02%
VSTPP-II	1,000	9	0.90%
VSTPP- III	1,000	11	1.10%
VSTPP- IV	1,000	12	1.23%
VSTPS-V	500	8	1.61%
KAWAS	656	31	4.73%
JGPP	657	31	4.77%
BHILAI UNIT-I &II (NTPC)	500	70	14.00%
SIPAT-I	1,980	25	1.24%
SIPAT-II	1,000	10	0.97%
MSTPS-I	1,000	12	1.23%
MOUDA-II	1,320	17	1.26%
SOLAPUR	1320	26	1.94%
LARA	800	10	1.29%
GADARWARA	800	14	1.78%
KHTPP	1320	23	1.76%
Subtotal	**18,714**	**376**	
Eastern Region			
KHSTPP-II	1,000	1.30	0.13%
Subtotal	**1,000**	**1.3**	
NPCIL			
KAPPS	440	9	1.86%
TAPP 3&4	1,080	12	1.15%
Subtotal	**1,520.00**	**21**	
Ratnagiri	582	38	6.53%
Subtotal	**582**	**38**	
Grand Total	**21,815.59**	**436**	

Table 47: Power Purchase quantum (MU) and cost (INR Crore) submitted by the Petitioner for FY 2020-21

Station	Units Purchased	Fixed Charges	Variable Charges	Other Charges	Rebate	All Charges Total	Per Unit Cost
NTPC Stations							
KSTPP	356	22.34	54.31	-0.77		75.88	2.13
KSTPP-III	43	5.37	6.54	-0.08		11.84	2.73

Station	Units Purchased	Fixed Charges	Variable Charges	Other Charges	Rebate	All Charges Total	Per Unit Cost
VSTPP-I	80	6.35	14.08	-0.28		20.15	2.52
VSTPP-II	58	3.74	9.98	-0.12		13.60	2.34
VSTPP- III	73	7.12	12.59	-0.30		19.41	2.65
VSTPP- IV	81	12.67	13.49	-0.07		26.09	3.22
VSTPS-V	53	8.65	9.21	-0.08		17.78	3.36
KAWAS	69	18.54	13.72	1.12		33.38	4.87
JGPP	78	23.81	15.85	1.49		41.15	5.28
Sipat-I	175	20.96	27.96	-0.09		48.84	2.79
Sipat-II	70	7.74	11.54	-0.27		19.01	2.73
MSTPS-I	26	15.43	7.43	0.27		23.13	9.06
MOUDA-II	30	16.59	8.76	0.36		25.71	8.63
KHSTPP-II	7	1.18	1.87	0.03		3.08	4.24
KHS1/FST1	0	0.00	0.00	0.00		0.00	-
RSTPS	0	0.00	0.00	0.00		0.00	-
SOLAPUR	65	29.92	18.63	0.18		48.72	7.54
LARA	55	13.38	11.43	-0.03		24.78	4.54
GADARWARA	69	19.20	17.54	0.06		36.80	5.31
KHTPP	90	28.27	38.90	0.10		67.27	7.47
Subtotal	**1,478**	**261.25**	**293.85**	**1.52**	**14.98***	**541.64**	3.66
NTPC Bhilai							-
Bhilai Unit-I &II(NTPC)	368	80.77	95.57	-2.34		173.99	4.72
Subtotal	**368**	**80.77**	**95.57**	**-2.34**		**173.99**	4.72
NPCIL							-
KAPPS	53	0.00	12.40	-5.56		6.84	1.28
TAPP 3&4	85	0.00	28.89	12.96		41.86	4.91
KAPPS (III & IV)	0	0.00	0.00	0.00		0.00	-
Subtotal	**139**	**0.00**	**41.29**	**7.41**		**48.70**	3.51
Others							-
Ratnagiri	85	15.09	27.64	0.17		42.90	5.07
Subtotal	**85**	**15.09**	**27.64**	**0.17**		**42.90**	5.07
Power purchase from Other Sources							-
Power purchase from Indian E. Exchange	103	0.00	30.99	0.00		30.99	3.02
UI	37	0.00	10.54	0.00		10.54	2.84
Solar	58	0.00	0.00	0.00		0.00	0.00
Non Solar (Hydro)	0	0.00	0.00	0.00		0.00	-
Solar REC	0	0.00	7.02	0.00		7.02	-
Non Solar REC	0	0.00	16.82	0.00		16.82	-
Solar (SECI, NTPC)	0	0.00	0.00	0.00		0.00	-
Subtotal	**198**	**0**	**65.37**	**0**		**65.37**	3.30

Station	Units Purchased	Fixed Charges	Variable Charges	Other Charges	Rebate	All Charges Total	Per Unit Cost
Misc. Arrears						0.00	-
NTPC Rebate						0.00	-
Gross Power Purchase Cost	**2,267.55**	**357.11**	**523.72**	**6.75**	**14.98**	**872.59**	3.85
							-
Total Power Purchase	**2,267.55**	**357.11**	**523.72**	**6.75**		**872.59**	3.85
PGCIL CHARGES						76.82	-
WRLDC						0.21	-
MSETCL						3.50	-
REC						0.00	-
GETCO						0.00	-
PGVCL						0.00	-
POSCO						0.00	-
Grand Total of Charges	**2,267.55**					**953.12**	4.20

* In INR 14.98 Cr the petitioner has considered the NTPC rebate against early payment and rebate against COVID-19 provided by MOP.

Further, the assumptions for estimating power purchase quantum and cost as submitted by the Petitioner are as follows:

- Per unit variable cost, fixed cost and other charges have been considered at the same level as actual from April to September 2020.
- Power purchase arrear for the remaining six months has been considered as nil as EDDD has no prior information of arrear bills from the generators and transmission companies.
- For FY 2020-21, till September 2020 the EDDD has procured 11.77 MU of solar energy from its ground mounted and rooftop solar plants. For the remaining six months the EDDD will further procure 46.27 MU of solar power from its own generation and will purchase a further 70.09 MUs as solar certificates to meet its solar obligation till FY 2020-21.
- To meet its RPO target EDDD has planned to purchase 168.17 MUs through non-solar certificates during the remaining six months of FY 2020-21.

Commission's Analysis

The data pertaining to actual power purchase quantum and cost for the period from October to December 2020-21 was sought from the Petitioner. The Commission considered the data for first nine months of FY 2020-21, as submitted by the Petitioner and estimated the power purchase quantum and cost for the remaining months of the financial year considering the firm and infirm allocation from various generating stations. The source wise methodology followed for estimation of quantum and cost of power procurement has been detailed as follows:

4.7.1. Availability of power

Availability of energy from NTPC Stations:

- Actual Power Purchase Quantum is available for first 9 months for FY 2020-21. From Jan to March 2021, power purchase quantum for 14 of the total 18 NTPC plants has been estimated based on 3 years average of quantum of energy purchased from the respective station during these months (FY 2017-18, FY 2018-19 & FY 2019-20).

- For Gadarwara, KHTPP, Kawas & JGPP the Petitioner's submission has been considered for projecting the power purchase quantum for last 3 months of the year due to irregular scheduling of power from these stations. The actual power purchase of first 9 months is subtracted from total Power Purchase quantum as submitted by the petitioner. Remaining value of Power Purchase quantum from each plant is equally distributed in last 3 months of the FY to arrive at the month wise quantum purchased for FY 2020-21.

Availability of energy from NSPCL Bhilai station:

- Actual Power Purchase Quantum is available for first 9 months for FY 2020-21. From Jan to March 2021, the power purchase quantum has been estimated based on last 3-year average of quantum of energy purchase from the station during these months (FY 2017-18, FY 2018-19 & FY 2019-20).

Availability of energy from NPCIL stations:

- Daman and Diu receive supply from two NPCIL stations - Tarapur and Kakrapara atomic plants. The total power purchase for the year from these sources is considered at same level as that projected by the Petitioner.

Availability from RGPPL stations:

- For FY 2020-21 the petitioner submitted purchase of 84.70 MU from RGPPL station. The actual Power purchase for first 9 months is ~26 MU. The total power purchase for the financial year from this source is considered at the same level as projected by the Petitioner.

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

- The Open market purchase of 81.38 MUs for first 9 months has been considered as per actuals. For the remaining months the quantum for purchase/sale has been considered as 31.22 MUs as estimated in the energy balance, discussed in the subsequent section.

- Quantum under UI Overdrawal/ Underdrawal for first 9 months of FY 2020-21 has been considered as 56.33 MUs as per actuals. Further due to availability of Power from firm and other sources, no quantum is approved by the Commission for last quarter (Jan-March) of FY 2020-21.

4.7.2. Power Purchase Cost

Variable Charges:

- Actual variable costs have been considered for the first nine months for all stations for FY 2020-21.
- The per unit variable costs for various power stations and Open Market have been computed by taking the actual variable charges during the first 9 months from April 2019 to December 2019 for all the stations.
- For computing variable cost for January 2021 to March 2021, the derived MUs at Ex-bus is multiplied by the per unit variable cost during the first 9 months of FY 2020-21.
- The cost towards UI Over-drawal/ Underdrawal has been considered as per actuals incurred by the Petitioner in the first 9 months of FY 2020-21 and are not considered for the remaining 3 months of the FY.

Fixed Charges:

- Actual Fixed Costs have been considered for the first nine months for all stations for FY 2020-21.
- The fixed costs for the remaining months of the FY have been considered based on the Tariff Orders issued by the CERC for respective Central Generating Stations.
- Fixed cost has been apportioned as per the DD's share in each station and average of the annual plant availability factor achieved during the last three years. The plant availability factor has been limited to 85% for plants having higher availability, in line with the norms specified by CERC.

Other Charges:

- Actual charges have been considered for the first 9 months of FY 2020-21. No other charges have been considered for the remaining months of FY 2020-21.

Rebate (COVID-19):

In view of the prevailing conditions of COVID-19 pandemic in the country and the difficulties faced by various sections of society, MoP vide letter dated 15.05.2020 & Corrigendum dtd 16.05.2020 decided that all Central Public Sector Generating Companies under MoP and Central Public Sector Transmission Company may consider to offer Rebate to Discoms as specified in the aforementioned letters. In accordance with the same, EDDD has been offered rebate by the following:

- **NTPC:** NTPC has decided to pass a Rebate of Rs. 8.37 Crore on capacity charges billed for lockdown period due to COVID-19.
- **Power Grid:** Power Grid has decided to pass a rebate of Rs. 2.92 Cr against the ISTS charges for the months of Apr'20 and May'20.
- **NSPCL:** NSPCL has decided to pass a Rebate of Rs. 2.58 Crore on capacity charges billed for lockdown period due to COVID-19.

The Commission has considered this rebate while approving the power purchase cost for FY 2020-21.

4.7.3. Transmission Charges

The Commission has estimated the transmission charges payable to PGCIL, WRLDC and MSETCL for the FY 2020-21 based on the actual transmission charges paid in the first nine months of the financial year and as per the Petitioner's submission for the whole FY. The same shall be trued-up as per actuals.

4.7.4. Total power purchase quantum and cost

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

Table 48: Power Purchase Quantum (MU) and cost (INR Crore) approved by the Commission for FY 2020-21

Source	Power Purchase at generator periphery (MU)	Fixed Charges	Variable Charges	Other Charges	All Charges Total	Per Unit Cost (INR/kWh)
NTPC						
KSTP	357.28	23.01	55.11	-0.77	76.85	2.15
KSTP 3	45.89	5.66	7.71	-0.08	13.23	2.88
VSTPP-I	81.39	7.49	14.16	-0.28	21.23	2.61
VSTPP-II	59.21	4.37	9.81	-0.12	13.96	2.36

Source	Power Purchase at generator periphery (MU)	Fixed Charges	Variable Charges	Other Charges	All Charges Total	Per Unit Cost (INR/kWh)
VSTPP- III	78.44	8.07	13.25	-0.30	20.89	2.66
VSTPP- IV	87.83	13.55	14.51	-0.07	27.85	3.17
KAWAS	68.58	19.25	13.12	1.12	33.25	4.85
JGPP	77.93	24.07	15.85	1.49	41.06	5.27
Sipat-I	176.88	22.64	27.48	-0.09	49.77	2.81
Sipat-II	66.60	8.42	10.61	-0.27	18.67	2.80
Mouda/ MSTPS 1	43.88	16.12	12.14	0.27	28.33	6.46
VSTPS-V	56.58	9.40	9.78	-0.08	19.00	3.36
Mouda 2	44.83	16.62	13.02	0.36	29.70	6.63
Solapur	36.70	22.61	10.62	0.18	33.34	9.09
KHSTPP-II	9.14	1.49	1.90	0.03	3.39	3.71
Lara	63.87	23.40	17.54	-0.03	40.92	6.41
Gadarwara	69.26	14.53	17.83	0.06	32.19	4.65
KHTPP	90.07	28.27	28.34	0.10	56.29	6.25
Rebate for early payment					-6.61	
Subtotal - NTPC	**1514.36**	**268.96**	**292.79**	**1.52**	**556.66**	**3.68**
NSPCL Bhillai	**378.22**	**81.66**	**98.23**	**-2.34**	**177.55**	**4.69**
NPCIL						
KAPS	60.58	0.00	14.02	-5.56	8.46	1.40
TAPS	87.06	0.00	29.52	12.96	42.49	4.88
Subtotal	**147.63**	**0.00**	**43.54**	**7.41**	**50.95**	**3.45**
Others						
Ratnagiri	84.70	15.09	28.27	0.17	43.52	5.14
Subtotal	**84.70**	**15.09**	**28.27**	**0.17**	**43.52**	**5.14**
UI Overdrawal/Underdrawal	56.33	0.00	16.03	0.00	16.03	2.85
Open Market Purchase	112.59	0.00	34.66	0.00	34.66	3.08
sub-total	**168.92**	**0.00**	**50.69**	**0.00**	**50.69**	3.00
Renewable Energy Purchase						
Solar	15.69	0.00	0.00		0.00	
Non Solar	0.00	0.00	0.00		0.00	
REC-Solar			0.00		0.00	
REC-Non Solar*			20.58		20.58	
Subtotal	**15.69**		**20.58**		**20.58**	
Total Power Purchase Quantum	**2309.52**	**365.71**	**534.10**	**6.75**	**899.95**	**3.90**

Source	Power Purchase at generator periphery (MU)	Fixed Charges	Variable Charges	Other Charges	All Charges Total	Per Unit Cost (INR/kWh)
Transmission Charges						
PGCIL Charges					76.82	
Other Transmission Charges					3.71	
Power Grid - Rebate COVID-19					**-2.92**	
NTPC Limited - Rebate COVID-19					**-8.37**	
NSPCL - Rebate COVID-19					**-2.58**	
Total Power Purchase Cost	**2309.52**	**365.71**	**534.10**	**6.75**	**966.61**	**4.19**

* Cost for RPO is approved in Section 4.8 & included above

The Commission approves the revised quantum of power purchase as 2,309.52 MU at the generator periphery with total cost of INR 966.61 Cr in the APR for FY 2020-21.

4.8. *Renewable Purchase Obligation (RPO)*

Petitioner's submission:

The Petitioner submitted that till September 2020 it has procured 11.77 MU of solar energy from its ground mounted and rooftop solar plants. And for the remaining six months, it will further procure 46.27 MU of solar power from its own generation and will purchase 70.19 MUs as solar certificates to meet its solar obligation till FY 2020-21.

The Petitioner has further submitted that to meet its RPO target it has planned to purchase 168.17 MUs through non-solar certificates during the remaining six months of FY 2020-21.

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

Table 49: RPO Requirement (Solar and Non-Solar) for FY 2020-21 as submitted by Petitioner (MU)

Particulars	RPO %	Sales (MU)	Units (MU)	Actual 2020-21 (Till Sep) (MU)	Balance to be Procured 2020-21 (MU)
Solar	6.10%	2,102.14	128.23	11.77	116.46
Non-Solar	8.00%	2,102.14	168.17	0.00	168.17
Total	**14.10%**		**290.85**	**11.77**	**284.63**

Commission's Analysis

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

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

The Commission notified the JERC (Procurement of Renewable Energy) (Third Amendment) Regulations, 2016 on August 22, 2016 and revised the RPO targets, according to which the Petitioner had to purchase 14.10% (Solar-6.10% and Non-Solar-8.00%) of its total consumption (excluding hydro) from renewable sources for FY 2020-21.

Also, the Petitioner is required to clear the backlog of 454.83 MU (Solar: 184.67 MU and Non-Solar: 270.16 MU) up to FY 2019-20 that has been carried forward.

The Commission asked the Petitioner to submit the details of actual RPO met from April 2020 to December 2020 and the Petitioner submitted the details of actual RPO met during the period April 2020 to December 2020 as follows:

- Solar – 11.77 MU
- Non-Solar – 0.00 MU

The Commission considers Solar (own Generation) purchase for January to March 2021 to be one third of what petitioner purchased in first nine months of the FY.

The Commission while approving the APR for FY 2020-21 has considered the actual cost (if any) of RPO claimed by the Petitioner till January 2021.

In accordance with the JERC (Procurement of Renewable Energy) Regulations, 2010 and the Petitioner's submission, the Commission has determined the following Renewable Purchase Obligation for the Petitioner for FY 2020-21:

Table 50: Summary of Renewable Purchase Obligation (RPO) for FY 2020-21 (MU)

S.No	Description	Formulae	FY 2020-21
A	Solar Target		6.10%
B	Non-Solar Target		8.00%
C	**Total RPO Target (in %)**	**C=A+B**	**14.10%**
D	Sales within UT		2,084.46
E	**RPO obligation for the year**	**E=F+G**	**293.91**
F	Solar	F=D*A	127.15
G	Non-Solar	G=D*B	166.76
H	**RPO compliance (proposed purchase)**	**H=I+J**	**15.69**
I	Solar		15.69
J	Non-Solar		0.00
K	**RPO compliance (REC certificate purchase)**	**K=L+M**	**180.00**
L	Solar		0.00
M	Non-Solar		180.00
N	**Total RPO Compliance for FY 2020-21 (REC+ Physical RE)**	**N=O+P**	**195.69**
O	Solar	O=I+L	15.69
P	Non-Solar	P=J+M	180.00
Q	**Standalone shortfall for FY 2020-21**	**Q=R+S**	**98.22**
R	- Solar	R=F-O	111.46
S	- Non-Solar	S=G-P	-13.4
T	**Backlog upto FY 2019-20**	**T=U+V**	**454.83**
U	- Solar		184.67
V	- Non-Solar		270.16

S.No	Description	Formulae	FY 2020-21
W	**Total Shortfall in RPO Compliance for FY 2020-21**	**W=X+Y**	**553.05**
X	Solar	X=R+U	296.13
Y	Non-Solar	Y=S+V	256.92

The Commission has computed the cost towards compliance of RPO. The Commission has considered actual purchase for FY 2020-21 till Jan 2021, based on the information provided by the Petitioner. Trading of RECs was suspended in July 2020 after the Appellate Tribunal for Electricity (APTEL) decided to postpone the trading by four weeks while hearing three separate petitions related to issue of fixing floor and forbearance prices of RECs by the Central Electricity Regulatory Commission (CERC). Later, the trading was not resumed as APTEL directed to enforce the interim order on suspension of REC trade till final judgment. Accordingly, the Commission has considered actual numbers as submitted by the petitioner and not considered the cost towards meeting shortfall of RPO target.

The Commission also feels that the petitioner has failed to cover not only the entire RPO shortfall till FY 2020-21 but also the standalone RPO target set for the year. Accordingly, the **Commission directs the petitioner to fulfill the RPO obligation in future years by either purchasing power from Renewable energy sources or by purchasing RECs.**

The cost has already been considered in the total power purchase cost approved by the Commission in the previous section and as shown in the following table:

Table 51: Cost towards compliance of Renewable Purchase Obligation approved by the Commission for FY 2020-21 (INR Crore)

S. No	Description	RPO (MU)	Total Cost (INR Cr)	Avg. Rate (INR/kWh)
1	**Solar**	**15.69**	**0.00**	
(a)	*Generation*	15.69	0.00	0.00
(b)	*Renewable Energy Certificates*	0.00	0.00	0.00
2	**Non-Solar**	**180.00**	**20.58**	
(a)	*Generation/Procurement*	0.00	0.00	0.00
(b)	*Renewable Energy Certificates*	180.00	20.58	1.14
	Total	**195.69**	**20.58**	**1.05**

The Commission approves INR 20.58 Cr towards compliance of RPO in the APR of FY 2020-21 that has been included in Power Purchase Cost.

4.9. Operation & Maintenance Expenses

The Operation & Maintenance Expenses comprises of the Employee Expenses, Administrative & General Expenses (A&G) and the Repair & Maintenance Expenses (R&M). The JERC MYT Regulations, 2018, recognize the variation of O&M Expenses to be controllable. Regulation 12 and Regulation 51 of the JERC MYT Regulation, 2018 states as shown below:

"12. Uncontrollable and Controllable factors

....

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

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

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

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

d) Availability of transmission system;

e) Variations in performance parameters;

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

g) Variations in labor productivity;

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

……….

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

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

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

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

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

c) Repairs and Maintenance expenses.

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

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

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

Where,

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

4.9.1. Employee Expenses

Petitioner's submission

The Petitioner has submitted the employee expenses of INR 16.93 Cr as against approved employee expenses of INR 17.98 Cr in the ARR Order for FY 2020-21.

<u>Commission's Analysis</u>

The Regulation 6 of the JERC MYT Regulations, 2018 stipulates the following:

"6. Values for Base Year

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

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

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

As shown above, Regulation 6 provides that the Commission may change the values for Base Year considering the actual figures from audited accounts. As the Commission in this Order has carried out the truing up for FY 2019-20 based on audited accounts, the Commission has considered the trued- up employee expenses for FY 2019-20 as base expenses and applied the CPI Inflation for approving the revised employee expenses for FY 2020-21.

As per the details submitted by the Petitioner in the Petition, the estimated growth in number of employees for FY 2020-21 is 0.37%. Hence, the Commission has considered the revised growth in employee expenses for FY 2020-21 while projecting the employee expenses for FY 2020-21.

The CPI Inflation has been computed as follows:

Table 52: Computation of CPI Inflation (%)

FY	Average of (Apr-Mar)	Increase in CPI Index	Average increase in CPI indices over 3 years
2017-18	284.58	3.14%	
2018-19	299.92	5.39%	
2019-20	322.50	7.53%	
		CPI Inflation	**5.35%**

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

Table 53: Employee Expenses approved by the Commission for FY 2020-21 (INR Crore)

S. No	Particulars	Values
1	Employee Expenses for the previous year **(EMPn-1)**	16.07
2	Growth in number of employees (Gn)	0.37%
3	CPI Inflation for preceding three years (CPI)	5.35%
	Employee Expenses **EMPn = (EMPn-1) x (1+Gn) x (1+CPI inflation)**	**16.99**

The Commission approves Employee Expenses of INR 16.99 Cr FY 2020-21.

4.9.2. Administrative and General (A&G) Expenses

Petitioner's submission

The Petitioner has submitted the A&G expenses of INR 10.97 Cr as against approved A&G expenses of INR 8.59 Cr in the ARR Order for FY 2020-21.

Commission's Analysis

Similar to the methodology followed while estimating the employee expenses for FY 2020-21, the Commission has considered the trued-up A&G expenses for FY 2019-20 as Base Year expenses and escalated the same with average CPI Inflation for approving the revised trajectory of A&G expenses for FY 2020-21. The A&G expenses approved by the Commission for FY 2020-21 have been provided in the following table:

Table 54: A&G Expenses approved by the Commission for FY 2020-21 (INR Crore)

S. No	Particulars	Values
1	A&G Expenses for the previous year **(A&Gn-1)**	10.41
2	CPI Inflation	5.35%
3	**A&G Expenses** **(A&Gn) = (A&Gn-1) x (1+CPI inflation)**	**10.97**

The Commission approves the Administrative & General (A&G) expenses of INR 10.97 Cr for FY 2020-21.

4.9.3. Repair & Maintenance Expenses (R&M)

Petitioner's submission

The Petitioner has submitted the R&M expenses of INR 17.04 Cr as against the approved R&M expenses of INR 19.67 Cr in the ARR Order for FY 2020-21.

Commission's Analysis

Regulation 51.4 of the JERC MYT Regulation, 2018 states as shown below:

"........

'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;

......"

As provided in clause 51.4 of the JERC MYT Regulations, 2018 the Commissions has considered the value of 'K' factor as 3.26% which was approved by the Commission in MYT order dated 20th May 2019, for FY 2020-21.

The WPI Inflation has been computed as follows:

Table 55: Computation of WPI Inflation (%)

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

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

Table 56: R&M Expenses approved by the Commission for FY 2020-21 (INR Crore)

S. No	Particulars	Values
1	GFA of previous year (GFA_{n-1})	627.69
2	K factor approved (K)	3.26%
3	WPI Inflation	2.96%
	R&M Expenses = (K x (GFA $_{n-1}$) x (1+WPI$_{inflation}$)	**21.07**

The Commission approves the Repair & Maintenance (R&M) expenses of INR 21.07 Cr for FY 2020-21.

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

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

Table 57: O&M Expenses approved by the Commission for FY 2020-21 (INR Crore)

S. No	Particulars	Approved in ARR Order	Petitioner's Submission	Now Approved by Commission
1	Employee Expenses	17.98	16.93	16.99
2	Administrative & General Expenses	8.59	10.97	10.97
3	Repair & Maintenance Expenses	19.67	17.04	21.07
	Total Operation & Maintenance Expenses	**46.24**	**44.93**	**49.03**

The Commission considered the trued-up O&M Expenses as approved for FY 2019-20 and escalated the same with inflation indices (WPI & CPI) and other factors like employee growth rate (Gn) and K factor. There is a little difference in K factor and Gn values as claimed by the petitioner due to which Commission approved value are on higher side.

The Commission approves the Operation & Maintenance (O&M) expenses of INR 49.03 Cr in the APR of FY 2020-21.

4.10. *Gross Fixed Assets (GFA) and Capitalisation*

Petitioner's submission

The Petitioner has proposed the Capital expenditure and capitalisation as shown in the table below:

Table 58: Petitioner's submission for capitalization for FY 2020-21 (INR Crore)

Sr. No.	Particulars	Approved in ARR Order	Petitioner's Submission
1	Capital Expenditure	95.00	95.00
2	Capitalisation	38.00	38.00

Commission's Analysis

The Commission sought the details of capital expenditure already incurred by the utility in the first 9 months of the year. The Commission with regard to the capital expenditure and capitalisation proposed to be undertaken during the year, directed the Petitioner to submit the scheme wise Detailed Project Reports (DPR) and the copy of the Technical Sanctions accorded to each scheme. The Petitioner in response submitted the supporting documents with regard to the scheme wise capital expenditure and capitalisation along with the copy of the technical sanctions. Against an approved capital expenditure and capitalisation of INR 95.00 Cr and INR 38.00 Cr respectively, the Petitioner has envisaged same capital expenditure and capitalisation. Accordingly, the Commission has considered the capital expenditure and capitalization as submitted by the Petitioner in APR for FY 2020-21. The following table provides the approved capital expenditure and capitalisation for the year:

Table 59: Capitalisation approved by the Commission for FY 2020-21 (INR Crore)

S. No	Particulars	Approved in ARR Order	Petitioner's Submission	Now Approved by Commission
1	Capital Expenditure	95.00	95.00	95.00
2	Capitalisation	38.00	38.00	38.00

The Commission approves capital expenditure of INR 95.00 Cr and capitalisation of INR 38.00 Cr in the APR for FY 2020-21.

4.11. *Capital Structure*

Petitioner's Submission

The Petitioner has submitted that the entire capital deployment shall be through equity for FY 2020-21.

Commission's Analysis

The JERC MYT Regulations, 2018, specify that if the equity actually deployed is more than 30% of the capital cost, then equity in excess of 30% would be considered as normative loan. The Regulation 26 of the JERC MYT Regulations, 2018 specifies the following

"26. Debt to Equity Ratio

26.1 In case of Existing Projects, debt to equity ratio allowed by the Commission for determination of tariff for the period ending March 31, 2018 shall be considered:

Provided that in case of retirement or replacement or De-capitalisation of the assets, the equity capital approved as mentioned above, shall be reduced to the extent of 30% (or actual equity component based on documentary evidence, if it is lower than 30%) of the original cost of such assets:

Provided further that in case of retirement or replacement or De-capitalisation of the assets, the debt capital approved as mentioned above, shall be reduced to the extent of outstanding debt component based on documentary evidence, or the normative loan component, as the case may be, of the original cost of such assets.

26.2 For New Projects, the debt-equity ratio as on the Date of Commercial Operation shall be 70:30 of the amount of capital cost approved by the Commission under Regulation 23, after prudence check for determination of tariff:

Provided that where equity actually deployed is less than 30% of the capital cost of the capitalised asset, the actual equity shall be considered for determination of tariff:

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

Provided also that the Licensee shall submit documentary evidence for the actual deployment of equity and explain the source of funds for the equity:

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

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

26.3 Any expenditure incurred or projected to be incurred on or after April 1, 2019, as may be admitted by the Commission, as additional capital expenditure for determination of tariff, and renovation and modernisation expenditure for life extension shall be serviced in the manner specified in this Regulation."

In accordance with the above, since the Petitioner has submitted that the entire capitalisation is funded through equity, thus equity higher than 30% of capitalisation has been considered as normative loan.

The opening Gross Fixed Assets for FY 2020-21 has been considered as closing Gross Fixed Assets approved in true-up of FY 2019-20. Further the values of opening loan and equity for FY 2020-21 has been considered as closing loan and equity approved in true-up of FY 2019-20. The loan and equity addition have been considered on normative basis as 70% and 30% respectively of the approved capitalization for the year.

The Commission has accordingly determined the capital structure for FY 2020-21 as follows:

Table 60: Funding Plan approved by the Commission for FY 2020-21 (INR Crore)

S. No	Particulars	Approved in ARR Order	Petitioner's Submission	Now Approved by Commission
1	Capitalisation	38.00	38.00	38.00
2	Debt (%)	70%	70%	70%
3	Equity (%)	30%	30%	30%
4	Normative Loan	**26.60**	**26.60**	**26.60**
5	Equity	**11.40**	**11.40**	**11.40**

Table 61: GFA addition approved by the Commission for FY 2020-21 (INR Crore)

S. No	Particulars	Approved in ARR Order	Petitioner's Submission	Now Approved by Commission
1	Opening Gross Fixed Assets	616.88	627.69	627.69
2	Addition during FY 2020-21	38.00	38.00	38.00
3	Adjustment/Retirement during FY 2020-21	0.00	0.00	0.00
4	Closing Gross Fixed Assets	654.88	665.69	665.69

Table 62: Normative Loan addition (INR Crore)

S. No	Particulars	Approved in ARR Order	Petitioner's Submission	Now Approved by Commission
1	Opening Normative Loan	129.45	134.77	136.34
2	Add: Normative Loan During the year	26.60	26.60	26.60
3	Less: Normative Repayment equivalent to Depreciation	21.96	22.47	22.48
4	Closing Normative Loan	134.09	138.90	140.47

Table 63: Normative Equity addition (INR Crore)

S. No	Particulars	Approved in ARR Order	Petitioner's Submission	Now Approved by Commission
1	Opening Equity	87.18	87.27	90.25
2	Additions on account of new capitalisation	11.40	11.40	11.40
3	Closing Equity	98.58	98.67	101.65

4.12. Depreciation

Petitioner's submission

For computation of depreciation, the closing GFA of FY 2019-20 is taken as the opening GFA for FY 2020-21 and subsequently the proposed capitalisation during FY 2020-21 is added. Depreciation has been calculated as per the rates specified in the JERC MYT Regulations, 2018.

Commission's Analysis

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

"30 Depreciation

……….

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

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

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

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

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

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

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

As discussed in the True-up of FY 2019-20, the Commission has determined the revised GFA after deducting the value of assets that have achieved 90% depreciation. The closing GFA of FY 2019-20 as approved in the true-up has been considered as opening GFA of FY 2020-21. Further, depreciation has been computed on average Gross Fixed Assets (GFA) after considering the net addition proposed during the year. The depreciation rate has been considered as weighted average rate of depreciation considering actual break-up of assets into various asset classes and depreciation rates in accordance with the JERC MYT Regulations, 2018.

The following table provides the calculation of deprecation during FY 2020-21:

Table 64: Depreciation approved by the Commission for FY 2020-21 (INR Crore)

S. No	Particulars	Approved in ARR Order	Petitioner's Submission	Now Approved by Commission
1	Closing GFA approved in the True-up of FY 2019-20 (a)	616.88	627.69	627.69
2	Less: Assets depreciated upto 90% till FY 2019-20 (b)	0.00	0.00	0.00
3	Opening Gross Fixed Assets (a-b)	616.88	627.69	627.69
4	Additions during the FY	38.00	38.00	38.00
5	Adjustment/Retirement During the FY	0.00	0.00	0.00
6	Closing GFA	654.88	665.69	665.69
7	Average Gross Fixed Assets	635.88	646.69	646.69
8	Rate of Depreciation (%)	3.45%	3.47%	3.48%
	Depreciation	**21.96**	**22.47**	**22.48**

The Commission now approves depreciation of INR 22.48 Cr in the APR for FY 2020-21.

4.13. *Interest on Loan*

Petitioner's submission

The Petitioner has calculated the Interest on Loan on normative basis according to the JERC MYT Regulations, 2018. The closing balance of FY 2019-20 is taken as the opening balance of loans for FY 2020-21. The normative loan addition in FY 2020-21 has been computed as 70% of the capitalisation proposed during FY 2020-21.

The repayment of loans has been considered equivalent to the depreciation during FY 2020-21. Further, the rate of interest has been considered as 1- year SBI MCLR plus 100 basis points i.e., 8.75%.

Commission's Analysis

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

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

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

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

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

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

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

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

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

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

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

28.5 The interest on loan shall be calculated on the normative average loan of the Year by applying the weighted average rate of interest:

Provided that at the time of truing up, the normative average loan of the Year shall be considered on the basis of the actual asset capitalisation approved by the Commission for the Year.

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

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

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

28.9 The excess interest during construction on account of time and/or cost overrun as compared to the approved completion schedule and capital cost or on account of excess drawal of the debt funds disproportionate to the actual requirement based on Scheme completion status, shall be allowed or disallowed partly or fully on a case to case basis, after prudence check by the Commission:

Provided that where the excess interest during construction is on account of delay attributable to an agency or contractor or supplier engaged by the Transmission Licensee, any liquidated damages recovered from such agency or contractor or supplier shall be taken into account for computation of capital cost:

Provided further that the extent of liquidated damages to be considered shall depend on the amount of excess interest during construction that has been allowed by the Commission.

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

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

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

The Commission has considered the values for opening loan and loan addition as approved in the *Section 4.11: Capital Structure* of this Order. Further, the repayment is considered same as depreciation approved for the year. In line with past practice, the Commission for the purpose of calculation of Interest on Loan has considered the interest rate equivalent to 1-year SBI MCLR as on April 1, 2020 plus 100 basis points (8.75%) as rate of interest, in accordance with the JERC MYT Regulations, 2018. The following table provides the Interest on Loan approved by the Commission:

Table 65: Interest on Loan approved by the Commission for FY 2020-21 (INR Crore)

S. No.	Particulars	Approved in ARR Order	Petitioner's Submission	Now Approved by Commission
1	Opening Normative Loan	129.45	134.77	136.34
2	Add: Normative Loan During the year	26.60	26.60	26.60
3	Less: Normative Repayment equivalent to Depreciation	21.96	22.47	22.48
4	Closing Normative Loan	134.09	138.90	140.47
5	Average Normative Loan	131.77	136.84	138.40
6	Rate of Interest (%)	8.85%	8.75%	8.75%
	Interest on Loan	**11.66**	**11.97**	**12.11**

Interest on Loan approved by the Commission is higher than the Petitioner's submission because of correct opening normative loan considered by the Commission in FY 2020-21 which is closing loan of previous year (FY 2019-20). In FY 2019-20 Petitioner considered average loan of FY 2018-19 as opening loan of FY 2019-20 instead of the closing loan of FY 2018-19.

Accordingly, the Commission approves Interest on Loan of INR 12.11 Cr in the APR of FY 2020-21.

4.14. Return on Equity (RoE)

Petitioner's submission

The Return on Equity (RoE) is computed in accordance with the JERC MYT Regulations, 2018, and is computed on 30% of the capital base. The Petitioner has considered the opening equity equivalent to the closing equity for FY 2019-20 and has considered added equity to the tune of 30% of assets proposed to be capitalized during the year. The Petitioner has segregated the average equity (average of opening and closing equity) into average equity for Distribution Wires Business and Retail Supply Business based on the Allocation Statement provided in the JERC MYT Regulations, 2018 i.e. 90% allocation for the Distribution Wires Business and 10% allocation for the Retail Supply Business. Accordingly, the Petitioner has computed the Return on Equity at 16% on post-tax basis for Retail Supply Business and 15.50% on post-tax basis for wires business.

<u>Commission's Analysis</u>

In this regard, the Regulation 27.2 and 27.3 of the JERC MYT Regulations, 2018 stipulates the following-

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

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

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

"30. Return on Equity:

………

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

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

The Commission has considered a rate of 15.50% for the Distribution Wires Business (as per the prevalent CERC Regulations) and a rate of 16% for the Retail Supply Business.

The RoE has been calculated on the average of opening and closing of equity during the FY 2020-21 at the rate of 16% on post-tax basis for Retail Supply Business and 15.50% on post-tax basis for wires business, with the opening equity considered equivalent to the closing equity of FY 2019-20 as approved in the True-up Chapter of this Order.

The following table provides the return on equity approved in the ARR Order, the Petitioner's submission and the RoE now approved by the Commission.

Table 66: RoE approved by the Commission for FY 2020-21 (INR Crore)

S. No	Particulars	Approved in ARR Order	Petitioner's Submission	Now Approved by Commission
1	Opening Equity	87.18	87.27	90.25
2	Additions on account of new capitalisation	11.40	11.40	11.40
3	Closing Equity	98.58	98.67	101.65
4	Average Equity	92.88	84.24	95.95
5	Average Equity (Wires Business)	83.59	83.67	86.36
6	Average Equity (Retail Supply Business)	9.29	9.30	9.60
7	Return on Equity for Wires Business (%)	15.50%	15.50%	15.50%
8	Return on Equity for Retail Supply Business (%)	16.00%	16.00%	16.00%
9	Return on Equity for Wires Business	12.96	12.97	13.39
10	Return on Equity for Retail Supply Business	1.49	1.49	1.54
11	**Return on Equity**	**14.44**	**14.46**	**14.92**

Return on Equity approved by the Commission is higher than the Petitioner's submission because of the correct opening equity considered by the Commission in FY 2020-21 equal to closing equity of previous year (FY 2019-20). In FY 2019-20 Petitioner considered average equity of FY 2018-19 as opening equity of FY 2019-20 instead of closing equity of FY 2018-19.

Accordingly, the Commission approves the Return on Equity of INR 14.92 Cr in the APR of FY 2020-21.

4.15. *Interest on Security Deposits*

Petitioner's submission

The Petitioner has submitted the interest on security deposits of INR 4.68 Cr as against approved interest on security deposits of INR 4.24 Cr in the ARR Order for FY 2020-21.

Commission's Analysis

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

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

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

The Petitioner has not submitted any data regarding the Opening, addition & Closing in the consumer security deposits. Hence, the Commission has now approved the Consumer security deposit as proposed by the petitioner. The same shall be trued-up on the actual basis. The following table provides the calculation of interest on consumer security deposits for the year.

Table 67: Interest on Security Deposits approved by the Commission for FY 2020-21 (INR Crore)

S. No	Particulars	Approved in ARR Order	Petitioner's Submission	Now Approved by Commission
1	**Interest on Security Deposit**	**4.24**	**4.68**	**4.68**

The Commission approves Interest on Security Deposit as INR 4.68 Cr in the APR of FY 2020-21.

4.16. Interest on Working Capital

Petitioner's submission

The interest on working capital has been calculated based on the normative principles in the JERC (Multi-Year Distribution Tariff) Regulations, 2018.

The working capital requirement for has been computed considering the following parameters:

(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) Consumer security but excluding Bank Guarantee/Fixed Deposit Receipt:

The Interest on Working Capital is computed at the interest rate of 9.75% (1-year SBI MCLR plus 200 basis points) in line with the JERC MYT Regulations, 2018.

Commission's Analysis

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

"52. Norms of Working Capital for Retail Supply Business

52.1 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 charges for use of distribution wires at the prevailing tariff;

Less:

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

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

Further, Regulation 31 of the JERC MYT Regulation, 2018 stipulates the following:

"31 Interest on Working Capital

……..

31.3 The interest on working capital shall be a payable on normative basis notwithstanding that the Licensee has not taken working capital loan from any outside agency or has exceeded the working capital loan based on the normative figures.

31.4 The rate of interest on working capital shall be equal one (1) Year State Bank of India (SBI) MCLR / any replacement thereof as notified by RBI for the time being in effect applicable for one (1) Year period, as may be applicable as on 1st April of the Financial Year in which the Petition is filed plus 200 basis points."

In accordance with the JERC MYT Regulations, 2018, the Commission has computed the Interest on Working Capital for FY 2020-21. The rate of interest on working capital is considered as 1- year SBI MCLR rate as on April 1, 2020 plus 200 basis points (7.75%+2% = 9.75%). Accordingly, the interest on working capital has been calculated, as shown in the following table:

Table 68: Interest on Working Capital approved by the Commission for FY 2020-21 (INR Crore)

S. No	Particulars	Approved in ARR Order	Petitioner's Submission	Now Approved by Commission
1	O&M Expenses for One Month	3.85	3.74	4.09
2	Maintenance spares at 40% of R&M expenses for one (1) month	0.66	0.57	0.70
3	Receivables equivalent to two (2) months of the expected revenue requirement	219.36	175.98	180.42
4	Less: Amount, held as security deposits	67.82	87.32	87.32
5	Net Working Capital	156.05	92.97	97.89
6	Rate of Interest (%)	10.55%	9.76%	9.75%
7	**Interest on Working Capital**	**16.46**	**9.07**	**9.54**

The Commission approves the Interest on Working Capital as INR 9.54 Cr in the APR of FY 2020-21.

4.17. Income Tax

Petitioner's submission

No submissions have been made in this regard by the Petitioner.

Commission's Analysis

Regulation 32 of the JERC MYT Regulations, 2018 provides for allowance of provisional Income Tax based on the actual income tax paid in previous year, if any, as per the latest audited accounts available. The Commission has observed that the actual tax payment as per the latest audited accounts available for FY 2019-20 is nil. Accordingly, for FY 2020-21, no income tax liability has been considered and the same shall be trued-up based on the actual income tax paid by the Petitioner.

Table 69: Income tax approved by the Commission for FY 2020-21 (INR Crore)

S. No	Particulars	Approved in ARR Order	Petitioner's Submission	Now Approved by Commission
1	**Income Tax**	**0.00**	**0.00**	**0.00**

The Commission approved Nil income tax liability for FY 2020-21.

4.18. Provision for Bad & Doubtful Debts

Petitioner's submission

The Petitioner has not proposed any provision for bad and doubtful debts for the FY 2020-21.

Commission's Analysis

The Commission has not considered any provision for Bad & Doubtful Debts. The same shall be accounted for as per actuals in the true-up of FY 2020-21.

4.19. Non-Tariff Income

Petitioner's submission

The non-tariff income for FY 2020-21 has been estimated with an increase of 5% p.a. on the actual non-tariff income of FY 2019-20.

Commission's Analysis

The Regulation 64 of the JERC MYT Regulations, 2018 stipulates the following:

*"**64. Non-Tariff Income***

64.1 The amount of Non-Tariff Income relating to the retail supply of electricity as approved by the Commission shall be deducted from the Aggregate Revenue Requirement in calculating the tariff for retail supply of electricity by the Distribution Licensee:

Provided that the Distribution Licensee shall submit full details of its forecast of Non-Tariff Income to the Commission along with its application for determination of tariff.

64.2 The Non-Tariff Income shall inter-alia include:

(a) Income from rent of land or buildings;

(b) Income from sale of scrap;

(c) Income from statutory investments;

(d) Interest on advances to suppliers/contractors;

(e) Rental from staff quarters;

(f) Rental from contractors;

(g) Income from hire charges from contactors and others;

(h) Income from advertisements, etc.;

(i) Meter/metering equipment/service line rentals;

(j) Service charges;

(k) Consumer charges;

(l) Recovery for theft and pilferage of energy;

(m) Rebate availed on account of timely payment of bills;

(n) Miscellaneous receipts;

(o) Deferred Income from grant, subsidy, etc., as per Annual Accounts;

(p) Prior period income, etc.:

Provided that the interest/dividend earned from investments made out of Return on Equity corresponding to the Retail Supply Business of the Distribution Licensee shall not be included in Non-Tariff Income:

Provided further that any income earned by a Distribution Licensee by sale of power to other Distribution Licensees or to Consumers as per Section 49 of the Act using the existing power purchase agreements or bulk supply capacity allocated to the Distribution Licensee's Area of Supply shall be reduced from the Aggregate Revenue Requirement of the Distribution Licensee for the purpose of determination of tariff. Such reduction *shall be carried out in accordance with Joint Electricity Regulatory Commission for the State of Goa and Union Territories (Connectivity and Open Access in Intra-State Transmission and Distribution) Regulations, 2017, as amended from time to time."*

For APR of FY 2020-21, the Commission has considered the Non-Tariff Income as approved in true up of FY 2019-20 with an escalation of 5%. The same shall be verified with the audited accounts at the time of truing up.

The NTI approved in the ARR Order, the Petitioner's submission and now approved by the Commission is shown in the following table:

Table 70: Non-Tariff Income approved by the Commission for FY 2020-21 (INR Crore)

S. No	Particulars	Approved in ARR Order	Petitioner's Submission	Now Approved by Commission
1	**Non-Tariff Income**	**10.91**	**4.24**	**4.24**

The Commission now approves Non-Tariff Income of INR 4.24 Cr in the APR for FY 2020-21.

4.20. Aggregate Revenue Requirement (ARR)

Petitioner's submission

Based on the expenses as detailed above, the net aggregate revenue requirement of INR 1,056.46 Cr is submitted after adjusting the Non -Tariff Income and revenue from sale of surplus power for FY 2020-21.

Commission's Analysis

Based on the detailed analysis of the cost parameters of the ARR, the revenue requirements in the APR of FY 2020-21 are approved as follows:

Table 71: Aggregate Revenue Requirement approved by the Commission for FY 2020-21 (INR Crore)

S. No	Particulars	Approved in ARR Order	Petitioner's Submission	Now Approved by Commission
1	Power Purchase Cost	1243.59	953.12	966.61
2	Operation & Maintenance Expenses	46.24	44.93	49.03
3	Depreciation	21.96	22.47	22.48
4	Interest and Finance charges	11.66	11.97	12.11
5	Return on Equity	14.44	14.46	14.92
6	Interest on Security Deposit	4.24	4.68	4.68
7	Interest on Working Capital	16.46	9.07	9.54
8	Income Tax	0.00	0.00	0.00
9	Provision for Bad Debt	0.00	0.00	0.00
10	**Total Revenue Requirement**	**1358.60**	**1060.70**	**1079.37**
11	Less: Non-Tariff Income	10.91	4.24	4.24
12	Less: Revenue from sale of surplus power	0.00	0.00	0.00
13	**Net Revenue Requirement**	**1347.69**	**1056.46**	**1075.12**

The variation in Net Revenue Requirement is mainly because of Power Purchase Cost (PPC) considered by the Commission. Petitioner claimed PPC on the basis of six months actual cost data but Commission calculated the same on actual nine months data of FY 2020-21. Hence, the approach adopted by the Commission is more realistic.

The Commission approves the net ARR of INR 1,075.12 Cr in the APR of FY 2020-21.

4.21. Revenue at existing Retail Tariff

Petitioner's submission

Revenue from sale of power at existing tariff is estimated to be Rs. 1,055.91 Cr (inc. FPPCA of Rs 38.99 Cr) in FY 2020-21. The estimated revenue for FY 2020-21 is based on the six-month actual revenue at the exiting tariff approved by the Commission for FY 2020-21 in Tariff Order dated 20th May, 2019. The revenue for remaining six months of FY 2020-21 has been computed based on the retail tariff notified by the Commission in the Tariff Order for the FY 2020-21 dated 18th May, 2020.

Commission's Analysis

The category wise/ sub-category wise and slab-wise revenue at existing retail tariff is calculated as per the tariff rates applicable for FY 2020-21. The revenue from demand charges and the energy charges have been projected for each category/ sub-category and slab. The Commission has considered suitable assumptions wherever necessary. The revenue from category/ sub-category/ slab-wise revenue as computed by the Commission for FY 2020-21 have been shown in the following table.

Table 72: Revenue at existing tariff derived by the Commission for FY 2020-21 (INR Crore)

S. No	Category	Phase	Fixed Charges (INR Cr)	Energy charges (INR Cr)	Total (INR Cr)	ABR (INR/unit)
1	**DOMESTIC SUPPLY (DS)**		**1.48**	**29.98**	**31.47**	**2.26**
1	0-100 units	Single	0.38	5.22	5.60	1.46
2	101-200 units	Single	0.18	3.79	3.97	2.03
3	201-400 units	Single	0.27	3.56	3.84	2.61
4	401 and above units	Single	0.23	6.80	7.04	2.99
5	0-100 units	Three	0.15	0.98	1.13	1.57
6	101-200 units	Three	0.07	1.09	1.15	2.06
7	201-400 units	Three	0.11	1.61	1.72	2.58
8	401 and above units	Three	0.09	6.93	7.02	2.93
2	**Low Income Group**					
1	Low Income Group		**0.00**	**0.00**	**0.00**	**0.00**
3	**COMMERCIAL / NON-DOMESTIC**		**0.30**	**16.05**	**16.35**	**3.90**
1	0-100 units	Single	0.09	0.98	1.07	3.19
2	101 Units and Above	Single	0.09	4.30	4.39	4.04
3	0-100 units	Three	0.06	0.52	0.58	3.27
4	101 Units and Above	Three	0.06	10.26	10.32	3.98
4	**AGRICULTURAL**		**0.00**	**0.27**	**0.27**	**0.74**
1	For sanctioned load up to 10 HP		0.00	0.25	0.25	0.73
2	Beyond 10 HP and up to 99 HP sanctioned load		0.00	0.01	0.01	1.02
5	**LT INDUSTRY**		**5.97**	**74.47**	**80.45**	**4.52**
1	LT Industry		5.97	74.47	80.45	4.52
6	**INDUSTRY**		**187.79**	**716.81**	**904.60**	**5.28**
1	HT General		182.07	697.92	879.99	5.28

S. No	Category	Phase	Fixed Charges (INR Cr)	Energy charges (INR Cr)	Total (INR Cr)	ABR (INR/unit)
2	HT Industrial (Ferro)		5.72	18.89	24.62	5.38
7	**PUBLIC LIGHTING (PL)**		**0.00**	**2.68**	**2.68**	**4.42**
8	**PUBLIC WATER WORKS**		**0.03**	**1.05**	**1.08**	**4.12**
9	**TEMPORARY SUPPLY**		**0.00**	**0.00**	**0.00**	**0.00**
10	**Temporary Supply**		**0.00**	**0.00**	**0.00**	**0.00**
	TOTAL		**195.57**	**841.32**	**1036.89**	**4.97**

The Commission has derived revenue from sale of power at existing tariff as INR 1,036.89 Cr in the APR of FY 2020-21.

4.22. FPPCA

Petitioner's submission

The Petitioner submitted that as per direction given by the Commission in its Tariff Order dated 18th May, 2020, the fuel power purchase adjustment surcharge is being levied to the consumers. Further, the EDDD has considered the actual FPPCA for the second quarter billed to the consumers while arriving at the total revenue for the FY 2020-21 and has shown Rs 38.99 Cr as the FPPCA for FY 2020-21.

Commission's Analysis

The Commission has computed the revenue from FPPCA for FY 2020-21 considering FPPCA rate approved by the Commission for last quarter of FY 2019-20 and billed in first quarter of FY 2020-21 & FFPCA rate approved in first quarter of FY 2020-21 and billed in second quarter of FY 2020-21, the actual quarterly sales for the corresponding quarters and the K factor approved in the tariff order FY 2020-21. Further, due to unavailability of data, the Commission has not considered FPPCA for any other quarter.

The FPPCA rate approved by the Commission for FY 2020-21 is as follows:

Table 73: FPPCA Rate approved by the Commission (INR/kWh)

FY 2020-21	FPPCA Rate (INR/Unit)
Quarter 1 (April – June 2020)	0.72
Quarter 2 (July – September 2020)	0.43

The computation of revenue from FPPCA is provided below:

Table 74: Revenue from FPPCA approved by the Commission for FY 2020-21

Category	Sales (MUs)		K Factor	Revenue (INR Crore)		Total Rev from FPPPCA
	Q1	Q2		Q2	Q3	
Domestic	41.54	36.84	0.47	1.41	0.74	2.15

Category	Sales (MUs)		K Factor	Revenue (INR Crore)		Total Rev from FPPPCA
	Q1	Q2		Q2	Q3	
Commercial	9.34	10.02	0.81	0.54	0.35	0.89
LT Industry	28.36	45.96	0.93	1.90	1.84	3.74
HT/EHT Industry	252.68	432.53	1.05	19.10	19.53	38.63
Public Lighting	1.43	1.32	0.92	0.09	0.05	0.15
Public Water Works	0.63	0.62	0.85	0.04	0.02	0.06
Total	**333.99**	**527.28**		**23.10**	**22.53**	**45.63**

The Commission has derived revenue from FPPCA as INR 45.63 Cr in the APR of FY 2020-21.

4.23. Standalone Revenue Gap/Surplus

Petitioner's submission

Based on the ARR and the revenue from retail tariff, the standalone revenue gap of INR 0.55 Cr is observed in the APR for FY 2020-21.

Commission's Analysis

The Standalone Revenue Gap/(Surplus) approved in the ARR Order, as submitted by the Petitioner and now approved by the Commission is as follows:

Table 75: Standalone Revenue Gap/ (Surplus) at existing tariff approved by the Commission (INR Crore)

S. No	Particulars	Approved in ARR Order	Petitioner's submission	Now Approved
1	Net Revenue Requirement	1347.69	1056.46	1075.12
2	Revenue from Retail Sales at Existing Tariff	1316.16	1016.92	1036.89
3	Revenue from FPPCA	0.00	38.99	45.63
4	Total Revenue	**1316.16**	**1055.91**	**1082.52**
5	**Net Gap/(Surplus)**	**31.53**	**0.55**	**(7.40)**

The standalone surplus at existing retail tariff is INR 7.40 Cr in the APR of FY 2020-21. The estimated surplus is carried over to the next year and has been considered while determining the tariff for FY 2021-22.

5. Chapter 5: Determination of Aggregate Revenue Requirement for FY 2021-22

5.1. Background

The ARR for the FY 2021-22 was approved in the MYT Order dated 20th May, 2019, issued for the 2nd Control Period (the FY 2019-20 to the FY 2021-22). In this Chapter the Commission re-determines the Aggregate Revenue Requirement (ARR) for the FY 2021-22 based on truing up for FY 2019-20 and APR for FY 2020-21 in accordance with the provisions of JERC MYT Regulations, 2018.

5.2. Approach for determination of ARR for the FY 2021-22

This Chapter analyses the individual elements constituting the Aggregate Revenue Requirement for the FY 2021-22, approved in the MYT Order dated 20th May, 2019 and re-computes the same considering the actual information available of various parameters for the FY 2019-20 as per the audited accounts and the provisional information available as per APR of FY 2020-21. The revised ARR and revenue at existing tariff is determined for the FY 2021-22 to arrive at the revised revenue gap/surplus for the year.

5.3. Projection of Number of consumers, Connected Load and Energy Sales

Petitioner's Submission

The Petitioner submitted that the energy sales, connected load and number of consumers are projected for FY 2021-22 based on the historical trends observed in the last six years (the FY 2013-14 to the FY 2019-20) and the actual data for the first 6 months of the FY 2020-21.

The Petitioner further submitted that the factors affecting the actual consumption of electricity are numerous and often beyond the control of the utility including factors such as Government Policy, economic climate, weather conditions and force majeure events like natural disasters, etc. The Petitioner, therefore, for projecting the category-wise consumption for the FY 2021-22 has considered the past growth trends in each of the consumer category including growth trend in number of consumers and connected load.

Commission's Analysis

The Commission sought the details regarding basis and assumptions for projecting category-wise load growth, number of consumers and energy sales. In reply, the petitioner submitted that the category wise load growth & consumer growth for the FY 2021-22 have been considered on the basis of their growth in load for preceding 6 years. For projecting the category wise sales for the FY 2021-22, the EDDD has considered the growth in the sales for the preceding years and has also considered the CAGR, based on the growth witnessed in different categories the sale for the FY 2021-22 has been projected.

Since in APR of FY 2020-21, the sales projected by the Petitioner (2,102.14 MUs) and sales approved by the Commission (2,084.46 MU) are almost same, for FY 2021-22 the Commission has considered the same sales as projected by petitioner which is 2,598.61 MU.

The category-wise number of consumers and connected load were projected in Business Plan Order dated 31st October, 2018, that were based on the detailed analysis. The Commission at this stage has not revised the projections for number of consumers and connected load and has considered them the same as approved in the Business Plan Order.

The approved energy sales for each category are tabulated below:

Table 76: Energy Sales (MU)

Category	Approved in MYT Order	Petitioner's Submission	Now Approved by Commission
Domestic	151.49	163.72	163.72
LIG/Kutir Jyoti	0.10	0.00	0.00
Commercial	75.15	46.13	46.13
Agriculture	6.02	3.37	3.37
LT Industry	247.61	221.36	221.36
HT/EHT Industry	2,390.52	2,155.94	2,155.94
Public Lighting	12.73	5.64	5.64
Public Water Works	5.92	2.46	2.46
Temp. Supply	6.40	0.00	0.00
Total Sales	**2,895.94**	**2,598.61**	**2,598.61**

The Commission approves the energy sales of 2,598.61 MU in the ARR of the FY 2021-22.

5.4. Inter-State Transmission Loss

Petitioner's submission

The same Inter-State Transmission Loss of 3.66% is considered as approved in the MYT Order.

Commission's Analysis

The Commission has decided to continue with the loss trajectory as specified in the MYT Order for the FY 2021-22.

The table below provides the Inter-State Transmission Loss approved by the Commission.

Table 77: Inter-State transmission loss as approved by the Commission for FY 2021-22 (%)

S. No	Particulars	Approved in MYT Order	Petitioner's Submission	Now Approved
1	Inter-State transmission loss	3.66%	3.66%	3.66%

The Commission approves an Inter-State Transmission Loss of 3.66% in the ARR of the FY 2021-22.

5.5. Distribution Loss

Petitioner's submission

The Petitioner has submitted that it has achieved distribution loss level of 4.07% for the FY 2019-20. The Petitioner has further submitted that it will endeavor to bring the distribution loss level further down in the subsequent years. Accordingly, EDDD proposes to reduce the Distribution losses to 4.00% for FY 2021-22.

Commission's Analysis

As the distribution loss is a controllable factor, the Commission has approved the same distribution loss as approved for FY 2021-22 in the MYT Order. The Petitioner shall be allowed an incentive/disincentive in the true-up Order considering the actual distribution loss achieved by the Petitioner in the year.

The table below provides the Inter-State Distribution Loss approved by the Commission.

Table 78: Distribution loss as approved by the Commission for FY 2021-22 (%)

S. No	Particulars	Approved in MYT Order	Petitioner's Submission	Now Approved
1	Distribution loss	6.50%	4.00%	6.50%

The Commission approves the Distribution loss of 6.50% in the ARR of FY 2021-22.

5.6. *Energy Balance*

Petitioner's submission

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

Table 79: Energy Balance submitted by Petitioner for FY 2021-22 (MU)

S.No.	Particulars	Formulae	MU
(a)	Retail Sales		2,598.61
(b)	Open Access Sales		0.00
(c)	Less: Energy Savings		0.00
(d)	**Total Sales**	d = a+b-c	2,598.61
(e)	Distribution Loss	e = g-d	108.28
(f)	Distribution Loss (%)	f=e/g	4.00%
(g)	**Energy Required at Periphery**	g = d+e	**2,706.89**
(h)	Sale to common pool consumer/UI Sale		0.87
(i)	Own generation		60.00
(j)	**Total energy requirement at state periphery**	j=g+h-i	**2,647.75**
(k)	Less: Energy Purchased through UI at Periphery		0.00
(l)	Less: RE Purchase at Periphery		0.00
(m)	Less: Energy Purchased through IEX		0.00
(n)	**Energy requirement at state periphery from tied up sources**	n=j-k-l-m	**2,294.75**
(o)	Inter-state loss	o=q-n	**87.18**
(p)	Inter-state loss (%)	p = o/q	3.66%
(q)	**Energy requirement at state periphery from generator end**	q = n+o	2,381.93
(r)	**Total Energy requirement from tied up sources & UI at generator end**	r=q+k+i+m	**2,794.93**

Commission's Analysis

Based on the revised estimates of energy sales and Power purchase quantum, the Commission approves the following energy balance for FY 2021-22:

Table 80: Energy Balance approved by the Commission for FY 2021-22 (MU)

S. No	Particulars		Petitioner's Submission	Now Approved
(a)	Retail Sales		2598.61	2598.61
(b)	Open Access Sales		0.00	0.00
(c)	Less: Energy Savings		0.00	0.00
(d)	Total Sales	d = a+b-c	2598.61	2598.61

S. No	Particulars		Petitioner's Submission	Now Approved
(e)	Distribution Loss (MU)	e = g-d	108.28	180.65
(f)	Distribution Loss (%)	f=e/g	4.00%	6.50%
(g)	**Energy Required at Periphery**	g = d+e	**2706.89**	**2779.26**
(h)	Add: Sale to common pool consumer/UI Sale		0.87	0.00
(i)	Less: Own generation		60.00	60.00
(j)	Energy Required at UT Periphery	j=g+h-i	**2646.02**	**2719.26**
(k)	Less: Energy Purchased through UI at Periphery		0.00	0.00
(l)	Less: Energy Purchased through IEX		353.00	406.32
(m)	Less: Energy Purchased through Renewable Sources		0.00	0.00
(n)	**Energy requirement at state periphery from tied up sources**	n=j-k-l-m	**2294.76**	**2312.94**
(o)	Inter-state loss (MU)	o=q-n	87.18	87.87
(p)	Inter-state loss (%)	p = o/q	3.66%	3.66%
(q)	**Total requirement from Tied-up sources at generator end**	q = n+o	**2381.93**	**2400.81**
(r)	**Total requirement from Tied-up sources at generator end & UI/ Traders/ Banking within State**	r= q+ l+i	**2794.93**	**2867.13**
(s)	**Total availability from tied up sources at generator end (MU)**	s=r-l		**2460.81**
(t)	**Deficit/(surplus)**	t=r-s		**406.32**

The Commission approves the Total Energy Requirement at the State/UT Periphery for FY 2021-22 as shown in the table above. The Commission has estimated a deficit of 406.32 MUs for FY 2021-22 to be purchased from Open Market.

5.7. *Power Purchase Quantum & Cost*

Petitioner's Submission

For projecting the energy availability for the FY 2021-22 the firm and infirm allocation from various generating stations is considered. Detailed methodology for projecting the power availability to the Petitioner from various sources is summarized below.

Power Purchase Quantum

Daman & Diu has firm and infirm allocations in Central Sector Generating Stations of NTPC, Nuclear Power Corporation of India Ltd (NPCIL), NTPC Sail Power Company Ltd (NSPCL).

For projecting the power availability in FY 2021-22, the Petitioner has considered allocation specified in the notification No. WRPC/Comml-I/6/Alloc/2020 dated 15/10/2020 of Western Regional Power Committee. The energy allocation from various generating stations is summarized in table below:

Table 81: Energy Allocation as submitted by the Petitioner for FY 2021-22 (MW)

Name of Plant	Plant Capacity (MW)	Avg. DD Allocation (MW)	Avg. DD Allocation (%)
NTPC Stations			
KSTPP	2,100	48	2.30%
KSTPP-III	500	6	1.16%

Name of Plant	Plant Capacity (MW)	Avg. DD Allocation (MW)	Avg. DD Allocation (%)
VSTPP-I	1,260	13	1.02%
VSTPP-II	1,000	9	0.90%
VSTPP- III	1,000	11	1.10%
VSTPP- IV	1,000	12	1.23%
VSTPS-V	500	8	1.61%
KAWAS	656	31	4.73%
JGPP	657	31	4.77%
BHILAI UNIT-I &II(NTPC)	500	70	14.00%
SIPAT-I	1,980	25	1.24%
SIPAT-II	1,000	10	0.97%
MSTPS-I	1,000	12	1.23%
MOUDA-II	1,320	17	1.26%
SOLAPUR	1320	26	1.94%
LARA	800	10	1.29%
GADARWARA	800	14	1.78%
KHTPP	1320	23	1.76%
Subtotal	**18,714**	**376**	
Eastern Region			
KHSTPP-II	1,000	1.30	0.13%
Subtotal	**1,000**	**1.3**	
NPCIL			
KAPPS	440	9	1.86%
TAPP 3&4	1,080	12	1.15%
Subtotal	**1,520.00**	**21**	
Ratnagiri	582	38	6.53%
Subtotal	**582**	**38**	
Grand Total	**21,815.59**	**436**	

The availability of power from various sources has been considered as per the following methodology:

- Actual power purchase in first six months of FY 2020-21 has been considered while estimating the power availability during FY 2021-22.

- For projecting the power availability for FY 2021-22, EDDD has considered average allocation of firm and infirm power from the western region generation stations (NTPC and NPCIL) of Western Regional Power Committee. For projecting the power purchase from eastern region NTPC generating stations, an allocation of 1.30 MW from KhSTPP-II has been considered.

- Additionally, EDDD has 70 MW allocations from NSPCL Bhilai power stations. Energy availability from NSPCL Bhilai power stations for FY 2021-22 has been considered by taking 70 MW allocation from the plant.

- Power purchase quantum from the NTPC stations for FY 2021-22 has been calculated based on the installed capacity of each plant and by applying the average PLF as approved by the Commission vide its Order for the Business Plan for the MYT Control Period dated 31st October, 2018 to calculate the plant-wise gross generation.

- For gas based generating stations i.e. Kawas (KGPP) and Gandhar (GGPP) the average PLF as approved by the Commission vide. its Business Plan Order for the MYT Control Period dated 31st October, 2018 has been considered.

- Auxiliary consumption of 7.75% and 2.50% has been considered for estimating the net-generation from coal and gas based generating stations respectively.

- The NTPC stations have been subjected to merit order dispatch and accordingly the power purchase quantum and variable cost has been projected. However, the fixed charges have been considered for full allocation.

- For FY 2021-22, the EDDD has considered purchase of non-solar renewable energy certificates RPO target through this route.

- The EDDD has an installed capacity of 14.363 MW of solar plants which include 10 MW ground mounted plants and remaining 4.363 MW of rooftop solar plants. It is expected that an additional 27 MW of rooftop solar plant will be added to the existing capacity during the FY 2020-21. EDDD will procure 60 MUs during the FY 2021-22.

The following table depicts the station wise power purchase quantum as submitted by the Petitioner for the FY 2021-22:

Table 82: Station wise power purchase submitted by Petitioner for FY 2021-22 (MU)

Source	Values
KSTPP	347
KSTPP-III	42
VSTPP-I	86
VSTPP-II	60
VSTPP- III	73
VSTPP- IV	82
VSTPS-V	54
KAWAS	82
JGPP	96
Sipat-I	175
Sipat-II	69
MSTPS-I	42
MOUDA-II	57
KHSTPP-II	8
KHS1/FST1	0
RSTPS	0
SOLAPUR	126
LARA	70
GADARWARA	96
KHTPP	157
Subtotal	**1,722**
NTPC Bhilai	
Bhilai Unit-I &II(NTPC)	470
Subtotal	**470**
NPCIL	
KAPPS	47
TAPP 3&4	79
KAPPS (III & IV)	0

Source	Values
Subtotal	**125**
Others	
Ratnagiri	65
Subtotal	**65**
Power purchase from Other Sources	
Power purchase from Indian E. Exchange	353
UI	0
Solar	60
Non Solar (Hydro)	0
Solar REC	0
Non Solar REC	0
Solar (SECI, NTPC)	0
Subtotal	**413**
Total Power Purchase	**2,794.93**

Power Purchase Cost:

The cost of purchase from the central generating stations for FY 2021-22 has been estimated based on the following assumptions:

- Fixed cost for NTPC for the FY 2021-22 has been estimated by considering an escalation of 5% at the fixed cost estimated for FY 2020-21.
- Variable cost for each NTPC generating stations for the FY 2021-22 has been projected at the same rate as received during the first six months of FY 2020-21.
- For nuclear plants i.e. KAPP and TAPP single part tariff, the actual average variable cost per unit has been considered at the same rate as received during the first six months of FY 2020-21 for projecting the power purchase cost for the FY 2021-22.
- For power purchase from renewable energy sources, the EDDD has considered the purchase of solar energy certificate at INR 1.00 per unit. For the non-solar power, the EDDD has considered the purchase of non-solar energy certificate at INR 1.00 per unit.
- The average power purchase cost for procurement of power from the energy exchange has been considered at Rs. 2.50/unit.

The Total Power Purchase cost from various sources for the FY 2021-22 is summarized in the Table below:

Table 83: Power Purchase quantum and Cost submitted by Petitioner for FY 2021-22

Source	Units Purchased (MU)	Fixed Charges (INR Cr)	Variable Charges (INR Cr)	All Charges Total (INR Cr)	Per Unit Cost (INR/ kWh)
NTPC Stations					
KSTPP	347	23.46	52.85	76.31	2.20
KSTPP-III	42	5.64	6.28	11.92	2.87
VSTPP-I	86	6.67	15.21	21.89	2.53
VSTPP-II	60	3.93	10.29	14.22	2.37
VSTPP- III	73	7.48	12.61	20.08	2.73
VSTPP- IV	82	13.30	13.69	26.99	3.28
VSTPS-V	54	9.08	9.41	18.49	3.42
KAWAS	82	19.46	16.45	35.91	4.37
JGPP	96	25.00	19.62	44.62	4.63
Sipat-I	175	22.01	27.90	49.91	2.86

Source	Units Purchased (MU)	Fixed Charges (INR Cr)	Variable Charges (INR Cr)	All Charges Total (INR Cr)	Per Unit Cost (INR/ kWh)
Sipat-II	69	8.12	11.36	19.48	2.84
MSTPS-I	42	16.20	12.10	28.30	6.80
MOUDA-II	57	17.42	16.61	34.03	6.02
KHSTPP-II	8	1.24	2.08	3.32	4.11
KHS1/FST1	0	0.00	0.00	0.00	0.00
RSTPS	0	0.00	0.00	0.00	0.00
SOLAPUR	126	31.41	36.36	67.77	5.37
LARA	70	14.04	14.62	28.67	4.11
GADARWARA	96	20.16	24.40	44.56	4.63
KHTPP	157	29.68	67.85	97.54	6.21
Subtotal	**1,722**	**274.32**	**369.69**	**644.01**	3.74
NTPC Bhilai					0.00
Bhilai Unit-I &II(NTPC)	470	84.80	121.80	206.60	4.40
Subtotal	**470**	**84.80**	**121.80**	**206.60**	4.40
NPCIL					0.00
KAPPS	47	0.00	10.80	10.80	2.32
TAPP 3&4	79	0.00	26.64	26.64	3.39
KAPPS (III & IV)	0	0.00	0.00	0.00	0.00
Subtotal	**125.10**	**0.00**	**37.44**	**37.44**	2.99
Others					0.00
Ratnagiri	65	15.85	21.21	37.06	5.70
Subtotal	**65**	**15.85**	**21.21**	**37.06**	5.70
Power purchase from Other Sources					0.00
Power purchase from Indian E. Exchange	353	0.00	88.25	88.25	2.50
UI	0	0.00	0.00	0.00	0.00
Solar	60	0.00	0.00	0.00	0.00
Non Solar (Hydro)	0	0.00	0.00	0.00	0.00
Solar REC	0	0.00	14.79	14.79	0.00
Non Solar REC	0	0.00	23.39	23.39	0.00
Solar (SECI, NTPC)	0	0.00	0.00	0.00	0.00
Subtotal	**413.00**	**0.00**	**126.43**	**126.43**	3.06
Misc. Arrears				0.00	0.00
NTPC Rebate				0.00	0.00
Gross Power Purchase Cost	**2,794.93**	**374.96**	**676.57**	**1,051.53**	3.76

Transmission Charges

Transmission charges payable to PGCIL are based on the total capacity allocation in the transmission network. EDDD has a mix of firm and infirm capacity allocations from various Central Generating Stations which is revised by the Ministry of Power at regular intervals. Further, EDDD has considered the additional capacity share in the new stations while estimating the Inter-State transmission charges for ensuing year. For projecting the PGCIL transmission charges, WRLDC & MSETCL charges for the FY 2021-22, the Petitioner has considered the transmission charges as estimated for FY 2020-21.

Table 84: Transmission charges submitted by Petitioner for FY 2021-22

Particulars	Charges (INR Cr)
Power Purchase Cost	**1,051.53**
PGCIL CHARGES	76.82
WRLDC	0.21
MSETCL	3.50
Total Power Purchase Cost	**1,132.06**

Commission's Analysis

The Commission for the purpose of estimating the quantum and cost of power purchase for FY 2021-22 has relied on the station wise actual month-wise energy availability for FY 2017-18, FY 2018-19 & FY 2019-20, provisional energy availability for first nine months of FY 2020-21, actual Plant availability factor (PAF) and Plant Load Factor (PLF) for previous years for each station, allocated share to the Petitioner and norms and cost approved in Tariff Orders for Central Generating Stations by CERC.

Accordingly, the source wise methodology followed for projection of quantum and cost of power procurement has been detailed as follows:

5.7.1. Availability of power

Availability of power from NTPC & NTPC-SAIL Bhilai:

- The power purchase quantum from NTPC stations and NSPCL has been estimated based on the average of quantum of energy availed during the last 3 years, i.e., FY 2018-19, FY 2019-20 and FY 2020-21.
- For KHTPP, Gadarwara, Lara & Solapur power plants, energy availability is considered same as submitted by the petitioner, due to irregular scheduling of power in last three financial years.

Availability from NPCIL plants:

- For nuclear plants, i.e., KAPP and TAPP, energy availability has been estimated based on the average of quantum of energy availed during last 3 years, i.e., FY 2018-19, FY 2019-20 and FY 2020-21.

Availability from RGPPL Plant:

- For RGPPL plant, energy availability has been estimated based on the average of quantum of energy availed during last 3 years, i.e., FY 2018-19, FY 2019-20 and FY 2020-21.

Availability of power from Open Market

- The energy deficit for the FY 2021-22, as discussed in the section of "*Energy Balance*" has been assumed to be procured from open market.
- No power has been projected under UI for the FY 2021-22.

Availability of power from solar power plant

- The Commission sought status and details of the Petitioner's own generating stations as the energy availability from own generation is projected to increase substantially to 60.00 MU as against 17.78 MU approved in MYT Order. In this regard, the petitioner submitted that they have notified Renewable Energy Policy and according to its first amendment all the existing as well as upcoming HT/EHT industrial consumers have to install rooftop solar plants having capacity of 5% of their contracted demand. Accordingly, 27 MW of additional capacity of rooftop solar plants shall be added to the present capacity by March, 2022. Therefore, it is estimated that during the FY 2021-22, 60 MUs shall be generated from rooftop solar plants.
- The Commission considers the reply of the petitioner and approves 60 MUs generated from own/rooftop solar plants in projections of total power purchase quantum for FY 2021-22.

5.7.2. Power Purchase Cost

Variable Charges:

- The per unit variable costs for various power stations and Open Market have been computed by considering an escalation of 5% on the actual per unit variable cost during the first nine months of FY 2020-21.

Fixed Charges:

- The fixed costs have been determined based on the Tariff Orders issued by CERC for respective Central Generating Stations. The fixed costs approved in FY 2020-21 have been escalated by 2% to arrive at fixed costs of FY 2021-22.
- The Fixed cost has been apportioned on the basis of EDDD's share in each station and average annual plant availability factor achieved during the last five years by the plant.

Other Charges:

- The petitioner has not claimed any other charges in relation to the Power Purchase Cost. Since, such claims have not been made by the petitioner, no other charges have been considered and the same shall be considered as per actuals during the True-up of FY 2021-22.

5.7.3. Transmission Charges

The Commission has projected the transmission charges payable to PGCIL, WRLDC & MSETCL based on the charges determined for APR of FY 2020-21 without any escalation.

5.7.4. Total power purchase quantum and cost

The energy availability and the power purchase cost approved by the Commission for FY 2021-22 is shown in the following table:

Table 85: Power Purchase Quantum and Cost Approved by the Commission for FY 2021-22

Source	Units Purchased at generator periphery (MU)	Fixed Charges (INR Cr)	Variable Charges (INR Cr)	Total Charges (INR Cr)	Per Unit Cost (INR/kWh)
NTPC					
KSTPS	350.41	23.47	56.75	80.22	2.29
KSTPS 3	42.64	5.77	7.53	13.30	3.12
VSTPP-I	87.04	7.64	15.90	23.55	2.71
VSTPP-II	61.08	4.46	10.63	15.09	2.47
VSTPP- III	80.57	8.23	14.29	22.51	2.79
VSTPP- IV	89.04	13.82	15.45	29.26	3.29
KGPP	90.63	19.63	18.20	37.84	4.17
GGPP	64.47	24.56	13.77	38.32	5.94
Sipat-I	173.61	23.09	28.32	51.41	2.96
Sipat-II	69.09	8.58	11.55	20.14	2.91
Mouda	70.63	16.44	20.52	36.96	5.23
VSTPS-V	58.58	9.58	10.63	20.22	3.45

Source	Units Purchased at generator periphery (MU)	Fixed Charges (INR Cr)	Variable Charges (INR Cr)	Total Charges (INR Cr)	Per Unit Cost (INR/kWh)
Mouda 2	86.90	16.95	26.50	43.45	5.00
SLP	126.10	23.06	38.33	61.38	4.87
KHSTPP-II	12.43	1.52	2.71	4.24	3.41
Lara	69.81	23.87	15.50	39.37	5.64
Gadarwara	96.33	14.82	26.04	40.86	4.24
KHTPP	157.13	28.84	51.90	80.74	5.14
Subtotal - NTPC	**1786.48**	**274.33**	**384.53**	**658.86**	**3.69**
NSPCL Bhillai	**423.46**	**83.30**	**115.48**	**198.78**	**4.69**
NPCIL					
KAPS	44.98	0.00	10.93	10.93	2.43
TAPS	87.94	0.00	31.31	31.31	3.56
Subtotal	**132.92**	**0.00**	**42.24**	**42.24**	**3.18**
Others					
RGPPL	57.95	15.39	20.31	35.70	6.16
Subtotal	**57.95**	**15.39**	**20.31**	**35.70**	**6.16**
UI withdrawal	0.00		0.00	0.00	
Open Market purchase	406.32		125.07	125.07	3.08
Renewable Purchase					
Solar-Own Generation	60.00	-	-	-	-
Non Solar-Hydro	0.00		0.00	0.00	-
Solar -SECI	0.00		0.00	0.00	-
Solar REC*			14.49	14.49	
Non-Solar REC*			23.39	23.39	
Subtotal	**60.00**		**37.87**	**37.87**	
Total Power Purchase	**2,867.13**	**373.02**	**725.51**	**1,098.53**	**3.83**
Transmission Charges					
PGCIL Charges				76.82	
Other Charges				3.71	
Subtotal				**80.53**	
Total	**2,867.13**			**1,179.06**	**4.11**

* Cost for RPO is approved in Section 5.8

The Commission approves the quantum of power purchase as 2,867.13 MU at the generator periphery with a total cost of INR 1,179.06 Cr for FY 2021-22.

The APPC has been computed at the UT Periphery excluding the transmission charges and cost of purchase of renewable energy. The same shall be used for the purpose of compensation / payment of surplus power at the end of each settlement period in case of Net-metering consumers by the Petitioner. The Average Power Purchase Cost (APPC) for FY 2021-22 has been determined as provided in the following table:

Table 86: Average Power Purchase Cost (APPC) approved for FY 2021-22

Particulars	Value
Total Power Purchase Cost (Rs Cr)	1179.06
Less: Transmission charges and Power Purchase cost from renewable energy sources (Rs Cr)	118.40
Net Power Purchase Cost (Rs Cr)	1060.65
Total Power Purchase quantum (MU)	2779.26
Less: Quantum from renewable energy sources (MU)	60.00
Quantum of energy at State Periphery excluding from renewable energy sources (MU)	2719.26
APPC (Rs/kwh)	**3.90**

The Commission approves the Average Power Purchase Cost (APPC) as INR 3.90/ kWh for the FY 2021-22.

5.8. Renewable Purchase Obligation (RPO)

Petitioner's submission

The petitioner submitted that the total installed solar capacity in the UT of Daman and Diu is 14.363 MW out of which 10 MW is ground mounted and the remaining 4.363 MW is solar rooftop plants. It is expected that an additional 27 MW of rooftop solar plant will be added to the existing capacity during the 2020-21. Hence, EDDD will procure 60 MUs during the FY 2021-22. The remaining solar RPO obligation will be fulfilled by procuring renewable energy certificates. For meeting the non-solar RPOs the EDDD will procure renewable energy certificates during FY 2021-22.
The RPO requirement for FY 2021-22 as submitted by the Petitioner has been provided in the following table:

Table 87: RPO Plan proposed by the Petitioner for FY 2021-22 (MU)

Particular	Particulars
Sales within State (MU)	**2,598.61**
RPO obligation (%)	**17.00%**
Solar	8.00%
Non-Solar	9.00%
RPO obligation for the year (MU)	**441.76**
Solar	207.89
Non-Solar	233.87
RPO Compliance (Procurement and own generation)	**60.00**
Solar	60.00
Non-Solar	0.00
RPO Compliance (REC certificate purchase)	**233.87**
Solar	0.00
Non-Solar	233.87

Commission's Analysis

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

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

The Commission notified the JERC (Procurement of Renewable Energy), (Third Amendment) Regulations, 2016 on 22nd August 2016 and approved the revised RPO targets, as per which the Petitioner has to purchase 17.00% of its total consumption (including 8.00% from Solar) from renewable sources for the FY 2021-22.

The Commission observes that the Petitioner is not meeting its Solar/ Non Solar obligations and is relying on the REC purchases to meet its Non-Solar purchase obligations entirely. The Commission expects the Petitioner to make all efforts to increase procurement of power from Solar & Non-Solar sources.

In accordance with the JERC for the State of Goa and UTs (Procurement of Renewable Energy) Regulations, 2010, the Commission has determined the following Renewable Purchase Obligation for the Petitioner for the FY 2021-22:

Table 88: RPO targets and compliance plan approved by the Commission for FY 2021-22 (MU)

S. No.	Description	Formulae	Particulars
A	Solar Target		8.00%
B	Non-Solar Target		9.00%
C	**Total RPO Target**	**C=A+B**	**17.00%**
D	**Sales Within UT**		**2,598.61**
E	**RPO Obligation for the year**	**E=F+G**	**441.76**
F	Solar	F=D*A	207.89
G	Non-Solar	G=D*B	233.87
H	**Physical RE Purchase**	**H=I+J**	**60.00**
I	Solar		60.00
J	Non-Solar		0.00
K	**REC Purchase**	**K=L+M**	**378.74**
L	Solar		144.87
M	Non-Solar		233.87
N	**Total RPO Compliance for FY 2021-22 (REC+ Physical RE)**	**N=O+P**	**438.74**
O	Solar	O=I+L	204.87
P	Non-Solar	P=J+M	233.87
Q	**Standalone shortfall/(surplus) for FY 2021-22**	**Q=R+S**	**0.00**
R	- Solar	R=F-O	0.00
S	- Non-Solar	S=G-P	0.00
T	**Backlog upto FY 2020-21**	**T=U+V**	**556.07**
U	- Solar		299.15
V	- Non-Solar		256.92

S. No.	Description	Formulae	Particulars
W	**Total Shortfall/(surplus in RPO Compliance for FY 2021-22**	**W=X+Y**	**556.07**
X	Solar	X=R+U	299.15
Y	Non-Solar	Y=S+V	256.92

Similar to the approach followed in the APR of FY 2020-21, the Commission has considered the gross energy generated from Solar rooftop plants while approving the RPO compliance for the year.

In the last Tariff Order, the Commission had approved cost against total RPO shortfall till FY 2020-21 but as per the actual data submitted by the petitioner for FY 2019-20 and FY 2020-21 till Jan 2021, petitioner purchased very less quantity of Non-Solar RECs and Nil quantity of Solar REC. Secondly for FY 2021-22, petitioner has claimed power purchase cost of RE certificates for standalone gap only.

Accordingly, the Commission has considered the standalone shortfall of FY 2021-22 to be fulfilled by way of REC purchase and has assumed the rate of purchase for Non-Solar REC as INR 1.00/kWh (Capping Price). The same shall be trued-up on actual basis during the True-up. Further, the **Commission directs the petitioner to fulfill the RPO obligation in future years by either purchasing power from Renewable energy sources or by purchasing RECs.**

The cost of REC purchase has already been considered in the total power purchase cost approved by the Commission for FY 2021-22 as shown in the previous section. The compliance and cost towards RPO for FY 2021-22 as approved by the Commission is provided in the following table:

Table 89: Cost towards standalone compliance & Net Shortfall of RPO approved by the Commission for FY 2021-22 (INR Crore)

S. No	Description	RPO (MU)	Total Cost (INR Cr)	Avg. Rate (INR/kWh)
1	**Solar (Own)**	60.00	0.00	0.00
2	**Non-Solar (Standalone for FY 2021-22)**	0.00	0.00	0.00
3	**Solar REC's**	144.87	14.49	1.00
4	**Non Solar REC's**	233.87	23.39	1.00
	Total	**438.74**	**37.87**	

The Commission approves INR 37.87 Cr towards compliance of RPO in the ARR of FY 2021-22.

5.9. *Operation & Maintenance Expenses*

The Operation & Maintenance Expenses comprise of the Employee Expenses, Administrative and General Expenses (A&G) and the Repair & Maintenance Expenses (R&M).

Regulation 51 of the JERC MYT Regulation, 2018 states the following:

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

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

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

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

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

c) Repairs and Maintenance expenses.

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

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

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

Where,

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

5.9.1. Employee Expenses

Petitioner's submission

The employee expenses comprise of basic salary, dearness allowances, medical cost, leave travel allowances, honorarium, etc. No cost related to leave salary contribution and pension of the employee has been projected the Petitioner and the Commission has been requested to consider the same at the time of True-up on actual basis.
Employee expenses have been estimated on normative basis, in accordance with the JERC MYT Regulations 2018, and the methodology prescribed by the Commission in the MYT Order by considering the average CPI for last 3 years as 5.35%.

The table below provides the employee expenses projected for FY 2021-22 by the Petitioner:

Table 90: Employee Expenses submitted by Petitioner for FY 2021-22 (INR Crore)

Particular	Value
Employee Expenses	**17.83**

Commission's Analysis

The Regulation 6 of the JERC MYT Regulations, 2018 stipulates the following:

"6. Values for Base Year

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

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

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

Regulation 6 provides that the Commission may change the values for Base Year considering the actual figures from audited accounts. As the Commission in this Order has carried out the truing up for FY 2019-20 based on audited accounts, the Commission has considered the trued-up employee expenses for FY 2019-20 as base expenses and applied the CPI Inflation for approving the revised employee expenses for FY 2021-22.

The CPI Inflation has been computed as follows:

Table 91: Computation of CPI Inflation (%)

FY	Average of (Apr-Mar)	Increase in CPI Index	Average increase in CPI indices over 3 years
2017-18	284.58	3.14%	
2018-19	299.92	5.39%	
2019-20	322.50	7.53%	
		CPI Inflation	**5.35%**

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

Table 92: Employee Expenses approved by the Commission for FY 2021-22 (INR Crore)

S. No	Particulars	Employee Expenses for FY 2019-20	Base Year (FY 2020-21) (EMPn-1)	For FY 2021-22
1	Employee Expenses		16.07	16.99
2	Growth in number of employees (Gn)		0.37%	0.74%
3	CPI Inflation for preceding three years (CPI)		5.35%	5.35%
	Employee Expenses (EMPn) = (EMPn-1) x (1+Gn) x (1+CPI inflation)	**16.07**	**16.99**	**18.03**

The Commission approves Employee Expenses of INR 18.03 Cr FY 2021-22.

5.9.2. Administrative and General (A&G) Expenses

Petitioner's submission

The Petitioner has determined the A&G expenses for FY 2021-22 based on the norms specified in the JERC MYT Regulations, 2018. The A&G expenses for FY 2019-20 have been taken as base. The average increase in Consumer Price Index (CPI) has been considered same as taken while projecting the employee expenses. The table below provides the A&G expenses projected for FY 2021-22 by the Petitioner.

Table 93: A&G submitted by Petitioner (INR Crore)

Particular	Value
Projected A&G expenses	**11.56**

<u>Commission's Analysis</u>

Similar to the methodology followed while estimating the employee expenses, the Commission has considered the trued-up A&G expenses for FY 2019-20 as Base Year expenses and escalated the same with CPI Inflation for approving the revised trajectory of A&G expenses for FY 2021-22. The A&G expenses approved by the Commission for FY 2021-22 have been provided in the following table:

Table 94: A&G Expenses approved by the Commission for FY 2021-22 (INR Crore)

S. No	Particulars	For FY 2019-20	Base Year (FY 2020-21) (A&Gn-1)	For FY 2021-22
1	A&G Expenses		10.41	10.97
2	CPI Inflation		5.35%	5.35%
3	**A&G Expenses A&Gn = (A&Gn-1) x (1+CPI inflation)**	**10.41**	**10.97**	**11.56**

The Commission approves the Administrative & General (A&G) expenses of INR 11.56 Cr for FY 2021-22.

5.9.3. Repair & Maintenance Expenses (R&M)

Petitioner's submission

The Petitioner has determined the R&M expenses based on the norms specified in the JERC MYT Regulations, 2018. The average increase in Wholesale Price Index (WPI) has been calculated based on the increase in the Wholesale Price Index (WPI) for FY 2017-18, FY 2018-19 & FY 2019-20 as 2.96%. The table below provides the R&M expenses proposed for FY 2021-22:

Table 95: R&M expenses submitted by Petitioner (INR Crore)

Particular	FY 2021-22
Projected R&M Expenses	**18.07**

Commission's Analysis

Regulation 51.4 of the JERC MYT Regulation, 2018 states as shown below:

"……..'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;……"

As provided in clause 51.4 of the JERC MYT Regulations, 2018 the Commissions has considered the value of 'K' factor as 3.26% which was approved by the Commission in MYT order dated 20th May 2019, for FY 2021-22.

The WPI Inflation has been computed as follows:

Table 96: Computation of WPI Inflation (%)

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

The R&M expenses approved by the Commission for FY 2021-22 have been provided in the following table:

Table 97: R&M Expenses approved by the Commission for FY 2021-22 (INR Crore)

S. No	Particulars	Value
1	GFA of the previous year (GFA_{n-1})	665.69
2	K factor approved (K)	3.26%
3	WPI Inflation	2.96%
	R&M Expenses = (K x (GFA_{n-1}) x (1+$WPI_{inflation}$)	**22.34**

The Commission approves the Repair & Maintenance expenses of INR 22.34 Cr for FY 2021-22.

5.9.4. Total Operation and Maintenance Expenses (O&M)

The following table provides the total O&M expenses approved by the Commission for FY 2021-22.

Table 98: O&M Expenses approved by the Commission for FY 2021-22 (INR Crore)

S. No	Particulars	Approved in MYT Order	Petitioner's Submission	Now Approved
1	Employee Expenses	19.36	17.83	18.03
2	Administrative & General Expenses (A&G)	7.76	11.56	11.56
3	Repair & Maintenance Expenses	22.03	18.07	22.34
4	**Total Operation & Maintenance Expenses**	**49.15**	**47.46**	**51.93**

The Commission considered the trued-up O&M Expenses as approved for FY 2019-20 and escalate the same with inflation indices (WPI & CPI) and other factors like employee growth rate (Gn) and K factor. There is a little difference in K factor and Gn values as calculated by the petitioner due to which Commission approved value are slightly higher than that of the Petitioner.

The Commission approves the Operation & Maintenance (R&M) expenses of INR 51.93 Cr for FY 2021-22.

5.10. Gross Fixed Assets (GFA) and Capitalisation

Petitioner's submission

The Petitioner has requested the Commission to approve the capital expenditure and capitalization as given in the following Table:

Table 99: Capital Expenditure and Capitalisation proposed by the Petitioner

S. No.	Particulars	Total Scheme Amount
1	Capital Expenditure	19.60
2	Capitalisation	49.00

Commission's Analysis

The Commission with regard to the capital expenditure and capitalisation proposed to be undertaken during the year, directed the Petitioner to submit the scheme wise Detailed Project Reports (DPR) and the copy of the Technical Sanctions accorded to each scheme. The Petitioner in response, submitted the supporting documents w.r.t the scheme wise capital expenditure and capitalisation along with the copy of the technical sanctions. Against an approved capital expenditure and capitalisation of INR 19.60 Cr and INR 49.00 Cr respectively in the MYT Order, the Petitioner has envisaged same capital expenditure and capitalisation. Based on the details submitted by the Petitioner, the Commission at this stage approves the Capital Expenditure and Capitalisation proposed by the Petitioner, which shall be subject to truing up based on actuals.

Table 100: Capital Expenditure and Capitalisation approved by the Commission for FY 2021-22 (INR Crore)

S. No	Particulars	Approved in MYT Order	Petitioner's Submission	Now Approved by Commission
1	Capital Expenditure	19.60	19.60	19.60
2	Capitalisation	49.60	49.00	49.00

The Commission approves capital expenditure of INR 19.60 Cr and capitalisation of INR 49.00 Cr in the ARR of the FY 2021-22

5.10.1. Analysis of GFA and Capitalisation for the Control Period (FY 2019-20 to FY 2021-22)

As per MYT order dated 20th May 2019, the Commission approved the total capital expenditure and total capitalisation of Rs. 123.25 Cr respectively for the control period FY 2019-20 to FY 2021-22. The value of capital expenditure and capitalization for FY 2020-21 has been revised during issuance of Tariff Order for ARR of FY 2020-21 dated 18th May, 2020. Accordingly, total capital expenditure and total capitalization revised to Rs. 165.15 Cr and Rs. 97.15 Cr respectively for the control period.

In this Tariff Order, the Commission approved a total capital expenditure of Rs. 142.1 Cr which is within the limit decided by the Commission in the earlier order and total capitalisation of Rs. 107.24 Cr is exceeded marginally for control period from FY 2019-20 to FY 2021-22. The numbers will be further revised during True-Up of FY 2020-21 and FY 2021-22 based on actuals.

5.11. Capital Structure

Petitioner's Submission

The Petitioner, as per the revised submission, submitted that capitalisation of Rs 49.00 Cr shall be undertaken in FY 2021-22. Further, the entire capital deployment at the ED DD shall be through equity.

<u>Commission's Analysis</u>

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

"26. Debt to Equity Ratio

26.1 In case of Existing Projects, debt to equity ratio allowed by the Commission for determination of tariff for the period ending March 31, 2018 shall be considered:

Provided that in case of retirement or replacement or De-capitalisation of the assets, the equity capital approved as mentioned above, shall be reduced to the extent of 30% (or actual equity component based on documentary evidence, if it is lower than 30%) of the original cost of such assets:

Provided further that in case of retirement or replacement or De-capitalisation of the assets, the debt capital approved as mentioned above, shall be reduced to the extent of outstanding debt component based on documentary evidence, or the normative loan component, as the case may be, of the original cost of such assets.

26.2 For New Projects, the debt-equity ratio as on the Date of Commercial Operation shall be 70:30 of the amount of capital cost approved by the Commission under Regulation 23, after prudence check for determination of tariff:

Provided that where equity actually deployed is less than 30% of the capital cost of the capitalised asset, the actual equity shall be considered for determination of tariff:

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

Provided also that the Licensee shall submit documentary evidence for the actual deployment of equity and explain the source of funds for the equity:

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

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

26.3 Any expenditure incurred or projected to be incurred on or after April 1, 2019, as may be admitted by the Commission, as additional capital expenditure for determination of tariff, and renovation and modernisation expenditure for life extension shall be serviced in the manner specified in this Regulation."

In accordance with above, since the Petitioner has submitted that the entire capitalisation is funded through equity, thus equity higher than 30% of capitalisation has been considered as normative loan. The opening Gross Fixed Assets for FY 2021-22 has been considered as the closing Gross Fixed Assets approved in the APR of FY 2020-21. Further, the values of opening loan and equity has been considered as closing loan and equity approved in APR of FY 2020-21. The loan and equity additions have been considered on normative basis as 70% and 30% respectively of the approved capitalization for the year. In accordance with the JERC MYT Regulations, 2018, the Commission has determined the Capital Structure for the FY 2021-22 as detailed as follows:

Table 101: GFA addition approved by the Commission for FY 2021-22 (INR Crore)

S. No	Particulars	Approved in MYT Order	Petitioner's Submission	Now Approved by Commission
1	Opening Gross Fixed Assets	673.21	665.69	665.69
2	Addition During FY	49.60	49.60	49.60
3	Adjustment/Retirement During FY	0.00	0.00	0.00
4	Closing Gross Fixed Assets	722.81	715.29	715.29

Table 102: Normative Loan addition approved by the Commission for FY 2021-22 (INR Crore)

S. No	Particulars	Approved in MYT Order	Petitioner's Submission	Now Approved by Commission
1	Opening Normative Loan	147.94	138.90	140.53
2	Add: Normative Loan During the year	34.72	34.72	34.30
3	Less: Normative Repayment equivalent to Depreciation	23.86	24.04	24.05
4	Closing Normative Loan	158.80	149.58	150.71

Table 103: Normative Equity addition approved by the Commission for FY 2021-22 (INR Crore)

S. No	Particulars	Approved in MYT Order	Petitioner's Submission	Now Approved by Commission
1	Opening Equity	104.07	98.67	101.65
2	Additions on account of new capitalisation	14.88	14.88	14.70
3	Closing Equity	118.95	113.55	116.35

5.12. Depreciation

Petitioner's Submission

The Petitioner has determined the depreciation on normative basis while considering the depreciation rate as per JERC MYT Regulations, 2018.

The following table provides the depreciation for FY 2021-22 as submitted by the Petitioner.

Table 104: Depreciation as submitted by the Petitioner for FY 2021-22 (INR Crore)

S. No.	Particulars	Value
1	Opening GFA	665.69
2	Additions	49.60
3	Closing GFA	715.29
4	Average GFA	690.49
5	Depreciation Amount	24.04

Commission's Analysis

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

"30. Depreciation

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Table 105: Depreciation Rate (%)

Description	Rate
Plant & Machinery	3.60%
Buildings	1.80%
Vehicles	18.00%
Furniture & Fixtures	6.00%

Description	Rate
Computers & Others	6.00%
Land	0.00%

The opening and closing GFA has been considered as approved in the *Section "5.11: Capital Structure"* of this Order, adjusted by value of assets that have achieved 90% depreciation. Further, depreciation for each year has been computed on average Gross Fixed Assets (GFA) after considering the net addition proposed during each year. The overall depreciation rate is considered as the weighted average depreciation rate calculated based on the asset wise depreciation rates and asset classification as per the true-up of FY 2019-20.

The following table provides the calculation of deprecation approved for FY 2021-22.

Table 106: Depreciation approved by the Commission for FY 2021-22 (INR Crore)

S. No	Particulars	Approved in MYT Order	Petitioner's Submission	Now Approved by Commission
1	Opening GFA (a)	673.21	665.69	665.69
2	Less: Assets depreciated upto 90% (b)	0.00	0.00	0.00
3	Revised opening Gross Fixed Assets (a-b)	673.21	665.69	665.69
4	Addition During FY	49.60	49.60	49.60
5	Adjustment/Retirement During FY	0.00	0.00	0.00
6	Closing Gross Fixed Assets	722.81	715.29	715.29
7	Average Gross Fixed Assets	698.01	690.49	690.49
8	Effective Rate of Depreciation (%)	3.42%	3.48%	3.48%
9	**Depreciation**	**23.86**	**24.04**	**24.05**

The Commission approves depreciation of Rs 24.05 Cr in the ARR of the FY 2021-22.

5.13. Interest on Loan

Petitioner's submission

The Interest on Loan is determined on normative basis according to the JERC MYT Regulations, 2018. The opening balance of loans for the FY 2021-22 is considered the same as the closing balance of the FY 2020-21. The normative loan addition in the FY 2021-22 has been computed as 70% of the capitalisation proposed during the FY 2021-22.

The repayment of loans has been considered equal to the depreciation during the FY 2021-22. Further the rate of interest has been considered at 8.75% equivalent to 1-year SBI MCLR plus 100 basis points.

Commission's Analysis

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

"28. Interest on Loan

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

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

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

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

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

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

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

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

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

28.5 The interest on loan shall be calculated on the normative average loan of the Year by applying the weighted average rate of interest:

Provided that at the time of truing up, the normative average loan of the Year shall be considered on the basis of the actual asset capitalisation approved by the Commission for the Year.

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

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

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

28.9 The excess interest during construction on account of time and/or cost overrun as compared to the approved completion schedule and capital cost or on account of excess drawal of the debt funds disproportionate to the actual requirement based on Scheme completion status, shall be allowed or disallowed partly or fully on a case to case basis, after prudence check by the Commission:

Provided that where the excess interest during construction is on account of delay attributable to an agency or contractor or supplier engaged by the Transmission Licensee, any liquidated damages recovered from such agency or contractor or supplier shall be taken into account for computation of capital cost:

Provided further that the extent of liquidated damages to be considered shall depend on the amount of excess interest during construction that has been allowed by the Commission.

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

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

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

The Commission has considered the values for opening loan and loan addition as approved in the "*Section 5.11: Capital Structure*" of this Order. Further, the repayment is considered same as depreciation approved for the respective year. In absence of any actual loans, the Commission has considered the 1-year SBI MCLR as on March 10, 2021 (7%) plus 100 basis points as rate of interest, in accordance with the JERC MYT Regulations, 2018.

The following table provides the Interest on Loan approved by the Commission for FY 2021-22:

Table 107: Interest on loan approved by the Commission for FY 2021-22 (INR Crore)

S. No	Particulars	Approved in MYT Order	Petitioner's Submission	Now Approved by Commission
1	Opening Normative Loan	147.94	138.90	140.53
2	Add: Normative Loan During the year	34.72	34.72	34.30
3	Less: Normative Repayment equal to Depreciation	23.86	24.04	24.05
4	Closing Normative Loan	158.80	149.58	150.71
5	Average Normative Loan	153.37	144.24	145.59
6	Rate of Interest (%)	9.55%	8.75%	8.00%
	Interest on Loan	**14.65**	**12.62**	**11.65**

The Commission approves Interest on Loan as INR 11.65 Cr in the ARR of the FY 2021-22.

5.14. Return on Equity (RoE)

Petitioner's submission

As per the JERC (Multi Year Distribution Tariff) Regulations, 2018, EDDD is entitled for a Return on Equity (RoE). The Regulation 27.2 and 27.3 of the JERC MYT Regulations, 2018 stipulates the following:

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

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

The Petitioner has segregated the approved average equity (average of opening and closing equity) into average equity for Distribution Wires Business and Retail Supply Business based on the Allocation Statement provided in the JERC MYT Regulations, 2018, i.e., 90% allocation for the Distribution Wires Business and 10% allocation for the Retail Supply Business. The Petitioner has considered a rate of 15.50% for the Distribution Wires Business (as per the prevalent CERC Regulations) and a rate of 16% for the Retail Supply Business.

The equity component has been determined in accordance with Regulation 26 of the JERC MYT Regulations 2018. The following table provides the ROE for the FY 2021-22 submitted by the Petitioner:

Table 108: Return on Equity for FY 2021-22 as submitted by the Petitioner (INR Crore)

S. No	Return on Equity	FY 2021-22
1	Opening Equity	98.67
2	Addition in equity on account of new capitalization	14.88
3	**Closing Equity**	113.55
4	**Average Equity**	106.11
5	Average Equity (Wires Business)	95.50
6	Average Equity (Retail Supply Business) Business	10.61
7	Return on Equity for Wires Business (%)	15.50%
8	Return on Equity for Retail Supply Business (%)	16.00%
9	Return on Equity for Wires Business	14.80
10	Return on Equity for Retail Supply Business	1.70
11	**Return on Equity**	**16.50**

Commission's Analysis

The Regulation 27.2 and 27.3 of the JERC MYT Regulations, 2018 stipulates the following:

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

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

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

"30. Return on Equity:

………

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

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

The Commission has considered a rate of 15.50% for the Distribution Wires Business (as per the prevalent CERC Regulations) and a rate of 16% for the Retail Supply Business. The equity component has been determined in accordance with capital structure as discussed above in "*Section 5.11: Capital Structure*".

The following table provides the Return on Equity approved for FY 2021-22.

Table 109: RoE approved by the Commission for FY 2021-22 (INR Crore)

S. No	Particulars	Approved in MYT Order	Petitioner's Submission	Now Approved by Commission
1	Opening Equity	104.07	98.67	101.65
2	Additions on account of new capitalisation	14.88	14.88	14.70
3	Closing Equity	118.95	113.55	116.35
4	Average Equity	111.51	106.11	109.00
5	Average Equity (Wires Business)	100.36	95.50	98.10
6	Average Equity (Retail Supply Business) Business)	11.15	10.61	10.90
7	Return on Equity for Wires Business (%)	15.50%	15.50%	15.50%
8	Return on Equity for Retail Supply Business (%)	16.00%	16.00%	16.00%
9	Return on Equity for Wires Business	15.56	14.80	15.21
10	Return on Equity for Retail Supply Business	1.78	1.70	1.74
11	**Total Return on Equity**	**17.34**	**16.50**	**16.95**

The Commission approves Return on Equity of INR 16.95 Cr in the ARR of the FY 2021-22.

5.15. *Interest on Security Deposits*

Petitioner's submission

A provision of Rs 4.68 Cr has been made towards payment of interest on consumer security deposits.

Commission's Analysis

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

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

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

The Interest on security deposits as claimed by the petitioner has been approved by the Commission and the same shall be trued-up on the actual basis. The following table provides the interest on security deposits:

Table 110: Interest on Security Deposits approved by the Commission for FY 2021-22 (INR Crore)

S. No	Particulars	Approved in MYT Order	Petitioner's Submission	Now Approved by Commission
1	**Interest on Security Deposit**	**4.24**	**4.68**	**4.68**

The Commission approves Interest on Security Deposit as INR 4.68 Cr in the ARR for the FY 2021-22.

5.16. *Interest on Working Capital*

Petitioner's submission

The interest on working capital has been calculated based on the normative principles outlined in the JERC MYT Regulations, 2018.

The working capital requirement has been computed considering the following

- Receivable equivalent to two (2) months of the expected revenue from charges for use of distribution wires at the prevailing tariff;
- O&M Expenses of one month
- Maintenance Spares at 40% of repair and maintenance expenses for one month

  Less-
- consumer security deposit but excluding Bank Guarantee/Fixed Deposit Receipt

A rate of interest of 9.75% has been considered on the working capital requirement, being the 1-year SBI MCLR as on 1st April of the year plus 200 basis points in line with the JERC MYT Regulations, 2018. The Interest on Working Capital submitted by Petitioner for FY 2021-22 is given in Table below:

Table 111: Interest on Working Capital for FY 2021-22 as submitted by the Petitioner (INR Crore)

Particular	FY 2021-22
Two months receivables	212.24
One Month O&M Expenses	3.95
40% of repair and maintenance expenses for one month	0.60
Less: Consumer Security Deposit excl. BG/FDR	87.32
Total Working after deduction of Security Deposit	129.48
Interest Rate (%)	9.75%
Interest on Working Capital	**12.62**

<u>Commission's Analysis</u>

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

"52. Norms of Working Capital for Distribution Wires Business

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

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

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

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

Less:

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

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

Further, Regulation 31 of the JERC MYT Regulation, 2018 stipulates the following:

"31. Interest on Working Capital

……..

31.3 The interest on working capital shall be a payable on normative basis notwithstanding that the Licensee has not taken working capital loan from any outside agency or has exceeded the working capital loan based on the normative figures.

31.4 The rate of interest on working capital shall be equal one (1) Year State Bank of India (SBI) MCLR / any replacement thereof as notified by RBI for the time being in effect applicable for one (1)Year period, as may be applicable as on 1st April of the Financial Year in which the Petition is filed plus 200 basis points."

In accordance with the JERC MYT Regulation, 2018, the Commission has computed the Interest on Working Capital for FY 2021-22. The rate of interest on working capital has been considered as 1-yr SBI MCLR rate as on April 1, 2020 plus 200 basis points (7.75%+2.00% = 9.75%). Accordingly, the interest on working capital has been calculated, as shown in the following table:

Table 112: Interest on Working Capital approved by the Commission for FY 2021-22 (INR Crore)

S. No	Particulars	Approved in MYT Order	Petitioner's Submission	Now Approved by Commission
1	O&M Expense for 1 month	4.10	3.95	4.33
2	Maintenance spares at 40% of R&M expenses for one (1) month;	0.73	0.60	0.74
3	Receivables equivalent to two (2) months of the expected revenue requirement	243.09	212.24	212.28
4	Less: Amount, held as security deposits	67.82	87.32	87.32
5	**Net Working Capital**	180.10	129.47	130.03
6	Rate of Interest (%)	10.15%	9.75%	9.75%
7	**Interest on Working Capital**	**18.28**	**12.62**	**12.68**

The Commission approves the Interest on Working Capital of INR 12.68 Cr in the ARR of the FY 2021-22.

5.17. Income Tax

Petitioner's submission

No submission has been made in this regard by the Petitioner.

Commission's Analysis

Regulation 32 of JERC MYT Regulations, 2018 stipulates the following:

"32. Tax on Income

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

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

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

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

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

For the FY 2021-22 no income tax liability is computed and the same shall be Trued-up based on the actual income tax paid by the Petitioner.

Table 113: Income Tax approved by the Commission for FY 2021-22 (INR Crore)

S. No	Particulars	Approved in MYT Order	Petitioner's Submission	Now Approved by Commission
1	Income Tax	0.00	0.00	0.00

5.18. *Provision for Bad & Doubtful Debts*

Petitioner's submission

The Petitioner has not earmarked any provision for bad and doubtful debts for the FY 2021-22.

Commission's Analysis

The Regulation 62 of the JERC MYT Regulations, 2018 stipulates the following:

"62. Provision for bad and doubtful debts

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

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

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

Provided further that if subsequent to the write off of a particular bad debt, revenue is 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 realized."

The Commission has not considered any Provision for Bad & Doubtful Debts. The same shall be accounted for as per actuals in the True-up of the FY 2021-22.

5.19. *Non-Tariff Income*

Petitioner's submission

For projecting the non-tariff income for the FY 2021-22, an increase of 5% p.a. over the estimated non-tariff income for the FY 2020-21 has been considered by the Petitioner.

Commission's Analysis

The Regulation 64 of the JERC MYT Regulations, 2018 stipulates the following:

*"**64. Non-Tariff Income***

64.1 The amount of Non-Tariff Income relating to the retail supply of electricity as approved by the Commission shall be deducted from the Aggregate Revenue Requirement in calculating the tariff for retail supply of electricity by the Distribution Licensee:

Provided that the Distribution Licensee shall submit full details of its forecast of Non-Tariff Income to the Commission along with its application for determination of tariff.

64.2 The Non-Tariff Income shall inter-alia include:

(a) Income from rent of land or buildings;

(b) Income from sale of scrap;

(c) Income from statutory investments;

(d) Interest on advances to suppliers/contractors;

(e) Rental from staff quarters;

(f) Rental from contractors;

(g) Income from hire charges from contactors and others;

(h) Income from advertisements, etc.;

(i) Meter/metering equipment/service line rentals;

(j) Service charges;

(k) Consumer charges;

(l) Recovery for theft and pilferage of energy;

(m) Rebate availed on account of timely payment of bills;

(n) Miscellaneous receipts;

(o) Deferred Income from grant, subsidy, etc., as per Annual Accounts;

(p) Prior period income, etc.:

Provided that the interest/dividend earned from investments made out of Return on Equity corresponding to the Retail Supply Business of the Distribution Licensee shall not be included in Non-Tariff Income:

Provided further that any income earned by a Distribution Licensee by sale of power to other Distribution Licensees or to Consumers as per Section 49 of the Act using the existing power purchase agreements or bulk supply capacity allocated to the Distribution Licensee's Area of Supply shall be reduced from the Aggregate Revenue Requirement of the Distribution Licensee for the purpose of determination of tariff. Such reduction shall be carried out in accordance with Joint Electricity Regulatory Commission for the State of Goa and Union Territories (Connectivity and Open Access in Intra-State Transmission and Distribution) Regulations, 2017, as amended from time to time."

For the ARR of the FY 2021-22, the Commission has considered as escalation of 5% over the approved Non-Tariff Income for FY 2020-21 which comes out same as proposed by the petitioner. The same shall be subject to True-up on actual basis. The NTI approved in the MYT Order, Petitioner's submission and now approved by the Commission is shown in the table below:

Table 114: Non -tariff Income approved by the Commission for FY 2021-22 (INR Crore)

S. No	Particulars	Approved in MYT Order	Petitioner's Submission	Now Approved by Commission
1	Non- Tariff Income	21.79	4.46	4.46

The Commission approves Non-Tariff Income of INR 4.46 Cr in the ARR of the FY 2021-22.

5.20. *Aggregate Revenue Requirement (ARR)*

Petitioner's submission

Based on the expenses as detailed above, the Petitioner submitted the net aggregate revenue requirement of Rs 1,245.52 Cr after adjusting the Non -Tariff Income for the FY 2021-22.

Commission's Analysis

On the basis of the detailed analysis of the cost parameters of the ARR the revenue requirement for the FY 2021-22 is approved as provided in the following table:

Table 115: Aggregate Revenue Requirement approved by the Commission for FY 2021-22 (INR Crore)

S. No	Particulars	Approved in MYT Order	Petitioner's Submission	Now Approved
1	Power Purchase Cost inclusive of cost towards RPO	1,352,79	1,132.06	1,179.06
2	Operation & Maintenance Expenses	49.15	47.46	51.93
3	Depreciation	23.86	24.04	24.05
4	Interest and Finance charges	14.65	12.62	11.65
5	Interest on Working Capital	18.28	12.62	12.68
6	Return on Equity	17.34	16.50	16.95
7	Provision for Bad Debt	0.00	0.00	0.00
8	Interest on Security Deposit	4.24	4.68	4.68
9	Income Tax	0.00	0.00	0.00
10	**Total Revenue Requirement**	**1480.31**	**1249.98**	**1301.00**
11	Less: Non-Tariff Income	21.79	4.46	4.46
12	Less: Revenue from sale of surplus power	0.00	0.00	0.00
13	**Net Revenue Requirement**	**1458.52**	**1245.52**	**1296.54**

The Commission approved higher Net Revenue Requirement in comparison to as claimed by the petitioner which is mainly because of higher Power Purchase Cost (PPC) approved in FY 2021-22. Increased PPC is on account of normative losses considered by the Commission for the calculation of total energy requirement. The Petitioner has considered 4.00% of distribution losses but the Commission has considered 6.50% of distribution loss as approved in the MYT order. Due to the higher distribution losses, 72.2 MUs of extra energy have been approved in FY 2021-22.

The Commission approves net ARR of INR 1,296.54 Cr for the FY 2021-22.

5.21. *Revenue at existing Retail Tariff*

Petitioner's submission

The revenue from sale of power at existing tariff of Rs 1,273.43 Cr is based on the projected energy sales, connected load and number of consumers. The revenue for FY 2021-22 has been computed based on the retail tariff notified by the Commission in the Tariff Order for the FY 2020-21 dated 18th May, 2020.

Commission's Analysis

The category wise/ sub-category wise and slab wise revenue at retail tariff is determined as per the applicable tariff rates. The revenue from demand charges and the energy charges has been projected for each category/ sub-category and slab. The category/ sub-category/ slab wise revenue as computed by the Commission for the FY 2021-22 has been shown in the table below:

Table 116: Revenue at existing tariff computed by the Commission for FY 2021-22 (INR Crore)

S. No	Category	Phase	Fixed Charges (INR Cr)	Energy charges (INR Cr)	Total (INR Cr)	ABR (INR/unit)
1	**DOMESTIC SUPPLY (DS)**		**1.52**	**36.36**	**37.88**	**2.31**
1	0-100 units	Single	0.39	6.30	6.69	**1.49**
2	101-200 units	Single	0.18	4.59	4.77	**2.08**
3	201-400 units	Single	0.28	4.32	4.60	**2.66**
4	401 and above units	Single	0.24	8.28	8.52	**3.09**
5	0-100 units	Three	0.15	1.19	1.34	**1.58**
6	101-200 units	Three	0.07	1.31	1.38	**2.11**
7	201-400 units	Three	0.11	1.95	2.06	**2.64**
8	401 and above units	Three	0.09	8.43	8.52	**3.03**
2	**Low Income Group**		0.00	0.00	0.00	0.00
3	**COMMERCIAL / NON-DOMESTIC**		**0.30**	**18.09**	**18.39**	**3.99**
1	0-100 units	Single	0.09	1.10	1.19	**3.24**
2	101 Units and Above	Single	0.09	4.84	4.93	**4.13**
3	0-100 units	Three	0.06	0.58	0.64	**3.31**
4	101 Units and Above	Three	0.06	11.56	11.62	**4.07**
4	**AGRICULTURAL**		**0.00**	**0.26**	**0.26**	**0.76**
1	For sanctioned load up to 10 HP		0.00	0.24	0.24	**0.75**
2	Beyond 10 HP and up to 99 HP sanctioned load		0.00	0.01	0.01	**1.05**
5	**LT INDUSTRY**		**6.52**	**93.75**	**100.27**	**4.53**
6	**INDUSTRY**		**200.69**	**912.76**	**1113.45**	**5.16**
1	HT General		194.65	888.70	1083.35	**5.16**
2	HT Industrial (Ferro)		6.03	24.06	30.10	**5.23**
7	**PUBLIC LIGHTING (PL)**		**0.00**	**2.54**	**2.54**	**4.50**
8	**PUBLIC WATER WORKS**		**0.03**	**0.86**	**0.88**	**3.59**
9	**TEMPORARY SUPPLY**		**0.00**	**0.00**	**0.00**	**0.00**
	TOTAL		**209.06**	**1064.61**	**1273.67**	**4.90**

The Commission has determined revenue from sale of power at existing tariff as INR 1,273.67 Cr in FY 2021-22.

5.22. *Standalone Revenue Gap/ Surplus*

Petitioner's submission

Based on the ARR submitted and the revenue from retail tariff, the Petitioner has submitted a standalone revenue surplus of Rs 27.90 Cr for FY 2021-22.

Commission's Analysis

The Commission based on the approved ARR and existing retail tariff has derived the following Revenue Gap/(Surplus) for FY 2021-22:

Table 117: Standalone Revenue Gap/ (Surplus) approved at existing tariff for FY 2021-22 (INR Crore)

S. No	Particulars	Petitioner's submission	Now Approved
1	Annual Revenue Requirement	1245.52	1296.54
2	Revenue from sale of power	1273.43	1273.67
3	**Revenue Gap/(Surplus)**	**(27.91)**	**22.87**

The Commission approved a Revenue Gap of INR 22.87 Cr in comparison to INR 27.91 Cr of surplus as claimed by the Petitioner for FY 2021-22. The reason of this gap is higher ARR approved by the Commission which is mainly because of increased Power Purchase Cost. Details regarding the same are already provided in PPC section**.**

The standalone revenue gap at existing retail tariff is INR 22.87 Cr for FY 2021-22.

6. Chapter 6: Tariff Principles and Design

6.1. Overall Approach

The Commission while designing retail tariffs for FY 2021-22 has kept in view the principles of determination of tariff set out in the Electricity Act, 2003 (EA 2003), Tariff Policy, 2016 and the JERC MYT Regulations, 2018.

The Commission, with this Tariff Order, has tried to meet the objectives of the EA 2003, as set out in its Preamble, including the protection of interest of consumers, the supply of electricity to all areas and the rationalization of tariffs. The EA, 2003 also directs to maintain a healthy balance between the interests of the utilities and the reasonableness of the cost of power being supplied to consumers. The Commission has also taken into consideration the EDDD's submissions as well as the Public responses in these proceedings.

The provision of supply of electricity to all the people is an essential driver for development, and also influences social and economic change. Since the majority of the energy sales within EDDD's jurisdiction is of industrial nature, the Commission has attempted to ensure that, while industries and commerce are promoted, it is not at the cost of other segments of society while keeping a balance that the subsidising consumers category should not be burdened beyond a point. The Commission has also tried to ensure regulatory consistency for all stakeholders and financial sustainability of the Petitioner.

6.2. Applicable Regulations

Regulation 19 of JERC MYT Regulations, 2018 states the following:

"***19. Annual determination of tariff***

19.1 The Commission shall determine the tariff of a Generating Company, Transmission Licensee and Distribution Licensee covered under a Multi-Year Tariff framework for each Year during the Control Period, in accordance with timelines specified in Regulation 17, having regard to the following:

a) The approved forecast of Aggregate Revenue Requirement and Expected Revenue from Tariff and Charges of the Generating Company, Transmission Licensee and Distribution Licensee for such Financial Year, including modifications approved at the time of Mid-term Review, if any; and

b) Approved gains and losses, including the incentive available, to be passed through in tariff, following the truing up of previous Year."

Further, Regulation 67 of JERC MYT Regulations, 2018 states the following:

*" **67. Determination of Tariff***

67.1 The Commission may categorize Consumers on the basis of their load factor, power factor, voltage, total consumption of electricity during any specified period or the time at which the supply is required or the geographical position of any area, the nature of supply and the purpose for which the supply is required and any other factor as considered appropriate by the Commission.

67.2 The Commission shall endeavor to determine cost of supply for each category/ sub-category of Consumers.

67.3 The Commission shall endeavor to reduce gradually the cross-subsidy between Consumer categories with

respect to the cost of supply in accordance with the provisions of the Act.

67.4 The tariff proposal by Licensee and the tariff determination by the Commission shall be based on the following principles:

(a) The tariff for all categories shall preferably be two part, consisting of fixed and variable charges.

(b) The fixed charges in tariff shall progressively reflect actual fixed cost incurred by Distribution Licensee;

(c) The overall retail supply tariff for different Consumer categories shall progressively reflect the cost of supply for respective categories of Consumers;

(d) The tariff for residential Consumers shall be set considering the affordability of tariff for various class of Consumers;

(e) The tariff shall be set in such a manner that it may not present a tariff shock to any category of Consumers."

6.3. Cumulative Revenue Gap/ Surplus at Existing Tariff

Petitioner's Submission

The Petitioner has proposed a cumulative revenue gap of INR 3.42 Cr till FY 2021-22. The standalone and consolidated revenue Gap/(Surplus) as submitted by the Petitioner has been tabulated below:

Table 118: Standalone Revenue Gap/ (Surplus) submitted by Petitioner (INR Crore)

Particulars	FY 2019-20	FY 2020-21	FY 2021-22
Net Revenue Requirement	1289.19	1056.46	1245.33
Revenue on existing tariff (Including OA charges)	1112.80	1055.91	1273.44
Gap/(Surplus) for the year	**176.39**	0.55	(27.90)

Table 119: Cumulative Revenue Gap/ (Surplus) submitted by Petitioner (INR Crore)

Particular	FY 2019-20	FY 2020-21	FY 2021-22
Opening Gap/(Surplus)	(144.07)	26.99	29.92
Add: Gap/(Surplus) during the year	176.39	0.55	(27.90)
Closing Gap/(Surplus)	**32.32**	**27.53**	**2.02**
Carrying cost	(5.34)	2.39	1.40
Additional Revenue at Proposed Tariff	-	-	0.00
Total Gap/(Surplus)	**26.99**	**29.92**	**3.42**

Commission's Analysis

Regulation 11.5 (c) of the JERC MYT Regulation, 2018 stipulates the following:

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

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

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

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

Provided further that in case of revenue surplus, the Commission shall charge the Licensee a Carrying Cost from the date on which such surplus has become due, i.e., from the end of the Year for which 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."

Since the Petitioner has not borrowed any loan, therefore the Commission allows Carrying Cost on simple interest basis at one (1) Year State Bank of India (SBI) MCLR, as on 1st April of the relevant FY plus 100 basis points for FY 2019-20 & FY 2020-21 and 1-yr SBI MCLR as on 10.03.2021 for FY 2021-22.

Accordingly, the Commission determines the standalone revenue Gap/(Surplus) for each year and likewise taking into account the previous year's Gap/(Surplus), determines the cumulative revenue Gap/ (Surplus) at the end of FY 2021-22 as shown in the tables as follows:

Table 120: Standalone Revenue Gap/ (Surplus) determined by the Commission at existing tariff (INR Crore)

Particulars	FY 2019-20	FY 2020-21	FY 2021-22
Net Revenue Requirement	1270.22	1075.12	1296.54
Revenue from Retail Sales at Existing Tariff	1112.80	1036.89	1273.67
Revenue from FPPCA	0.00	45.63	0.00
Total Revenue	1112.80	**1082.52**	**1273.67**
Standalone Gap/(Surplus) for the year	**157.42**	**(7.40)**	**22.87**

Table 121: Consolidated Revenue Gap/ (Surplus) determined by the Commission at existing tariff (INR Crore)

Particulars	FY 2019-20	FY 2020-21	FY 2021-22
Opening Gap/(Surplus)	(144.07)	7.11	0.01
Addition Gap/(Surplus) due to standalone year	157.42	(7.40)	22.87
Closing Gap/(Surplus)	13.35	(0.29)	22.88
Average Gap/(Surplus)	(65.36)	3.41	11.45
Rate of Interest	9.55%	8.75%	8.00%
Carrying cost	(6.24)	0.30	0.92
Closing Gap/ (Surplus)	**7.11**	**0.01**	**23.80**

The Commission determines a cumulative revenue gap of INR 23.80 Cr till FY 2021-22 at existing tariff.

6.4. Treatment of the cumulative Gap/ Surplus and Tariff Design

As derived from above, the resultant cumulative revenue gap at the end of FY 2021-22 is INR 23.80 Cr only. In view of this small gap, the Commission has decided not to change the existing tariff schedule and the same schedule will be applicable for FY 2021-22 also. Designing of Tariff

Petitioner's Submission

1. The EDDD does not propose any tariff hike for the FY 2021-22 and requested that the proposal of EDDD for keeping the tariff unchanged for the FY 2021-22 may be approved.

The category wise existing and proposed tariff submitted by the Petitioner is as follows:

Table 122: Retail Tariff proposed by the Petitioner for FY 2021-22

S. No.	Category	Existing (FY 2020-21)		Proposed (FY 2021-22)	
		Fixed Charges	Energy Charges	Fixed Charges	Energy Charges
1	**LT-D/Domestic**				
1	0 to 100 Units	20 INR/Con/Month (single Phase), 45 INR/Con/Month (Three Phase)	1.40 INR/kWh	20 INR/Con/Month (single Phase), 45 INR/Con/Month (Three Phase)	1.40 INR/kWh
2	101 to 200 Units		2.00 INR/kWh		2.00 INR/kWh
3	201 to 400 Units		2.50 INR/kWh		2.50 INR/kWh
4	Beyond 401 Units		3.00 INR/kWh		3.00 INR/kWh
2	**Low Income Group**	15 INR/Con/month		15 INR/Con/month	
3	**LT-C/Commercial**				
1	1st 100 Units	25 INR/Con/Month (single Phase), 50 INR/Con/Month (Three Phase)	3.00 INR/kWh	25 INR/Con/Month (single Phase), 50 INR/Con/Month (Three Phase)	3.00 INR/kWh
2	Beyond 100 Units		4.05 INR/kWh		4.05 INR/kWh
4	**HT Commercial**	100 INR/kVA/month	4.20 INR/kVAh	100 INR/kVA/month	4.20 INR/kVAh
5	**LT- Ag/ Agriculture**				
1	For sanctioned load up to 10 HP		0.75 INR/kWh		0.75 INR/kWh
2	Beyond 10 HP and up to 99 HP sanctioned load		1.05 INR/kWh		1.05 INR/kWh
6	**LT-PL/Public Lighting**		4.50 INR/kWh		4.50 INR/kWh
7	**LT-Public Water Works**	25 INR/HP/month	4.10 INR/kWh	25 INR/HP/month	4.10 INR/kWh
8	**LT Industry**	40 INR/HP/month	3.60 INR/kVAh	40 INR/HP/month	3.60 INR/kVAh
9	**HT**				
1	HTC General Industrial / Motive Power 11KV or 66KV having Contract Demand above 100KVA	315 INR/kVA/month	4.20 INR/ kVAh	315 INR/kVA/month	4.20 INR/ kVAh
2	HT Industrial((Ferro Metallurgical/ Steel Melting/ Steel Rerolling Power Intensive)	505 INR/kVA/month	4.15 INR/ kVAh	505 INR/kVA/month	4.15 INR/ kVAh
10	**Hoardings/Sign Boards**	100 INR/kVA/month	6.70 INR/kWh	100 INR/kVA/month	6.70 INR/kWh
11	**EV Charging Station**	-	4.50 INR/kWh	-	4.50 INR/kWh

Commission's Analysis

As discussed above, the Commission has not revised the existing tariffs for FY 2021-22 and the same tariff schedule will be applicable for FY 2021-22 also.

6.4.1. Approved Final Tariff Schedule:

The existing retail tariff and tariff now approved by the Commission for each consumer category has been shown in the following table:

Table 123: Existing and Approved tariff by the Commission for FY 2021-22

S. No.	Category	Existing (FY 2020-21)		Approved (FY 2021-22)	
		Fixed Charges	Energy Charges	Fixed Charges	Energy Charges
1	**LT-D/Domestic**				
1	0 to 100 Units	20 INR/Con/Month (single Phase), 45 INR/Con/Month (Three Phase)	1.40 INR/kWh	20 INR/Con/Month (single Phase), 45 INR/Con/Month (Three Phase)	1.40 INR/kWh
2	101 to 200 Units		2.00 INR/kWh		2.00 INR/kWh
3	201 to 400 Units		2.50 INR/kWh		2.50 INR/kWh
4	Beyond 401 Units		3.00 INR/kWh		3.00 INR/kWh
2	**Low Income Group**	15 INR/Con/month		15 INR/Con/month	
3	**LT-C/Commercial**				
1	1st 100 Units	25 INR/Con/Month (single Phase), 50 INR/Con/Month (Three Phase)	3.00 INR/kWh	25 INR/Con/Month (single Phase), 50 INR/Con/Month (Three Phase)	3.00 INR/kWh
2	Beyond 100 Units		4.05 INR/kWh		4.05 INR/kWh
4	**HT Commercial**	100 INR/kVA/month	4.20 INR/kVAh	100 INR/kVA/month	4.20 INR/kVAh
5	**LT- Ag/ Agriculture**				
1	For sanctioned load up to 10 HP		0.75 INR/kWh		0.75 INR/kWh
2	Beyond 10 HP and up to 99 HP sanctioned load		1.05 INR/kWh		1.05 INR/kWh
6	**LT-PL/Public Lighting**		4.50 INR/kWh		4.50 INR/kWh
7	**LT-Public Water Works**	25 INR/HP/month	4.10 INR/kWh	25 INR/HP/month	4.10 INR/kWh
8	**LT Industry**	40 INR/HP/month	3.60 INR/kVAh	40 INR/HP/month	3.60 INR/kVAh
9	**HT**				

S. No.	Category	Existing (FY 2020-21)		Approved (FY 2021-22)	
		Fixed Charges	Energy Charges	Fixed Charges	Energy Charges
1	HTC General Industrial / Motive Power 11KV or 66KV having Contract Demand above 100KVA	315 INR/kVA/month	4.20 INR/ kVAh	315 INR/kVA/month	4.20 INR/ kVAh
2	HT Industrial((Ferro Metallurgical/ Steel Melting/ Steel Rerolling Power Intensive)	505 INR/kVA/month	4.15 INR/ kVAh	505 INR/kVA/month	4.15 INR/ kVAh
10	**Hoardings/Sign Boards**	100 INR/kVA/month	6.70 INR/kWh	100 INR/kVA/month	6.70 INR/kWh
11	**EV Charging Station**	-	4.50 INR/kWh	-	4.50 INR/kWh

6.4.2. Revenue from Approved Retail Tariff for FY 2021-22

Based on the retail tariff approved above, the revenue from approved tariff is shown in the following table. The Commission has not estimated any revenue for Electric Vehicle Charging Station and HT-Commercial categories due to unavailability of requisite data. The Commission as of now approves the k factor for the categories as shown in the table below, however, **directs the Petitioner to submit the requisite data for energy sales, no. of consumers and connected load in case any consumers are identified under these category.**

Table 124: Revenue from approved retail tariff determined by the Commission for FY 2021-22 (INR Crore)

S. No	Category	Phase	Fixed Charges (INR Cr)	Energy charges (INR Cr)	Total (INR Cr)	ABR (INR/ unit)	k-Factor
1	**DOMESTIC SUPPLY (DS)**		**1.52**	**36.36**	**37.88**	**2.31**	**0.47**
(i)	0-100 units	Single	0.39	6.30	6.69	**1.49**	**0.30**
(ii)	101-200 units	Single	0.18	4.59	4.77	**2.08**	**0.42**
(iii)	201-400 units	Single	0.28	4.32	4.60	**2.66**	**0.54**
(iv)	401 and above units	Single	0.24	8.28	8.52	**3.09**	**0.63**
(v)	0-100 units	Three	0.15	1.19	1.34	**1.58**	**0.32**
(vi)	101-200 units	Three	0.07	1.31	1.38	**2.11**	**0.43**
(vii)	201-400 units	Three	0.11	1.95	2.06	**2.64**	**0.54**
(viii)	401 and above units	Three	0.09	8.43	8.52	**3.03**	**0.62**
2	**Low Income Group**						
(i)	Low Income Group		**0.00**	**0.00**	**0.00**	**0.00**	**-**
3	**COMMERCIAL / NON-DOMESTIC**		**0.30**	**18.09**	**18.39**	**3.99**	**0.81**
(i)	0-100 units	Single	0.09	1.10	1.19	**3.24**	**0.66**
(ii)	101 Units and Above	Single	0.09	4.84	4.93	**4.13**	**0.84**
(iii)	0-100 units	Three	0.06	0.58	0.64	**3.31**	**0.68**
(iv)	101 Units and Above	Three	0.06	11.56	11.62	**4.07**	**0.83**

S. No	Category	Phase	Fixed Charges (INR Cr)	Energy charges (INR Cr)	Total (INR Cr)	ABR (INR/ unit)	k-Factor
4	**HT COMMERCIAL**		**0.00**	**0.00**	**0.00**	**0.00**	**1.00**
5	**AGRICULTURAL**		**0.00**	**0.26**	**0.26**	**0.76**	**0.16**
(i)	For sanctioned load up to 10 HP		0.00	0.24	**0.24**	**0.75**	**0.15**
(ii)	Beyond 10 HP and up to 99 HP sanctioned load		0.00	0.01	**0.01**	**1.05**	**0.21**
6	**LT INDUSTRY**		**6.52**	**93.75**	**100.27**	**4.53**	**0.92**
(i)	LT Industry		6.52	93.75	100.27	**4.53**	**0.92**
7	**HT INDUSTRY**		**200.69**	**912.76**	**1113.45**	**5.16**	**1.05**
(i)	HT General		194.65	888.70	1083.35	**5.16**	**1.05**
(ii)	HT Industrial (Ferro)		6.03	24.06	30.10	**5.23**	**1.07**
8	**LT PUBLIC LIGHTING (PL)**		**0.00**	**2.54**	**2.54**	**4.50**	**0.92**
9	**LT PUBLIC WATER WORKS**		**0.03**	**0.86**	**0.88**	**3.59**	**0.73**
10	**HOARDINGS/SIGN BOARDS**		**0.00**	**0.0**	**0.00**	**0.00**	**1.00**
11	**ELECTRIC VEHICLE CHARGING STATION**		**0.00**	**0.00**	**0.00**	**0.00**	**1.00**
12	**TEMPORARY SUPPLY**		**0.00**	**0.00**	**0.00**	**0.00**	*
	TOTAL		**209.06**	**1064.61**	**1273.67**	**4.90**	**1.00**

**1.50 times the k factor of the relevant category in which the connection falls*

The Commission approves revenue from approved Retail Tariff of INR 1,273.67 Cr for FY 2021-22 against a Net Revenue Requirement of INR 1,296.54 Cr.

6.4.3. Cumulative Revenue Gap/ Surplus at Approved Tariff

Accordingly, upon consideration of revenue at approved tariff which is same as existing tariff the resultant Revenue Gap/(Surplus) has been shown in the following table:

Table 125: Cumulative Revenue Gap/ (Surplus) approved by the Commission for FY 2022-22 (INR Crore)

S.No.	Particulars	Formulae	FY 2019-20	FY 2020-21	FY 2021-22
a	Net Revenue Requirement		1270.22	1075.12	1296.54
b	Revenue from Retail Sales at Approved Tariff		1112.80	1036.89	1273.67
c	Revenue from Open Access Charges		0.00	0.00	0.00
d	Revenue from FPPCA		0.00	45.63	0.00
e	**Total Revenue**	**(e= b+c+d)**	**1112.80**	**1082.52**	**1273.67**
f	**Standalone Gap /(Surplus) for the year**	**(f=a-e)**	**157.42**	**(7.40)**	**22.87**
g	Opening Gap /(Surplus)		(144.07)	7.11	0.01

S.No.	Particulars	Formulae	FY 2019-20	FY 2020-21	FY 2021-22
h	Add: Gap/(Surplus)		157.42	(7.40)	22.87
i	Closing Gap /(Surplus)	(i=h+g)	13.35	(0.29)	22.88
j	Average Gap/ (Surplus)	(j=(g+i)/2)	(65.36)	3.41	11.45
k	Interest Rate on carrying cost		9.55%	8.75%	8.00%
l	Carrying Cost	(l=j*k)	(6.24)	0.30	0.92
m	**Final Closing Gap/ (Surplus)**	**(m=l+i)**	**7.11**	**0.01**	**23.80**

The Commission approves a cumulative revenue gap of INR 23.80 Cr till FY 2021-22. The Commission has decided not to change the existing tariff, the tariff rates applicable for FY 2020-21 will continue for FY 2021-22. The estimated cumulative gap at the end of FY 2021-22 is only about 1.8% of the Revenue for FY 2021-22 which may get adjusted due to variation in actual sales mix during the year.

7. Chapter 7. Open Access Charges for FY 2021-22

7.1. Determination of Wheeling Charges

7.1.1. Allocation Matrix - Allocation of ARR into Wheeling and Retail Supply of Electricity

Petitioner's submission:

The Petitioner has submitted the allocation of ARR into wheeling and retail supply of electricity for FY 2021-22 as shown in the table below.

Table 126: Allocation matrix as submitted by Petitioner for FY 2021-22

Particulars	Allocation (%)		Allocation FY 2021-22	
	Wheeling	Supply	Wheeling	Supply
Fuel Cost	0%	100%	0.00	0.00
Power Purchase Cost	*0%*	*100%*	0.00	1132.06
Employee	*40%*	*60%*	7.13	10.70
R&M	*90%*	*10%*	16.26	1.81
A&G	*50%*	*50%*	5.78	5.78
Depreciation	*90%*	*10%*	21.64	2.40
Interest Cost on Long-term Capital Loans	*90%*	*10%*	11.36	1.26
Interest on Working Capital Loans	*10%*	*90%*	1.26	11.36
Interest on Security Deposit	*10%*	*90%*	0.47	4.21
Return on Equity			14.85	1.65
Provision for Bad Debt	*0%*	*100%*	0.00	0.00
Annual Revenue Requirement			**78.75**	**1171.24**
Less: Non-Tariff Income	*10%*	*90%*	0.45	4.01
Income from Other Business	*50%*	*50%*	0.00	0.00
Net Revenue Requirement			**78.31**	**1167.23**

Table 127: Voltage wise allocation of wheeling charges as submitted by the Petitioner

Category	Consumers	Sales (MU)	Asset Allocation (%)	Voltage wise losses (%)
LT	66194	442.67	30%	12.83%
HT & EHT	811	2,155.94	70%	1.96%
Total	**67005**	**2,598.61**	**100%**	**4.00%**

Accordingly, the Petitioner has submitted the following wheeling charges for FY 2021-22 as shown in the following table:

Table 128: Wheeling charges proposed for FY 2020-21 by the Petitioner

Category	O&M	Others	Total	Wheeling Charges (INR/kWh)
LT	28.82	14.74	43.56	0.86
HT & EHT	0.35	34.39	34.75	0.16
Total	**29.17**	**49.13**	**78.31**	**0.29**

Commission's Analysis

In this regard, the Regulations 48 of the JERC MYT Regulations, 2018 specifies as follows:

*"**48. Separation of Accounts of Distribution Licensee***

48.1 Every Distribution Licensee shall segregate accounts for Distribution Wires Business and Retail Supply Business and shall prepare an Allocation Statement. The wheeling charges pertaining to Distribution Wires Business of the Distribution Licensee shall be determined by the Commission on the basis of these segregated accounts:

Provided that in case complete accounting segregation has not been done, the following Allocation Statement shall be applicable….."

The Petitioner has submitted the allocation matrix as per the JERC MYT Regulations, 2018. The Commission as per the JERC MYT Regulations, 2018, as shown above, has calculated the wheeling charges while taking into consideration the allocation matrix and the ARR approved in the Tariff order for FY 2021-22. The allocation between wheeling and retail supply business for FY 2021-22 as per the ARR approved in this Order is provided in the table below:

Table 129: Allocation matrix approved by the Commission for FY 2021-22

Particulars	Allocation (%)		FY 2021-22		
	Wheeling	Supply	Wheeling	Supply	Total
Cost of power purchase for full year	*0%*	*100%*	0.00	1179.06	1179.06
Employee costs	*40%*	*60%*	7.21	10.82	18.03
Administration and General Expenses	*50%*	*50%*	5.78	5.78	11.56
Repair and Maintenance Expenses	*90%*	*10%*	20.11	2.23	22.34
Depreciation	*90%*	*10%*	21.65	2.41	24.05
Interest and Finance charges	*90%*	*10%*	10.48	1.16	11.65
Interest on Working Capital	*10%*	*90%*	1.27	11.41	12.68
Interest on consumer security deposit	*10%*	*90%*	0.47	4.21	4.68
Return on Equity			15.21	1.74	16.95
Provision of Bad & Doubtful Debt	*0%*	*100%*	0.00	0.00	0.00
Income Tax	*90%*	*10%*	0.00	0.00	0.00
Total Revenue Requirement			**82.17**	**1218.83**	**1301.00**
Less: Non-Tariff Income	*10%*	*90%*	0.45	4.01	4.46
Income from other Business	*50%*	*50%*	0.00	0.00	0.00
Net Revenue Requirement			**81.73**	**1214.81**	**1296.54**

In order to determine the wheeling charges prudently, the Commission has allocated the wheeling costs on the basis of voltage levels. The wheeling charges are levied for the distribution network utilized by Open Access consumers and primarily comprise of O&M Expenses and other costs as provided in the table above. The criteria for allocation of wheeling costs are elaborated as follows:

- O&M Expenses are allocated based on number of consumers under each category
- All expenses other than the O&M expenses are allocated based on voltage wise asset allocation. The Petitioner in this regard was directed to submit the voltage wise asset allocation. However, the

Petitioner has failed to submit the desired information and in the absence of such information, the Commission has assumed the voltage wise asset allocation.

The voltage wise asset allocation assumed and the number of consumers in each category has been shown as follows:

Table 130: Parameters assumed for voltage wise allocation of wheeling charges

Particulars	Energy Sales (MU)	Cumulative Loss (%)	Energy Input (MU)	Consumers	Voltage Wise Asset Allocation (%)
LT	442.67	23.71%	580.22	66194	30%
HT & EHT	2155.94	1.96%	2199.04	811	70%
Total	**2598.61**	**6.50%**	**2779.26**	**67005**	100%

The costs corresponding to HT/EHT network have been allocated to HT/EHT and LT level based on the energy input at HT/EHT level for sale at HT/EHT level as well as at LT level. The reason for allocating cost corresponding to HT/EHT network to LT level is because the power supplied at LT level passes through HT/EHT network and hence the HT/EHT network gets utilized for supplying energy at HT/EHT level as well as LT level. The costs corresponding to LT level were allocated to LT level only. Accordingly, the Commission approves the Wheeling Charges for FY 2021-22 as follows:

Table 131: Wheeling Charges approved by the Commission for FY 2021-22

Category	O&M (INR Crore)	Others (INR Crore)	Total (INR Crore)	Wheeling Charges (INR/kWh)
LT	32.78	21.69	54.48	1.23
HT & EHT	0.32	26.93	27.25	0.13
Total	**33.10**	**48.63**	**81.73**	

The Commission approves wheeling charge of INR 1.23/kWh at LT voltage level and INR 0.13/kWh at HT/EHT voltage level for FY 2021-22.

7.2. *Determination of Additional Surcharge*

Petitioner's Submission:

The Petitioner has submitted the additional surcharge for FY 2021-22 as determined by the Commission in the Tariff Order for FY 2020-21.

Table 132: Additional Surcharge submitted by the Petitioner for FY 2021-22

S. No.	Particulars	FY 2021-22
1	Total Power Purchase cost (INR Crores)	1132.06
2	Fixed Cost component in Power Purchase Cost (INR Crores)	451.79
3	Energy Sales (MU)	2,598.61
4	**Additional Surcharge (INR/kWh)**	**1.74**

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 of the said Regulations states the following:

"**4.5 Additional Surcharge**

1. *1. 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"

2. *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 of the aforesaid JERC Regulations states the following:

"**5.2 Imbalance Charges**

1. Settlement of Energy at Drawal Point in Respect of Open Access Consumer, or Trading Licensee on Behalf of Open Access Consumer

…….

b. Open Access Consumer, who is also a Consumer of the Distribution Licensee

……

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 for FY 2021-22 as shown below:

Table 133: Additional Surcharge approved by the Commission for FY 2021-22

S. No.	Particulars	FY 2021-22
1	Total Power Purchase Fixed Cost approved for FY 2021-22 (excluding transmission charges) (INR Crores)	373.02
2	Energy Sales (MU)	2,598.61
3	**Additional Surcharge (INR/kWh)**	**1.44**

As per the Joint Electricity Regulatory Commission for the State of Goa and Union Territories (Open Access in Transmission and Distribution) Regulations, 2009, which is repealed now, a consumer availing Open Access was required to pay full fixed charges on contracted load even when the load was drawn partially from the Distribution Licensee. **However, as per the "JERC (Connectivity and Open Access in Intra-State Transmission and Distribution) 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 Regulations.**

The Commission approves an Additional Surcharge of INR 1.44/kWh for FY 2021-22.

The Commission **directs the Petitioner to submit quarterly details of power stranded on account of consumers opting for open access along with the Additional Surcharge recovered from these consumers.** The Commission will analyze the information and revise the applicable Additional Surcharge, if required.

7.3. Cross-Subsidy Surcharge

Petitioner's Submission:

The Petitioner has determined the cross-subsidy charges on the basis of Voltage wise cost of supply as shown in the following table:

Table 134: Cross Subsidy Surcharge as submitted by the Petitioner for FY 2021-22

Category	VCoS (INR/kWh)	ABR (INR/kWh)	Cross Subsidy (INR/kWh)
LT	8.44	3.17	(5.27)
HT & EHT	4.04	5.26	1.21

Commission's Analysis

The Commission in this Order has calculated the cross-subsidy surcharge with respect to voltage wise cost of supply. The following approach has been adopted to determine the voltage wise cost of supply:

- Voltage Wise losses at each voltage level are assumed for HT/EHT voltage categories. The remaining losses are adjusted in the LT voltage level in order to maintain the distribution losses at 6.50%, as approved in the ARR for FY 2021-22. 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 135: Energy Input at each voltage level (MU)

Category	Energy Sales (MU)	Cumulative Losses (%)	Energy Input (MU)
LT level	442.67	23.71%	580.22
HT/ EHT level	2155.94	1.96%	2199.04
Total	**2598.61**	**6.50%**	**2779.26**

Now the overall ARR approved for FY 2021-22 is divided into variable and fixed ARR with variable ARR comprising of variable power purchase cost and fixed ARR comprising of all the other costs.

The fixed component comprising of fixed cost of power purchase, O&M, etc. is further allocated to each voltage category as per the following principles:

- The fixed cost of power purchase is assigned to each voltage level based on energy input at respective voltage levels.
- The O&M expenses are allocated to each voltage level based on the number of consumers. The resultant cost allocated to HT/EHT level is then further allocated to LT level based on input energy, as the HT/EHT network is utilized by both HT/EHT and LT network consumers.
- The remaining fixed costs are allocated based on voltage wise asset allocation assumed earlier and further allocated to respective voltage levels on the basis of input energy.

Table 136: Parameters used for allocation of fixed costs

Category	Energy Input (MU)	Voltage wise Asset Allocation (%)	Number of Consumers
LT level	442.67	30.00%	66194
HT/EHT level	2155.94	70.00%	811
Total	**2598.61**	**100%**	**67005**

The Variable component of the Power purchase cost is allocated based on energy input. The Voltage wise cost of supply (VCoS) is then determined based on energy sales of respective categories.

Accordingly, the VCoS is determined as shown in the table below:

Table 137: Voltage Wise Cost of Supply (VCoS)

Category	Allocated Fixed Cost (INR Cr)	Allocated Variable Cost (INR Cr)	Total Cost (INR Cr)	Energy Sales (MU)	VCoS (INR/kwh)
LT level	175.37	151.46	326.83	442.67	7.38
HT/EHT level	395.67	574.05	969.71	2155.94	4.50
Total	**571.04**	**725.51**	**1,296.54**	**2598.61**	4.99

The VCoS as determined above is used to determine the Cross-Subsidy Surcharge. Accordingly, the approved Cross-subsidy surcharge is shown in the table below.

Table 138: Cross-Subsidy Surcharge approved by the Commission for FY 2021-22

Category	VCoS (INR/kWh)	ABR (INR/kWh)	Cross- Subsidy (INR/kWh)
LT	7.38	3.62	(3.76)
HT & EHT	4.50	5.16	0.67

Therefore, the Commission approves Cross-Subsidy Surcharge of INR 0.67/kWh at HT/EHT Voltage level & Nil for LT voltage level for FY 2021-22.

7.4. Other Charges

Commission's Analysis

All other charges would be determined as per the JERC Connectivity and Open Access in Intra-State Transmission and Distribution Regulations, 2017 as amended from time to time.

8. Chapter 8: Fuel and Power Purchase Adjustment Mechanism

The State of Goa and Union Territories of Andaman & Nicobar Islands, Lakshadweep, Chandigarh, Dadra & Nagar Haveli and Daman & Diu and Puducherry receive power from the Central Generating Stations, State Generating Stations, Independent Power Producer's (IPP's) through the long-term power purchase agreements and short term purchases – through exchange, bilateral purchases etc. The distribution licensees of JERC procure power from various available sources and supply power to the consumers at retail tariffs determined by the Commission. Power purchase cost accounts for more than 80% of the Annual Revenue Requirements (ARR) of the distribution licensees and includes the cost paid for procurement of power, transmission charges, Deviation Settlement Mechanism (DSM) charges, State Load Dispatch Center (SLDC)/ Regional Load Dispatch Center (RLDC) charges and is netted off with revenue earned from the sale of surplus power.

The cost of the long term power being procured by the distribution licensees is fixed by the Central Electricity Regulatory Commission (CERC) for plants supplying power to more than one State/UT (for example NTPC, NHPC etc.) and by the JERC for plants located within its territory/state (for IPP's, licensees own generation and other State generating sources). Charges for the Over-drawl/Under-drawl from the Grid and the Inter State Transmission charges, RLDC charges are fixed by the CERC, while Intra-State Transmission charges and SLDC charges are fixed by the JERC. Short term purchase/ sale of power is done through traders, bilateral contracts, banking and power exchanges at market determined prices.

While determining retail tariff for any year, the Commission first determines the ARR based on the projection of various cost elements including power purchase cost. Power purchase cost of the distribution licensee is derived from the power purchase quantum and per unit power purchase cost. Quantum of power purchase depends upon the energy sales to the retail consumer and distribution losses, out of which energy sales is not under the control of the distribution licensee. There is also variation in actual per unit power purchase cost vis-a-vis projected per unit power purchase cost due to change in fuel cost, change in power purchase mix i.e. thermal /hydel/renewable mix, long term/short term power mix etc. This makes power purchase cost uncontrollable in nature.

The Commission undertakes the truing up exercise for the variation in the cost and revenue once the audited accounts of the distribution licensee are available. For example, True-up of the FY 2019-20 will be undertaken by the Commission once the audited accounts of the FY 2019-20 are available. If the audited accounts for the FY 2019-20 are prepared timely, the impact of True-up of various cost and revenue items is allowed in the tariff of the FY 2021-22, along with the carrying cost for 2 years. As the power purchase cost is the major cost element of the ARR of the distribution licensee, adjustment due to change in power purchase cost at regular intervals is important in order to avoid the burden of carrying cost on the additional power purchase cost incurred during the year.

8.1. Legal Provisions

The relevant provisions of the Electricity Act, Regulations, Policy document and the ATE judgments, which enable the Commission to devise, adopt and implement a power purchase/ fuel price adjustment mechanism are as follows:-

(a) Electricity Act, 2003- Section 62 (4)

"No tariff or part of any tariff may ordinarily be amended more frequently than once in any financial year, except in respect of any changes expressly permitted under the terms of any fuel surcharge formula as may be specified."

(b) Tariff Policy, 2016, clause 5.11 – sub clause (h-4)

"Uncontrollable costs should be recovered speedily to ensure that future consumers are not burdened with past costs. Uncontrollable costs would include (but not limited to) fuel costs, costs on account of inflation, taxes and cess, variations in power purchase unit costs including on account of adverse natural events."

(c) Tariff Policy, 2016, clause 8.2– sub clause 8.2.1-(1)

"8.2 Framework for revenue requirements and costs
Actual level of retail sales should be grossed up by normative level of T&D losses as indicated in MYT trajectory for allowing power purchase cost subject to justifiable power purchase mix variation (for example, more energy may be purchased from thermal generation in the event of poor rainfall) and fuel surcharge adjustment as per regulations of the SERC."

(d) Hon'ble ATE judgement in OP1 of 2011 dated 11 November, 2011

The Hon'ble ATE directed the SERCs to develop a power purchase cost adjustment mechanism within six months of the date of the Order. The relevant excerpt of the Order is shown as follows:

"(vi)Fuel and Power Purchase cost is a major expense of the distribution Company which is uncontrollable. Every State Commission must have in place a mechanism for Fuel and Power Purchase cost in terms of Section 62 (4) of the Act. The Fuel and Power Purchase cost adjustment should preferably be on monthly basis on the lines of the Central Commission's Regulations for the generating companies but in no case exceeding a quarter. Any State Commission which does not already have such formula/mechanism in place must within 6 months of the date of this Order must put in place such formula/mechanism."

8.2. Existing Formula

The Commission first introduced the provision for adjustment of fuel surcharge in the Joint Electricity Regulatory Commission for the State of Goa and UT's (Terms and conditions for determination of tariff) Regulations, 2009 notified on 08 February 2010. The relevant Clause 7 of the Regulations is provided below:
*"**7. Fuel Surcharge Formula***
(1) The fuel cost revisions for the generating companies/units owned by the licensee that are due to reasons beyond the control of the generating companies / the licensee be in accordance with the fuel surcharge formula as may be decided by the Commission from time to time.
(2) The generating company or the licensee may determine such charge in accordance with the specified formula and recover the same from such categories of consumers or the licensees, as the case may be after following procedure and the terms and conditions attached thereto."

The Commission subsequently notified the Joint Electricity Regulatory Commission for the State of Goa and UT's (Terms and conditions for determination of tariff) (First Amendment) Regulations, 2009 on 27 June, 2012 prescribing the methodology for determination and the recovery mechanism of Fuel & Power Purchase Cost Adjustment (FPPCA) formula. Subsequently on 18 January, 2013, the Commission issued a Corrigendum correcting the calculations of the FPPCA for certain consumer categories.

On 30 June, 2014 the Commission notified the Joint Electricity Regulatory Commission for the State of Goa and Union Territories (Multi Year Distribution Tariff) Regulations, 2014 wherein the Commission proposed to adopt the same methodology as prescribed in the Joint Electricity Regulatory Commission for the State of Goa and UT's (Terms and conditions for determination of tariff) (First Amendment) Regulations, 2009 in the MYT Period. Clause 19 of the Regulations is shown as follows
"***19. Treatment of Incremental Power procurement cost***
The Distribution Licensee shall recover the incremental cost on account of fuel & power purchase adjustment in accordance with FPPCA formula provided in JERC Terms & Condition for determination of Tariff (first amendment) Regulations, 2009."

On 19 October, 2016 JERC notified the Joint Electricity Regulatory Commission for the State of Goa and UT's (Multi Year Distribution Tariff) (Second Amendment) Regulations, 2016 according to which the Fuel and Power

Purchase cost adjustment charge shall be levied by distribution licensees on consumer electricity bills on account of the incremental power purchase cost incurred by the licensees and the Transmission charge recovery was also added to the formula.

1. Periodicity for recovery (Cycle)

The licensee shall compute the fuel and power procurement cost variations on a quarterly basis. The adjustment shall be made in the consumers bills starting after a month following the end of the quarter on the units billed in the months following the quarter.

For example, FPPCA for the quarter April- June shall be done in the month of July and shall be reflected in the consumer bills raised in the months of August, September and October on the units billed for the months of July, August and September respectively.

2. Chargeability

FPPCA charges shall be levied on all consumer categories excluding Below Poverty Line (BPL) and Agriculture category consumers on per unit basis on monthly/ bi-monthly consumption depending on the billing cycle.

3. Formula

The FPPCA formula shall contain the following three components:

1. Power Purchase Cost adjustments which shall contain the following elements:
    - Variation in the Power Purchased from long term/ firm sources viz. CGS, IPP's, State, Own generation etc. This may consist of fixed cost, variable costs, arrears, other charges but excluding any kind of penalties
    - Variation in Short term power purchase cost through IEX, Bilateral etc. (shall be allowed upto a certain ceiling rate as may be fixed in the Tariff Order by the Commission).
    - Variation on account of Deviation Settlement Mechanism – Shall be allowed, but the incentive/penalty shall be excluded

2. Transmission cost adjustments which shall contain the following elements:
    - Variation on account of Central Transmission Charges including arrears/ revisions.
    - Variation on account of State Transmission charges including arrears/revisions

3. Other Charges which shall contain all the other elements not forming part of the above two components for example:
    - Any adjustments /reversals due to over recovery of charges
    - Any adjustments due to under recovery of charges in case the Commission decides to limit the FPPCA charges in previous quarters to avoid tariff shock or other reasons
    - Any other adjustments on account of factors not envisaged at the time of tariff fixation

4. Less any revenue from Additional Surcharge collected from Open Access consumer towards the stranded power purchase cost.

Based on the components as defined above, the new FPPCA formula can be represented as follows:

$$\boldsymbol{FPPCA\left(\frac{Rs.}{Unit}\right) =.\left(\frac{(Pact + Tact + Oact - ASact) * 10}{\{[PPOact * (1 - TLapp) + PPIact - PSOact] * (1 - DLapp)\} - Zact}\right) - Rapp}$$

Where:

- $Pact(in\ Rs.Cr.)$: Actual Power purchase cost inclusive of fixed cost, variable costs, arrears, and other charges excluding any kind of penalties incurred in the quarter. This shall include:
    - Cost of procurement from sources outside the State,
    - Cost of procurement from sources within the State,

  - Cost of DSM excluding any penal charges,
  - Cost of procurement from the Bilateral/ exchange etc.
  - Less: Revenue from sale of surplus power/ DSM

- $Tact\ (in\ Rs.Cr.)$: Actual Transmission cost inclusive of any kind of arrears, other charges etc. and excluding any kind of penalties incurred in the quarter. This shall include:
  - Inter-State transmission cost (PGCIL charges),
  - Intra-State transmission cost
- $Oact\ (in\ Rs.Cr.)$: Adjustments from the previous FPPCA quarter on account of over/ under recovery and any other incidental costs not accounted for at the time of retail tariff fixation
- $ASact\ (in\ Rs.Cr.)$: Revenue from Additional Surcharge collected from Open Access consumer towards the stranded power purchase cost
- $PPOact\ (in\ MU)$: Quantum of power purchased in the quarter from sources outside State/ Union Territory
- $TLapp\ (in\ \%)$: Approved Inter- State transmission losses for the year in consideration as provided in the relevant Tariff Order
- $PPIact\ (in\ MU)$: Quantum of power purchased in the quarter from sources within State/Union Territory, Bilateral/ Exchange and Over-drawal under the DSM
- $PSOact\ (in\ MU)$: Actual quantum of sale of surplus power/ under-drawal under the DSM in the quarter
- $DLapp\ (in\ \%)$: Approved T&D losses for the year in consideration as provided in the relevant Tariff Order
- $Zact\ (in\ MU)$: Actual energy sales for agriculture and BPL category consumers in the quarter

$$Rapp\ (\frac{Rs}{unit}) = \left(\frac{(Papp + Tapp) * 10}{\{[PPOapp * (1 - TLapp) + PPIapp - PSOapp] * (1 - DLapp)\} - Zapp}\right)$$

- $Papp\ (in\ Rs.Cr.)$: Total power purchase cost approved in the Tariff Order for a quarter inclusive of fixed costs, variable costs etc. and containing the following elements:
  - Cost of procurement from sources outside the State,
  - Cost of procurement from sources within the State,
  - Cost of procurement from the Bilateral/ exchange etc.
  - Less: Revenue from sale of surplus power
- $Tapp\ (in\ Rs.Cr.)$: Total transmission charges approved in the Tariff Order for a quarter consisting of the following elements:
  - Inter-State transmission charges (PGCIL charges),
  - Intra-State transmission charges
- $PPOapp\ (in\ MU)$: Quantum of power to be procured from sources outside State/ Union Territory in a quarter as approved in the Tariff Order
- $TLapp\ (in\ \%)$: Approved Inter- State transmission losses for the year in consideration as provided in the relevant Tariff Order
- $PPIapp\ (in\ MU)$: Quantum of power to be procured from sources within the State, bilateral/ exchange in a quarter as approved in the Tariff Order
- $DLapp\ (in\ \%)$: Approved T&D losses for the year in consideration as provided in the Tariff Order
- $PSOapp\ (in\ MU)$: Quantum of sale of surplus power approved in the Tariff Order for a quarter
- $Zapp\ (in\ MU)$: Sales for agriculture and BPL category consumers for a quarter as approved in the relevant Tariff Order

4. Other Terms and conditions

1. For the purpose of the Fuel and Power Purchase Cost Adjustment, all the bills admitted and credits, if any, received by the distribution licensee during the period in consideration, irrespective of the period to which they pertain, may be considered.

2. The FPPCA charges determined as per the formula above may be recovered from the consumers of all categories based on their billed units excluding the BPL and the agriculture category consumers.

3. The FPPCA charges for a quarter shall be limited to a ±10% of the ABR of the consumer category. The distribution licensee shall be allowed to collect the ±10% FPPCA without obtaining prior approval from the Commission. However, the distribution licensee shall be required to submit the FPPCA calculation to the Commission at least one week before levying the same on the consumers. In case FPPCA is more than ±10% of ABR the licensee shall charge full/higher FPPCA only with prior approval from the Commission.

4. The per unit FPPCA so worked out is charged differentially as per the approved retail tariff of the consumers. The determination of differential per unit FPPCA is mentioned below:
   - Step 1: Determination of Value of K

$$\frac{Approved\ Retail\ Tariff\ for\ a\ category\ or\ sub\ category\ (\frac{Rs.}{unit})}{Weighted\ Average\ Retail\ Tariff\ (WART)(\frac{Rs.}{unit})}$$

   The value of K for different consumer category or subcategory for the year in consideration is considered as approved in this Tariff Order.

   - Step 2: Determination of proportionate FPPCA (INR/unit) consumer category/sub-category wise

$$FPPCA\left(\frac{Rs.}{Unit}\right) = Average\ FPPCA * K\ for\ that\ consumer\ category\ or\ sub-category$$

5. The Petitioner shall compute fuel and power procurement cost variations, and adjustments shall be made in the consumer bills based on the Fuel and Power Purchase Cost Adjustment (FPPCA) formula notified by the Commission in this Order.

   For the purpose of calculation, the approved per unit cost of power purchase ($R_{approved}$) shall be taken as INR 4.57 per unit for the FY 2021-22, as shown in the following Table.

Table 139: $R_{approved}$ determined by the Commission for FY 2021-22

S.No.	Particulars	Amount
1	Total Power Purchase Cost (INR Cr), Papp	1,098.53
2	Transmission Charges (INR Cr), T_{app}	80.53
3	Power Purchase Quantum from CGS Stations at Generator Ex-bus (NTPC, NPCIL, RGGPL) (MU), PPO_{app}	2,807.13
4	Approved Weighted Average Inter-State Transmission Loss (%), TL_{app}	3.66%
5	Power Purchase Quantum from sources within State/ Open Market, PPI_{app}	60.00
6	Quantum of Sale of Surplus Power (MU), PSO_{app}	-
7	Approved Intra-State T&D Loss (%), DL_{app}	6.50%
8	Energy Sales for LIG and Agriculture consumer category (MU), Z_{app} (MU)	3.37
9	**R_{app} (INR/kWh)**	**4.57**

9. Chapter 9: Directives

Over the years, the Commission has issued various directives to the Petitioner for necessary action at its end. It has been observed that the Petitioner has been making efforts to comply with 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 once again directs the Petitioner to submit the quarterly progress report along with the detailed action plan for all the directives issued in the subsequent section within 10 days of the end of each quarter of the financial year.

9.1. Directives continued in this Order

While examining the compliance note and supporting documents submitted by the Petitioner in the present Petition, it is observed that some of the directives issued in the previous Tariff Orders have not been fully complied with by the Petitioner.

The Commission is of the view that substantial time has already been given to the utility for compliance with these directions. Thus, the Commission hereby directs the utility to comply with the directions mentioned below in the given timeframe, failing which the Commission shall be constrained to initiate necessary action under Section 142 of the Electricity Act 2003 read with other provisions of the Act, and the Regulations made thereunder.

9.1.1. Assets created from consumer contribution

Originally Issued in Tariff Order dated March 13, 2018
Commission's Directive in Tariff Order Dated May 20, 2019 The Commission has noted with concern that Petitioner is yet to submit the details of assets created from consumer contribution. The absence of this data constraint the Commission in fair determination of average cost of supply and tariff. The Commission directs the petitioner to submit the data pertaining to the assets created from consumer contribution along with the Tariff petition for determination of retail Tariff for FY 2020-21.
Petitioner's Response in the Tariff Petition Assets created out of consumer contribution are not included in the asset register being prepared by the Department for FY 2018-19. Further, the depreciation on the assets created out of consumer contribution is not included in the ARR being filed by the Department for determination of Tariff.
Commission's Latest Directive in Tariff Order Dated May 18, 2020 The Commission has noted that the Petitioner has submitted that the assets created out of consumer contribution are not included in the asset register being prepared by the Department for FY 2018-19 but as per Commissions direction petitioner has still failed to submit the details of assets created through consumer contribution, if any. The Petitioner is not entitled to get depreciation on these assets. The Commission has currently considered the entire GFA towards depreciation and will reduce the depreciation in future, once the details of the consumer contribution are made available. The Commission directs the Petitioner to submit detailed scheme wise consumer contributions, the impact of which shall be accounted by the Commission in future Tariff Orders.
Petitioner's Response in the Present Tariff Petition The EDDD would like to submit that the assets created out of consumer contribution are not included in the asset register prepared for FY 2019-20. Further, the EDDD is not claiming any depreciation on the assets created out of consumer contribution in the ARR petition.

Commission's directions in this Tariff Order
The Commission in the directive to petitioner in Tariff Order dated May 18th 2020 noted that the Petitioner has submitted that the assets created out of consumer contribution is not included in the asset register being prepared by the Department for FY 2018-19.   *However as per Commissions directions, the petitioner has again failed to submit the details of assets created through consumer contribution, if any. The Petitioner is not entitled to get depreciation on these assets. The Commission has currently considered the entire GFA towards depreciation and will reduce the depreciation in future, once the details of the consumer contribution are made available.* ***The Commission directs the Petitioner to submit detailed scheme wise consumer contributions, the impact of which shall be accounted by the Commission in future Tariff Orders.***

9.1.2. Creation of SLDC

Originally Issued in Tariff Order dated March 13, 2018
Commission's Directive in Tariff Order Dated May 20, 2019   The Commission appreciates the efforts of the Petitioner towards creating an independent SLDC. The Commission directs the Petitioner to expedite the process of creation of separate SLDC and submit a detailed implementation plan for the same within 3 months of the issuance of this Order.
Petitioner's Response in the Tariff Petition   The EDDD submits that the Department has provided a separate infrastructure for the functioning of the SLDC.
Commission's Latest Directive in Tariff Order Dated May 18, 2020   The Commission has noted with concern that Petitioner has not submit any report regarding detailed implementation plan to expedite the process of creation of separate SLDC. The Commission directs the petitioner to submit the detailed implementation plan along with the current status in regard to the creation of separate SLDC within 3 months of the issuance of this Order.
Petitioner's Response in the Present Tariff Petition   The EDDD would like to submit that the Department is functioning as a vertically integrated utility and looks after the transmission and distribution functions. However, the EDDD has provided a separate head for SLDC along with necessary staff and also the budgetary allocation has been done separately for the functioning of SLDC.
Commission's directions in this Tariff Order   *The Commission appreciates the efforts of the Petitioner towards creating an independent SLDC.* ***The Commission directs the Petitioner to expedite the process of creation of separate SLDC and submit a detailed implementation plan for the same within 3 months of the issuance of this Order.***

9.1.3. Timely submission of Reports and Compliance of directives

Originally Issued in Tariff Order dated May 18, 2020   The Commission has noted that the Petitioner does not submit the quarterly reports and the reports related to compliance of directives in a regular and timely manner. The Commission directs the petitioner to submit the aforementioned report regularly.
Petitioner's Response in the Current Tariff Petition   The EDDD would like to submit that the Department has been regularly submitting all the reports to the Hon'ble Commission. As directed by the Hon'ble Commission the EDDD submitted the first quarterly report on 08.07.2020 which was again submitted on 27.08.2020 as per the revised format. Further, the second quarterly report was submitted on 12.20.2020.

Commission's directions in this Tariff Order
*The Commission has noted the compliance to the above directive and **directs the petitioner to submit the aforementioned report regularly in future also**. Accordingly, the Commission now drops this directive.*

9.1.4. Renewable Purchase Obligation

Originally Issued in Tariff Order dated May 18, 2020 The Commission directs the petitioner to submit the quarterly RPO report including all the data related to the actual electricity generation/purchase from Solar & Non-Solar and data related to purchase of Solar & Non-Solar energy certificates within timeframe as decided by the Commission in earlier order and regulations.
Petitioner's Response in the Current Tariff Petition The EDDD would like to submit that the Department has submitted all the quarterly RPO report to the Hon'ble Commission. The first quarterly report was submitted on 17.07.2020 and was again submitted on 27.08.2020 as per the revised format. The second quarterly report was submitted on 12.10.2020.
Commission's directions in this Tariff Order *The Commission has noted the compliance to the above directive and **directs the petitioner to submit the aforementioned report regularly in future also**. Accordingly, the Commission now drops this directive.*

9.1.5. Status of Metering

Originally Issued in Tariff Order dated May 18, 2020 The Commission directs the petitioner to submit the metering status including status of defective meters for each category of consumers separately within three months from the issuance of this Tariff Order. Further, the petitioner is also directed to submit the status of the consumers for which billing is being done on actual reading basis or on assessment basis within three months from the issuance of this Tariff Order.
Petitioner's Response in the Current Tariff Petition The EDDD would like to submit that metering status report has already been submitted to the Hon'ble Commission as per the format provided to the Department.
Commission's directions in this Tariff Order *The Commission has noted the compliance to the above directive and **directs the petitioner to submit the aforementioned report regularly in future also**. Accordingly, the Commission now drops this directive.*

9.1.6. Open Access Consumers

Originally Issued in Tariff Order dated May 18, 2020 The Commission directs the petitioner to submit quarterly details of power stranded on account of consumers opting for open access along with the Additional Surcharge recovered from these consumers.
Petitioner's Response in the Current Tariff Petition The EDDD would like to submit to the Hon'ble Commission that as of now there is no open access consumer and therefore no power has been stranded.
Commission's directions in this Tariff Order *The Commission has noted the compliance to the above directive and **directs the petitioner to submit the aforementioned report regularly in future also**. Accordingly, the Commission now drops this directive.*

10. Chapter 10: Tariff Schedule

10.1. Tariff Schedule

Table 140: Tariff Schedule

S. No.	Category	Fixed Charges	Energy Charges
1.	**DOMESTIC**		
(i)	0-100 units	INR/Consumer/Month Single Phase: INR 20 Three Phase: INR 45	1.40 INR/kWh
(ii)	101-200 units		2.00 INR/kWh
(iii)	201-400 units		2.50 INR/kWh
(iv)	401 and above		3.00 INR/kWh
(v)	Low Income Group (Up to 2x40 W bulbs only)	Power supply to low income group connections will be charged at INR 15 per service connection per month. For any unauthorized increase in the load beyond 2*40 watts, penal charges at the rate of INR 20 per month per point will be levied and the installation will be liable for disconnection.	
2.	**COMMERCIAL/NON-DOMESTIC**		
(i)	0-100 units	INR/Consumer/Month Single Phase: INR 25 Three Phase: INR 50	3.00 INR/kWh
(ii)	101 units and above		4.05 INR/kWh
3.	**HT COMMERCIAL**		
(i)	HT Commercial	100 INR/kVA/month	4.20 INR/kVAh
4.	**AGRICULTURE**		
(i)	For sanctioned load up to 10 HP	-	0.75 INR/kWh
(ii)	Beyond 10 HP and up to 99 HP sanctioned load	-	1.05 INR/kWh
5.	**PUBLIC LIGHTING**		
(i)	For all units	-	4.50 INR/kWh
6.	**LT Public Water Works**		
(i)	LT Public Water Works	25 INR per HP or part thereof	4.10 INR/kWh
7.	**LT INDUSTRIAL**		
(i)	LTP Motive Power	40 INR per HP or part thereof	3.60 INR/kVAh
1) Fixed Charges shall be reduced by 25% in the lean season from May to August for Fishery Industry			
8.	**HT/EHT Industry**		
(i)	High Tension Consumer (For all units)	315 INR/kVA/month	4.20 INR/kVAh
(ii)	HT Industrial (Ferro Metallurgical/ Steel Melting/ Steel	505 INR/kVA/month	4.15 INR/kVAh

S. No.	Category	Fixed Charges	Energy Charges
	Rerolling/Power Intensive (For all units)		
• Fixed Charges shall be reduced by 25% in the lean season from May to August for Fishery Industry			
9.	**HOARDINGS/SIGNBOARDS**		
(i)	Hoarding/Signboards	100 INR/ kVA / Month or part thereof	6.70 INR/kWh
10.	**EV CHARGING STATION**	-	4.50 INR/kWh
11.	**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.		

10.2. *Applicability*

Table 141: Applicability of Tariff Schedule

S.No.	Category	Applicability
1.	**Domestic**	This schedule shall apply to private houses, hostels, hospitals run on Non-commercial lines, Religious Institutions, Government Schools & associated facilities for Light, Fans, Radios, Domestic Heating and other household appliances including water pumps up to 2 HP.
2.	**LT Commercial/Non-Domestic**	This schedule shall apply to Shops, Offices, Restaurants, Bus Stations, Photo Studios, Laundries, Cinema Theatres, Industrial Lighting, clubs and other Commercial installations. **Point of Supply/Notes:** This includes all categories which are not covered by other tariff categories including Domestic Category, Low Income Group, Industrial LT, HT/EHT Category (A&B), Agriculture and Poultry, Public Lighting.
3.	**HT Commercial**	This schedule shall apply to all the consumers falling under the LT Commercial category above but connected at 11 kV or above voltage level
4.	**Agriculture**	This schedule shall apply to Agriculture or poultry loads up to 99 HP sanctioned load will be considered in this category.
5.	**Public Lighting**	
6.	**LT Public Water Works**	
7.	**LT Industrial**	This schedule shall apply to all Low-Tension Industrial Motive Power Connections including water works/pumps with sanctioned load up to 120 HP.
8.	**HT/EHT consumers**	This schedule shall apply to all Industrial/Motive power consumers drawing through 11 kV and 66 kV systems having contract demand of 100 kVA and above.
9.	**HHT Industrial (Ferro Metallurgical/ Steel Melting/ Steel Rerolling/Power Intensive (For all units)**	

S.No.	Category	Applicability
10.	**Hoardings / Signboards**	This schedule shall apply to electricity for lighting external advertisements, external hoardings and displays at departments stores, malls, multiplexes, theatres, clubs, hotels, bus shelters, Railway Stations shall be separately metered and charged at the tariff applicable for "Advertisements and Hoardings" category, except such displays which are for the purpose of indicating / displaying the name and other details of the shop, commercial premises itself. Such use of electricity shall be covered under the prevailing tariff for such shops or commercial premises. The connection for "Advertisements and Hoardings" category would be covered under the permanent supply of connection.
11.	**Electric Vehicle Charging Stations**	This tariff schedule shall apply to consumers that have set up Public Charging Stations (PCS) in accordance with the technical norms/ standards/specifications laid down by the Ministry of Power, GoI and Central Electricity Authority (CEA) from time to time. The tariff for domestic consumption shall be applicable for domestic charging (LT/HT)
12.	**Temporary Supply**	The Temporary Tariff is applicable for a temporary period of supply for a period of maximum one (1) year at a time, which may be further extended, as per the provisions of Supply Code Regulations.

10.3. *General Conditions of HT and LT Supply*

1. The tariffs are exclusive of electricity duty, taxes and other charges levied by the Government or other competent authority from time to time which are payable by the consumers in addition to the charges levied as per the tariffs.

2. Unless otherwise agreed to, these tariffs for power supply are applicable for supply at one point only.

3. Supply to consumers having contracted load between 100 KVA to 5000 KVA (including licensee common feeders and express feeders/dedicated feeders) shall generally be at 11 KV and for more than 5000 KVA up to 25000 KVA at 66 KV. For the consumer who requires load more than 25000 KVA, the supply voltage shall be at 220 KV level.

4. 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 a higher tariff is applicable, it will be deemed as unauthorized use of electricity and shall be dealt with for assessment under the provisions of Section 126 of the Electricity Act, 2003 & Supply Code Regulation notified by JERC.

5. If connected load of a domestic category is found to be at variance with the sanctioned/contracted load as a result of replacement of appliances such as lamps, fans, fuses, switches, low voltage domestic appliances, fittings, it shall not fall under Section 126 and Section 135 of the EA 2003.

6. **Power Factor Charges** - LT and Agriculture Connection running without proper capacitors installed so as to maintain Power Factor of 0.85 as per the JERC Supply Code Regulations, 2018 and subsequent amendments thereof, shall be charged extra 2.5% of units consumed as additional power factor charges. Payment of the power factor charge won't exempt the consumer from his responsibility to maintain the power factor. The conditions for disconnection of a consumer supply in case of non-achievement of minimum level of power factor as prescribed in the Supply Code Regulations notified

by JERC, shall apply. ED-DD reserves the right to install a suitable capacitor at its own cost and recover the cost thereof as arrears of energy charges. In case the monthly average power factor is less than 0.70 lagging, the installation is liable for disconnection after due notice

7. 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 after giving 15 days' notice as per the provisions of the Act and the Supply Code Regulations.

8. 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.

9. 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 JERC Supply Code Regulation. 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 kWh, then the consumption corresponding to the contract demand will be 10000 kWh (12000*100/120) and consumption corresponding to the excess demand will be 2000 kWh. This excess demand of 20 KVA and excess consumption of 2000 kWh will be billed at twice the respective normal rate. Such connections drawing more than 120 kVA, shall be disconnected immediately.

10. Unless specifically stated to the contrary, the figures of energy charges relate to paisa per unit (kWh) charge for the energy consumed during the month.

11. Delayed payment surcharge shall be applicable to all categories of consumers. Delayed payment surcharge of 2% per month or part thereof shall be levied on all arrears of bills. Such surcharge shall be rounded off to the nearest multiple of one rupee. Amount less than 50 paisa shall be ignored and amount of 50 paisa or more shall be rounded off to the next rupee. In case of permanent disconnection, delayed payment surcharge shall be charged only up to the month of permanent disconnection.

12. **Advance Payment Rebate:** If payment is made in advance well before commencement of the consumption period for which the bill is prepared, a rebate @ 1% per month shall be given on the amount (excluding security deposit) which remains with the licensee at the end of the month. Such rebate, after adjusting any amount payable to the licensee, shall be credited to the account of the consumer.

13. **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.

14. **TOD Tariff**: For the purpose of TOD Tariff, the peak/off-peak/normal hours and charges for the corresponding period provided in the table as follows:

Table 142: Definition of Time of Day and applicable Tariff

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

15. The adjustment on account of Fuel and Power Purchase Cost variation shall be calculated in accordance with the FPPCA formula notified in Chapter 8 of this Tariff Order. Such charges shall be recovered/refunded in accordance with the terms and conditions specified in the FPPCA formula.

16. The values of the 'K' factor applicable for the different consumer categories for use in the FPPCA formula shall be as specified in this Tariff Order.

10.4. Schedule of Miscellaneous Charges

Table 143: Schedule of Miscellaneous Charges

Description	Approved Charges
Monthly Meter Rental Charges	
Single Phase LT meter	INR 10 per month or part thereof
Three Phase LT meter	INR 25 per month or part thereof
LT Meter with MD indicator	INR 200 per month or part thereof
Tri-vector Meter	INR 500 per month or part thereof
Note: The type of meters to be installed in consumer premises will be decided by the department. Generally, the consumers having connected load above 50 HP will be provided with L.T.M.D meters	
Reconnection Charges	
LT Services	
• Single Phase LT	INR 100/-
• Three Phase LT	INR 500/-
HT Services	INR 1500/-
Note: If the same consumer seeks reconnection within 12 months from the date of reconnection or disconnection, 50% will be added to above charges	
Testing Fee for Various Metering Equipment	
Single Phase	INR 200/-
Three Phase	INR 500/-
Three Phase Tri-vector Meter (0.5 Class) Industrial LT Consumer	INR 1,000/-
Three Phase Tri-vector Meter (0.5 Class) 11 kV HT Consumer	INR 1,000/-
Three Phase Tri-vector Meter (0.2 Class) 66 KV EHT Consumers	INR 1,500/-
ABT meter 0.2 class-66 kV/11kV Consumer	INR 3,000/-
Combined CT/PT Unit for 11 KV Consumer	INR 1,000/-
66 KV CT/ PT Unit	INR 1,000/-
Three Phase CT Block	INR 500/-
CT Coil	INR 500/-
Service Connection Charges	
Single Phase LT	INR 250/-

Description	Approved Charges
Three Phase LT	INR 1,000/-
HT (First 500 KVA)	INR 10,000/-
HT (Beyond 500 KVA)	INR 1,000/- per 100 KVA or part thereof
Extra Length - Single Phase	INR 50 /- per meter
Extra Length - Three Phase	INR 100/- per meter
Extra length chargeable will be beyond the permissible 30 meters free length from existing network for new connections for all categories except agriculture. Free length in respect of new agriculture consumer is 300 meters.	
Entire Cost of setting up HT connection would be borne by the consumer and 15% supervision charges shall be recovered by the EDDD on labor component only, as per the JERC Supply Code 2018.	
Fees (Non-refundable) for submission of Test Report of wiring Completion	
Single Phase Lighting / Domestic	INR 20/- Per Test Report
Three Phase Lighting / Domestic	INR 50/- Per Test Report
Single Phase Lighting / Non-Domestic	INR 100/- Per Test Report
Three Phase Lighting / Non-Domestic	INR 200/- Per Test Report
Three Phase LT Industries	INR 500/- Per Test Report
Single Phase / Three phase Agriculture / Streetlight / Public Lighting & others	INR 100/- Per Test Report
HT Industries up to 500 KVA	INR 2,000/- Per Test Report
HT Industries up to 2500 KVA	INR 8,000/- Per Test Report
HT Industries above 2500 KVA	INR 15,000/- Per Test Report

Annexures

Annexure 1: List of Stakeholders

The following is the list of the stakeholders who have attended virtual public hearing:

S. No.	Name of Stakeholders	Designation
1.	Mr. Umesh Babubhai Patel	Social Worker
2.	Mr. Ashish Manohar Rathore	Electronic Media Representative
3.	Mr. Parsanjit Kishan	Representative of YOUTH ACTION FORCE
4.	Ms. Vaishali Vadhel	Social Worker
5.	Sanjay Dalal	Consumer
6.	Mrs. Jayshree Prajapati	Social Worker