TARIFF ORDER

True-up of FY 2020-21, Annual Performance Review of FY 2021-22, Aggregate Revenue Requirements (ARR) for MYT Determination for the Control Period FY 2022-23 to FY 2024-25 and Determination of Retail Tariff for FY 2022-23

Petition No. 68/2021

For

DNH Power Distribution Corporation Limited

31st March, 2022

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

Abbreviation	Full Form
A&G	Administrative and General
ACoS	Average Cost of Supply
Act	The Electricity Act, 2003
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
CGS	Central Generating Stations
COD	Commercial Operation Date
Cr	Crores
Discom	Distribution Company
DNHPDCL	DNH Power Distribution Corporation Limited
DSM	Deviation Settlement Mechanism
EA 2003	The Electricity Act, 2003
ED	Electricity Department
EHT	Extra High Tension
FAR	Fixed Asset Register
FPPCA	Fuel and Power Purchase Cost Adjustment
FY	Financial Year
Gadarwara	Gadarwara Super Thermal Power Plant
GFA	Gross Fixed Assets
HT	High Tension
IEX	Indian Energy Exchange Limited
IPP	Independent Power Producer
JERC	Joint Electricity Regulatory Commission for the state of Goa and Union Territories
JGPP or GGPP	NTPC Jhanor –Gandhar Gas Based power plants
KAPS	Kakrapar Atomic Power Station
Kawas/KGPP	NTPC Kawas Gas Based Power Station
Kharagaon/Khargone	Khargone Super Thermal Power Plant
KHSTPP	Kahalgaon Super Thermal Power Station
KSTPP	Korba Super Thermal Power Station
Lara	Lara Super Thermal Power Plant
LT	Low Tension
MSTPL 1	Mauda Super Thermal Power Station
MU	Million Units
MOD	Merit Order Dispatch
MYT	Multi Year Tariff
NTPC	National Thermal Power Corporation Ltd
O&M	Operation and Maintenance

Abbreviation	Full Form
PGCIL	Power Grid Corporation of India Limited
PLF	Plant Load Factor
PLR	Prime Lending Rate
POSOCO	Power System Operation Corporation Limited
PPA	Power Purchase Agreement
R&M	Repair and Maintenance
REC	Renewable Energy Certificate
RLDC	Regional Load Despatch Centre
RoE	Return on Equity
RPO	Renewable Purchase Obligation
SBI PLR	SBI Prime Lending Rate
SECI	Solar Energy Corporation of India
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
TAPS	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

Before the

Joint Electricity Regulatory Commission
For the State of Goa and Union Territories, Gurugram

CORAM

Smt. Jyoti Prasad, Member (Law)

Petition No. 68/2021

In the matter of

Truing up Petition for FY 2020-21, Review of FY 2021-22, Aggregate Revenue Requirement (ARR) for Multi Year Tariff Determination for the Control Period FY 2022-23 to FY 2024-25 and Tariff Proposal of DNHPDCL for the FY 2022-23

And in the matter of

DNH Power Distribution Corporation Limited (DNHPDCL)..**Petitioner**

ORDER

Dated: 31st March, 2022

1. This Order is passed in respect of a Petition filed by the DNH Power Distribution Corporation Limited (DNHPDCL) (herein after referred to as "The Petitioner" or "DNHPDCL" or "The Licensee") for approval of True- Up of FY 2020-21, Annual Performance Review of FY 2021-22, Aggregate Revenue Requirements (ARR) for FY 2022-23 to FY 2024-25 and Tariff Proposal of DNHPDCL for FY 2022-23 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 05th January, 2022. 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 were invited from the Public/Stakeholders. 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 2nd February, 2022 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 2021-22 and thereafter True-up of FY 2020-21. Accordingly, the Commission in this Order has considered the impact of reduction in sales, rebate received in power purchase cost and some other parameters due to COVID- 19 as part of True-up of FY 2020-21. Further, the Commission has considered the actual impact of COVID- 19 on various parameters of ARR while conducting the truing up for FY 2020-21.

4. The Commission based on the Petitioner's submission, relevant MYT Regulations, facts of the matter and after proper due diligence has approved the True-up of FY 2020-21, APR of FY 2021-22 and ARR for FY 2022-23 to FY 2024-25 along with the Retail Tariff for FY 2022-23.

5. The summary has been provided as follows:

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

Table 1: Standalone Revenue Gap/ (Surplus) approved for FY 2020-21 (INR Crore)

S. No	Particulars	Petitioner's Submission	Approved by Commission
1	Net Revenue Requirement	2769.87	2,717.90
2	Revenue from Retail Sales at Existing Tariff	2902.66	2,902.66
3	**Net Gap / (Surplus)**	**(132.79)**	**(184.76)**

(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 2021-22:

Table 2: Standalone Revenue Gap/ (Surplus) approved for FY 2021-22 (INR Crore)

S. No	Particulars	Petitioner's submission	Approved by Commission
1	Annual Revenue Requirement	3517.38	3542.28
2	Revenue from sale of power	3277.07	3322.92
3	Revenue from Surplus Power Sale	6.87	0.00
4	Revenue from FPPCA	159.78	123.17
5	Total Revenue	3443.72	3446.09
6	**Revenue Gap/(Surplus)**	**73.66**	**96.19**

(c) The following table provides ARR, Revenue and gap/(surplus) as submitted by the Petitioner and approved by the Commission for FY 2022-23 to FY 2024-25:

Table 3: Standalone Revenue Gap/ (Surplus) approved for FY 2022-23 at existing tariffs (INR Crore)

S. No	Particulars	Petitioner's submission	Approved by Commission
1	Net Revenue Requirement	3547.63	3580.88
2	Revenue from Retail Sales at approved Tariff	3440.84	3530.78
2	**Revenue Gap / (Surplus)**	**106.79**	**50.10**

(d) Accordingly, the following table provides the cumulative revenue gap/ (surplus) at existing tariff at the end of FY 2022-23:

Table 4: Cumulative Revenue Gap/ (Surplus) approved by Commission at existing tariffs (INR Crore)

S. No.	Particulars	Formula	FY 2020-21	FY 2021-22	FY 2022-23
a	Opening Gap/ (Surplus)		146.43	(33.17)	64.22
b	Add: Gap/ (Surplus)		(184.76)	96.19	50.10
c	Closing Gap/ (Surplus)	c=a+b	(38.33)	63.02	114.32
d	Average Gap/ (Surplus)	d=(a+c)/2	54.05	14.93	89.27
e	Rate of Interest		9.55%	8.00%	8.00%
f	Carrying/Holding cost	f=d*e	5.16	1.19	7.14
g	**Closing Gap/ (Surplus)**	**g=f+c**	**(33.17)**	**64.22**	**121.46**

(e) The average increase in the retail tariff now approved by the Commission vis-à-vis tariff approved for FY 2021-22 vide Order dated 23rd March, 2021 is 3.49% to meet the cumulative revenue gap. The Commission after tariff increase approves a cumulative revenue surplus of INR 1.86 Cr till FY 2022-23 which will be considered at the time of truing up.

(f) Accordingly, upon consideration of revenue at approved tariff, the resultant Revenue Gap/(Surplus) has been shown in the following table:

Table 5: Cumulative Revenue Gap/ (Surplus) at approved Retail Tariff for FY 2022-23 (INR Crore)

Sr. No.	Particulars	Value
1	Total Revenue Gap till FY 2022-23 at existing tariff	121.46
2	Additional Revenue	123.31
3	**Balance Gap/(Surplus)**	**(1.86)**

(g) The Commission intended to approve the cost reflective tariffs by designing the category wise tariff linked to voltage wise cost of supply. However, due to non-availability of crucial information to determine voltage wise cost of supply, the Commission in this Tariff Order has designed the tariffs with respect to average cost of supply. The Commission has directed the Petitioner to maintain and submit the information for voltage wise cost of supply in its next year tariff application.

(h) The Commission in order to rationalise the tariff has approved the Fixed Charges for Domestic and Commercial category on INR/kW basis instead of INR/connection basis.

(i) This Order shall come into force with effect from 1st April, 2022 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 integral part of this Order.

Sd/-

(Jyoti Prasad)

Member(Law)

Place: Gurugram
Date: 31st March, 2022

Certified Copy

RKumar.

Rakesh Kumar
(Secretary)

1. Chapter 1: Introduction

1.1. About Joint Electricity Regulatory Commission (JERC)

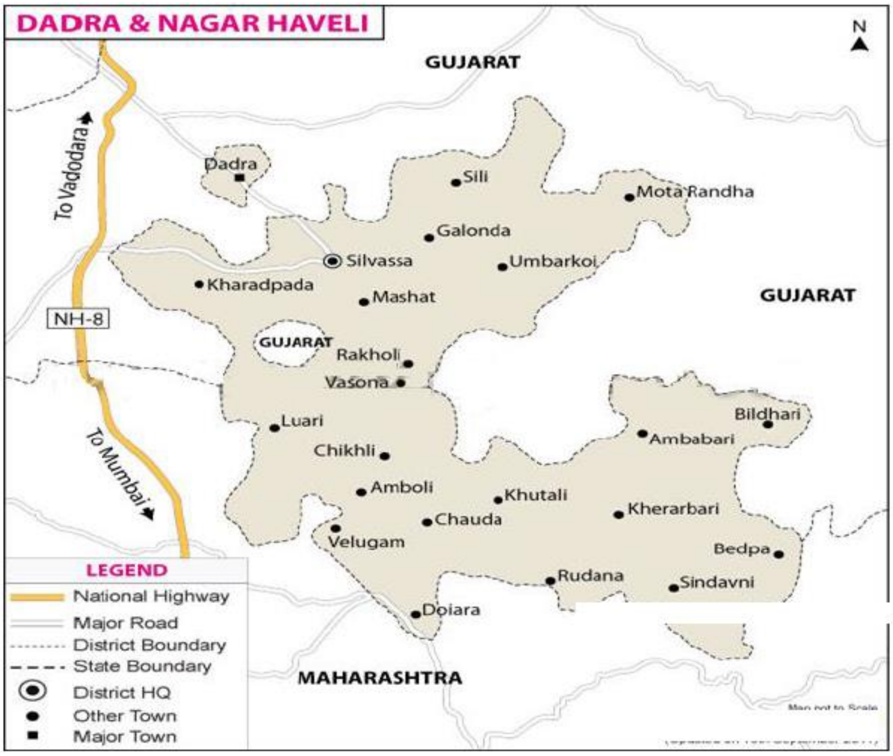
In exercise of powers conferred by the Electricity Act 2003, the Central Government constituted a Joint Electricity Regulatory Commission for all the Union Territories except Delhi to be known as the "Joint Electricity Regulatory Commission for the Union Territories" vide notification no. 23/52/2003-R&R 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 a statutory body responsible for regulation of the Power Sector in the State of Goa and the Union Territories of Andaman & Nicobar Islands, Lakshadweep, Chandigarh, Dadra & Nagar Haveli and Daman & Diu and Puducherry, consisting of generation, transmission, distribution, trading and use of electricity. Its primary objective includes taking measures conducive to the development of the electricity industry, promoting competition therein, protecting interest of consumers and ensuring supply of electricity to all areas.

1.2. About Dadra and Nagar Haveli

Dadra and Nagar Haveli (hereinafter referred to as "DNH") is spread over 491 sq. km, has 72 villages with a population of 3,42,853 as per Census 2011. The natural attractions of this region have made it a popular tourist destination in the Western region of India. Additionally, due to liberalized policies of Central Government of tax benefits, the UT has also developed into a highly industrialized area.

The rapid development of the DNH has led to a tremendous increase in the demand for power. Currently, ~92.48% of total sales are to HT and LT industrial consumers. The present peak demand of DNH is 888 MW (As of December, 2021). DNH has also achieved 100% electrification which further contributes to the increasing demand for power.



1.3. DNH Power Distribution Corporation Ltd.

Dadra & Nagar Haveli Power Distribution Corporation Limited (hereinafter referred to as "DNHPDCL" or "Utility") was created from the erstwhile Electricity Department of Dadra & Nagar Haveli (ED-DNH) and started its operation from April 1, 2013. It is a distribution licensee engaged in distribution of electricity in Dadra & Nagar Haveli.

The key duties being discharged by DNHPDCL are:

- Laying and operating of electric line, sub-station and electrical plant that is primarily maintained for the purpose of distributing electricity in the area of supply of DNHPDCL;
- Arranging, in-coordination with the Generating Company (ies) operating in or outside DNH, for the supply of electricity required within the DNH 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 DNH.

DNHPDCL does not have its own generation (except some Solar Generation) and procures power from its allocation from Central Generating Stations i.e., NTPC, NSPC, EMCO and other IPPs.

Existing Network

The present distribution system of DNHPDCL consists of 36.88 circuit km of 220 kV double circuit (D/C) lines, 279.90 km of 66 kV D/C lines, 833.70 circuit km of 11 kV lines along with 1102 distribution transformers.

At present, DNH gets power from 400/220 kV Vapi Substation of POWERGRID and 400/220 kV Kala Substation of POWERGRID. DNHPDCL has total sub-transmission capacity of 1000 MVA, including 520 MVA in Kharadpada and 420 MVA Khadoli sub-stations. The total installed capacity at 66/11 kV sub-stations is 782 MVA.

The details of the transmission and distribution system of DNHPDCL are as follows:

Table 6: Transmission & Distribution System of DNHPDCL

S. No.	Description	UOM	Length in Circuit (in km)
1	11 kV Line	Km	833.70
2	66 kV Line (Double Circuit)	Km	279.90
3	220 kV (Double Circuit)	Km	36.88
4	Distribution Transformers	Nos.	1102

1.4. Multi Year Distribution 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 & Daman and Diu and Puducherry.

1.5. Multi Year Tariff Regulation, 2021

The Commission notified the Joint Electricity Regulatory Commission for the State of Goa and Union Territories (Generation, Transmission and Distribution Multi Year Tariff) Regulations, 2021 on March 22, 2021. These Regulations are applicable in the 3rd MYT Control Period comprising of three financial years from FY 2022- 23 to FY 2024-25. These Regulations are applicable to all the generation companies, transmission and distribution licensees in the State of Goa and Union Territories of Andaman & Nicobar Islands, Lakshadweep, Chandigarh, Dadra Nagar Haveli & Daman and Diu and Puducherry for determination of tariff in 3rd Control Period.

1.6. Approval of Business Plan for 3rd MYT Control Period

In accordance with the Regulation 8 and 18 of the JERC MYT Regulations 2021, the Petitioner filed the Petition for approval of Business Plan for 3rd Multi-Year Control Period from FY 2022-23 to FY 2024-25 on December 24, 2021. The Commission has issued the Business Plan Order for the MYT Control Period (hereinafter referred to as 'Business Plan Order') on 31 March, 2022.

1.7. Filing and Admission of the Present Petition

In accordance with the Regulation 9.1 of the JERC MYT Regulations, 2021 the Petitioner filed the MYT Petition for approval of True-up of FY 2020-21, Annual Performance Review for FY 2021-22, Aggregate Revenue Requirements (ARR) for 3rd MYT Control Period (FY 2022-23 to FY 2024-25) and Retail Tariff for FY 2022-23 on 24th December, 2021.

After initial scrutiny/analysis, the present Petition was admitted on 05 January, 2022 and marked as Petition no.68/2021.

1.8. 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 sought 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, capitalization, 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 7: List of interactions with the Petitioner

S. No	Subject	Date
1	Issuance of First Discrepancy Note	25 January, 2022
2	Public Hearing	2 February, 2022
3	Issuance of Second Deficiency Note	4 February, 2022
4	Reply received from Petitioner	10 February, 2022
5	Technical Validation Session (TVS) with Petitioner at JERC Office	18 February, 2022
6	Reply received from Petitioner	19 February, 2022
7	Reply received from Petitioner	25 February, 2022
8	Reply received from Petitioner	28 February, 2022
9	Issuance of Third Deficiency Note	7 March, 2022
10	Reply received from Petitioner	11 March, 2022

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

1.9. Notice for Public Hearing

Public notices were published by the Petitioner for inviting suggestions/comments from stakeholders on the Tariff Petition details of which are given below:

Table 8: Details of Public Notices published by the Petitioner

S. No.	Date	Name of Newspaper	Place of Circulation
1	19.01.2022	Hindustaan Times (Hindi)	Dadar & Nagar Haveli
2	19.01.2022	Nishpaksha Janasansar (Hindi)	Dadar & Nagar Haveli
3	19.01.2022	Vartman Prabha (Gujrati)	Dadar & Nagar Haveli

The Petitioner also uploaded the Petition on its website (http://electricity.and.nic.in) for inviting objections and suggestions on the Petition. Interested parties/stakeholders were requested to file their objections / suggestions on the Petition to the Commission with a copy to the Petitioner on or before 24.01.2022. The Commission has also uploaded the copy of the Petition on its website to facilitate the stakeholders.

The Commission also published Public Notices in the leading newspapers as tabled below, giving due intimation to the stakeholders, consumers and the Public at large about the Virtual Public Hearing conducted by the Commission on February 02, 2022 from 11 AM:

Table 9: Details of Public Notices published by the Commission

S. No.	Date	Name of Newspaper	Place of Circulation
1	07.01.2022 / 31.01.2022	Indian Express (English)	Dadar & Nagar Haveli
2	07.01.2022 / 31.01.2022	Nishpaksha Janasansar (Hindi)	Dadar & Nagar Haveli
3	07.01.2022 / 31.01.2022	Gujarat Samachar (Gujarati)	Dadar & Nagar Haveli
4	07.01.2022 / 31.01.2022	Navbharat Times (Hindi)	Dadar & Nagar Haveli

During the Public Hearing, the issues and concerns raised by the stakeholders in writing and/or voiced by them have been examined by the Commission. The major issues discussed, the responses of the Petitioner thereon and the views of the Commission, have been summarized in Chapter 2.

1.10. 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 02 February, 2022 to discuss the issues, if any, related to the Petition filed by the Petitioner. The issues and concerns raised by the stakeholders in writing and as voiced by them during the Public Hearing have been examined by the Commission. The names of the stakeholders who attended the Public Hearing are provided in Annexure-I. The major issues discussed, the responses of the Petitioner thereon and the views of the Commission have been summarized in Chapter 2 of this Order.

2. Chapter 2: 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 its 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 2 February, 2022 from 11 AM onwards on Petition for the True-up of FY 2020-21, APR of FY 2021-22 and Aggregate Revenue Requirements (ARR) for FY 2022-23 to FY 2024-25. During the Public Hearing, a few of the stakeholders who had submitted their comments in writing also presented their views in person before the Commission. Other participants from the general Public, who had not submitted written comments earlier, were also given an equal opportunity to present their views/suggestions in respect to the Petition.

The Petitioner has also filed the Business Plan Petition for the Control Period from FY 2022-23 to FY 2024-25. The combined public hearing was held on the both the Petitions i.e., Business Plan Petition and MYT Petition. The issues raised by the stakeholders related to Business Plan Petition are discussed in the Order issued by the Commission on Business Plan Petition and the issues related to Truing up of FY 2020-21, APR of 2021-22 and Multi Year Tariff for FY 2022-23 to FY 2024-25 are dealt in this Order.

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 the Chapters on Tariff Design and Directives. Relevant observations have been suitably considered by the Commission while finalizing the Tariff Order. The submissions of the stakeholders, response of the Petitioner and views of the Commission are summarized below:

2.2.1. True up of FY 2020-21

2.2.1.1. Power Purchase Cost

Stakeholder's Comment:
The petitioner has claimed average power purchase of Rs. 4.39 per unit from other sources, whereas prevailing solar power prices in the market is Rs. 3 per unit. The petitioner has to submit the detailed justification for the same.

Petitioner's Response:

DNHPDCL submitted that the average power purchase cost has been claimed in the true up petition is on the basis of power purchase made through the exchange. The prevailing solar power prices has never been Rs. 3 per unit in the market. As there is no supporting document in reference to price of Rs. 3 per unit, hence, the same remains an arbitrary and accordingly, does not require any further clarification.

Commission's View:

The Commission notes Stakeholder's observation regarding claim of higher average power purchase from other sources. In this regard, the Commission has duly scrutinized the actual Power Purchase details submitted by the Petitioner and the Commission has approved the actual Power Purchase Cost of FY 2020-21 as detailed in Chapter 3 of this Order.

2.2.1.2. T&D Losses

Stakeholder's Comment:

The actual line loss has increased from 3.47% in FY 2019-20 to 3.62% in FY 2020-21. The Petitioner should submit the detailed justification for the same as approximately around 1% of line loss amounts to Rs. 33 Crore loss for the Utility and ultimately becomes burden to the Consumer. The petitioner has to submit the detailed justification for the same.

Further, the petitioner has proposed much higher losses for the Control Period from FY 2022-23 to FY 2024-25. The Commission is requested to approve the trajectory of losses for the Control Period from FY 2022-23 to FY 2024-25 considering the actual loss level of 3.47% achieved in FY 2019-20

Petitioner's Response:

DNHPDCL submitted that actual T&D losses for FY 2020-21 is 3.62% as against 3.47% in FY 2019-20, thereby registering very marginal increase of 0.15%. The detailed justification in the said matter has already provided in the Annual Report of the Corporation for FY 2020-21 under the operational performance.

As regards to the 0.15% increase in T&D losses becomes burden to the consumers, DNHPDCL submitted that the said understanding is not in line with provisions of the applicable regulation / approved tariff order. The approved T&D losses by JERC for FY 2020-21 is 4.20% and as the actual T&D losses is 3.62%. Being the said matter an approved aggregate gain on account of controllable factors, the same shall be shared equally between licensee and consumers as per the JERC MYT Regulation 2018. Hence, the consumers would be ultimately benefitted on the account of the said performance.

As regards to the determination of future year approved losses on the basis of actual losses of previous year, the matter has already been before the commission in previous years also and it was ordered that the same should be determined on achievable, reasonable and natural basis, which is more scientific basis.

Commission's View:

The Commission for verifying the T&D losses during the truing up for FY 2020-21 has considered the Energy Audit Report submitted by DNHPDCL. Hence, considering the actuals as described in the Energy Audit Report the Commission has taken actual distribution loss of 3.62% as against normative T&D loss of 4.20% while carrying out the truing up of FY 2020-21. Further, the Commission has allowed sharing of gains as actual T&D losses are lower than the normative T&D loss target as detailed in Chapter 3 of the Order.

The Commission has taken note of Stakeholder's observations regarding the higher projection of Distribution Losses. In this regard, the Commission has duly scrutinized the loss trajectory proposed by DNHPDCL for 3rd Control Period and based on the actual achievement trend during previous Control Period, the Commission has approved the distribution losses target for the 3rd Control Period.

2.2.2. MYT of 3rd Control Period

2.2.2.1. Fixed Cost Computation

Stakeholder's Comments

As per the Business Plan Order dated 05th November 2018, the petitioner has projected the power purchase quantum based on the average PLF of past year which has led to a higher implication in the fixed cost (on Rs. / kWH basis), as the actual PLF may be less than the normative PLF approved by the Commission.

The same fixed cost per unit will drastically reduce if the PLF projections are considered higher upto normative levels. However, since the performance of several plants has not been upto normative levels, the consideration of fixed cost in per kWh (Rs. /kWh) terms will not be a true reflection of the fixed cost burden. Therefore, the Commission is requested to kindly take note of this anomaly and rectify it through appropriate changes in the approach and methodology.

Petitioner's Response

DNHPDCL submitted that determination of tariff on the basis of ARR is further subject matter of true up on the basis of established principals. 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 realistic basis on the basis of latest available data.

Commission's View

As regards the fixed computation of power purchase quantum and cost from various sources, the Commission has dealt with the issue Chapter 5 of the Order while approving the ARR for the upcoming Control Period from FY 2022-23 to FY 2024-5.

2.2.2.2. Industrial Tariff

Stakeholder's Comment:

Fixed and Demand Charges should be reduced by 15% for industrial consumers. Demand Charges for industrial consumers should be fixed at INR 275/kVA as against existing INR 400/kVA.

Stakeholder also suggested that the Billing Demand should be reduced from 85% of the Contract Demand to 75% of Contract Demand.

Energy Charges should be on KWH basis as proposed earlier.

There are various Industries which don't operate for the whole year as they operate based on their seasons. Therefore, it is requested to provide a separate Tariff for such Industries as many States already have such models.

Petitioner's Response:

DNHPDCL submitted that the monthly fixed charges levied on power purchase is very much higher than fixed charges collected form the consumers, hence, the same does not requires any further reduction

DNHPDCL further submitted that the energy charges should be levied on KVAH basis as the same is required to maintain a good Power Factor, reduce system losses, improve system stability, power quality and improve voltage profile.

Commission's View:

As responded by the Petitioner the Demand charges are levied to meet the committed liability with the Gencos / Transcos / Utility. In this regard, it is to be noted that around 46% of Petitioner's total ARR, while the revenue from fixed charges/demand charges is only around 19% of total revenue. The recovery of fixed costs through fixed and demand charges is one of the important tariff rationalisation measure towards cost reflective tariffs.

Further, the Commission has not increased any demand charges for industries and introduced fixed charges for domestic and commercial on per kW instead of per Connection.

The Commission while designing retail tariffs for the FY 2021-22 has kept in view the principles of determination of tariff set out in the Electricity Act, 2003 (EA 2003), Tariff Policy, 2016 and the JERC MYT Regulations, 2021 as elaborated in Chapter 6 of this Order. The Commission, with this Tariff Order, has tried to meet the objectives of the EA 2003, as set out in its Preamble, including the protection of the interest of consumers, the supply of electricity to all areas and the rationalisation of tariffs. The EA, 2003 also directs to maintain a healthy balance between the interests of the Utilities and the reasonableness of the cost of power being supplied to consumers.

The Commission believes that kVAh based tariff is essential for industrial consumers in order to incentivize the consumers to maintain power factor in a more prudent manner and hence the Commission has approved the kVAh based tariff for industrial consumers.

As regards the concessional tariff for seasonal industries, separate data regarding consumption by seasonal industries is not available at this stage. **The Commission directs the Petitioner to examine the tariffs prevalent in other States for seasonal industries and propose the tariff for seasonal industries with complete details of number of consumers, connected load and consumption of seasonal industries.**

2.2.2.3. Billing Demand

Stakeholder's Comment:

Stakeholder suggested that the Billing Demand should be reduced from 85% of the Contract Demand to 75% of Contract Demand.

Petitioner's Response:

The petitioner has not submitted the response to the queries.

Commission's View:

The Commission is of the view that the consumer should needs to specify its Contract Demand considering the actual Demand as the same will help the Utility for better planning of its network and power purchase. Accordingly, the provision i.e. 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 is appropriate and does not need any modification.

2.2.2.4. LT Limit

Stakeholder's Comment:

LT limit must be enhanced up to 125 kVA.

Petitioner's Response:

DNHPDCL has noted the observations increase in LT limit to 125 kVA. However, the Hon'ble Commission is empowered to take any decision in the matter.

<u>Commission's View:</u>

The provisions regarding LT Limit are governed by the provisions of JERC Supply Code, 2018 and can be considered during review of JERC Supply Code, 2018.

2.2.2.5. Additional Surcharge

Stakeholder's Comments

The petitioner has not conclusively demonstrated the computation of Additional Surcharge on stranded power due to Open Access. The Tariff policy inter-alia provides for a conclusive demonstration of stranded obligations by the Discom for establishing its claim of Additional Surcharge consequent to open access contracts.

As per the Tariff Policy, the rationale behind levy of Additional Surcharge is to provide the Discoms with financial compensation on account of unavoidable fixed cost obligation of power purchase if such fixed cost is consequent to open access contracts. The same is justifiable only when the Discom establishes it with actual data.

As per Tariff Order FY 2021-22, the Commission has issued directions regarding submission of quarterly details of the power stranded on account of consumers opting for Open Access along with the Additional Surcharge recovered from these consumers to analyse the information and if required, change the applicable additional surcharge.

Therefore, the Commission is requested to allow Additional Surcharge on stranded power due to Open Access, only when it is demonstrated through data.

Petitioner's Response

DNHPDCL submitted that the Additional Surcharge has been computed based on 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. The additional surcharge has been determined on the basis of fixed cost associated with the power purchase cost obligations.

<u>Commission's View</u>

The Commission has taken note of Stakeholder's observations regarding the additional surcharge. The Commission would like to clarify that the Additional Surcharge has been computed based on 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. However, the Commission has directed the petitioner to submit the details of power stranded on account of consumers opting for Open Access. The same has been dealt in detail in Chapter-7.

2.2.2.6. Cross- Subsidy Surcharge

Stakeholder's Comments

The Petitioner has not considered the proviso mentioned in the Tariff Policy to restrict the CSS to 20% of ABR in the Tariff Petitions. Such omission may restrict the ability of open access consumers to avail power to optimise their cost of power purchase.

The Commission is requested to kindly rectify the aforesaid inconsistency and bring it in line with that prescribed by the Electricity Act and the Tariff Policy.

Petitioner's Response

DNHPDCL has noted the observations regarding capping of cross subsidy surcharge.

Commission's View

The Commission while designing retail tariffs for the FY 2021-22 has kept in view the principles of determination of tariff set out in the Electricity Act, 2003 (EA 2003), Tariff Policy, 2016 and the 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 the interest of consumers, the supply of electricity to all areas and the rationalisation of tariffs. The EA, 2003 also directs to maintain a healthy balance between the interests of the Utilities and the reasonableness of the cost of power being supplied to consumers. The same has been dealt in detail in Chapter-7.

2.2.2.7. Income tax

Stakeholder's Comments

Detailed prudence check of Income Tax to be passed on to consumers needs to be done as most of the Income Tax Earned is due to Income from interest on Fixed Deposits.

Petitioner's Response

DNHPDCL submitted that the same has been claimed in the true up petition on the basis of proper justification, hence, the same does not requires any further clarification.

Commission's View:

The Commission notes Stakeholder's observation regarding claim of Income Tax. In this regard, the Commission has duly scrutinized the Income Tax details submitted by the Petitioner and the Commission has approved the actual Income Tax as detailed in Chapter 3 of this Order.

2.2.2.8. Penalty Clause

Stakeholder's Comment:

Penalty for surrender of power for industrial consumers must be abolished.

Petitioner's Response:

DNHPDCL submitted that no penalty is charged from the consumers on surrendering of power. The relevant clauses of Supply Code Regulations, 2018 are followed in case of surrendering of power by the consumers.

Commission's View:

The Commission has taken note of Stakeholder's observations regarding the penalty. Further, the Commission clarifies that the penalty for surrendering the power connection is governed by the provisions of JERC Supply Code Regulations, 2018.

2.2.2.9. Requirement of NOC

Stakeholder's Comment:

The petitioner has allowed the tapping of expressed feeder line for other consumers which is not justifiable as the consumer who has invested the money in laying that line may require its balance capacity after few years for expansion purpose.

It is requested that NOC should be required from the consumer who had originally invested the money laying the expressed feeder line.

Petitioner's Response:

DNHPDCL submitted that as per the prevailing practice, a NOC is required for tapping a dedicated express feeder line from the consumer who has invested in laying down the express feeder.

Commission's View

The Commission has taken note of Stakeholder's observations and the Petitioner's response in the matter. The Petitioner has clarified that as per JERC Supply Code, 2018, a NOC is required for tapping a dedicated express feeder line from the consumer who has invested in laying down the express feeder.

3. Chapter 3: True-up for FY 2020-21

3.1. Background

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 "ARR Order" for the purposes of True-up of FY 2020-21). The Tariff Order determining the True-up for FY 2019-20, Annual Performance review of FY 2020-21 and Aggregate Revenue Requirement and tariff for FY 2021-22 was issued on March 23, 2021 (hereinafter referred to as the "APR Order" for the purposes of True-up of FY 2020-21).

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 2020-21 as per the JERC (Generation, Transmission & Distribution Multi Year Tariff) Regulations, 2018.

3.2. Approach for the True-Up of FY 2020-21

The Petitioner has submitted the audited accounts for FY 2020-21, audited by statutory auditor M/s G.B. Laddha & Co LLP. The Commission in this Chapter now carries out the true-up of FY 2020-21 which is the second year of the second Control Period (FY 2019-20 to FY 2021-22), 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 2020-21 as 5,297.50 MU as against approved energy sales quantum of 5,142.90 MU in the APR Order, as shown in the following Table:

Table 10: Energy Sales submitted by the Petitioner for FY 2020-21 (MU)

S. No	Category	Approved in APR Order	Petitioner's Submission
1	Domestic	146.07	149.28
2	LIG/ Kutir Jyoti	0.00	7.28
3	Commercial / Non-Domestic	38.84	32.65
4	LT Industrial	186.94	193.90
5	LT Public Water Works	5.18	5.15
6	HT/EHT	4,753.10	4,898.91
7	Agriculture & Poultry	6.21	4.85
8	Public Lighting	3.26	2.45
9	Temp. Supply	3.30	3.83
	Total	**5,142.90**	**5,297.50**

Commission's Analysis

In this regard, 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 through a deficiency note asked the Petitioner to submit the Energy audit report for FY 2020-21. The Petitioner submitted the Energy Audit Report for FY 2020-21.

The Commission had approved the energy sales of 5,142.90 MU in the APR Order, against which actual energy sales of 5,297.50 MU has been submitted by the Petitioner for FY 2020-21. The quantum of energy sales was verified from Energy Audit Report 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 now trued-up by the Commission:

Table 11: Energy Sales trued-up by the Commission for FY 2020-21 (MU)

S. No	Category	Approved in APR Order	Petitioner's Submission	Trued-up by Commission
1	Domestic	146.07	149.28	149.28
2	LIG/ Kutir Jyoti	0.00	7.28	7.28
3	Commercial / Non-Domestic	38.84	32.65	32.65
4	LT Industrial (Motive Power)	186.94	193.90	193.90
5	LT Public Water Works	5.18	5.15	5.15
6	HT/EHT	4,753.10	4,898.91	4,898.91
7	Agriculture & Poultry	6.21	4.85	4.85
8	Public Lighting	3.26	2.45	2.45
9	Temp. Supply	3.30	3.83	3.83
	Total	**5,142.90**	**5,297.50**	**5,297.50**

The Commission approves Energy Sales of 5,297.50 MU in true-up of FY 2020-21.

3.4. Open Access Sales

Petitioner's Submission

The Petitioner submitted Nil Open Access Sales and Nil Open Access power Purchase for FY 2020-21.

Commission's Analysis

The Energy Audit Report submitted by the Petitioner specifies Nil Open Access Sales and Open Access Purchase for FY 2020-21.

Accordingly, the Commission approves Nil Open Access sales and Nil Open Access power Purchase in the true up of FY 2020-21.

3.5. Inter-State Transmission Loss

Petitioner's Submission

The Petitioner for FY 2020-21 has submitted the Inter-State transmission loss of 4.03%, as against the approved value of 3.66% in the APR.

Commission's Analysis

The Petitioner submitted Inter State Transmission loss as 4.03% against 3.66% approved in APR order for FY 2020-21. Through deficiency note the Petitioner was directed to submit the justification for claiming higher transmission losses. The Petitioner informed that the submitted losses are actual losses.

The Commission has determined the energy requirement from tied-up sources in Energy Balance approved in the *Section 3.7* of this Order. The energy available from tied-up source has been considered from the actual energy purchased as approved in *Section 3.8* 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 approved in the APR Order, the Petitioner's submission and as approved by the Commission now:

Table 12: Inter-State Transmission Loss for FY 2020-21 (%)

S. No	Particulars	Approved in APR Order	Petitioner's Submission	Trued-up by Commission
1	Inter-State transmission loss	3.66%	4.03%	4.03%

The Commission approves the Inter-State transmission loss of 4.03% for FY 2020-21.

3.6. Distribution Loss

Petitioner's Submission

The Petitioner has submitted that it has achieved a distribution loss of 3.62% in FY 2020-21 against an approved loss of 4.20%.

Commission's Analysis

Through deficiency note the Commission asked the Petitioner to submit Energy Audit report for FY 2020-21. As per the Energy Audit Report submitted by the Petitioner, the distribution loss is 3.62%. Accordingly, the Commission has considered the distribution loss of 3.62% as per the table 14 of the Energy Audit Report.

Since, the Petitioner has achieved a lower distribution loss than approved for the FY 2020-21 as compared to loss target of 4.2%, the incentive for the same has to be shared between the Petitioner and the consumers in accordance with the JERC MYT Regulations, 2018. The calculation of the same has been discussed in detail in the "*Section 3.22: 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 2020-21, the Petitioner's submission and as approved by the Commission now:

Table 13: Distribution loss approved by Commission for FY 2020-21 (%)

S. No	Particulars	Approved in APR Order	Petitioner's Submission	Trued-up by Commission
1	Distribution Loss	4.20%	3.62%	3.62%

The Commission approves Distribution loss at 3.62% in the true up of FY 2020-21.

3.7. Energy Balance

Petitioner's Submission

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

Table 14: Energy requirement submitted by the Petitioner for FY 2020-21 (MU)

Particulars	Petitioner's Submission
Sales	5,297.50
Open Access Sales	0.00
Less: Energy Savings	0.00
Total Sales	**5,297.50**
Add: Losses	198.70
T&D Losses	**3.62%**
Energy Required at State Periphery	**5,496.20**
Add: Sales to common pool consumer	7.82
Add: Sales through IEX	68.68
Less: Own Generation	5.91
Less: Energy Purchased through UI at Periphery	41.11
Less: Purchase from Renewable Sources	0.00
Less: Open Access Purchase	0.00
Less: Power Purchased from Power Exchange	647.32
Total Energy Required at State Periphery	**4,878.37**
Inter State Transmission loss	205.04
Inter State Transmission loss (%)	4.03%
Total Energy to be purchased	5,083.36
Total Energy requirement from tied up sources + UI at generator end + Renewable sources+ Energy Exchange	5,777.75
Total Energy requirement in UT including Open Access	**5,777.75**

Commission's Analysis:

The information submitted by the Petitioner on power purchase quantum, UI over/ under drawl, IEX/ Bilateral purchase has been studied according to the Energy audit report for FY 2020-21 and accordingly the energy balance has been derived for FY 2020-21.

The following table provides the energy balance approved in the APR Order, submitted by the Petitioner and now approved by the Commission:

Table 15: Energy balance approved by Commission for FY 2020-21 (in MU)

Sr. No.	Particulars	Formulae	APR Order	Petitioner's Submission	Trued-up by Commission
A	Sales		5,142.90	5,297.50	5297.50
B	Open Access Sales		0.00	0.00	0.00
C	Less: Energy Savings		0.00	0.00	0.00
D	**Total Sales**	**D=A+B-C**	**5,142.90**	**5,297.50**	**5297.50**
E	T&D Losses (%)		225.47	198.70	198.97
F	Add: Losses	F=G-D	4.20%	3.62%	3.62%
G	**Energy Required at Periphery**	**G=D/(1-E)**	**5368.37**	**5,496.20**	**5496.47**
H	Add: Sales to common pool consumer		0.00	7.82	7.82
I	Add: Sales through IEX		0.00	68.68	68.68
J	Less: Own Generation		6.18	5.91	5.91
K	Less: Energy Purchased through UI at Periphery		24.13	41.11	41.11
L	Less: Purchase from Renewable Sources		28.25	0.00	0.00
M	Less: Open Access Purchase		0.00	0.00	0.00
N	Less: Power Purchased from Power Exchange		463.74	647.32	647.32
O	**Total Energy Required at State Periphery**	**O=G+H+I-J-K-L-M-N**	**4,846.07**	**4,878.37**	**4878.63**
P	Transmission loss		184.09	205.04	204.73
Q	Transmission loss (%)	Q=P-O	3.66%	4.03%	4.03%
R	**Total Energy required to be purchased from tied up sources at generator end**	**R=O/(1-Q)**	**5030.16**	**5083.36**	**5083,36**
S	**Total availability from tied up sources at generator end (MU)**		5,552.46	5,777.75	5777.70
T	**Deficit/ (Surplus)**	**T=R-S**	**0.00**	**0.00**	**0.00**

The Commission approves the Total Energy Requirement from tied sources at the generator end (including own generation) as 5,777.70 MU in the True- Up for FY 2020-21.

3.8. Power Purchase Quantum & Cost

Petitioner's submission:

The Petitioner has submitted that it primarily procures power from the following sources:

a) National Thermal Power Corporation Limited (NTPC) stations

b) NSPCL Bhilai

c) Nuclear Power Corporation of India Limited (NPCIL) stations

d) Independent Power Producers

The plant wise details of the power purchase quantum and total power purchase cost incurred has been provided in the Petition. The Petitioner has submitted that against the power purchase cost of INR 2,628.41 Crore approved by the Commission in the APR Order, it has incurred a cost of INR 2,573.32 Crore.

The petitioner has purchased 41.16 MU and 647.32 MU during FY 2020-21 through UI and Open Market respectively at the cost of Rs. 13.18 Crore and Rs. 206.35 Crore to meet the energy shortfall during the year. The cost of these procurement is Rs. 3.20 per unit (UI) and Rs. 3.19 per unit (Open Market).

The Petitioner also submitted that in the Annual Audited Accounts submitted to the Hon'ble Commission the power purchase cost has been given as Rs. 2,593.26 Crore. During the FY 2020-21, the DNHPDCL's own generation of solar power was 5.91 MUs and an amount of Rs. 4.02 Crore has been added towards own generation of solar power based on the levellised tariff approved by the Commission for solar power. Further, the revenue earned through sale of power through exchange, deviation settlement mechanism and Security Constrained Economic Despatch (SCED) income amounting to Rs. 23.96 Crore (note 21 of Annual Audited Accounts) has been deducted from the power purchase cost to arrive at the total power purchase cost for the FY 2020-21. Hence, the total power purchase cost is Rs. 2,573.32 Crore.

The power purchase quantum and cost for FY 2020-21, as incurred by the Petitioner has been shown in the table below:

Table 16: Power Purchase cost submitted by the Petitioner for FY 2020-21

S. No	Particulars	Submitted by Petitioner					
		Energy Units (MU)	Fixed Charges (INR Crore)	Variable Charges (INR Crore)	Other Charges (INR Crore)	Total Charges (INR Crore)*^	Per Unit (INR/kWh)
A	**NTPC Stations**						
	KSTPS	372.27	23.38	57.18	0.10	80.67	2.17
	KSTPS 3	176.05	20.75	27.12	0.15	48.02	2.73
	VSTPP-I	262.03	22.22	46.40	-0.99	67.64	2.58
	VSTPP-II	215.02	14.56	36.11	-0.49	50.18	2.33
	VSTPP- III	252.97	23.78	43.11	-0.90	66.00	2.61
	VSTPP- IV	291.42	47.75	47.46	-0.32	94.89	3.26
	KGPP	84.91	48.67	16.19	3.11	67.98	8.01
	GGPP	60.60	44.69	12.70	2.80	60.19	9.93
	Sipat-I	627.13	76.26	97.29	-0.38	173.17	2.76
	Sipat-II	203.49	25.19	31.59	-0.91	55.88	2.75
	Mauda	162.88	55.64	44.22	1.37	101.23	6.22
	VSTPS-V	176.95	28.33	30.47	-0.31	58.49	3.31
	Mauda 2	164.85	61.28	47.92	2.24	111.44	6.76
	Solapur	249.49	86.70	74.42	2.44	163.55	6.56
	LARA	249.79	59.10	52.60	0.24	111.93	4.48

S. No	Particulars	Submitted by Petitioner					
		Energy Units (MU)	Fixed Charges (INR Crore)	Variable Charges (INR Crore)	Other Charges (INR Crore)	Total Charges (INR Crore)*^	Per Unit (INR/kWh)
	Gadarwara	241.61	62.65	61.73	-0.09	124.29	5.14
	BARH	0.00	0.00	0.00	0.00	0.00	0.00
	Kharagaon	294.60	85.23	81.10	0.66	166.99	5.67
	Dhuwaran	0.00	0.00	0.00	0.00	0.00	0.00
	FSTPS	0.00	0.00	0.00	0.00	0.00	0.00
	KhSTPS I	0.00	0.00	0.00	0.00	0.00	0.00
	RSTPS	0.00	0.00	0.00	0.00	0.00	0.00
	TSTPS	0.00	0.00	0.00	0.00	0.00	0.00
	KHSTPP-II	15.87	1.89	3.36	0.07	5.32	3.35
	Subtotal – NTPC	**4101.91**	**788.07**	**811.00**	**8.79**	**1603.76**	**3.91**
B	**NSPCL – Bhilai**	**622.88**	**115.38**	**159.91**	**0.25**	**274.40**	**4.41**
C	**NPCIL**	**358.57**	**0.00**	**112.49**	**44.54**	**147.92**	**4.13**
	KAPS	92.99	0.00	21.62	0.00	12.51	1.35
	TAPS	265.58	0.00	90.87	44.54	135.41	5.10
	Total from Tied up sources	**5083.36**	**903.45**	**1083.40**	**53.58**	**2026.07**	**3.99**
D	**Other Sources**						
	Indian E. Exchange/Bilateral	647.38	0.00	206.35	0.00	206.35	3.19
	UI	41.16	0.00	11.84	0.00	11.84	2.88
	Solar	5.91	0.00	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	0.00	
	Solar (SECI)	0.00	0.00	0.00	0.00	0.00	
	Wind (SECI)	0.00	0.00	0.00	0.00	0.00	
	Non Solar REC	0.00	0.00	0.00	0.00	0.00	
	Subtotal - Other Sources	**694.45**	**0.00**	**218.20**	**0.00**	**218.20**	**3.14**
E	**Total**	**5777.81**	**903.45**	**1301.60**	**53.58**	**2244.27**	**3.88**
F	**Availability at ED-DNH Periphery**						
	PGCIL CHARGES					423.65	
	POSOCO					0.53	
	Reactive charges					1.21	
	Intra-state transmission charges					0.00	
	Less: Rebate received					75.21	
	Less: Revenue from Sale of Power at exchange					19.43	
	Less: DSM Receipts					0.27	
	Less: Sale through SCED					4.26	
	Less: Solar Own Generation					4.02	
G	**Total Power Purchase cost**	**5777.81**	**903.45**	**1301.60**	**53.58**	**2,573.32**	**4.45**

** Including INR -10 Cr of amount regarding Rebate from NTPC & NPCIL Stations*
^ Including INR -4.36 Cr of amount regarding RRAS Settlement from NTPC & NSPCL Bhilai

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, NSPCL Bhilai and IPPs. The Petitioner submitted the overall power purchase cost as INR 2,573.32 Crore inclusive of transmission cost and after adjusting revenue due to sale of surplus power and DSM receipts.

The Commission has verified the power purchase quantum and cost as per the monthly station-wise bills submitted by the Petitioner for each station. The cost has been reconciled with the audited annual accounts of FY 2020-21.

The Petitioner has not claimed purchase of non-solar REC's & solar REC's The Commission has verified this purchase of Solar & Non-solar renewable energy certificates from the audited annual accounts of FY 2020-21.

The Petitioner has produced 5.19 MU of physical solar power from its own Solar generation and claimed Rs. 4.02 Crore against the same. The Commission noted that in the Order against Petition No. 43/2021 dated 05.03.2021, the Commission has approved the solar tariff from plants with effect from 01 April, 2021. The relevant extract of the Order is shown below:

"50. The Commission has observed that petitioner has failed to file the petition for determination of Levelized tariff in time and submitted petition for these plants now. ***The Commission is of the view that tariff for these plants can be allowed to the petitioner only prospectively i.e. from 01/04/2021 onwards. Further the commission felt that the solar power tariff cannot be allowed retrospectively and consumer cannot be burdened due to utter failure of the petitioner to submit the present petition in time. So, the petitioner cannot be allowed the power purchase cost on these projects upto FY 2020-21 but shall be entitled to recover the power purchase cost for the solar units generated from these solar plants from 01st April 2021 onwards.*** *The project life of each solar plant shall be valid for 25 years from the date of commissioning.*

……….."

Hence, the Commission has not considered the claimed amount of Rs. 4.02 Crore against the purchase of 5.91 MUs during FY 2020-21.

The Commission verified the petitioner claims of revenue earned from sale to common pool consumers, Deviation settlement Mechanism receipts & Security constrained Economic dispatch (SCED NLDC) from Note 21 audited balance sheet for FY 2020-21. These revenues are subtracted from the approved power purchase for FY 2020-21.

The petitioner claimed Power Purchase through UI as 41.16 MU. The Commission verified quantum of power purchase through UI from energy audit report for FY 2020-21 and found that the Power Purchase through UI is same as per petitioner's submission. Hence, the Commission has approved the Power Purchase through UI as per the same.

The following table provides the summary of the power purchase quantum and the cost approved by the Commission during FY 2020-21:

Table 17: Power Purchase quantum and cost approved by the Commission for FY 2020-21

S. No	Particulars	Approved by the Commission					
		Energy Units (MU)	Fixed Charges (INR Crore)	Variable Charges (INR Crore)	Other Charges (INR Crore)	Total Charges (INR Crore)*^	Per Unit (INR/kWh)
A	**NTPC Stations**						
	KSTPS	372.27	23.38	57.18	0.10	80.67	2.17
	KSTPS 3	176.05	20.75	27.12	0.15	48.02	2.73
	VSTPP-I	262.03	22.22	46.40	-0.99	67.64	2.58
	VSTPP-II	215.02	14.56	36.11	-0.49	50.18	2.33
	VSTPP- III	252.97	23.78	43.11	-0.90	66.00	2.61
	VSTPP- IV	291.42	47.75	47.46	-0.32	94.89	3.26
	KGPP	84.91	48.67	16.19	3.11	67.98	8.01
	GGPP	60.60	44.69	12.70	2.80	60.19	9.93
	Sipat-I	627.13	76.26	97.29	-0.38	173.17	2.76
	Sipat-II	203.49	25.19	31.59	-0.91	55.88	2.75
	Mauda	162.88	55.64	44.22	1.37	101.23	6.22
	VSTPS-V	176.95	28.33	30.47	-0.31	58.49	3.31
	Mauda 2	164.85	61.28	47.92	2.24	111.44	6.76
	Solapur	249.49	86.70	74.42	2.44	163.55	6.56
	LARA	249.79	59.10	52.60	0.24	111.93	4.48
	Gadarwara	241.61	62.65	61.73	-0.09	124.29	5.14
	BARH	0.00	0.00	0.00	0.00	0.00	0.00
	Kharagaon	294.60	85.23	81.10	0.66	166.99	5.67
	Dhuwaran	0.00	0.00	0.00	0.00	0.00	0.00
	FSTPS	0.00	0.00	0.00	0.00	0.00	0.00
	KhSTPS I	0.00	0.00	0.00	0.00	0.00	0.00
	RSTPS	0.00	0.00	0.00	0.00	0.00	0.00
	TSTPS	0.00	0.00	0.00	0.00	0.00	0.00
	KHSTPP-II	15.87	1.89	3.36	0.07	5.32	3.35
	Subtotal – NTPC	**4101.91**	**788.07**	**811.00**	**8.79**	**1603.76**	**3.91**
B	**NSPCL – Bhilai**	**622.88**	**115.38**	**159.91**	**0.25**	**274.40**	**4.41**
C	**NPCIL**	**358.57**	**0.00**	**112.49**	**44.54**	**147.92**	**4.13**
	KAPS	92.99	0.00	21.62	0.00	12.51	1.35
	TAPS	265.58	0.00	90.87	44.54	135.41	5.10
	Total from Tied up sources	**5083.36**	**903.45**	**1083.40**	**53.58**	**2026.07**	**3.99**
D	**Other Sources**						
	Indian E. Exchange/Bilateral	647.38	0.00	206.35	0.00	206.35	3.19
	UI	41.16	0.00	11.84	0.00	11.84	2.88
	Solar	5.91	0.00	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	0.00	

S. No	Particulars	Approved by the Commission					
		Energy Units (MU)	Fixed Charges (INR Crore)	Variable Charges (INR Crore)	Other Charges (INR Crore)	Total Charges (INR Crore)*^	Per Unit (INR/kWh)
	Solar (SECI)	0.00	0.00	0.00	0.00	0.00	
	Wind (SECI)	0.00	0.00	0.00	0.00	0.00	
	Non Solar REC	0.00	0.00	0.00	0.00	0.00	
	Subtotal - Other Sources	**694.45**	**0.00**	**218.20**	**0.00**	**218.20**	**3.14**
E	**Total**	**5777.81**	**903.45**	**1301.60**	**53.58**	**2244.27**	**3.88**
F	**Availability at ED-DNH Periphery**						
	PGCIL CHARGES					423.65	
	POSOCO					0.53	
	Reactive charges					1.21	
	Intra-state transmission charges					0.00	
	Less: Rebate received					75.21	
	Less: Revenue from Sale of Power at exchange					19.43	
	Less: DSM Receipts					0.27	
	Less: Sale through SCED					4.26	
	Less: Solar Own Generation					0.00	
G	**Total Power Purchase cost**	**5777.81**	**903.45**	**1301.60**	**53.58**	**2,569.30**	**4.45**

** Including INR -10 Cr of amount regarding Rebate from NTPC & NPCIL Stations*
^ Including INR -4.36 Cr of amount regarding RRAS Settlement from NTPC & NSPCL Bhilai

The Commission approves power purchase cost of INR 2,569.30 Crore and power purchase quantum of 5,777.81 MU in the true-up of FY 2020-21.

3.9. Renewable Purchase Obligation (RPO)

Petitioner's Submission

For FY 2020-21, the Petitioner purchased 5.91 MUs of electricity from its own Solar Generation plant and purchased 81.13 MU (54.85 MU of Total Solar RPO Compliances & 26.28 MU of Total Non-Solar RPO Compliances)

Commission's Analysis

In this regard, Regulation 1.1 of the JERC for the State of Goa and UTs (Procurement of Renewable Energy) Regulations, 2010 provides:

"(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."

Further, the Commission notified the JERC (Procurement of Renewable Energy), (Third Amendment) Regulations, 2016 on 22nd August, 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.

As per the above Regulations for FY 2020-21, the Petitioner had a standalone RPO target of 746.95 MU quantum of energy comprising of 323.15 MU to be purchased from solar and 423.80 MU to be purchased from non-Solar. Against the target, the Petitioner has produced 5.19 MU of physical solar power. Further, the Petitioner has bought Solar & Non-Solar power equivalent to 48.94 MUs and 26.28 MUs respectively. So, the Petitioner could not meet the current year targets of Solar RPO and the cumulative shortfall for Solar and Non-solar up to FY 2020-21 now stands at 1,341.15 MUs.

The RPO target compliance up to FY 2020-21 has been provided in the following table:

Table 18: Summary of Renewable Purchase Obligation (RPO) for FY 2020-21 (MU)

Sr. No.	Particulars	Formulae	FY2018-19	FY2019-20	FY2020-21
A	Solar Target		3.60%	4.70%	6.10%
B	Non Solar Target		5.40%	6.80%	8.00%
C	**Total Target**	C=A+B	**9.00%**	**11.50%**	**14.10%**
D	Sales Within UT		6,072.42	6,288.00	5297.50
	RPO Target				
E	Solar	E=D*A	218.61	295.54	323.15
F	Non Solar	F=D*B	327.91	427.58	423.80
G	**Total RPO Target**	G=E+F	**546.52**	**723.12**	**746.95**
	RPO Compliance (Actual Purchase)				
H	Solar		5.76	6.18	54.85
I	Non Solar		0.00	0.00	26.28
J	**Total RPO Compliance (Actual Purchase)**	J=H+I	**5.76**	**6.18**	**81.13**
	RPO Compliance (REC Certificate Purchase)				
K	Solar		338.68	109.60	0.00
L	Non Solar		10.00	711.69	0.00
M	**Total RPO Compliance (REC Certificate)**	M=K+L	**348.68**	**821.29**	**0.00**
	RPO Compliance (REC+ Actual)				
N	Solar	N=H+K	344.44	115.78	54.85
O	Non Solar	O=I+L	10.00	711.69	26.28
P	**Total RPO Compliance**	P=N+O	**354.44**	**827.47**	**81.13**
	Cumulative Requirement till current year				
Q	Solar		554.64	850.18	850.18
R	Non Solar		1,304.24	1731.83	1731.83
S	**Total**	S=Q+R	**1,858.89**	**2582.01**	**2582.01**
	Cumulative Compliance till current year				
T	Solar		470.69	586.47	641.32
U	Non Solar		608.52	1320.21	1346.49
V	**Total**	V=T+U	**1,079.21**	**1906.68**	**1987.81**
	Net Shortfall in RPO Compliance till current year				
V	Solar	V=Q-T	83.96	263.71	532.01
W	Non Solar	W=R-U	695.72	411.62	809.14
X	**Total**	X=V+W	**779.68**	**675.33**	**1341.15**

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). As per the JERC MYT Regulations, 2018 variation in Expenses is 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. 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

The actual Employee expenses of INR 14.07 Crore have been incurred against approved expenses of INR 13.95 Crore 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

The Commission had approved employee expenses of INR 13.95 Crore in the APR Order. The actual employee expenses for FY 2020-21 as per audited accounts are INR 14.07 Crore.

In accordance with the clause 51.6 of the JERC MYT Regulations, 2018, the Commission has determined the revised Normative Employee Expenses for FY 2020-21. The revised normative employee expenses are calculated based on the approved employee expenses (INR 13.34 Cr) for FY 2019-20 approved in order dated 23 March, 2021 and CPI inflation (5.02%) & actual Gn (Employee growth, i.e., 0%) for the FY 2020-21 with respect to FY 2019-20. Accordingly, the Commission has determined the revised employee expenses as INR 14.01 Crore for FY 2020-21.

Further, in accordance with the JERC MYT Regulations, 2018, the O&M expenses are controllable expenses. Hence, the Commission has considered the revised normative Employee Expenses as determined above for FY 2020-21. Accordingly, the employee expenses approved for FY 2020-21 is shown in the table below.

Table 19: Employee Expenses approved by Commission for FY 2020-21 (INR Crore)

S. No	Particulars	Approved in APR Order	Petitioner's Submission	Revised Normative EE	Trued-up by Commission
1	**Employee Expenses (EE)**	**13.95**	**14.07**	**14.01**	**14.01**

The Commission approves Employee Expenses of INR 14.01 Crore in the true-up of FY 2020-21.

3.10.2. Administrative and General (A&G) Expenses

Petitioner's Submission

The Petitioner has submitted the actual A&G expenses of INR 4.24 Crore against the approved expenses of INR 6.62 Crore in the APR Order.

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 2020-21 are reflected as INR 4.24 Crore, excluding the provision for Bad and doubtful debt of INR 1.25 Crore. 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 approved A&G expenses (INR 6.28 Cr) of FY 2019-20 and actual CPI Inflation (5.02%) for FY 2020-21 with respect to FY 2019-20. Accordingly, the Commission has determined the revised A&G expenses as INR 6.60 Crore.

Further the Commission has observed that the petitioner has considered the following expenses as part of R&M expense which ideally pertains to A&G expenses.

Table 20: Shifting of expenses from R&M to A&G for FY 2020-21 (INR Crore)

S. No	Particulars	Expenses
1	Electricity Charges	0.31
2	Man Power Charges - For Security Services	0.85
3	Reimbursement of Expenses of WRPC/JERC Secretariat	0.70
4	Vehicle Hire Charges for office	0.41
Total Charges		**2.27**

The Commission has noted that the petitioner has considered Incremental License Fees of INR 1.83 Crore (from INR 2.92 Crore of FY 2019-20 to INR 4.75 Crore of FY 2020-21) as a part of R&M expense. The Commission is of the view that the Incremental License Fees of INR 1.83 Crore should be considered as a part of A&G Expense. As the License fees is uncontrollable, the Commission has allowed as a part of A&G Expenses. **Hence, the Commission directs the petitioner to consider the License Fees as a part of A&G Expenses from the next year.**

Accordingly, the Commission decides to approve the Revised Normative A&G expenses of INR 6.60 Crore along with the Incremental License Fees of INR 1.83 Crore.

In accordance with the JERC MYT Regulations, 2018, variation in O&M expenses are controllable. Therefore, the Commission has approved the same revised A&G expenses as approved in above para. Accordingly, the A&G expenses approved by the Commission are as follows:

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

S. No	Particulars	Approved in APR Order	Petitioner's Submission	Revised Normative A&G	Trued-up by Commission
1	Administration & General Expenses (A&G)	6.62	4.24	6.60	8.43

The Commission approves the Administrative & General (A&G) expenses of INR 8.43 Crore in the true-up of FY 2020-21.

3.10.3. Repair & Maintenance Expenses (R&M)

Petitioner's Submission

Actual R&M expenses of INR 21.82 Crore have been incurred against approved expenses of INR 9.76 Crore in the APR Order. The Petitioner submitted that the increase in R&M expenses is due to increase in License fees and Recoupment of Office expenditure for the office of Ombudsman. The Petitioner submitted that Power Load Management of DNHPDCL is higher by 150% as compared to EDDD and distribution area of DNHPDCL is greater than the EDD. Also, line length maintained by DNHPDCL is materially higher than as compared to EDDD. Accordingly, the R&M expenses should be higher for DNHPDCL as compared to EDD.

Commission's Analysis

Similar to the approach followed while approving the revised normative Employee expenses, the Commission has determined revised Normative R&M expenses which is based on the approved closing GFA of FY 2019-20, actual WPI Inflation for FY 2020-21 (1.29%) with respect to FY 2019-20 and 'K' factor (2.03%) which was approved in MYT order dated 20th May, 2019, for the second (FY 20 to FY 22) control period. Accordingly, the Commission determined the revised R&M expenses as INR 9.60 Crore.

The Commission asked the Petitioner to submit the detailed reasons for increase in R&M expenses. The Petitioner in response submitted the details of R&M expenses for the last 5 years from FY 2016-17 to FY 2020-21. The Commission has examined the detailed R&M expenses and observed that the Petitioner has included some of the expenses which ideally should be included in A&G expenses as explained in the above A&G expenses section. Because of this reason, the actual A&G expenses of the Petitioner for FY 2020-21 are lower than the normative A&G expenses and actual R&M expenses are higher than the normative R&M expenses. The Commission as discussed above has considered such expenses as part of A&G expenses.

As the O&M expenses are controllable expenses as per the JERC MYT Regulations, 2018, similar to the approach followed while approving the Employee expenses and A&G expenses above, the Commission approves the revised R&M Expenses of INR 9.60 Crore.

The R&M Expenses approved by the Commission are as follows:

Table 22: R&M Expenses approved by Commission for FY 2020-21 (INR Crore)

S. No	Particulars	Approved in APR Order	Petitioner's Submission	Revised Normative R&M	Trued-up by Commission
1	Repair & Maintenance Expenses (R&M)	9.76	21.82	9.60	9.60

The Commission approves the Repair & Maintenance (R&M) expenses of INR 9.60 Crore in the true-up of FY 2020-21.

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

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

S. No	Particulars	Approved in APR Order	Petitioner's Submission	Revised Expenses	Trued-up by Commission
1	Employee Expenses	13.95	14.07	14.01	14.01
2	Administrative & General Expenses (A&G)	6.62	4.24	6.60	8.43
3	Repair & Maintenance Expenses	9.76	21.82	9.60	9.60
	Total Operation & Maintenance Expenses	**30.33**	**40.13**	**30.21**	**32.04**

The Commission approves the Operation & Maintenance (O&M) expenses of INR 32.04 Crore in the true-up of FY 2020-21.

3.11. Gross Fixed Assets (GFA) and Capitalization

Petitioner's submission

The Petitioner has achieved capitalization of INR 163.92 Crore during the year against INR 158.69 Cr capitalization approved in the APR Order. The capital expenditure during the same period was INR 48.39 Crore against approved capital expenditure of INR 30.19 Crore.

Commission's Analysis:

The Commission observes that the Petitioner has capitalized INR 163.92 Crore as per FAR while the capitalization approved by the Commission in the APR Order was INR 158.69 Cr.

The Commission accordingly approves the capitalization as shown in the table below:

Table 24: Capitalization approved by Commission for FY 2020-21 (INR Crore)

S. No	Particulars	Approved in APR Order	Petitioner's Submission	Trued-up by Commission
1	Capital Expenditure	30.19	48.39	48.39
2	Capitalization	158.69	163.92	163.92

The Commission approves capital expenditure and capitalization of INR 48.39 Crore and INR 163.92 Crore respectively in the true-up of FY 2020-21.

3.12. Capital Structure

Petitioner's Submission

The Petitioner has considering the funding of capitalisation through normative debt:equity ratio of 70:30. Further, the Petitioner has also submitted that no assets were created through consumer contribution, nor any grants were received from the Government during 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. 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 2020-21. The closing GFA approved in FY 2019-20 has been considered as the opening GFA for FY 2020-21. The opening debt for FY 2020-21 has been considered as closing debt approved in true-up of FY 2019-20.

The petitioner has submitted the equity opening balance of INR 140.05 Crore in the True Up of FY 2020-21 instead of approved Closing equity balance for FY 2019-20 which is INR 104.42 Crore. The Commission is considering the opening equity for FY 2020-21 as per the closing balance of true-up of FY 2019-20.

The addition in debt and equity has been normatively considered as 70% and 30% respectively of the capitalization during the year in accordance with the JERC MYT Regulations, 2018. Accordingly, the Commission approves the capital structure for FY 2020-21 as shown in the following tables:

Table 25: Funding Plan approved by the Commission for FY 2020-21 (INR Crore)

S. No	Particulars	Approved in APR Order	Petitioner's Submission	Trued-up by Commission
1	Capitalization	158.69	163.92	163.92
2	Debt (%)	70.00%	70.00%	70.00%
3	Equity (%)	30.00%	30.00%	30.00%
4	**Normative Loan**	**111.08**	**114.74**	**114.74**
5	**Normative Equity**	**47.61**	**49.18**	**49.18**

Table 26: GFA addition approved by Commission for FY 2020-21 (INR Crore)

S. No	Particulars	Approved in APR Order	Petitioner's Submission	Trued-up by Commission
1	Opening Gross Fixed Assets	466.84	466.84	466.84
2	Addition During FY	158.69	163.92	163.92
3	Adjustment/Retirement During FY	0.00	0.00	0.00
4	**Closing Gross Fixed Assets**	**625.53**	**630.76**	**630.76**

Table 27: Normative Loan addition approved by the Commission for FY 2020-21 (INR Crore)

S. No	Particulars	Approved in APR Order	Petitioner's Submission	Trued-up by Commission
1	Opening Normative Loan	20.11	20.11	20.11
2	Add: Normative Loan During the year	111.08	114.74	114.74
3	Less: Normative Repayment equivalent to Depreciation	18.44	10.66	18.54
4	**Closing Normative Loan**	**112.75**	**124.19**	**116.32**

Table 28: Normative Equity addition approved by the Commission for FY 2020-21 (INR Crore)

S. No	Particulars	Approved in APR Order	Petitioner's Submission	Trued-up by Commission
1	Opening Equity	104.42	140.05	104.42
2	Additions on account of new capitalization	47.61	49.17	49.18
3	**Closing Equity**	**152.02**	**189.23**	**153.60**

3.13. Depreciation

Petitioner's Submission

The Petitioner has submitted that for computation of depreciation, the opening GFA as per the annual accounts for FY 2020-21 have been considered at INR 466.84 Crore. Further, the Petitioner has submitted that the depreciation for the year has been worked out after applying the Depreciation rates as per the JERC (Multi Year Tariff) Regulations, 2018.

<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 derived the weighted average rate of depreciation based on the asset wise depreciation rate prescribed in the JERC MYT Tariff Regulations, 2018, provided in the following table:

Table 29: Depreciation Rate (%)

Description	Rate
Plant & Machinery	3.60%
Underground cables	2.57%
Buildings	1.80%
Vehicles	18.00%
Furniture & Fixtures	6.00%
Computers & Others	6.00%
Land	0.00%
Software-Intangible assets	15.00%

The Commission has calculated the deprecation on average Gross Fixed Assets (GFA) considering the opening and closing values approved in *Section 3.12* of this Order. The net addition during the year has been calculated after deducting the value of retired assets. The following table provides the calculation of depreciation during the year FY 2020-21:

Table 30: Depreciation approved by Commission for FY 2020-21 (INR Crore)

S. No	Particulars	Approved in APR Order	Petitioner's Submission	Trued-up by Commission
1	Opening Gross Fixed	466.84	466.84	466.84
2	Addition During FY	158.69	163.92	163.92
3	Adjustment/Retirement During FY	-	-	0.00
4	Closing Gross Fixed Assets	625.53	630.76	630.76
5	Average Gross Fixed Assets	546.18	548.80	548.80
6	Rate of Depreciation (%)	3.38%	1.94%	3.38%
7	**Depreciation**	**18.44**	**10.66**	**18.54**

The petitioner while calculating the Depreciation used incorrect opening GFA of various assets groups such as Plant & Machinery, Underground Cables & Computers & Others. This has resulted in less estimation of depreciation by the petitioner as shown in the above table. Hence the significant difference is observed in the depreciation as claimed by the petitioner & as approved by the Commission for FY 2020-21.

The Commission approves depreciation of INR 18.54 Crore in the true-up of FY 2020-21.

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 2020-21 has been computed as 70% of the capitalization for FY 2020-21. The repayment of loans has been considered equal to the depreciation during FY 2020-21.

Further, the rate of interest has been considered as the State Bank of India Prime Lending Rate (SBI PLR) as on April 1, 2020 plus 100 bp, i.e., 8.75%.

<u>Commission's Analysis</u>

In this regard, Regulation 28 of the JERC MYT Regulations, 2018 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."

As per the above Regulation, the rate of interest to be considered while determining the ARR shall be the weighted average interest rate of the actual loan portfolio. However, the Petitioner has submitted that the complete capitalization during the year has been funded by the equity and no loan has been taken against any of the capitalized assets. Accordingly, the Commission for the purpose of calculation of Interest on Loan has considered the interest rate equivalent to SBI MCLR as on April 1, 2020 (7.75%) plus 100 basis points.

Further, in accordance with the JERC MYT Regulations 2018, the interest has been calculated on the average normative loan during the year with the opening and closing values for loan as approved in *Section 3.12* of this Order. The repayment has been considered equal to depreciation allowed for FY 2020-21.

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

S. No	Particulars	Approved in APR Order	Petitioner's Submission	Trued-up by Commission
1	Opening Normative Loan	20.11	20.11	20.11
2	Add: Normative Loan During the year	111.08	114.74	114.74
3	Less: Normative Repayment = Depreciation	18.44	10.66	18.54
4	Closing Normative Loan	112.75	124.19	116.32
5	Average Normative Loan	66.43	72.15	68.21
6	Rate of Interest (%)	8.75%	8.75%	8.75%
	Interest on Loan	**5.81**	**6.31**	**5.97**

The Commission approves the Interest of Loan of INR 5.97 Crore in the true-up of FY 2020-21.

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 segregated the approved average equity (average of opening and closing equity) into average equity for Distribution Wires Business and Retail Supply Business based on the Allocation Statement provided in the MYT Regulations, 2018 i.e. 90% allocation for the Distribution Wires Business and 10% allocation for the Retail Supply Business. Petitioner further submitted that 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 the Regulation 26 of the MYT Regulations, 2018.

Commission's Analysis

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 2019-20 approved in the True-up of the same. The following table provides the Return on Equity approved by the Commission in the APR Order, Petitioner's submission and now trued-up by the Commission.

Table 32: Return on Equity approved by Commission for FY 2020-21 (INR Crore)

S. No	Particulars	Approved in ARR order	Petitioner's Submission	Now Approved by Commission
1	Opening Equity	104.42	140.05	104.42
2	Additions on account of new capitalization	47.61	49.17	49.18
3	Closing Equity	152.02	189.23	153.60
4	Average Equity	128.23	164.64	129.01
5	Avg. Equity for wire business (90%)	115.40	148.18	116.11
6	Avg. Equity for Retail Supply Business (10%)	12.82	16.46	12.90
7	Return on Equity for Wire 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 Wire Business	17.89	22.97	18.00
10	Return on Equity for Retail Supply Business	2.05	2.63	2.06
11	**Return on Equity**	**19.94**	**25.60**	**20.06**

The Commission approves a Return on Equity of INR 20.06 Crore in the true-up of FY 2020-21.

3.16. Additional ROE for FY 2016-17, FY 2017-18, FY 2018-19 and FY 2019-20

Petitioner's Submission

The Petitioner submitted that Regulation 27 of MYT Regulations, 2014 provide as follows:

"27. Return on equity

a) *The Return on equity shall be computed on 30% of the capital base or actual equity, whichever is lower:*

Provided that assets funded by consumer contribution, capital subsidies/grants and corresponding depreciation shall not form part of the capital base. Actual equity infused in the Distribution Licensee as per book value shall be considered as perpetual and shall be used for computation in this Regulation.

b) *The return on the equity invested in working capital shall be allowed from the date of start of commercial operation.*

c) *16% post-tax return on equity shall be considered irrespective of whether the Distribution Licensee has claimed return on equity in the ARR Petition*

As given above, the MYT Regulations, 2014, allow the utility to claim ROE on 30% of the capital base or the actual equity whichever is lower. However, in the true up order of FY 2016-17, FY 2017-18, FY 2018-19 & FY 2019-20, the Commission had allowed ROE on the basis of paid-up equity share capital whereas the Regulations specifically provides that ROE should be allowed on the basis of equity and not on the basis of paid-up equity capital. The Petitioner further submitted that Regulation specifically states that ROE should be allowed irrespective of whether the Distribution Licensee has claimed return on equity in the ARR Petition.

Accordingly, the Petitioner has claimed a total of INR 22.65 Cr as additional ROE for FY 2016-17, FY 2017-18 FY 2018-19 & FY 2019-20 (INR 5.54 Crore for FY 2019-20 and INR 17.11 Crore for FY 2016-17, FY 2017-18 & FY 2018-19).

Commission's Analysis

The Petitioner had also raised the same issue of variation in Opening Equity for FY 2017-18 in the Review Petition filed on the Commission's Order dated May 20, 2019. In this regard, the Commission in its Order dated September 24, 2019, on the Review Petition ruled as follows:

"The Review Petitioner's contention is about difference in equity base upon which return on equity is allowed. The opening level of equity base for FY 2017-18 is the same as approved closing value of equity for FY 2016-17. The Review Petitioner did not file any Review Petition on the True-up Order for FY 2016-17 regarding the closing equity value of FY 2016-17. There is no merit in changing the opening value of equity for FY 2017-19 as per 30% of opening value of GFA. The Commission has considered the equity addition @30% for the approved capitalization for FY 2017-18 which is in line with the extant MYT Regulations.

As can be seen above, due to the Review Petitioner's inability to submit the project wise equity infusion details, the Commission was forced to consider opening equity value for FY 2017-18 equal to approved closing value of equity for FY 2016-17 as the part of methodology followed. The Commission is of the opinion that this issue does not warrant a review as there is no error in impugned order."

The Commission in the true up orders of FY 2016-17, FY 2017-18, FY 2018-19 & FY 2019-20 had allowed Return on equity on the basis of paid-up equity share capital instead of entire equity.

Accordingly, in line with the approach followed by the Commission in true up of FY 2016-17, FY 2017-18, FY 2018-19 & FY 2019-20 the Commission has not considered the Petitioner's submission to allow additional Return on equity. Further, this matter is sub-judice in APTEL.

3.17. Interest on Security Deposits

Petitioner's Submission

Payments of INR 3.20 Crore were released to the consumers towards interest on security deposits during FY 2020-21 against INR 4.20 Crore which was 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."

Accordingly, 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 2020-21 for truing-up.

The interest on consumer's Security Deposits approved by the Commission in APR Order, Petitioner's submission and now Trued- up by the Commission are shown in the following Table:

Table 33: Interest on security deposit approved by Commission for FY 2020-21 (INR Crore)

S. No	Particulars	Approved in APR Order	Petitioner's Submission	Trued-up by Commission
1	Interest on Security Deposit	**4.20**	**3.20**	**3.20**

The Commission approves Interest on Security Deposit of INR 3.20 Crore in the true-up of FY 2020-21.

3.18. Interest on Working Capital

Petitioner's Submission

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

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

a. O&M expense for one month
b. Maintenance spares at 40% of R&M for one month
c. Receivables for 2 months
d. Less consumer security deposit but excluding Bank Guarantee/Fixed Deposit Receipt

DNHPDCL has computed interest on working capital at 9.75% (SBI base rate as on 1st April, 2020 plus 200 basis points) as has been shown in the table below:

Table 34: Interest on Working Capital submitted by Petitioner for FY 2020-21 (INR Crore)

S. No	Particulars	Approved in ARR Order	Petitioner's Submission
1	O&M expense for one month	2.53	3.34
2	Maintenance spares at 40% of R&M for one month	0.33	0.73
3	Receivables for 2 months	490.86	483.78
4	**Total**	**493.72**	**487.85**
5	Less consumer security deposit but excluding Bank Guarantee/Fixed Deposit Receipt	60.63	76.13

S. No	Particulars	Approved in ARR Order	Petitioner's Submission
6	Net Working Capital required after deduction of Security Deposit	433.09	411.72
7	**Interest on Working Capital**	**42.23**	**40.14**

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."

As above, 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 per the audited accounts of FY 2020-21.

With regards to the interest rate, the Commission has considered the SBI MCLR rates (One Year) as on April 1, 2020 plus 200 basis points which is 9.75%.

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

Table 35: Interest on Working Capital approved by Commission for FY 2020-21 (INR Crore)

S. No.	Particulars	Approved in APR Order	Petitioner's Submission	Trued-up by Commission
1	O&M Expense for one month	2.53	3.34	2.67
2	Maintenance spares at 40% of R&M for one month	0.33	0.73	0.32
3	Receivables for 2 months	490.86	483.78	483.78
4	**Total Working Capital Requirement**	**493.72**	**487.85**	**486.77**
5	Less: Security Deposit excluding BG/FDR	60.63	76.13	76.13
6	Net Working Capital	433.09	411.72	410.64
7	Rate of Interest (%)	9.75%	9.74%	9.75%
8	**Interest on Working Capital**	**42.23**	**40.14**	**40.04**

The Commission approves the Interest on Working Capital of INR 40.04 Crore in the true-up of FY 2020-21.

3.19. Income Tax

Petitioner's submission

The Petitioner submitted Income tax liability for FY 2020-21 as INR 41.29 Cr.

Commission's Analysis:

In this regard, Regulation 32 of the JERC MYT Regulations, 2018, states the following:

*"**32. Tax on Income***

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

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

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

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

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

Further, 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:

*……." **(Emphasis supplied)***

Further, the Regulation 34.2 of the JERC MYT Regulations, 2018 stipulates the following:

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

The Petitioner has claimed INR 41.29 Crore as the income tax paid. The Commission has observed that the income tax is shown as Rs. 41.71 Cr as per the latest audited accounts submitted by the petitioner (Ref- Note 39 P&L Accounts) for FY 2020-21. The petitioner has not submitted any details regarding computation of Income Tax. Further, the said observation was reiterated in the TVS held on 18.02.2022, however, no detail by the petitioner, but only the copy of ITR was submitted. Hence, the Commission has relied on the Income Tax Returns and audited accounts submitted by the petitioner.

In the Income Tax Returns submitted by the petitioner, the Commission observed that the petitioner has considered the CSR Expenses, Interest of Income Tax and Provision of Bad Debts as a part of the total income from Business and the Income Tax has been computed including the same. The Commission has accordingly reduced the above said amount from the total income considered for the computation of the Income Tax by the petitioner. Further, the Commission has observed that the Petitioner has paid the income tax on total income comprising of income from sale of power & other income like interest income, delayed payment charge, etc.

Further, as per the above Regulations, since interest income & income by delayed payment charges are not to be considered as non-tariff income, accordingly the interest income and income from delayed payment charges as per audited accounts of the petitioner has been reduced from the total income as per ITR of the petitioner. Accordingly proportionate income tax to this effect has been reduced from the total tax paid by the petitioner as per ITR. The Income Tax approved by Commission is shown in the following table:

Table 36: Income Tax approved by Commission for FY 2020-21 (INR Crore)

S. No	Particulars	Approved in APR Order	Petitioner's Submission	Trued-up by Commission
1	Income Tax	**15.00**	**41.29**	**36.26**

The Commission approves Income Tax liability as INR 36.26 Cr for FY 2020-21.

3.20. Provision for Bad & Doubtful Debts

Petitioner's submission

The Petitioner has not claimed any amount towards provision for bad and doubtful debts for FY 2020-21.

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 2020-21.

3.21. Non-Tariff Income (NTI)

Petitioner's Submission

The Petitioner has submitted the actual Non-Tariff Income of INR 16.77 Crore for FY 2020-21.

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 (NTI). The NTI claimed by Petitioner and now trued-up by the Commission is shown in the following table:

Table 37: Non-Tariff Income Approved by Commission for FY 2020-21 (INR Crore)

S. No.	Particulars	Petitioner's Submission	Trued-up by Commission
1	Delayed Payment Charges	-	0.00
2	Reactive Charges Receivables	-	0.05
3	Capacitor Charges	-	-
4	Interest on FD and Others	-	0.00
5	Meter Testing Charges	-	0.13
6	Other Charges (Indirect)	-	-
7	Reconnection Charges	-	0.02
8	Registration Fees	-	0.54
9	Service Connection Charges	-	0.25
10	Supervision Charges	-	2.81
11	Tender Fees	0.01	0.01
12	Penalty Charges	-	-
13	STOA Application Receivables	-	0.57
14	Recovery of doubtful debt	-	-
15	Others	-	-
16	Provision for written back	10.90	10.90
17	sale of scrap	0.00	0.00
18	Test report charges	-	0.07

S. No.	Particulars	Petitioner's Submission	Trued-up by Commission
19	Assessment Charges from consumers	-	0.83
20	Licensee Fees	-	0.00
21	Operating Income	4.44	-
22	Other Miscellaneous Income	1.42	0.59
	Gross Total	**16.77**	**16.77**

The Commission observed that the petitioner has included revenue from all the sources in Non-tariff income as provided in annual accounts of FY 2020-21. The Commission has included revenue from all the appropriate sources in Non-Tariff income as per Regulation 64 of the JERC MYT Regulations, 2018. Hence there is no variation in petitioner proposed and Commission approved Non-tariff income for FY 2020-21.

Accordingly, the Commission approves Non-Tariff Income of INR 16.77 Crore in the true-up of FY 2020-21.

3.22. Incentive/Disincentive towards over/under achievement of norms of distribution losses

Petitioner's Submission:

The Incentive towards over achievement of norms of distribution losses has been considered INR 8.15 Cr by the Petitioner and added to ARR.

<u>Commission's Analysis</u>

In the APR for FY 2020-21, the Commission had approved the T&D loss level of 4.20%. The Petitioner has achieved T&D loss of 3.62% against the approved loss level of 4.20%. 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 2020-21 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 4.45/kWh, which is the Average Power Purchase cost (APPC) of the Petitioner for FY 2020-21. 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 has been computed after grossing up the retail energy sales (5,297.50 MU) with the actual Intra-State T&D Loss (3.62%).

Further the JERC MYT Regulations, 2018, stipulate the variation in distribution losses 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 is as shown in the following table:

Table 38: Incentive due to over-achievement of Distribution Loss target for FY 2020-21 (INR Crore)

S. No	Particulars	Approved in APR	Trued-up by Commission
1	Retail Sales (MU)	5297.00	5297.50
2	T&D Loss (%)	4.20%	3.62%
3	Power at State/UT Periphery (MU)	5529.75	5496.47
4	Gain/ (Loss) (MU)		33.28

S. No	Particulars	Approved in APR	Trued-up by Commission
5	Average Power Purchase Cost (INR/kWh)		4.45
6	Gain/ (Loss) (INR Crore)		15.59
7	**Sharing of Gain / (Loss) with Petitioner (INR Crore)**		**7.40**

The Commission approves INR 7.40 Crore as incentive for over-achieving the distribution loss target for FY 2020-21.

3.23. Additional Expenses

Petitioner's submission

The Petitioner submitted that the Commission vide Suo Motu order in Petition No. JERC/LEGAL/SMP /27/2020 dated 10 April, 2020 has extended the certain relief to the consumers of DNHPDCL with an aim to mitigate the hardship of Electricity Consumers and DISCOMs/ EDs in view of nation-wide lockdown due to COVID-19.

"There will be other additional costs required to be incurred for continuing of operations in the present situation of crisis. Associated with this, there will be an additional working capital interest. The Commission will consider the additional expenses that are likely to be incurred by the Distribution Licensees on all these accounts while evaluating the APR of FY 2020-21."

Further, the Commission in the Petition No. 37/2020 dated 23/03/2021 related to APR of FY 2020-21 has directed the following (Page No. 66 of the said order);

"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 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."

In view of above directions of the Hon'ble Commission, the additional cost burden attributable on account of reliefs provided to the consumers of DNHPDCL with an aim to mitigate the hardship during the lockdown due to COVID-19 is claimed as under;

Relief extended and its additional cost implication

a) **First relief**: A Moratorium on payment of Fixed Charges to all industrial and commercial consumers for the bills raised during the period from 24/3/2020 to 30/6/2020, which they can avail if they so desire. These deferred charges shall be recovered in an equated manner over next three bills to be raised after 30th June'2020. The said moratorium was offered to without levy of late payment surcharge as clarified in clarification dated 10/04/2020.

Cost Implication
The said relief has resulted deferment of payment of fixed charges by the consumer and further the consumers are also not supposed to pay any interest for the deferment availed by them. The shortfall in the collection on account of said deferment was funded by the Corporation from own resources. In view of the relaxation, it is submitted that an interest of Rs. 1.10 crore may be allowed to Corporation as additional cost.

Table 39: Cost Implication for FY 2020-21 (INR Crore)

Energy Month	Billing Month	Realised Month	Amount (Cr.)	Days	Interest Rate	Interest (Cr.)
Mar-20	Apr-20	Jul-20	12.98	91.00	11.20%	0.36
Apr-20	May-20	Aug-20	12.99	92.00	11.20%	0.37
May-20	Jun-20	Sep-20	12.97	92.00	11.20%	0.37
			38.94			**1.10**

b) **Second relief:** DISCOMs shall extend the due date for payment of electricity bills (including those already raised), where the due dates fall between 24th March,2020 and June 30,2020 by further two weeks without Late Payment Surcharge (LPSC).

Cost Implication

The said relief has resulted delayed the monthly realisation by further period of two weeks without levy of any interest. The said relaxation has resulted delayed collection of energy charges against the bills raised in the month of April-2020, May-2020 and June-2020. The shortfall in cash inflow resulting from 14 days extension of due date was funded by the Corporation from own resources. In view of the said relaxation, it is submitted that an interest of Rs. 2.11 crore may be allowed to Corporation as additional cost as per the calculation furnished hereunder;

Table 40: Cost Implication for FY 2020-21 (INR Crore)

Energy Month	Billing Month	Bill Amount (Cr.)	Days	Interest Rate	Interest (Cr.)
Mar-20	Apr-20	245.93	14	11.20%	1.06
Apr-20	May-20	85.62	14	11.20%	0.37
May-20	Jun-20	157.65	14	11.20%	0.68
					2.11

c) **Third relief:** The Commission has powers to modify its tariff orders under Section 62 of Electricity Act 2003. In exercise of this power Commission has reduced LPSC @ 1% p.m. instead of 2% p.m. as provided in its tariff orders dated 20th May 2019. This relaxation is purely of temporary nature for the period starting from 24th March 2020 to 30th June 2020.

Cost Implication

The Delayed Payment Charges (DPC) for the FY 2020-21 was Rs. 16.46 crore as against the 22.89 crore of the FY 2019-20. There was reduction in the DPC by an amount of Rs. 6.43 crore i.e., around 28.10%. The said reduction was mainly on account of reduction / relaxation in the LPSC (late payment surcharge) offered by the Commission by reducing the said rate as 1% p.m. instead of 2% p.m. for the period from 24th March 2020 to 30th June 2020. A reduction of Rs. 4.50 crore as calculated below is attributable to the reduction in the said rate. In view of the said relaxation, it is submitted that an amount of Rs. 4.50 crore may be allowed to Corporation as additional cost.

Table 41: Cost Implication for FY 2020-21 (INR Crore)

Energy Month	Mar-20	Apr-20	May-20		
Billing Month	Apr-20	May-20	Jun-20		
Particulars	DPC @ 1%	DPC @ 1%	DPC @ 1%	Total DPC @ 1%	DPC @ 2%
High Tension	0.61	0.78	1.09	2.48	4.96
Low Tension	0.21	0.14	0.12	0.46	0.92
Commercial	-	0.13	0.12	0.25	0.51

Energy Month	Mar-20	Apr-20	May-20		
Domestic	-	0.52	0.53	1.05	2.10
LIG	-	0.05	0.05	0.10	0.20
Public Lighting	-	0.02	0.02	0.05	0.09
Agriculture	-	0.02	0.02	0.04	0.07
Temporary	-	0.01	0.01	0.01	0.03
Public Water works	-	0.03	0.03	0.06	0.12
Total	**0.81**	**1.69**	**2.00**	**4.50**	**9.00**
Reduction in DPC due to reduction in rate					**4.50**

d) **Other Financial Hardship/Stress**

The approved billing rate for FY 2020-21 and further the approved power purchase cost including the transmission charges are as tabled below;

Table 42: Approved Billing Rates and Power Purchase Cost for FY 2020-21 (INR Crore)

Particulars	Average Billing Rate	Average Purchase Cost
Net Export of Unit (MUs)	6,689.48	6,689.48
Revenue in Crore	3,589.67	3,340.99
Average Billing Rate (Rs.)	5.37	4.99
Monthly Revenue / Purchase Cost (Crore)	299.14	278.42

The Petitioner submitted that the Commission has approved ABR (Average Billing Rate) at approved tariff as Rs. 5.37 per unit, whereas approved power purchase cost including the transmission charges is Rs 4.99 per unit for FY 2020-21 as per tariff order in petition no. 19/2019 dated 18/05/2020.

More over as the demand load of DNHPDCL 94% from the industrial consumers, hence, the demand load of DNHPDCL remains very steady / stable in day, night and month to month basis. The power demand load in terms of MW remains was very stable around 720 MW to 800 MW on monthly basis. In view of above, it was expected that in every month of FY 2020-21, the revenue billing would be around Rs. 299 crores, whereas, the power purchase liability would be Rs. 278 crores.

However, the complete lockdown measures enforced for the period 25/03/2020 to 30/06/2020 to restrict the spread of COVID-19 outbreak has impacted very severely the business operation of DNHPDCL. The billing from the consumers has gone below the monthly power purchase cost on account of said COVID lockdown restriction as tabled below;

Table 43: Consumers Billing for FY 2020-21 (INR Crore)

Energy Month	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20
Billing Month	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20
Power Purchase Cost							
Fixed Cost of Power	163.52	100.94	106.55	107.73	102.49	110.47	105.37
Other Cost of Power	104.87	67.38	46.92	71.03	94.51	101.97	122.10
Total Power Cost	**268.39**	**168.32**	**153.47**	**178.76**	**197.00**	**212.44**	**227.47**
Less: Rebate	3.79	2.52	2.28	2.58	2.84	3.02	2.99
Total Cash Outflow	**264.60**	**165.80**	**151.19**	**176.18**	**194.16**	**209.42**	**224.48**
Revenue – Consumers							
Fixed Charges	46.80	44.39	44.28	47.02	46.29	46.28	47.23

Energy Month	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20
Other Charges	157.68	32.39	87.49	145.37	178.77	194.40	221.60
Moratorum Recovered				-	-	-	-
FPPCA Received over PY Provision	-	-	-	-	-	20.44	27.46
Total Billing for month	**204.48**	**76.77**	**131.76**	**192.39**	**225.06**	**261.12**	**296.29**
				-	-	-	
Total Cash Inflow	**204.48**	**76.77**	**131.76**	**192.39**	**225.06**	**261.12**	**296.29**
Additional Cash out flow	60.12	89.03	19.43	-16.21	-30.90	-51.70	-71.81
Cumulative Cash-flow	60.12	149.15	168.57	152.36	121.46	69.76	-2.05

The petitioner submitted that the additional cash outflow deployed of Rs. 168.57 crore result into additional cost implication of Rs. 7.47 crore. In view of above, it is submitted that an interest of Rs. 7.47 crore may be allowed to Corporation as additional cost as per the calculation furnished hereunder;

Table 44: Additional Cost for FY 2020-21 (INR Crore)

Interest Calculation								
Power Bill Settlement	09-04-2020	09-05-2020	09-06-2020					
Revenue Bill Realisation								
1st Fund Deployment	60.12							
Recovered				16.21	30.90	13.01		60.12
Date Outstanding				107.00	138.00	138.00		60.12
Rate of Interest				11.20	11.20	11.20		
Additional Interest Cost - a				0.53	1.31	0.55		
Revenue – Consumers								2.39
2nd Fund Deployment	-	89.03						89.03
Recovered						38.69	50.33	89.03
Date Outstanding						139.00	169.00	
Rate of Interest						11.20	11.20	
Additional Interest Cost - b						1.65	2.61	4.26
3rd Fund Deployment	-	-	19.43					19.43
Recovered							19.43	19.43
Date Outstanding							138.00	
Rate of Interest								
							11.20	
Additional Interest Cost - c							0.82	0.82
Total Interest Cost (a to c)								7.47

Summary of Cost Implication

The Total additional cost implication has been summarized in the following table:

Table 45: Summary of Additional Cost Implication for FY 2020-21 (INR Crore)

Particulars	Cost
Moratorium on payment of fixed charges	1.10
Extension of due date of electricity bills	2.11
Reduction in DPC due to reduction in rate	4.50
Mismatch between revenue collection and PPC	7.47
Total	**15.18**

Commission's Analysis

The Commission has analysed the submissions made by the petitioner. The Commission vide Suo Motu order dated 10 April, 2020 has extended the certain relief to the consumers of DNHPDCL with an aim to mitigate the hardship of Electricity Consumers and DISCOMs/ EDs in view of nation-wide lockdown due to COVID-19.

"There will be other additional costs required to be incurred for continuing of operations in the present situation of crisis. Associated with this, there will be an additional working capital interest. The Commission will consider the additional expenses that are likely to be incurred by the Distribution Licensees on all these accounts while evaluating the APR of FY 2020-21."

Further, the Commission in the Order in Petition No. 37/2020 dated 23 March,2021 related to APR of FY 2020-21 has directed the following (Page No. 66 of the said order);

"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 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."

Approach taken by the Commission

Moratorium on payment of fixed charges - The Commission has noted that the petitioner has made their computation considering the Interest rate as 11.20%. The Commission has also noted that the impact of the same has been considered for three months. The Commission is of the view that the impact of this should be allowed for two months at the Working Capital Interest Rate considered for FY 2020-21 i.e. 9.75%.

Extension of due date of electricity bills - The Commission has noted that the petitioner has made their computation considering the Interest rate as 11.20%. The Commission has also noted that the impact of the same has been considered for 14 days for all the three months. The Commission is of the view that the impact of this should be allowed for 14 days for two months at the Working Capital Interest Rate considered for FY 2020-21 i.e. 9.75%.

Reduction in DPC due to reduction in rate –

The Commission had reduced DPC from 2% to 1% during the Covid-19 period. DPC is payable by the consumers only in case they pay beyond the due date. The working capital norms approved by the Commission allows the Petitioner to recover cost incurred on the working capital assuming consumer pays by the due date. The cost incurred by the Petitioner beyond due date is on account of higher working capital requirement. The Petitioner has not incurred any actual expenditure on this account. The Commission has allowed the interest on moratorium of fixed charges and extension of due date of electricity bills. Further, the petitioner has not submitted the details of the actual DPC realized for the period of claim. Hence, the actual impact of reduction in DPC cannot be ascertained by the Commission. The Commission further observed that the petitioner has not availed any additional working capital during the FY 2020-21 and the same has not been reflected on the audited accounts of FY 2020-21.Hence, the Commission has not allowed any additional cost on account of reduction in DPC rate.

Mismatch between revenue collection and PPC - The Commission is of the view that normative interest on working capital is allowed as part of ARR though the Petitioner has not taken any actual loan for working capital. As a part of normative working capital, the Commission allows the receivables for 2 months. The Petitioner has not incurred any actual expenditure on this account. The Commission has allowed the interest on moratorium of fixed charges and extension of due date of electricity bills. Hence, the Commission has not allowed any additional cost on account of mismatch between revenue collection and PPC.

The summary of the total additional cost allowable are as follows:

Table 46: Summary of Cost Implication for FY 2020-21 (INR Crore)

Particulars	Petitioner's Submission	Approved by Commission
Moratorium on payment of fixed charges	1.10	0.64
Extension of due date of electricity bills	2.11	1.24
Reduction in DPC due to reduction in rate	4.50	0.00
Mismatch between revenue collection and PPC	7.47	0.00
Total	**15.18**	**1.88**

3.24. 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 2,769.87 Crore for approval in the True-up of FY 2020-21.

Commission's Analysis

The Commission on the basis of the detailed analysis of the cost parameters of the Aggregate Revenue Requirement approves the net revenue requirement in the true-up of FY 2020-21 as given in the following table:

Table 47: Aggregate Revenue Requirement approved by Commission for FY 2020-21 (INR Crore)

S. No	Particulars	Approved in APR Order	Petitioner's Submission	Trued-up by Commission
1	Power Purchase Cost	2,628.41	2,573.32	2569.30
2	Operation & Maintenance Expenses	30.33	40.13	32.04
3	Depreciation	18.44	10.66	18.54
4	Interest on Long-term Capital Loans	5.81	6.31	5.97
5	Interest on Working Capital Loans	42.23	40.14	40.04
6	Return on Equity	19.94	25.60	20.06
7	Additional ROE for previous year	0.00	22.65	0.00
8	Additional Expenses for COVID	0.00	15.18	1.88
9	Provision for Bad Debt	0.00	0.00	0.00
10	Interest on Security Deposit	4.20	3.20	3.20
11	Income Tax	15.00	41.29	36.26
12	Incentive/ (Disincentive)on achievement of norms	0.00	8.15	7.40

S. No	Particulars	Approved in APR Order	Petitioner's Submission	Trued-up by Commission
13	**Total Revenue Requirement**	**2,764.36**	**2,786.63**	**2,734.67**
14	Less: Non-Tariff Income	12.06	16.77	16.77
15	**Net Revenue Requirement**	**2,752.30**	**2,769.87**	**2,717.90**

The Commission approves net Aggregate Revenue Requirement of INR 2,717.90 Crore in the true-up of FY 2020-21.

3.25. Revenue at existing Retail Tariff

Petitioner's submission

The actual revenue from retail sale for FY 2020-21 is INR 2,902.66 Crore as against INR 2,945.17 Crore approved by the Commission in the APR Order.

Commission's Analysis

The Petitioner submitted INR 2,902.66 Crore as revenue from sale of power. The Commission analyzed the sales and revenue figures for each consumer category and checked the revenue from audited accounts of FY 2020-21. The Revenue from sale of power as provided in the annual accounts is INR 2,902.66 Crore.

The Commission approves the revenue from sale of power as INR 2,902.66 Crore in the true-up of FY 2020-21.

3.26. Standalone Revenue Gap/ Surplus

Petitioner's submission

Based on the ARR and the revenue from retail tariff, the standalone revenue gap of INR 24.36 Crore is arrived in the true-up of FY 2020-21.

Commission's Analysis

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

Table 48: Revenue Gap/ (Surplus) for FY 2020-21 (INR Crore)

S. No	Particulars	Approved in APR Order	Petitioner's Submission	Trued-up by Commission
1	Net Revenue Requirement	2,752.30	2,769.87	2,717.90
2	Revenue from Retail Sales at Existing Tariff	2,945.17	2,902.66	2,902.66
3	Revenue Gap/ (Surplus)	(192.88)	(132.79)	(184.76)
4	Previous Years' Gap/ (Surplus)	146.43	149.85	146.43
5	Holding Cost	4.37	7.30	5.16
6	**Net Standalone Gap / (Surplus)**	**(42.08)**	**24.36**	**(33.17)**

The Commission, in the true-up of FY 2020-21 approves a surplus of INR 33.17 Crore. This surplus has been carried over in the subsequent years and has been dealt with while determining the tariff for FY 2022-23.

4. Chapter 4: Annual Performance Review for FY 2021-22

4.1. Background

The Tariff Order for approval of true-up of FY 2019-20, Annual Performance Review of FY 2020-21 and Aggregate Revenue Requirements (ARR) for FY 2021-22 and determination of tariff for FY 2021-22 was issued by the Commission on March 23, 2021 (hereinafter referred to as 'ARR Order' for the purpose of APR of FY 2021-22). This Chapter covers the Annual Performance Review (APR) for FY 2021-22 vis-à-vis the cost parameters approved by the Commission in the ARR Order. The Annual Performance Review for FY 2021-22 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***

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

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

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

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

.....

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;

.....

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

e) Other relevant details, if any.

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

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

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

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

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

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

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

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

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

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

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

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

4.2. Approach for the Review for FY 2021-22

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 2021-22 has been done based on actual data for 6 months and revised estimates for the remaining six months of FY 2021-22. The various cost elements constituting the Aggregate Revenue Requirement have been approved based on the actual information submitted by the Petitioner for the six months of FY 2021-22, the JERC MYT Regulations, 2018 and on the basis of the norms approved in the ARR Order dated March 23, 2021.

4.3. Energy Sales

Petitioner's Submission

The Petitioner in its Petition submitted that the sales for FY 2021-22 have been estimated based on actual sales by the Corporation during the first six months of FY 2021-22. Total sales of 6588.80 MUs have been estimated against the 6540.78 MU as approved by the Commission in the ARR Order for FY 2021-22.

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 2021-22 i.e., from April 2021 to December 2021, in both kWh and kVAh. The Commission has noted the audited figures for FY 2020-21 and provisional information provided by the Petitioner for the first 9 months of FY 2021-22. For all the consumers' 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 2021-22.

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 for FY 2021-22.

Table 49: Energy Sales (MU) approved by the Commission for FY 2021-22

S. No.	Category	Approved in ARR Order	Petitioner's Submission	Now Approved by Commission
1	Domestic	167.74	173.53	160.72
2	Lifeline Consumer	0.00	7.33	7.33
3	Commercial/Non-Domestic	38.89	37.33	36.53
4	Agriculture	5.46	4.77	4.28
5	LT Industry	227.55	225.33	236.36
6	Public Lighting	3.22	2.50	2.40
7	Public water works	5.26	5.04	5.10
8	HT/EHT Industry	6088.87	6128.60	6200.57
9	Temp. Supply	3.79	4.36	7.07
	Gross Total	**6,540.78**	**6,588.80**	**6,660.36**

The Commission approves energy sales of 6,660.36MU in the APR of FY 2021-22.

4.4. Inter-State Transmission Loss

Petitioner's submission

The Petitioner has considered the Inter-State Transmission Loss of 3.66% in FY 2021-22.

Commission's Analysis

The Commission in the APR of FY 2021-22 considers the Inter-State transmission losses in line with those approved in the ARR Order. The same shall be revised based on actuals during the true-up exercise of FY 2021-22.

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

Table 50: Inter-State Transmission Loss for FY 2021-22 (%)

S. No	Particulars	Approved in ARR Order	Petitioner's Submission	Now Approved by Commission
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 2021-22.

4.5. Distribution Loss

Petitioner's submission

The Petitioner has submitted distribution losses of 4.10% for FY 2021-22 same as approved by the Commission in the ARR Order.

<u>Commission's Analysis</u>

Regulation 12.2 (c) of the JERC, MYT Regulations, 2018, provides as follows:

"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:

.....

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

.........."

As per Regulation 12.2 (c) of the JERC, MYT Regulations, 2018, distribution loss is a controllable factor. The Commission approves the same loss level as approved in the MYT Order dated May 20, 2019.

Further, in accordance to Regulation 14 of the JERC, MYT Regulations, 2018, mechanism for sharing of gains or losses on account of controllable factors, 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 following table provides the Distribution loss approved in the ARR Order, the Petitioner's submission and now approved by the Commission.

Table 51: Distribution loss for FY 2021-22 (%)

S. No	Particulars	Approved in ARR Order	Petitioner's Submission	Now Approved by Commission
1	Distribution Loss	4.10%	4.10%	4.10%

The Commission approves distribution loss of 4.10% in the APR of FY 2021-22.

4.6. Energy Balance

Petitioner's submission

The energy requirement as submitted by the Petitioner for FY 2021-22 has been shown in the following table:

Table 52: Energy Balance as submitted by the Petitioner for FY 2021-22 (MU)

Particulars	FY 2021-22 R.E
Sales	6,588.80
Open Access Sales	0.00
Less: Energy Savings	0.00
Total Sales	**6,588.80**
Add: Losses	281.69
T&D Losses (%)	**4.10%**
Energy Required at Periphery	**6,870.49**

Particulars	FY 2021-22 R.E
Add: Sales to common pool consumer	0.17
Add: Sales through IEX	4.63
Less: Own Generation	5.91
Total energy requirement at state periphery	6,869.38
Less: Energy Purchased through UI at Periphery	28.99
Less: Purchase from Renewable Sources	0.00
Less: Open Access Purchase	0.00
Less; Power from Power Exchange	931.83
Total Energy Required at Periphery	**5,908.57**
Transmission loss	224.47
Transmission loss (%)	3.66%
Total Energy to be purchased	**6,133.04**
Total Energy requirement from tied up sources & UI at generator end	7,099.76
Total Energy requirement in UT including Open Access	7,099.76

The Petitioner has estimated the Total Energy requirement from the tied-up sources & UI at generator end as 7,099.76 MU in the APR for FY 2021-22.

Commission's Analysis

The energy requirement at State/UT Periphery is derived based on the energy sales estimate and the Intra-State transmission losses and Distribution losses approved for FY 2021-22, as shown in the following Table:

Table 53: Energy Balance as approved by the Commission for FY 2021-22 (MU)

Sr. No.	Particulars	Formula	Approved in ARR Order	Petitioner's Submission	Now Approved by Commission
A	Energy sales within the State/UT		6,540.78	6,588.80	6660.36
B	Open Access Sales		0.00	0.00	0.00
C	Less: Energy Savings		0.00	0.00	0.00
D	**Total Sales within the State/UT**	**D=A+B+C**	**6,540.78**	**6,588.80**	6660.36
	Distribution losses				
E	in %		4.10%	4.10%	4.10%
F	In MU	F=G-D	279.64	281.69	284.75
G	**Energy required at State Periphery**	**G=D/(1-E)**	**6820.42**	**6870.49**	6945.11
	Energy Transactions at Periphery				
H	Add: Sales to common pool consumer		0.00	0.17	0.00
I	Add: Sales through IEX		0.00	4.63	0.00
J	Less: Own Generation		6.81	5.91	5.91
K	Less: Energy Purchased through UI at Periphery		0.00	28.99	44.64

Sr. No.	Particulars	Formula	Approved in ARR Order	Petitioner's Submission	Now Approved by Commission
L	Less: Purchase from Renewable sources		175.20	0.00	0.00
M	Less: UI Overdrawl		0.00	0.00	0.00
N	Less: Purchase from Power Exchanges		927.00	931.83	944.37
O	**Total energy requirement at State Periphery from tied-up Sources**	**O=G+H+I-J-K-L-M-N**	**5712.04**	**5908.57**	**5950.19**
	Transmission losses				
P	in %		3.66%	3.66%	3.66%
Q	in MU	**Q=R-O**	216.99	224.47	226.05
R	Total requirement from tied-up sources at generator end (MU)	R=O/ (1-P)	5929.03	6133.04	6176.24
S	**Total requirement from Tied-up sources including purchase from Power Exchange & UI/ Traders/ Banking within State**	**S=R+N**	**7037.41**	**7099.76**	**7171.16**
T	**Total availability from tied up sources at generator end (MU)**	**U=S-J-K-N**			**6226.79**
U	**Deficit/(surplus)**	**V=S-U**			**944.37**

The Commission approves the Total Energy available at the generator end (from firm sources) as 7,171.16 MU in the APR for FY 2021-22. The Commission has estimated a deficit of 944.37 MU and has assumed that the deficit power will be purchased from the Open Market.

4.7. Power Purchase Quantum & Cost

4.7.1. Availability of power

Petitioner's submission:

Dadra & Nagar Haveli has no generating stations of its own and relies on the firm and infirm allocation of power from Central Generating Stations like NTPC Korba, NTPC Vindhyachal, NTPC Kahalgaon, NTPC Kawas, NTPC Sipat, NPCIL Tarapur, NPCIL Kakrapar, etc., to meet its energy requirement.

The DNHPDCL for the purpose of estimation of the power availability during FY 2021-22 has considered the following sources of power:

- NTPC Western Region Generating Stations
- NTPC Eastern Region Generating Stations
- NSPCL Bhilai
- Nuclear Power Corporation of India Limited (NPCIL)
- Private Sector Power Generating Companies
- Renewable energy sources – Solar and Non-Solar
- Other market sources

The Petitioner has allocation from Western as well as Eastern region 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 (UI).

For projecting of the energy availability for FY 2021-22, 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 2021-22, firm and infirm allocation from various generating stations has been considered as per the allocation specified in the notification no. WRPC/Comml-I/6/Alloc/2021 dated: 29/10/2021 of Western Regional Power Committee as shown in the following table:

Table 54: Energy allocation as considered by the Petitioner for FY 2021-22 (MW)

Name of the plant	Weighted average Infirm allocation	Weighted Average Firm allocation	Weighted average total allocation
KSTPP	54.32	0.00	54.32
KSTPS -3	20.48	2.20	22.68
VSTPP-I	38.41	5.00	43.41
VSTPP-II	29.52	4.00	33.52
VSTPP- III	29.52	6.00	35.52
VSTPP- IV	40.97	5.55	46.52
KAWAS	56.23	25.00	81.23
GGPP	56.74	2.00	58.74
Sipat – I	81.12	9.00	90.12
Sipat – II	28.11	4.00	32.11
KHSTPP – II	3.50	0.00	3.50
Mauda I (MSTPS)	0.00	0.00	0.00
VSTPP-V	20.48	5.55	26.03
Mauda II	54.08	8.60	62.68
Solapur	54.08	21.57	75.65
Gadarwara	65.55	20.83	86.38
LARA	64.97	10.46	75.43
Kharagaon	54.08	16.83	70.91
NPCIL – KAPS	14.37	2.00	16.37
NPCIL - TAPS 3&4	35.22	7.00	42.22
Total	**801.77**	**155.59**	**957.36**
NSPCL Bhilai		100	100.00

<u>Commission's Analysis:</u>

The data pertaining to actual power purchase quantum for the period from October 2021 to December 2021 was sought from the Petitioner. The Commission considered the data for first nine months of FY 2021-22 as submitted by the Petitioner and estimated the power purchase quantum for the remaining months of the financial year considering data of the firm and infirm allocation from various generating stations. The source wise methodology followed for estimation of quantum of power procurement has been detailed as follows:

Availability of energy from NTPC Stations:

- Actual Power Purchase Quantum is available for first 9 months for FY 2021-22. From January to March 2022, 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 2018-19, FY 2019-20 & FY 2020-21).

- For NTPC Khargone ,Lara, Gadarwara, KGPP and GGPP for the power purchase quantum for January-March 2022 the Commission has considered the Petitioner's estimation of power purchase for entire 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 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 2021-22.

Availability of energy from NSPCL Bhilai station:

- Actual Power Purchase Quantum is available for first 9 months for FY 2021-22. From January to March 2022, the Commission has considered power purchase quantum same as the petitioner's estimation since in FY 2020-21 the power procurement had drastically reduced from previous two years. The actual power purchase of first 9 months is subtracted from total Power Purchase quantum submitted by the petitioner. Remaining value of Power Purchase quantum from each plant is equally distributed in last 3 months to arrive at the month wise quantum purchased for FY 2021-22.

Availability from NPCIL stations:

- DNHPDCL 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 of power from the Open Market, Unscheduled Interchange and Banking

- The Open market purchase of 755.25 MUs for first 9 months has been considered as per actuals. For the remaining months the quantum for purchase has been considered to meet the total energy requirement for FY 2021-22.

- Quantum under UI Overdrawal/ Underdrawal for first 9 months of FY 2021-22 has been considered as 44.64 MUs as per actuals. no quantum is approved under UI Overdrawal by the Commission for last quarter (January-March) of FY 2021-22.

4.7.2. Power Purchase Cost

Petitioner's submission:

Based on the actual power purchase cost of the first six months of FY 2021-22 and the remaining six months' projection, the revised estimated power purchase cost for FY 2021-22 as submitted by the Petitioner is presented in the following table:

Table 55: Power Purchase Quantum (MU) and Cost (INR Crore) submitted by Petitioner for FY 2021-22

Source	Units Purchased	Fixed Charges	Variable Charges	Other Charges	Rebate	All Charges Total	Per Unit Cost
NTPC Stations							
KSTPP 1&2	400.54	25.79	61.28	2.47	0.00	89.54	2.24
KSTPS 3	169.11	21.90	25.23	(0.14)	0.00	47.00	2.78
VSTPP-I	307.55	25.35	53.20	2.28	0.00	80.83	2.63
VSTPP-II	224.82	14.69	37.06	0.19	0.00	51.94	2.31
VSTPP- III	237.95	23.07	38.72	(0.44)	0.00	61.34	2.58

Source	Units Purchased	Fixed Charges	Variable Charges	Other Charges	Rebate	All Charges Total	Per Unit Cost
VSTPP- IV	342.56	50.77	56.33	0.17	0.00	107.27	3.13
KAWAS	143.58	49.33	22.82	2.68	0.00	74.83	5.21
JGPP	118.86	41.58	20.26	1.05	0.00	62.90	5.29
Sipat-I	644.64	81.96	105.13	(0.42)	0.00	186.67	2.90
Sipat-II	243.51	27.74	41.75	(0.10)	0.00	69.40	2.85
MSTPL 1	0.00	0.00	0.00	0.55	0.00	0.55	1712.22
VSTPS-V	191.30	30.03	32.63	(0.19)	0.00	62.48	3.27
Mauda 2	288.56	63.82	93.68	2.11	0.00	159.61	5.53
Solapur	312.80	90.20	108.85	0.93	0.00	199.98	6.39
LARA	520.92	88.22	121.39	(0.17)	0.00	209.44	4.02
Gadarwara	502.96	124.84	147.08	(0.23)	0.00	271.69	5.40
BARH	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dhuwaran	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Kharagaon	375.64	79.41	109.67	(0.62)	0.00	188.46	0.00
FSTPS	0.00	0.00	0.00	0.00	0.00	0.00	0.00
KhSTPS I	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RSTPS	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TSTPS	0.00	0.00	0.00	0.00	0.00	0.00	0.00
KHSTPP-II	21.67	2.28	5.00	(0.01)	0.00	7.27	3.36
Subtotal	**5047.00**	**840.99**	**1080.09**	**10.11**	**-0.08**	**1931.27**	**3.83**
NSPCL – Bhilai	**709.28**	**115.38**	**186.55**	**1.01**	**0.00**	**302.93**	**4.27**
NSPCL – Rourkela							
NPCIL							
KAPS	84.23	0.00	19.64	0.00	0.00	19.64	2.33
TAPS 3&4	292.53	0.00	99.58	3.51	0.00	103.09	3.52
Subtotal	**376.76**	**0.00**	**119.23**	**3.51**	**0.00**	**122.74**	**3.26**
Power purchase from Other Sources							
Indian E. Exchange/Bilateral	931.83	0.00	409.23	0.00	0.00	409.23	4.39
UI	28.99	0.00	10.97	0.00	0.00	10.97	3.78
Solar	5.91	0.00	0.00	0.00	0.00	0.00	0.00
Non Solar	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Solar REC	0.00	0.00	23.76	0.00	0.00	23.76	0.00
Non Solar REC	0.00	0.00	32.51	0.00	0.00	32.51	0.00
Solar (SECI)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wind (SECI)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Subtotal	**966.72**	**0.00**	**476.47**	**0.00**	**0.00**	**476.47**	**4.93**
Misc. Arrears							
Power Purchase Cost	**7099.76**	**956.36**	**1862.34**	**14.62**	**-0.08**	**2833.40**	**3.99**
Availability at ED-DNH Periphery	**7099.76**	**956.36**	**1862.34**	**14.62**	**-0.08**	**2833.40**	**3.99**
PGCIL CHARGES						459.56	

Source	Units Purchased	Fixed Charges	Variable Charges	Other Charges	Rebate	All Charges Total	Per Unit Cost
POSOCO						0.97	
Reactive charges						0.00	
Others						51.73	
Grand Total of Charges	**7099.76**	**956.36**	**1862.34**	**14.62**		**3345.66**	**4.71**

<u>Commission's Analysis:</u>

The data pertaining to power purchase cost for the period from October to December 2021 was sought from the Petitioner. The Commission considered the data for first nine months of FY 2021-22 as submitted by the Petitioner and estimated the power purchase cost for the remaining months of the year considering data of the firm and infirm allocation from various generating stations. The source wise methodology followed for estimation of cost of power procurement has been detailed as follows:

Variable Charges:

- Actual variable costs have been considered for the first nine months for all stations for FY 2021-22.
- 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 2021 to December 2021 for all the stations.
- For computing variable cost for January 2022 to March 2022, the derived MUs at Ex-bus is multiplied by the per unit variable cost during the first 9 months of FY 2021-22.
- For January to March 2022 The per unit variable costs for Open Market have been computed by considering average rate of INR 3.50/kWh considering the current trends in open market

Fixed Charges:

- Actual Fixed Costs have been considered for the first nine months for all stations for FY 2021-22.
- The fixed costs for the remaining months of the FY 2021-22 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 DNHPDCL's share in each station and average of the annual plant availability factor achieved during the last three years.
- The remaining fixed cost, after deducting the fixed cost already paid by the Petitioner during first nine months from the Annual Fixed Cost share of Petitioner for a plant for whole year has been considered for the period January to March 2021.

Other Charges:

- Actual charges have been considered for the first 9 months of FY 2021-22. No other charges have been considered for the remaining months of FY 2021-22.

4.7.3. Transmission Charges

Petitioner's submission:

DNHPDCL has projected the net transmission charges for the FY 2021-22 as INR 512.26 Crore inclusive of PGCIL, WRLDC & MSTCL for FY 2021-22.

Commission's Analysis:

The Commission has considered the transmission charges payable to PGCIL, WRLDC & MSTCL for FY 2021-22 based on the actual transmission charges paid in the first nine months of the financial year and as submitted by the petitioner. The same shall be trued-up as per actuals.

4.7.4. Total power purchase quantum and cost approved by Commission

The following table provides the quantum of energy availability and the power purchase cost approved by the Commission for FY 2021-22:

Table 56: Power Purchase Quantum (MU) and cost (INR Crore) approved by the Commission for FY 2021-22

S. No.	Source	Energy Units (MU)	Fixed Charges (INR Crore)	Variable Charges (INR Crore)	Other Charges# (INR Crore)	Total Charges (INR Crore)	Per Unit (INR/ kwh)
A	**NTPC**						
1	KSTPS	406.99	25.91	56.16	2.42	84.50	2.08
2	KSTPS 3	177.69	22.19	24.02	-0.19	46.02	2.59
3	VSTPP-I	313.88	25.23	51.20	2.19	78.62	2.50
4	VSTPP-II	227.19	16.36	35.58	0.35	52.29	2.30
5	VSTPP- III	250.45	26.16	38.94	-0.30	64.79	2.59
6	VSTPP- IV	336.95	51.40	51.87	0.39	103.66	3.08
7	KGPP	143.58	50.37	61.83	3.36	115.56	8.05
8	GGPP	118.86	45.08	35.29	1.32	81.68	6.87
9	Sipat-I	613.94	83.02	91.47	-0.52	173.97	2.83
10	Sipat-II	240.29	28.00	36.48	0.09	64.57	2.69
11	Mauda	0.00	0.00	0.00	0.49	0.49	-
12	VSTPS-V	195.38	30.38	31.01	-0.25	61.13	3.13
13	Mauda 2	340.75	62.55	114.48	1.88	178.92	5.25
14	Solapur	303.06	90.29	107.64	3.14	201.08	6.63
15	LARA	520.92	88.24	111.07	-0.55	198.76	3.82
16	Gadarwara	502.96	119.65	145.31	-0.26	264.69	5.26
17	Kharagaon	375.64	86.88	110.83	-0.72	196.98	5.24
18	KHSTPP-II	21.66	2.28	5.19	0.03	7.50	3.46
	Subtotal – NTPC	5090.20	854.00	1108.36	12.85	1975.21	3.88
B	**NSPCL – Bhilai**	709.28	116.66	187.23	-2.17	302.32	4.26
C	**NPCIL**						
1	KAPS	84.23		19.46	-0.45	19.01	2.26
2	TAPS	292.53		99.49	3.51	103.00	3.52
	Subtotal	376.76		118.95	3.06	122.01	3.24
	Total of all Firm Sources	**6176.24**	**970.66**	**1415.14**	**13.74**	**2399.54**	**3.89**
E	**Other Sources**						
1	Energy Exchange/ Bilateral	944.37		430.70		430.70	4.56
2	UI	44.64		18.71		18.71	4.19
3	Solar*	5.91		4.02		4.02	6.80

S. No.	Source	Energy Units (MU)	Fixed Charges (INR Crore)	Variable Charges (INR Crore)	Other Charges# (INR Crore)	Total Charges (INR Crore)	Per Unit (INR/ kwh)
4	Non Solar	0.00		-		-	0.00
5	Solar REC	0.00		0.00		0.00	0.00
6	Non Solar REC	0.00		24.07		24.07	0.00
7	Solar SECI	0.00		0.00		0.00	0.00
8	Wind SECI	0.00		0.00		0.00	0.00
	Subtotal - Other Sources	994.92		477.50		477.50	4.80
	Total	**7171.16**	**970.66**	**1892.64**	**13.74**	**2877.04**	**4.01**
F	**Charges**						
1	PGCIL CHARGES					459.56	
2	POSOCO					0.97	
3	WRPC					0.00	
4	Reactive charges					0.00	
5	MSTCL					0.00	
6	Intra-state transmission charges					51.73	
G	**Grand Total of Charges**					512.26	
H	**Total Charges & Quantum**	**7171.16**	**970.66**	**1892.64**	**13.74**	**3389.30**	**4.73**

**Includes own Generation*

The Commission approves the revised quantum of power purchase as 7,171.16 MU at the generator periphery with total cost of INR 3,389.30 Crore in the APR for FY 2021-22.

4.8. Renewable Purchase Obligation (RPO)

Petitioner's submission:

As per the revised sales projections, the Petitioner has estimated requirement of 527.10 MUs of solar energy and 592.99 MUs of non-solar energy during FY 2021-22 to fulfill the RPO targets. The DNHPDCL plans to fulfil the RPO target through procurement of 325.77 MUs of solar power and 317.49 MUs of non-solar power during the FY 2021-22, including 5.91 MUs of solar power through its own Solar generation plant. The Petitioner submitted that the rest of the RPO shall be fulfilled by purchase of Renewable Energy Certificates.

Commission's Analysis:

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

"(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."

Further, the Commission notified the JERC (Procurement of Renewable Energy), (Third Amendment) Regulations, 2016 on August 22, 2016 and approved the revised RPO targets, as per which the Petitioner has to purchase 17.00% of its total consumption through conventional sources (Solar: 8.00% and non-solar: 9.00%)

from renewable sources for FY 2021-22. This translates to the requirement of procurement of 532.83 MU of solar energy and 599.43 MUs of non-solar energy in FY 2021-22.

Also, the Petitioner is required to clear the backlog of 1366.05 MU (Solar: 545.30 MU and Non-Solar: 820.75 MU) up to FY 2020-21 that has been carried forward.

The Commission asked the Petitioner to submit the details of actual RPO met from April 2021 to December 2021 and the Petitioner submitted the details of actual RPO met during the period April 2021 to December 2021 as follows:

- Own Solar- 5.91 MU

The Commission asked the Petitioner to submit the details of actual RECs purchased from April 2021 to December 2021. In reply, the Petitioner submitted that it has purchased Non- Solar REC's worth INR 24.07 Crore for meeting 200 MU of Non-Solar REC.

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 2021-22 as shown below:

Table 57: Summary of Renewable Purchase Obligation (RPO) computed by the Commission for FY 2021-22 (MU)

Sr. No.	Particulars	Formulae	Value
A	Solar Target		8.00%
B	Non-Solar Target		9.00%
C	**Total RPO Target**	**C=A+B**	**17.00%**
D	**Sales Within UT**		6660.36
E	**RPO Obligation for the year**	**E=F+G**	**1132.26**
F	Solar	F=D*A	532.83
G	Non-Solar	G=D*B	599.43
H	**Physical RE Purchase (till December 2021)**	**H=I+J**	**5.91**
I	Solar		5.91
J	Non-Solar		0.00
K	**REC Purchase (till December 2021)**	**K=L+M**	**200.00**
L	Solar		0.00
M	Non-Solar		200.00
N	**Total RPO Compliance for FY 2021-22 (REC+ Physical RE)**	**N=O+P**	**205.91**
O	Solar	O=I+L	5.91
P	Non-Solar	P=J+M	200.00
Q	**Standalone shortfall for FY 2021-22**		**926.35**
R	- Solar	R=F-O	526.92
S	- Non-Solar	S=G-P	399.43

Sr. No.	Particulars	Formulae	Value
T	**Backlog upto FY 2020-21**	**T=U+V**	**1,366.05**
U	- Solar		545.30
V	- Non-Solar		820.75
W	**Total Shortfall in RPO Compliance upto FY 2020-22**	**W=X+Y**	**2,292.40**
X	Solar	X=R+U	1,072.22
Y	Non-Solar	Y=S+V	1,220.18

The Commission has computed the cost towards compliance of RPO. The Commission has considered actual purchase for FY 2021-22 till December 2021, based on the information provided by the Petitioner. Accordingly, the Commission has considered actual numbers as submitted by the petitioner and not considered any 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 2021-22 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 Commission will consider the actual cost incurred towards meeting RPO at the time of truing up subject to prudence check.

The Commission has computed the cost towards compliance of RPO as shown in the following table:

Table 58: Cost towards compliance of Renewable Purchase Obligation for FY 2021-22 (INR Crore)

S. No	Description	RPO (MU)	Total Cost (INR Crore)	Avg. Rate (INR/kWh)
1	**Solar**			
(a)	*Generation*	0.00	0.00	0.00
(b)	*Renewable Energy Certificates*	0.00	0.00	0.00
(c)	*Own Solar*	5.91	4.02	6.80
2	**Non-solar**			
(a)	*Generation/Procurement*	0.00	0.00	0.00
(b)	*Renewable Energy Certificates*	200.00	24.07	0.00
	Total	**205.91**	**28.09**	**1.36**

The Commission approves INR 28.09 Crore towards compliance of RPO in the APR of FY 2021-22 and the same has been considered in the total power purchase cost approved for FY 2021-22.

4.9. 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 MYT Regulations, 2018 recognize the variation of O&M Expenses to be controllable.

Regulation 12.2 of the MYT Regulation, 2018, which recognizes O&M expenses as controllable, states the following:

"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 capitalization 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 capitalization, 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;

……."

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

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

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

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

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

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

c) Repairs and Maintenance expenses.

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

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

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

Where,

R&Mn = K x GFAn-1 x (WPI inflation)

EMPn = (EMPn-1) x (1+Gn) x (CPI inflation)

A&Gn = (A&Gn-1) x (CPI inflation)

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

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

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

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

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

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

GFAn-1 – Gross Fixed Asset of the 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 nth Year. 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, and 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 – CPI inflation and WPI inflation shall be used for all Years of the Control Period.** However, the Commission shall consider the actual values of the factors – CPI inflation and WPI inflation during the truing up exercise for the Year for which true up is being carried out and true up the O&M Expenses for that Year, only to the extent of inflation."*

(Emphasis supplied)

4.9.1. Employee Expenses

Petitioner's submission

The Petitioner has submitted revised estimate for employee expenses of INR 14.93 Crore for FY 2021-22 against INR 14.73 Cr as approved by the Commission in the ARR Order of FY 2021-22.

Commission's Analysis

In accordance with the MYT Regulations, 2018, the Commission has determined the Employee expenses for FY 2021-22. The Regulation 6 of the MYT Regulations, 2018 specifies 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 2020-21 based on audited accounts, the Commission has considered the trued-up employee expenses for FY 2020-21 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 59: Average CPI Inflation Rate (%)

FY	Average of (Apr-Mar)	Increase in CPI Index	Average increase in CPI indices over 3 years
2018-19	299.92	5.45%	
2019-20	322.50	7.53%	
2020-21	338.69	5.02%	
		CPI Inflation	6.00%

As per the details submitted by the Petitioner in the Petition, the estimated growth in number of employees for FY 2021-22 is 0.00%. Hence, the Commission has considered the revised growth in employee expenses for FY 2021-22 while projecting the employee expenses for FY 2021-22. The following table provides Employee expenses approved by the Commission for FY 2021-22:

Table 60: Employee Expenses approved by Commission for FY 2021-22 (INR Crore)

S. No	Particulars	Approved in ARR Order	Petitioner's Submission	Now Approved by Commission
1	Employee Expenses of previous year (EMPn-1)	13.95	-	14.01
2	Growth in number of employees (Gn)	0.27%		0.00%
3	CPI Inflation for preceding three years (CPI)	5.35%		6.00%
4	Employee Expenses (EMPn) = (EMPn-1)x(1+Gn)x(1+ CPI inflation)	**14.73**	**14.93**	**14.86**

The Commission approves employee expenses of INR 14.86 Crore in the APR of FY 2021-22.

4.9.2. Administrative and General (A&G) Expenses

Petitioner's submission

The Petitioner has submitted revised estimate of INR 4.50 Crore towards A&G expenses against INR 6.96 Cr as approved by the Commission in the Tariff Order of FY 2021-22.

Commission's Analysis

Similar to the methodology followed while estimating the employee expenses, the Commission has considered the trued-up A&G expenses for FY 2020-21 as Base Year expenses and escalated the same with CPI Inflation for approving the revised trajectory of A&G expenses for FY 2021-22 as shown in the following table:

Table 61: A&G Expenses approved by Commission for FY 2021-22 (INR Crore)

S. No	Particulars	Approved in ARR Order	Petitioner's Submission	Now Approved by Commission
1	A&G Expense for the previous year **(A&Gn-1)**	6.62		8.43
2	CPI Inflation for preceding three years (CPI)	5.35%		6.00%

S. No	Particulars	Approved in ARR Order	Petitioner's Submission	Now Approved by Commission
3	Administration & General Expenses **(A&Gn) = (A&Gn-1) x (1+CPI inflation)**	**6.97**	**4.50**	**8.93**

The Commission now approves the Administrative & General (A&G) expenses of INR 8.93 Crore in the APR for FY 2021-22.

4.9.3. Repair & Maintenance Expenses (R&M)

Petitioner's submission

The Petitioner has submitted revised estimate of INR 28.04 Crore towards R&M expenses against INR 13.07 Crore approved by the Commission in the ARR Order of FY 2021-22.

Commission's Analysis

As shown above and as provided in clause 51.4 of the JERC MYT Regulations, 2018, the Commissions has considered the same value of 'K' factor, i.e., 2.03% which was approved by the Commission in MYT order dated 20th May 2019 for FY 2020-21.

Further, as provided in Regulations 51.6, the WPI Inflation has been computed as follows:

Table 62: Computation of WPI Inflation (%)

FY	Average of (Apr-Mar)	Increase in WPI Index	Average increase in WPI indices over 3 years
2018-19	119.79	4.28%	
2019-20	121.80	1.68%	
2020-21	123.38	1.29%	
		Total	2.42%

Further the approved closing GFA for the FY 2020-21 have been considered for computation of R&M expenses for FY 2021-22. Hence, the R&M expenses approved by the Commission for FY 2021-22 are as provided in the following table:

Table 63: R&M approved by the Commission for FY 2021-22

S. No	Particulars	Value
1	GFA (GFA_{n-1}) of the previous year	630.76
2	K factor approved (K)	2.03%
3	WPI Inflation	2.42%
	R&M Expenses = (K x (GFA_{n-1}) x (1+$WPI_{inflation}$)	**13.11**

The Commission approves the Repair & Maintenance (R&M) expenses of INR 13.11 Crore in the APR of FY 2021-22.

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 64: O&M Expenses approved by Commission for FY 2021-22 (INR Crore)

S. No	Particulars	Approved in ARR Order	Petitioner's Submission	Now Approved by Commission
1	Employee Expenses	14.73	14.93	14.86
2	Administrative & General Expenses (A&G)	6.96	4.50	8.93
3	Repair & Maintenance Expenses	13.07	28.04	13.11
	Total Operation & Maintenance Expenses	**34.76**	**47.47**	**36.90**

The Commission approves the Operation & Maintenance (O&M) expenses of INR 36.90 Crore in the APR of FY 2021-22.

4.10. Gross Fixed Assets (GFA) and Capitalization

Petitioner's submission

The Petitioner has requested the Commission to approve the capital expenditure and capitalization as given in table as follows:

Table 65: Capital Expenditure & Capitalization approved by the Commission for FY 2021-22 (INR Crore)

S. No	Particulars	Petitioner's Submission
1	Capital Expenditure	10.00
2	Capitalization	8.26

Commission's Analysis

The Petitioner has proposed the revised capital expenditure and capitalization as approved by the Commission in its ARR Order dated March 23, 2021.

The Commission has directed the petitioner to submit scheme wise details of the capitalization claimed amounting to Rs. 8.26 Crore and the petitioner has submitted the element-wise details of the capitalisation.

Accordingly, the Commission at this stage has only considered the scheme which is likely to be capitalised in FY 2021-22 as shown in Table below:

Table 66: Capitalization approved by the Commission for FY 2021-22 (INR Crore)

S. No	Particulars	Approved in ARR Order	Petitioner's Submission	Now Approved by Commission
1	Capital Expenditure	18.00	10.00	10.00
2	Capitalization	48.00	8.26	8.26

The Commission approves capital expenditure of INR 10.00 Crore and Capitalization of INR 8.26 Crore in the APR for FY 2021-22.

4.11. Capital Structure

Petitioner's Submission

The petitioner has considered funding of the Assets capitalized during the FY 2021-22 have been considered based on normative debt-equity ratio of 70:30 as per the as per the JERC (Multi Year Distribution Tariff) Regulations, 2018.

Commission's Analysis

The MYT Regulations, 2018 specifies 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 of the MYT Regulations 2018 states 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-capitalization of the assets, the equity capital approved as mentioned above, shall be reduced to the extent of 30% (or actual equity component based on documentary evidence, if it is lower than 30%) of the original cost of such assets:

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

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 capitalized 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 modernization 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 capitalization is funded through equity, thus equity higher than 30% of capitalization 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 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.

Accordingly, the Commission approves the capital structure for FY 2021-22 as shown in the tables below:

Table 67: Funding Plan approved by the Commission for FY 2021-22 (INR Crore)

S. No	Particulars	Approved in ARR Order	Petitioner's Submission	Now Approved by Commission
1	Capitalization	48.00	8.26	8.26
2	Debt (%)	70%	70%	70%
3	Equity (%)	30%	30%	30%
4	**Normative Loan**	**33.60**	**5.78**	**5.78**
5	**Equity**	**14.40**	**2.48**	**2.48**

Table 68: GFA addition approved by Commission for FY 2021-22 (INR Crore)

S. No	Particulars	Approved in ARR Order	Petitioner's Submission	Now Approved by Commission
1	Opening Gross Fixed Assets	625.53	630.76	630.76
2	Addition During FY	48.00	8.26	8.26
3	Adjustment/Retirement During FY			0.00
4	**Closing Gross Fixed Assets**	673.53	639.02	639.02

Table 69: Normative Loan addition for FY 2021-22 (INR Crore)

S. No	Particulars	Approved in ARR Order	Petitioner's Submission	Now Approved by Commission
1	Opening Normative Loan	112.75	124.19	116.32
2	Add: Normative Loan During the year	33.60	5.78	5.78
3	Less: Normative Repayment equivalent to Depreciation	21.34	22.80	20.82
4	**Closing Normative Loan**	**125.01**	**107.18**	**101.28**

Table 70: Normative Equity addition for FY 2021-22 (INR Crore)

S. No	Particulars	Approved in ARR Order	Petitioner's Submission	Now Approved by Commission
1	Opening Equity	152.03	189.23	153.60
2	Additions on account of new capitalization	14.40	2.48	2.48
3	**Closing Equity**	**166.43**	**191.70**	**156.07**

4.12. Depreciation

Petitioner's submission

For computation of depreciation, the closing GFA of FY 2020-21 is taken as the opening GFA for FY 2021-22 and subsequently the proposed capitalization during FY 2021-22 is added. Depreciation has been calculated based on depreciation rates in accordance with the MYT Regulations, 2018.

Table 71: Depreciation submitted by Petitioner for FY 2021-22 (INR Crore)

S. No	Particulars	Petitioner's Submission
1	Opening Gross Fixed Assets	630.76
2	Addition During FY	8.26
3	Adjustment/Retirement During FY	
4	Closing Gross Fixed Assets	639.02
5	Average Gross Fixed Assets	634.89
6	Effective Rate of Depreciation (%)	3.59%
	Depreciation	**22.80**

Commission's Analysis

Regulation 30 of the MYT Regulations, 2018 specifies 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 capitalized at the time of truing up of each Year of the Control Period, based on documentary evidence of asset capitalized by the Applicant, subject to the prudence check of the Commission.

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

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

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

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

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

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

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

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

The Commission has considered the opening GFA, addition during the year and closing GFA as approved in *Section 4.10 and Section 4.11* of this Order. The depreciation has been computed on average Gross Fixed Assets (GFA). Effective Depreciation rate has been computed by calculating asset wise depreciation with the depreciation rates as specified in Appendix I of MYT Regulation, 2018.

The following table provides the calculation of deprecation during FY 2021-22:

Table 72: Depreciation approved by Commission for FY 2021-22 (INR Crore)

S. No	Particulars	Approved in ARR Order	Petitioner's Submission	Now Approved by Commission
1	Opening Gross Fixed Assets	625.53	630.76	630.76
2	Addition During FY	48.00	8.26	8.26
3	Adjustment/Retirement During FY			0.00
4	Closing Gross Fixed Assets	673.53	639.02	639.02
5	Average Gross Fixed Assets	649.53	634.89	634.89
6	Effective Rate of Depreciation (%)	3.28%	3.59%	3.28%
	Depreciation	**21.34**	**22.80**	**20.82**

Accordingly, the Commission now approves depreciation of INR 20.82 Crore in the APR for FY 2021-22.

4.13. Interest on Loan

Petitioner's submission

The Petitioner has calculated the Interest on Loan on normative basis according to the MYT Regulations, 2018. The closing balance of FY 2020-21 is taken as the opening balance of loans for FY 2021-22. The normative loan addition in FY 2021-22 has been computed as 70% of the capitalization proposed during FY 2021-22.

The repayment of loans has been considered equivalent to the depreciation during FY 2021-22. Further the rate of interest has been considered as 8.00%.

Commission's Analysis:

Regulation 28 of the MYT Regulations, 2018 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-capitalization or retirement or replacement of assets, the loan capital shall be reduced to the extent of outstanding loan component of the original cost of the de-capitalized 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 capitalization 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 01.04.2021, i.e., 7.00%) plus 100 basis points as rate of interest, in accordance with the MYT Regulations, 2018. The following table provides the Interest on Loan approved by the Commission:

Table 73: Interest on Loan approved by Commission for FY 2021-22 (INR Crore)

S. No	Particulars	Approved in ARR Order	Petitioner's Submission	Now Approved by Commission
1	Opening Normative Loan	112.75	124.19	116.32
2	Add: Normative Loan During the year	33.60	5.78	5.78
3	Less: Normative Repayment = Depreciation	21.34	22.80	20.82
4	Closing Normative Loan	125.01	107.18	101.28
5	Average Normative Loan	118.88	115.68	108.80
6	Rate of Interest (%)	8.00%	7.99%	8.00%
	Interest on Loan	**9.51**	**9.25**	**8.70**

Accordingly, the Commission approves Interest on Loan of INR 8.70 Crore in the APR of FY 2021-22.

4.14. Return on Equity (RoE)

Petitioner's Submission

The Return on Equity (RoE) is computed in accordance with the MYT Regulations 2018, and the average equity is segregated into Distribution wires business and retails supply business based on allocation statement provided in MYT regulation 2018. The Petitioner has considered the rate of Return on Equity as 15.50% for distribution wires business and 16.00% for retail supply business.

Commission's Analysis:

In this regard the Regulation 27.2 and 27.3 of the MYT Regulations, 2018 specifies 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 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 4.11: Capital Structure* of this Order.

The RoE has been calculated on the average of opening and closing of equity during FY 2021-22 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 2020-21 as approved in the True-up chapter of this order. The following table provides the Return on Equity approved in ARR order, Petitioner's submission and approved for the FY 2021-22 by the Commission.

Table 74: Return on Equity approved by Commission for FY 2021-22

S. No	Particulars	Approved in ARR order	Petitioner's Submission	Now Approved by Commission
1	Opening Equity	152.03	189.23	153.60
2	Additions on account of new capitalization	14.4	2.48	2.48
3	Closing Equity	166.43	191.70	156.07
4	Average Equity	159.23	190.47	154.84
5	Equity for wire business (90%)	143.31	171.42	139.35
6	Equity for Retail Supply Business (10%)	15.92	19.05	15.48
7	Return on Equity for Wire Business (%)	15.50%	15.50%	15.50%

S. No	Particulars	Approved in ARR order	Petitioner's Submission	Now Approved by Commission
8	Return on Equity for Retail Supply Business (%)	16.00%	16.00%	16.00%
9	Return on Equity for Wire Business	22.21	26.57	21.60
10	Return on Equity for Retail Supply Business	2.55	3.05	2.48
11	**Return on Equity**	**24.76**	**29.62**	**24.08**

Return on Equity approved by the Commission is lower in comparison to as claimed by the petitioner because the Commission has considered less opening equity than that of Petitioner.

Accordingly, the Commission approves the Return on Equity of INR 24.08 Crore in the APR of FY 2021-22.

4.15. Interest on Security Deposits

Petitioner's Submission

The Petitioner has submitted INR 3.20 Crore as revised estimates for interest on consumer security against INR 4.20 Crore approved by the Commission in the ARR Order.

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 Petitioner has not submitted any data regarding the Opening, addition & closing in the consumer security deposits. So, the Commission approves the interest on security deposit as proposed by the petitioner. The same shall be trued-up on the actual basis. The table below provides approved consumer security deposits for the year FY 2021-22:

Table 75: Interest on Security Deposits approved by Commission for FY 2021-22 (INR Crore)

S. No	Particulars	Approved in ARR Order	Petitioner's Submission	Now Approved by Commission
1	Interest on Security Deposit	**4.20**	**3.20**	**3.20**

The Commission approves Interest on Security Deposit as INR 3.20 Crore in the APR of FY 2021-22.

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 Tariff) Regulations, 2018.

The working capital requirement for FY 2021-22 has been computed considering the following parameters:

(a) Receivables for two months

(b) O&M Expenses for one month.

(c) Less consumer security deposit but excluding Bank Guarantee/Fixed Deposit

(d) Maintenance Spares at 40% of R&M for one Month

The Interest on Working Capital is computed considering interest rate of 9.00% (1-year SBI MCLR plus 200 basis points) in line with the MYT Regulations, 2018.

Table 76: Interest on Working Capital submitted by Petitioner for FY 2021-22

S. No	Particulars	Approved in ARR Order	Petitioner's Submission
1	O&M expense for one month	2.90	3.96
2	Maintenance spares at 40% of R&M for one month	0.44	0.93
3	Receivables for 2 months	556.68	573.95
4	**Total**	560.02	578.84
5	Less consumer security deposit but excluding Bank Guarantee/Fixed Deposit Receipt	60.63	76.13
6	Net Working Capital required after deduction of Security Deposit	499.39	502.71
7	**Interest on Working Capital**	**48.69**	**45.24**

<u>Commission's Analysis:</u>

The Regulation 52 of the 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 31.3 and 31.4 of the 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 MYT Regulation, 2018, the Commission has computed the Interest on Working Capital for FY 2021-22. The rate of interest on working capital is considered as 1-year SBI MCLR rate as on April 1, 2021 plus 200 basis points (7.00%+2% = 9.00%).

The following table provides the interest on working capital approved by the Commission in the ARR Order, Petitioner's submission and now approved by the Commission.

Table 77: Interest on Working Capital approved by Commission for FY 2021-22 (INR Crore)

S. No	Particulars	Approved in ARR Order	Petitioner's Submission	Now Approved by Commission
1	O&M expense for one month	2.90	3.96	3.07
2	Maintenance spares at 40% of R&M for one month	0.44	0.93	0.44
3	Receivables equivalent to two (2) months of the expected revenue requirement	556.68	573.95	574.35
4	Total Working Capital	560.02	578.84	577.86
5	Less consumer security deposit but excluding Bank Guarantee/Fixed Deposit Receipt	60.63	76.13	76.13
6	Net Working Capital required after deduction of Security Deposit	**499.39**	**502.71**	**501.73**
7	Interest (%)	9.74%	9.00%	9.00%
8	**Interest on Working Capital**	**48.69**	**45.24**	**45.16**

Accordingly, the Commission approves the Interest on Working Capital as INR 45.16 Crore in the APR of FY 2021-22.

4.17. Income Tax

Petitioner's submission

The Petitioner has proposed INR 20.00 Cr towards Income tax for FY 2021-22.

Commission's Analysis:

Regulation 32 of the 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 directed the petitioner to submit actual income tax payment receipt, if any. The Petitioner submitted bank's taxpayer's counter foil (advance tax payment) amounting to INR 12.25 Cr up to December 2021. The Commission at this stage has considered income tax of INR 20.00 Crore as proposed by the Petitioner for FY 2021-22, which will be trued up based on actuals subject to prudence check.

Table 78: Income tax approved by Commission for FY 2021-22 (INR Crore)

S. No	Particulars	Approved in ARR Order	Petitioner's Submission	Now Approved by Commission
1	Income Tax	15.00	20.00	20.00

The Commission approves INR 20.00 Cr for actual income tax paid in the APR of FY 2021-22.

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 2021-22.

Commission's Analysis

As per the petitioner submission, 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 2021-22.

4.19. Non-Tariff Income

Petitioner's submission

The non-tariff income for FY 2021-22 has been estimated by considering elements like sale of scrap, reactive income, STOA application fees, supervision charges etc. However, one-time income like provision written back has not been considered to estimate the non-tariff income for FY 2021-22 in accordance to MYT Regulations, 2018. Accordingly, a revised estimate of INR 5.87 Crore has been submitted for FY 2021-22.

Commission's Analysis:

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

"64. Non-Tariff Income

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

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

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

(a) Income from rent of land or buildings;

(b) Income from sale of scrap;

(c) Income from statutory investments;

(d) Interest on advances to suppliers/contractors;

(e) Rental from staff quarters;

(f) Rental from contractors;

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

(h) Income from advertisements, etc.;

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

(j) Service charges;

(k) Consumer charges;

(l) Recovery for theft and pilferage of energy;

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

(n) Miscellaneous receipts;

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

(p) Prior period income, etc.:

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

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

Further, the Regulation 34.2 of the MYT Regulations, 2018 stipulates the following:

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

For the APR of FY 2021-22, the Commission has considered Non-Tariff Income for FY 2021-22 as proposed by the petitioner. The same shall be considered at actuals at the time of truing up of FY 2021-22.

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

Table 79: Non-Tariff Income approved by Commission for FY 2021-22 (INR Crore)

S. No	Particulars	Approved in ARR Order	Petitioner's Submission	Now Approved by Commission
1	Non-Tariff Income	12.66	5.87	*5.87*

The Commission now approves Non-Tariff Income of INR 5.87 Crore in the APR for FY 2021-22.

4.20. Aggregate Revenue Requirement (ARR)

Petitioner's submission

Based on the expenses as detailed above, the net Aggregate Revenue Requirement of INR 3,517.37 Crore is submitted after adjusting the Non -Tariff Income for FY 2021-22.

Commission's Analysis

On the basis of the detailed analysis of the cost parameters of the ARR, the revenue requirements in the APR of FY 2021-22 are approved as follows:

Table 80: Aggregate Revenue Requirement approved by the Commission for FY 2021-22 (INR Crore)

S. No	Particulars	Approved in ARR Order	Petitioner's Submission	Now Approved by Commission
1	Power Purchase Cost	3,234.13	3,345.66	3,389.30
2	Operation & Maintenance Expenses	34.76	47.47	36.90
3	Depreciation	21.34	22.80	20.82
4	Interest and Finance charges	9.51	9.25	8.70
5	Interest on Working Capital	48.69	45.24	45.16
6	Interest on Security Deposit	4.20	3.20	3.20
7	Return on Equity	24.76	29.62	24.08
8	Income Tax	15.00	20.00	20.00
9	**Total Revenue Requirement**	**3,392.39**	**3,523.24**	**3,548.15**
10	Less: Non-Tariff Income	12.66	5.87	5.87
11	**Net Revenue Requirement**	**3,379.73**	**3,517.37**	**3,542.28**

The Commission approves the net ARR of INR 3,542.28 Crore in the APR of FY 2021-22.

4.21. Revenue at existing Retail Tariff

Petitioner's submission

The Petitioner in its Petition submitted that the total revenue of INR 3,443.72 Crore, which includes INR 3,277.07 Crore from sale of power at existing tariff, INR 159.78 Crore from FPPCA and INR 6.87 Crore from revenue from sale of surplus power. The estimated revenue for FY 2021-22 is based on the six months actual revenue at the exiting tariff. The revenue for remaining six months of FY 2021-22 has been computed based on the retail tariff notified by the Commission in the Tariff Order for the FY 2021-22 dated 23rd March, 2021. The total revenue estimated for the FY 2021-22 includes the actual FPPCA billed during the first six months and the estimated FPPCA for the remaining six months.

Commission's Analysis

The Commission through a deficiency note directed the Petitioner to provide actual revenue from sale of power for months of April 2021 to December 2021 of FY 2021-22, which was accordingly submitted by the Petitioner. The category wise/ sub-category wise and slab-wise revenue at existing retail tariff is calculated as per the tariff rates applicable for FY 2021-22. The revenue from fixed charges and the energy charges have been projected for each category/ sub-category and slab.

The revenue from category/ sub-category/ slab-wise revenue as computed by the Commission for FY 2021-22 have been shown in the following table:

Table 81: Revenue at existing tariff computed by Commission for FY 2021-22

S. No.	Category	Fixed Charges (INR Crore)	Energy charges (INR Crore)	Total (INR Crore)	ABR (INR/unit)
1	**DOMESTIC**	**0.12**	**37.59**	**37.71**	**2.35**
(i)	0-50 units	0.02	4.54	4.56	1.41

S. No.	Category	Fixed Charges (INR Crore)	Energy charges (INR Crore)	Total (INR Crore)	ABR (INR/unit)
(ii)	51-200 units	0.05	12.06	12.10	2.11
(iii)	201-400 units	0.03	7.30	7.32	2.61
(iv)	401 and above	0.02	13.70	13.72	3.20
(v)	**Lifeline Consumer**	**0.44**		**0.44**	
2	**COMMERCIAL/Non-Domestic**	**0.03**	**14.37**	**14.41**	**3.94**
(i)	0-100 units	0.02	1.87	1.89	*3.13*
(ii)	101 Units and Above	0.01	12.51	12.52	*4.10*
3	**LT INDUSTRIAL**				
(i)	**LTP Motive Power (For All Units)**	**16.11**	**102.74**	**118.84**	**5.03**
	Up to 20 HP	0.13	2.57	2.69	4.32
	Above 20 HP	15.98	100.17	116.15	5.05
(ii)	**LT Public Water Works (For all units)**	**0.04**	**2.35**	**2.39**	**4.68**
	Up to 20 HP	0.04	2.35	2.39	4.68
	Above 20 HP				
4	**HT/EHT**	**580.43**	**2567.37**	**3147.80**	**5.08**
(i)	11 kV	266.96	1125.59	1392.55	5.18
(iii)	66 kV	149.40	734.92	884.32	4.97
(iv)	220 kV	164.06	706.86	870.92	5.03
5	**AGRICULTURE AND POULTRY**	**0.00**	**0.37**	**0.37**	**0.86**
(i)	For sanctioned load upto 10 HP	0.00	0.37	0.37	0.86
(ii)	Beyond 10 HP and up to 99 HP sanctioned load				
6	**PUBLIC LIGHTING**	**0.00**	**0.97**	**0.97**	**4.05**
(i)	For all units	0.00	0.97	0.97	4.05
7	**HOARDINGS/SIGNBOARDS**				
(i)	For all units	**0.00**	**0.00**	**0.00**	**0.00**
8	**TEMPORARY***	**0.00**	**0.00**	**0.00**	**0.00**
	Total	**597.16**	**2725.76**	**3322.92**	**4.99**

**Tariff is 1.5 Times the ABR of Revenue at existing tariff for FY 2021-22*

The Commission has determined revenue from sale of power at existing tariff as INR 3,322.92 Crore in the APR of FY 2021-22.

4.22. FPPCA Computation

Petitioner's submission

The Petitioner has submitted INR 159.78 Crore as revised estimates for FPPCA against Nil approved by the Commission in the ARR Order.

Commission's Analysis

The Commission has directed the petitioner to submit the FPPCA details and computations. The petitioner submitted the FPPCA Revenue for Q2 billed in Q3. Further, the Commission has considered the 4th quarterly sales and FPPCA approved for 3rd quarter along with the K factor approved for FY 2021-22 in the tariff order dated 23rd March 2021 to determine the revenue to be billed in 4th quarter of FY 2021-22.

The details of revenue from FPPCA approved for FY 2021-22 is as under:

Table 82: Computation of Revenue from FPPCA for FY 2021-22

Particulars	FPPCA Revenue for Q2 (a)	Sales for Q4 (MUs)	k-Factor	FPPCA Revenue for Q3 levied on Q4 Sales (b)	Total Revenue from FPPCA (INR Crore) (a+b)
Domestic	0	38.21	0.47	0.90	0.90
Commercial	0	8.33	0.78	0.33	0.33
LT Industrial (Motive Power)	1.56	59.54	0.99	2.95	4.51
LT Public Water Works	0	1.28	1.07	0.07	0.07
HT/EHT	36.04	1590.65	1.02	81.12	117.16
Agriculture & Poultry	0	1.05	0.17	0.01	0.01
Public Lighting	0	0.53	0.79	0.02	0.02
Temp. Supply	0.04	1.85	1.5	0.14	0.18
Total	**37.64**	**1701.44**		**85.53**	**123.17**

The following table provides revenue from FPPCA as per Petitioner's submission and as approved by the Commission:

Table 83: Revenue from FPPCA allowed by the Commission for FY 2021-22 (INR Crore)

S. No	Particulars	Petitioner's Submission	Now Approved by Commission
1	FPPCA	159.78	123.17

The Commission has determined revenue from FPPCA as INR 123.17 Crore in the APR of FY 2021-22.

4.23. Standalone Revenue Gap/Surplus

Petitioner's submission

Based on the ARR and the revenue from retail tariff, a standalone revenue gap of INR 102.90 Crore is observed the APR for FY 2021-22.

Commission Analysis

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

Table 84: *Standalone Revenue Gap/ (Surplus) at existing tariff for FY 2021-22 (INR Crore)*

S. No	Particulars	Approved in ARR Order	Petitioner's submission	Now Approved by Commission
1	Annual Revenue Requirement	3379.73	3517.37	3542.28
2	Revenue from sale of power at existing tariff	3535.69	3277.07	3322.92
3	FPPCA	0.00	159.78	123.17
4	Revenue from sale of surplus power*	0.00	6.87	0.00
5	Total Revenue	3535.69	3443.72	3446.09
6	Revenue Gap/(Surplus)	(155.96)	73.65	96.19

**As provided in Table 52 of section 4.6 Energy Balance, as per the projections made by the Commission, the Energy Requirement is more than the Energy available from firm and non-firm sources. The remaining energy is considered to be procured from open market/exchanges and hence no surplus power is available for sale in Open Market. Hence, the Commission did not consider any revenue from Sale of surplus power unlike the Petitioner.*

The standalone gap at existing retail tariff is INR 96.19 Crore in the APR of FY 2021-22. This estimated gap is carried over to the next year and has been considered while determining the tariff for FY 2022-23.

5. Chapter 5: Determination of Aggregate Revenue Requirement for MYT Control Period FY 2022-23 to FY 2024-25

5.1. Background

The Commission notified the Joint Electricity Regulatory Commission for the State of Goa and Union Territories (Generation, Transmission and Distribution Multi Year Tariff) Regulations, 2021 on 22 March 2021. The said Regulations have been hereinafter referred to as the "JERC MYT Regulations". As per Clause 2.1.18 of these Regulations, the "Control Period" is defined as the multi-year period comprising of three financial years from FY 2022-23 to FY 2024-25.

In accordance with the Regulation 9.1 of the JERC MYT Regulations 2021, the Petitioner filed the Petition for determination of Aggregate Revenue Requirement (ARR) for 3rd MYT Control Period (FY 2022-23 to FY 2024-25) and Retail Tariff for FY 2022-23 (MYT Petition).

Accordingly, the MYT Petition for determination of ARR for 3rd Control Period was filed on 22nd December 2021 and was admitted by the Commission on 4th January 2022 and marked as Petition No. 66/2021. The Commission and the Petitioner subsequently uploaded the Petition on their respective websites.

In this Chapter, the Commission has determined the Aggregate Revenue Requirement (ARR) for FY 2022-23, FY 2023-24 and FY 2024-25 (3rd MYT Control Period). The determination of Aggregate Revenue Requirement has been done in accordance with the MYT Regulations, 2021.

5.2. Approach for determination of ARR for MYT Control Period FY 2022-23 to FY 2024-25

The Commission has computed the cost of individual elements constituting the Aggregate Revenue Requirement for each year of the Control Period based on figures approved in the Business Plan Order dated March 31, 2022, the actual information available of various parameters for FY 2020-21 as per the audited accounts and the provisional information available for FY 2021-21. The ARR has been determined for each year of the Control Period whereas the revenue at existing tariff is determined only for FY 2022-23 to arrive at the revenue Gap/(Surplus) for FY 2022-23.

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

Petitioner's Submission

The Petitioner has considered the energy sales, connected load and number of consumers as submitted in the Business Plan Petition filed by them.

Table 85: Number of Consumers submitted by the Petitioner for MYT Control Period

Category	FY 2022-23	FY 2023-24	FY 2024-25
Domestic	61005	64620	68448
LIGH	17419	17419	17419
Commercial /Non-Domestic	8533	8725	8920
Agriculture	1365	1388	1412
LT Industry	2347	2394	2443
HT/EHT Industry	926	931	936
Public Lighting	467	493	519
Public Water Works	514	541	569
Temp. Supply	391	391	391
Total	**92,967**	**96,902**	**1,01,059**

Table 86: Connected Load submitted by the Petitioner for MYT Control Period (kW)

Category	FY 2022-23	FY 2023-24	FY 2024-25
Domestic	112381.88	115306.12	118306.46
LIGH	1547.00	1547.00	1547.00
Commercial /Non-Domestic	39149.72	41863.82	44766.08
Agriculture	8362.59	8883.26	9436.36
LT Industry	159195.00	169622.30	180732.60
HT/EHT Industry	1171688.56	1171688.56	1171688.56
Public Lighting	2584.13	2592.23	2600.35
Public Water Works	5358.15	5626.06	5907.36
Temp. Supply	2727.00	2727.00	2727.00
Total	**1,502,994.03**	**1,519,856.36**	**1,537,711.76**

Table 87: Energy Sales submitted by the Petitioner for MYT Control Period (MUs)

Category	FY 2022-23	FY 2023-24	FY 2024-25
Domestic	189.22	206.33	224.99
LIGH	7.85	8.40	8.98
Commercial /Non-Domestic	39.66	42.14	44.76
Agriculture	4.97	5.17	5.38
LT Industry	233.65	242.28	251.23
HT/EHT Industry	6321.68	6520.85	6726.29
Public Lighting	2.62	2.75	2.89
Public Water Works	5.29	5.55	5.83
Temp. Supply	4.40	4.45	4.49
Total	**6,809.35**	**7,037.92**	**7,274.84**

Commission's Analysis

The Commission in the Business Plan Order had estimated the category wise energy sales, number of consumers and connected load based on historical trends and actual data available for previous years. The detailed methodology has been discussed in the Business Plan Order dated March 31, 2022. The Commission retains the same energy sales, number of consumers and connected load as approved in the Business Plan Order.

Table 88: Number of Consumers approved by the Commission for MYT Control Period

Category	FY 2022-23	FY 2023-24	FY 2024-25
Domestic	61005	64623	68455
LIG/Kutir Jyoti	19321	20349	21432
Commercial /Non-Domestic	8533	8724	8920
Agriculture	1365	1388	1412
LT Industry	2347	2395	2443
HT/EHT Industry	926	931	936
Public Lighting	467	493	519
Public Water Works	525	553	582
Temp. Supply	391	391	391
Total	**94881**	**99847**	**105090**

Table 89: Connected Load approved by the Commission for MYT Control Period (kW)

Category	FY 22-23	FY 23-24	FY 24-25
Domestic	112382	115304	118302
LIGH	1637	1684	1732
Commercial /Non-Domestic	39150	41863	44764
Agriculture	8363	8884	9437
LT Industry	154574	164699	175486
HT/EHT Industry	1175885	1180118	1184367
Public Lighting	2663	2671	2679
Public Water Works	5358	5626	5907
Temp. Supply	2727	2727	2727
Total	**1502738**	**1523575**	**1545401**

The revised energy sales for each category are tabulated as follows:

Table 90: Energy Sales approved by the Commission for MYT Control Period (MUs)

Category	FY 2022-23	FY 2023-24	FY 2024-25
Domestic	177.78	196.66	217.54
LIG/Kutir Jyoti	8.11	8.97	9.92
Commercial /Non-Domestic	38.82	41.25	43.84
Agriculture	4.52	4.78	5.04
LT Industry	243.78	251.44	259.34
HT/EHT Industry	6435.60	6679.54	6932.73
Public Lighting	2.52	2.64	2.78
Public Water Works	5.35	5.62	5.90
Temp. Supply	7.40	7.74	8.09
Total	**6923.89**	**7198.64**	**7485.18**

The Commission approves the no. of consumers, connected load and energy sales as shown in the above table for the MYT Control period.

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 considers the transmission loss levels for each year of the control period in line with those considered in the Business Plan Order. The same shall be revised based on actuals during the true-up exercise.

The following table provides the Inter-State transmission loss approved by the Commission for the MYT Control Period.

Table 91: Inter-State transmission loss (%)

S. No	Particulars	FY 2022-23	FY 2023-24	FY 2024-25
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 for MYT Control Period.

5.5. Distribution Loss

Petitioner's submission

The Petitioner has submitted that it has achieved distribution loss level of 3.62 % for the FY 2020-21. It further submitted that reduction in distribution loss involves significant amount of capital expenditure and that it will endeavor to bring the distribution loss level further down in the subsequent years. The petitioner further submitted that the Commission had set a T&D loss level target of 4.10% for the FY 2021-22 in the Tariff Order dated 23rd March, 2021. The petitioner has kept the T&D losses at the same level as approved by the Commission for FY 2021-22.

Accordingly, Petitioner has proposed to keep the Distribution losses same as Commission's approved distribution losses for FY 2021-22, i.e., 4.10 % and to bring the Distribution losses level further down in the subsequent years i.e., for 4.06%, for FY 2022-23, 4.02% for FY 2023-24 and 4.00% for FY 2024-25.

Commission's Analysis

The Commission considers the T&D loss trajectory for each year of the control period in line with the loss trajectory approved in the Business Plan Order for the Control Period. Accordingly, the Commission approves the T&D loss trajectory for the upcoming Control Period as under:

The following table provides the Intra-State distribution loss approved for the MYT Control Period.

Table 92: Distribution loss as approved by the Commission MYT Control Period (%)

S. No	Particulars	FY 2022-23	FY 2023-24	FY 2024-25
1	Distribution loss	3.20%	3.00%	2.80%

The Commission approves the Distribution loss of 3.20 %, 3.00% and 2.80% for FY 2022-23, FY2023-24 and FY 2024-25 respectively in the ARR of MYT Control Period.

5.6. Energy Balance

Petitioner's submission

The Petitioner has submitted the energy balance for MYT Control Period as shown in following table:

Table 93: Energy Balance submitted by Petitioner for MYT Control Period (MU)

Particulars	FY 2022-23	FY 2023-24	FY 2024-25
Sales	6809.35	7037.92	7274.84
Open Access Sales	0.00	0.00	0.00
Less: Energy Savings	0.00	0.00	0.00
Total Sales	**6809.35**	**7037.92**	**7274.84**
Add: Losses	288.16	294.77	303.12
T&D Losses	4.06%	4.02%	4.00%
Energy Required at Periphery	**7097.51**	**7332.69**	**7577.96**
Add: Sales to common pool consumer	0.94	0.75	0.48
Add: Sales through IEX	0.00	0.00	0.00
Less: Own Generation	5.91	5.91	5.91
Total energy requirement at state periphery	7092.54	7327.54	7572.54
Less: Energy Purchased through UI at Periphery	0.00	0.00	0.00
Less: Energy Purchased through Renewable Sources	0.00	0.00	0.00
Less: Open Access Purchase	0.00	0.00	0.00
Less: Purchase from Power Exchange	841.00	1076.00	1321.00
Total Energy Required at Periphery	**6251.54**	**6251.54**	**6251.54**
Transmission loss	237.50	237.50	237.50
Transmission loss (%)	3.66%	3.66%	3.66%
Total Energy to be purchased	**6489.04**	**6489.04**	**6489.04**
Total Energy requirement from tied up sources & UI at generator end	7335.94	7570.94	7815.94
Total Energy requirement in UT including Open Access	7335.94	7570.94	7815.94

Commission's Analysis

Based on the revised estimates of energy sales and Power purchase quantum, the Commission approves the following energy balance for MYT Control Period:

Table 94: Energy Balance approved by Commission for MYT Control Period (MU)

Particulars	FY 2022-23	FY 2023-24	FY 2024-25
Sales	6923.89	7198.64	7485.18
Open Access Sales	0	0	0
Less: Energy Savings	0	0	0
Total Sales	6923.89	7198.64	7485.18
Add: Losses	228.89	222.64	215.62
T&D Losses	3.20%	3.00%	2.80%
Energy Required at Periphery	7152.78	7421.28	7700.80

Particulars	FY 2022-23	FY 2023-24	FY 2024-25
Add: Sales to common pool consumer	0.94	0.75	0.48
Less: Own Generation	5.91	5.91	5.91
Energy requirement at State periphery	**7147.81**	**7416.12**	**7695.37**
Less: Energy Purchased through UI at Periphery	0.00	0.00	0.00
Less: Energy Purchased through Renewable Sources	584.76	853.07	1132.32
Less: Open Access Purchase	0.00	0.00	0.00
Less: Purchase from Power Exchange	584.76	853.07	1132.32
Total Energy Scheduled at state periphery from tied up sources	**6563.05**	**6563.05**	**6563.05**
Transmission loss	249.33	249.33	249.33
Transmission loss (%)	3.66%	3.66%	3.66%
Energy requirement from UT periphery from generator end	6812.38	6812.38	6812.39
Total Energy requirement from tied up sources & UI at generator end	**7403.05**	**7671.36**	**7950.62**
Total availability from tied-up sources at generator end (MU)	**7403.05**	**7671.36**	**7950.62**

The Commission approves the Total Energy Requirement at the generator Periphery for each year of the Control Period as shown in the table above.

5.7. Power Purchase Quantum & Cost

Petitioner's Submission

The Petitioner for projecting the energy availability during the MYT Control Period has considered the firm and infirm allocation from various generating stations. Detailed methodology for projecting the power availability to the Petitioner from various sources is summarized as follows:

5.7.1. Power Purchase Quantum

Petitioner's Submission

Petitioner 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), etc.

The power availability has been estimated based on the revised allocation specified in the notification No. WRPC/Comml-I/6/Alloc/2021/1048 dated 29/10/2021 of Western Regional Power Committee.

Table 95: Energy Allocation as submitted by the Petitioner for MYT Control Period (MW)

Name of the plant	Weighted average Infirm allocation	Weighted Average Firm allocation	Weighted average total allocation
KSTPP	54.32	0.00	54.32
KSTPS -3	20.48	2.20	22.68
VSTPP-I	38.41	5.00	43.41
VSTPP-II	29.52	4.00	33.52
VSTPP- III	29.52	6.00	35.52
VSTPP- IV	40.97	5.55	46.52
KAWAS	56.23	25.00	81.23

Name of the plant	Weighted average Infirm allocation	Weighted Average Firm allocation	Weighted average total allocation
GGPP	56.74	2.00	58.74
Sipat – I	81.12	9.00	90.12
Sipat – II	28.11	4.00	32.11
KHSTPP – II	3.50	0.00	3.50
Mauda I (MSTPS)	0.00	0.00	0.00
VSTPP-V	20.48	5.55	26.03
Mauda II	54.08	8.60	62.68
Solapur	54.08	21.57	75.65
Gadarwara	65.55	20.83	86.38
LARA	64.97	10.46	75.43
Kharagaon	54.08	16.83	70.91
NPCIL – KAPS	14.37	2.00	16.37
NPCIL - TAPS 3&4	35.22	7.00	42.22
Total	**801.77**	**155.59**	**957.36**
NSPCL Bhilai		100.00	100.00

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

- The Petitioner submitted that it will not be getting any power from Ratnagiri during the FY 2021-22 and MYT Control Period and therefore no power purchase from the plant has been considered.
- Power purchase quantum from the NTPC stations for the FY 2021-22 and the MYT Control Period has been calculated based on the installed capacity of each plant and by applying the PLF approved by the Commission vide Order for the Business Plan dated 5th November, 2018.
- Auxiliary consumption of 7.75% and 2.5% has been considered for coal and gas based generating stations, respectively.

The following table depicts the source wise power purchase quantum for the MYT Control Period:

Table 96: Station wise power purchase submitted by Petitioner for MYT Control Period (MUs)

Source	FY 2022-23	FY 2022-23	FY 2024-25
NTPC Stations			
KSTPP 1&2	390.64	390.64	390.64
KSTPS 3	164.98	164.98	164.98
VSTPP-I	301.71	301.71	301.71
VSTPP-II	230.26	230.26	230.26
VSTPP- III	246.87	246.87	246.87
VSTPP- IV	323.28	323.28	323.28
KAWAS	277.51	277.51	277.51
JGPP	210.72	210.72	210.72
Sipat-I	655.42	655.42	655.42
Sipat-II	233.52	233.52	233.52
MSTPL 1	0.01	0.01	0.01
VSTPS-V	180.93	180.93	180.93
Mauda 2	243.14	243.14	243.14

Source	FY 2022-23	FY 2022-23	FY 2024-25
Solapur	366.82	366.82	366.82
LARA	511.07	511.07	511.07
Gadarwara	585.30	585.30	585.30
Kharagaon	480.50	480.50	480.50
KHSTPP-II	22.06	22.06	22.06
Subtotal	5424.73	5424.73	5424.73
NSPCL – Bhilai	703.06	703.06	703.06
NPCIL			
KAPS	93.46	93.46	93.46
TAPS 3&4	267.79	267.79	267.79
Subtotal	361.25	361.25	361.25
Total Firm			
Power purchase from Other Sources			
Indian E. Exchange/Bilateral	841.00	1076.00	1321.00
UI	0.00	0.00	0.00
Solar	5.91	5.91	5.91
Non Solar	0.00	0.00	0.00
Solar REC	0.00	0.00	0.00
Non Solar REC	0.00	0.00	0.00
Subtotal	**846.91**	**1081.91**	**1326.91**
Power Purchase Cost	**7335.94**	**7570.94**	**7815.94**
External Losses			
Availability at ED-DNH Periphery	**7335.94**	**7570.94**	**7815.94**

5.7.2. Power Purchase Cost

Petitioner's Submission

The cost of purchase from the central generating stations for MYT Control Period has been estimated based on the following assumptions:

- Fixed cost for the MYT Control Period has been projected by considering the fixed cost estimated for various stations for the FY 2021-22.
- Variable cost for each NTPC generating stations for the MYT Control Period has been projected by the actual variable cost incurred during the first six months of FY 2021-22 for various stations.
- For nuclear plants, i.e., KAPS and TAPS single part tariff, the actual average variable cost per unit incurred for the first six months of FY 2020-21 for projecting the cost for the MYT Control Period.
- For NTPC-SAIL Bhilai unit 1 & 2, the fixed has been projected by considering the fixed cost estimated for the FY 2021-22 and for projecting the actual average variable cost per unit incurred for the first six months of FY 2021-22.
- For power purchase from renewable energy sources, for the MYT Control Period, the DNHPDCL has outsourced the maintenance cost of the solar plants to BHEL.

The Total Power Purchase cost from various sources for the MYT Control Period is summarized in the table below:

Table 97: Power Purchase Cost (INR Crore) submitted by Petitioner MYT Control Period

Source	FY 2022-23	FY 2023-24	FY 2024-25
NTPC Stations			
KSTPP 1&2	85.56	85.56	85.56
KSTPS 3	46.52	46.52	46.52
VSTPP-I	77.54	77.54	77.54

Source	FY 2022-23	FY 2023-24	FY 2024-25
VSTPP-II	52.64	52.64	52.64
VSTPP- III	63.24	63.24	63.24
VSTPP- IV	103.93	103.93	103.93
KGPP	93.43	93.43	93.43
GGPP	77.50	77.50	77.50
Sipat-I	188.85	188.85	188.85
Sipat-II	67.79	67.79	67.79
MSTPL 1	0.00	0.00	0.00
VSTPS-V	60.90	60.90	60.90
Mauda 2	142.75	142.75	142.75
Solapur	217.85	217.85	217.85
LARA	207.31	207.31	207.31
Gadarwara	296.00	296.00	296.00
BARH	0.00	0.00	0.00
Kharagaon	219.69	219.69	219.69
FSTPS	0.00	0.00	0.00
KhSTPS I	0.00	0.00	0.00
RSTPS	0.00	0.00	0.00
TSTPS	0.00	0.00	0.00
KHSTPP-II	7.37	7.37	7.37
Subtotal	**2008.87**	**2008.87**	**2008.87**
NSPCL – Bhilai	**300.29**	**300.29**	**300.29**
NSPCL – Rourkela			
NPCIL			
KAPS	21.80	21.80	21.80
TAPS 3&4	91.16	91.16	91.16
Subtotal	**112.96**	**112.96**	**112.96**
Others			
RGPPL	0.00	0.00	0.00
Tata Power – Haldia	0.00	0.00	0.00
EMCO	0.00	0.00	0.00
Subtotal	0.00	0.00	0.00
Total Firm			
Power purchase from Other Sources			
Indian E. Exchange/Bilateral	393.59	450.24	552.76
UI	0.00	0.00	0.00
Solar	0.00	0.00	0.00
Non Solar	0.00	0.00	0.00
Solar REC	25.84	19.24	21.47
Non Solar REC	34.85	27.54	30.06
Solar (SECI)	0.00	0.00	0.00
Wind (SECI)	0.00	0.00	0.00
Subtotal	**454.28**	**497.02**	**604.29**
Misc. Arrears			
Total Power Purchase Cost	**2876.39**	**2919.13**	**3026.40**

5.7.3. Transmission Charges

Petitioner's Submission

Transmission charges payable to PGCIL are based on the total capacity allocation in the transmission network. DNHPDCL 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. Therefore, considering the changing capacity allocation, DNHPDCL has estimated the transmission charges. For MYT Control Period, the transmission charges payable to ED-DNH (Transmission Division) have also been considered.

The Petitioner has projected the POC charges for MYT Control Period, which have been projected by considering the average monthly bill being received from PGCIL. The transmission charges along with the total power purchase cost for the MYT Control Period as submitted by the Petitioner has been given in the following table:

Table 98: Transmission and other Charges submitted by Petitioner for MYT Control Period (INR Crore)

Particulars	FY 2022-23	FY 2023-24	FY 2024-25
Total Power Purchase Cost	2876.39	2919.13	3026.40
PGCIL CHARGES	482.53	506.66	531.99
POSOCO	0.97	0.97	0.97
WRPC	0.00	0.00	0.00
Reactive charges	0.00	0.00	0.00
MSTCL	0.00	0.00	0.00
Intra-state transmission charges	40.00	36.00	36.00
Grand Total of Charges	3399.90	3462.76	3595.37
Grand Total of All Charges	**3399.90**	**3462.76**	**3595.37**

Commission's Analysis

The Commission for the purpose of estimating the quantum and cost of power purchase for each year has relied on the station wise quantum approved in the Business Plan Order, actual energy availability for FY 2018-19, FY 2019-20 and FY 2020-21, provisional energy availability for first nine months of FY 2021-22, 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 approved by CERC. The overall methodology followed for projection of quantum and cost of power procurement has been discussed below.

5.7.4. Availability of Power

The availability of power has been considered as approved by the Commission in the Business Plan Order dated 31 March, 2022.

5.7.5. Power Purchase Cost

Variable Charges:

- The per unit variable costs for various power stations and Open Market have been computed by taking the average of the actual per unit variable cost during the first nine months from April 2021 to December 2021. No escalation has been considered in the Variable Charges during the Control Period.
- **Auxiliary consumption:** The Commission has considered an auxiliary consumption of 5.75% and 2.80% for coal and gas based generating stations, respectively as per CERC Tariff Regulations, 2019.

Fixed Charges:

- The fixed costs have been determined based on the Tariff Orders issued by CERC for respective Central Generating Stations.
- The Fixed cost has been apportioned on the basis of EDDD's share in each station and power purchase quantum as approved in the previous section.
- No escalation has been considered in the Fixed Charges during the Control Period.

Charges towards Procurement of Energy from IEX:

- Quantum of Energy projected to be procured from exchange has been considered to be the balance energy between the total energy requirement at state periphery and net energy available from CGS after Transmission Losses. Further, in order to promote procurement of green energy from renewable sources, the Per Unit Rate for projected Power Purchase from Exchange has been considered at Rs 4.00/kWh.

- The Commission has considered REC Cost for the Quantum of RPO shortfall during each year of the Control Period.

Cost of Solar Power:

- The Commission vide order dated 05.03.2021 in Petition No. 43/2021 had determined the tariff for Solar Plants installed in the UT of DNH. Further, the Commission vide same order empowered DNHPCL to include and claim the cost incurred towards the power procurement from the Solar Power Plants installed in the UT of DNH in the Power Purchase Cost from 1st April 2021 onwards.

- The Commission has considered the cost of solar power as per the tariff approved by the Commission in its Order dated

Other Charges:

No other charges have been considered for the MYT Control Period. The same shall be considered as per actuals during the true-up of each year

5.7.6. Transmission Charges

The Commission has projected the transmission charges payable to PGCIL by considering actual PGCIL charges of 9 months of FY 2021-22. These charges have been escalated during each year of Control Period at 3%. Escalation based on past trends.

The Intra-state Transmission Charges are considered as per the Transmission charges approved by the Commission in Order dated dated 31 March 2022 on the MYT Petition filed by DNH-T.

5.7.7. Total Power Purchase quantum and cost

The energy availability and the power purchase cost approved by the Commission for each year of the Control Period have been shown in the following tables:

Table 99: Power Purchase Quantum and Cost approved by the Commission for FY 2022-23

Sl. No.	Details of The Stations	Units Purchased (MUs)	Fixed Charges (INR Crore)	Variable Charges (INR Crore	Other Charges	Total Charges (INR Crore)	Per Unit Cost (INR/kWh)
A	NTPC Stations						
1	KSTPP 1&2	399.61	25.91	55.14	0.00	81.06	2.03
2	KSTPS 3	168.55	22.19	22.79	0.00	44.98	2.67
3	VSTPP-I	306.93	26.98	50.06	0.00	77.05	2.51
4	VSTPP-II	245.46	16.37	38.44	0.00	54.80	2.23
5	VSTPP- III	260.11	26.16	40.44	0.00	66.60	2.56
6	VSTPP- IV	340.62	51.40	52.43	0.00	103.83	3.05
7	KGPP	268.26	50.37	115.52	0.00	165.89	6.18
8	GGPP	203.70	46.15	60.47	0.00	106.62	5.23
9	Sipat-I	669.63	83.02	99.77	0.00	182.79	2.73

Sl. No.	Details of The Stations	Units Purchased (MUs)	Fixed Charges (INR Crore)	Variable Charges (INR Crore	Other Charges	Total Charges (INR Crore)	Per Unit Cost (INR/kWh)
10	Sipat-II	238.59	28.08	36.22	0.00	64.30	2.70
11	Mauda					0.00	
12	VSTPS-V	184.85	30.38	29.33	0.00	59.71	3.23
13	Mauda 2	284.64	64.97	95.63	0.00	160.61	5.64
14	Solapur	530.92	90.86	188.58	0.00	279.44	5.26
15	LARA	529.32	88.12	112.86	0.00	200.98	3.80
16	Gadarwara	606.20	125.25	175.13	0.00	300.39	0.00
17	Kharagaon	497.66	89.73	146.83	0.00	236.56	4.75
18	KHSTPP-II	22.54	4.02	5.40	0.00	9.42	4.18
	Subtotal NTPC	**5757.60**	**869.96**	**1325.05**	**0.00**	**2195.01**	**3.81**
B	**NSPCL Bhilai**	**693.53**	**116.66**	**183.66**	**0.00**	**300.32**	**4.33**
C	**NPCIL**						
1	KAPS	93.46	0.00	21.59	0.00	21.59	2.31
2	TAPS	267.79	0.00	91.07	0.00	91.07	3.40
	Subtotal NPCIL	361.25	0.00	112.67	0.00	112.67	3.12
D	**Power purchase from Other Sources**						
1	Indian E. Exchange/Bilateral	584.76	0.00	233.90	0.00	233.90	4.00
2	UI	0.00	0.00		0.00	0.00	0.00
3	Solar	5.91	0.00		4.02	4.02	6.80
4	Non Solar						
5	REC	0.00	0.00	0.00	80.22	80.22	0.00
6	Non Solar REC						
7	**Subtotal**	**590.67**	0.00	233.90	84.24	318.15	5.39
8	**Total Power Purchase**	**7403.05**	986.62	1855.28	84.24	2926.15	3.95
E	**Other Charges**						
1	PGCIL CHARGES		482.54			482.54	
2	POSOCO		0.97			0.97	
3	Intra State Transmission Charges		38.72			38.72	
	Subtotal						
	Grand Total of Charges	**7403.05**	**1508.85**	**1855.28**	**84.24**	**3448.38**	**4.66**

The Commission approves the quantum of power purchase as 7,403.05 MU at the generator periphery with a total cost of INR 3,448.38 Cr for FY 2022-23.

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 2022-23 has been determined as provided in the following table:

Table 100: Average Power Purchase Cost for FY 2022-23

Particulars	FY 2022-23
Total Power Purchase Cost	3448.38
Less: Transmission Charges and Power Purchase Cost from Renewable Energy Source (INR Cr)	602.45
Net Power Purchase Cost (INR Cr)	2845.93
Total Power Purchase Quantum (MU)	7403.05
Less: Quantum from Renewable Energy Sources (MU)	5.91
Quantum of energy at State Periphery excluding quantum from renewable energy sources (MU)	7397.14
APPC (Rs/kWh)	**3.85**

The Commission approves the Average Power Purchase Cost (APPC) as INR 3.85/ kWh for the FY 2022-23.

Table 101: Power Purchase Quantum and Cost approved by the Commission for FY 2023-24

Sl. No.	Details of The Stations	Units Purchased (MUs)	Fixed Charges (INR Crore)	Variable Charges (INR Crore	Other Charges	Total Charges (INR Crore)	Per Unit Cost (INR/kWh)
A	**NTPC Stations**						
1	KSTPP 1&2	399.61	25.91	55.14	0.00	81.06	2.03
2	KSTPS 3	168.55	22.19	22.79	0.00	44.98	2.67
3	VSTPP-I	306.93	26.98	50.06	0.00	77.05	2.51
4	VSTPP-II	245.46	16.37	38.44	0.00	54.80	2.23
5	VSTPP- III	260.11	26.16	40.44	0.00	66.60	2.56
6	VSTPP- IV	340.62	51.40	52.43	0.00	103.83	3.05
7	KGPP	268.26	50.37	115.52	0.00	165.89	6.18
8	GGPP	203.70	46.15	60.47	0.00	106.62	5.23
9	Sipat-I	669.63	83.02	99.77	0.00	182.79	2.73
10	Sipat-II	238.59	28.08	36.22	0.00	64.30	2.70
11	MSTPL 1				0.00	0.00	
12	VSTPS-V	184.85	30.38	29.33	0.00	59.71	3.23
13	Mauda 2	284.64	64.97	95.63	0.00	160.61	5.64
14	Solapur	530.92	90.86	188.58	0.00	279.44	5.26
15	LARA	529.32	88.12	112.86	0.00	200.98	3.80
16	Gadarwara	606.20	125.25	175.13	0.00	300.39	0.00
17	Kharagaon	497.66	89.73	146.83	0.00	236.56	4.75
18	KHSTPP-II	22.54	4.02	5.40	0.00	9.42	4.18
	Subtotal NTPC	**5757.60**	**869.96**	**1325.05**	**0.00**	**2195.01**	**3.81**
B	**NSPCL Bhilai**	**693.53**	**116.66**	**183.66**	**0.00**	**300.32**	**4.33**
C	**NPCIL**						
1	KAPS	93.46	0.00	21.59	0.00	21.59	2.31
2	TAPS	267.79	0.00	91.07	0.00	91.07	3.40
	Subtotal NPCIL	**361.25**	**0.00**	**112.67**	**0.00**	**112.67**	**3.12**
D	**Power purchase from Other Sources**						
1	Indian E. Exchange/Bilateral	853.07	0.00	341.23		341.23	4.00
2	UI	0.00	0.00	0.00		0.00	0.00
3	Solar	5.91	0.00		4.02	4.02	6.80
4	Non Solar						
5	**Solar and Non Solar REC**	0.00	0.00	0.00	67.76	67.76	0.00

Sl. No.	Details of The Stations	Units Purchased (MUs)	Fixed Charges (INR Crore)	Variable Charges (INR Crore	Other Charges	Total Charges (INR Crore)	Per Unit Cost (INR/kWh)
	Subtotal	**858.98**	**0.00**	**341.23**	**71.78**	**413.01**	**4.81**
	Total Power Purchase	**7671.36**	**986.62**	**1962.61**	**71.78**	**3021.01**	**3.94**
E	**Other Charges**						
1	PGCIL CHARGES		506.66			506.66	
2	POSOCO		1.02			1.02	
3	Intra State Transmission Charges		34.38			34.38	
	Subtotal						
	Grand Total of Charges	**7671.36**	**1528.69**	**1962.61**	**71.78**	**3563.08**	**4.64**

The Commission approves the quantum of power purchase as 7,671.36 MU at the generator periphery with a total cost of INR 3,563.08 Cr for FY 2023-24.

Table 102: Power Purchase Quantum and Cost approved by the Commission for FY 2024-25

Sl. No.	Details of The Stations	Units Purchased (MUs)	Fixed Charges (INR Crore)	Variable Charges (INR Crore	Other Charges	Total Charges (INR Crore)	Per Unit Cost (INR/kWh)
A	**NTPC Stations**						
1	KSTPP 1&2	399.61	25.91	55.14		81.06	2.03
2	KSTPS 3	168.55	22.19	22.79	0.00	44.98	2.67
3	VSTPP-I	306.93	26.98	50.06	0.00	77.05	2.51
4	VSTPP-II	245.46	16.37	38.44	0.00	54.80	2.23
5	VSTPP- III	260.11	26.16	40.44	0.00	66.60	2.56
6	VSTPP- IV	340.62	51.40	52.43	0.00	103.83	3.05
7	KAWAS	268.26	50.37	115.52	0.00	165.89	6.18
8	JGPP	203.70	46.15	60.47	0.00	106.62	5.23
9	Sipat-I	669.63	83.02	99.77	0.00	182.79	2.73
10	Sipat-II	238.59	28.08	36.22	0.00	64.30	2.70
11	MSTPL 1				0.00	0.00	
12	VSTPS-V	184.85	30.38	29.33	0.00	59.71	3.23
13	Mauda 2	284.64	64.97	95.63	0.00	160.61	5.64
14	Solapur	530.92	90.86	188.58	0.00	279.44	5.26
15	LARA	529.32	88.12	112.86	0.00	200.98	3.80
16	Gadarwara	606.20	125.25	175.13	0.00	300.39	0.00
17	Kharagaon	497.66	89.73	146.83	0.00	236.56	4.75
18	KHSTPP-II	22.54	4.02	5.40	0.00	9.42	4.18
	Subtotal NTPC	**5757.60**	**869.96**	**1325.05**	**0.00**	**2195.01**	**3.81**
B	**NSPCL Bhilai**	**693.53**	**116.66**	**183.66**	**0.00**	**300.32**	**4.33**
C	**NPCIL**						
1	KAPS	93.46	0.00	21.59	0.00	21.59	2.31
2	TAPS	267.79	0.00	91.07	0.00	91.07	3.40
	Subtotal NPCIL	**361.25**	**0.00**	**112.67**	**0.00**	**112.67**	**3.12**
E	Power purchase from Other Sources						

Sl. No.	Details of The Stations	Units Purchased (MUs)	Fixed Charges (INR Crore)	Variable Charges (INR Crore	Other Charges	Total Charges (INR Crore)	Per Unit Cost (INR/kWh)
1	Indian E. Exchange/Bilateral	1132.32	0.00	452.93	0.00	452.93	4.00
2	UI	0.00	0.00	0.00	0.00	0.00	0.00
3	Solar	5.91	0.00	0.00	4.02	4.02	6.80
4	Non Solar						
5	Solar and Non Solar REC				56.29	56.29	0.00
	Subtotal	**1138.23**	**0.00**	**452.93**	**60.31**	**513.24**	**4.51**
	Total Power Purchase	**7950.62**	**986.62**	**2074.31**	**60.31**	**3121.25**	**3.93**
F	**Other Charges**						
1	PGCIL CHARGES		532.00			532.00	
2	POSOCO		1.02			1.02	
3	WRPC						
4	Reactive charges						
5	MSTCL						
6	Intra State Transmission Charges		35.81			35.81	
	Subtotal						
	Grand Total of Charges	**7950.62**	**1555.45**	**2074.31**	**60.31**	**3690.07**	**4.64**

The Commission approves the quantum of power purchase as 7,950.62 MU at the generator periphery with a total cost of INR 3,690.07 Cr for FY 2024-25.

5.8. Renewable Purchase Obligation (RPO)

Petitioner's submission

The Petitioner is required to procure power from renewable sources for meeting the RPO. The Petitioner submitted that it has already installed 4.585 MW of solar plants in its territory for generation of solar energy. The RPO requirement for MYT Control Period submitted by the Petitioner has been provided in the following table:

Table 103: RPO Plan submitted by the Petitioner for MYT Control Period (MU)

Particulars	FY 2022-23	FY 2023-24	FY 2024-25
Sales within State (MU)	6,809.35	7,037.92	7,274.84
RPO obligation (%)	**17.00%**	**17.00%**	**17.00%**
Solar	8.00%	8.00%	8.00%
Non-Solar	9.00%	9.00%	9.00%
RPO obligation for the year (MU)	**1157.59**	**1196.45**	**1236.72**
Solar	544.75	563.03	581.99
Non-Solar	317.49	633.41	654.74
RPO Compliance (Procurement and own generation)	**643.26**	**800.00**	**800.00**
Solar	325.77	400.00	400.00
Non-Solar	317.49	400.00	400.00
RPO Compliance (REC certificate purchase)	**514.33**	**396.45**	**436.72**

Particulars	FY 2022-23	FY 2023-24	FY 2024-25
Solar	218.98	163.03	181.99
Non-Solar	295.35	233.41	254.74

Commission's Analysis

The Commission has made note of the submission of the Petitioner and expects the Petitioner to comply with RPO targets. Actual compliance in respect of the pending RPO obligations would be reviewed at the time of true-up of the respective years and supporting details such as purchase of RECs, and bills from solar/non-solar plants for the respective years must be submitted along with the MYT filing.

The Commission observed that for meeting the RPO compliance, the Petitioner has certain quantum of solar and non-solar power during each year of the Control Period, but the same has not been submitted separately by the Petitioner while estimating power purchase quantum from various sources while estimating the power purchase cost. The Commission discussed this issue with the Petitioner during the Technical Validation Session and the Petitioner informed that it has considered the same as part of power purchase from IEX and hence it has not been shown separately in source wise Power purchase.

In view of the sales projections approved by the Commission in Section 3.2.5, the Commission has approved the RPO for each year of the Control Period based on the JERC (Procurement of Renewable Energy) Regulations, 2010 and its subsequent amendments. Considering the submissions made by the Petitioner, the Commission has considered the projected Solar Power of 5.91 MU from solar plants installed in DNH territory during each year of the Control Period. With regard to remaining RPO Target during each year of the Control Period, the Commission has considered RPO to be fulfilled by Power Purchase from IEX to the extent of energy requirement from short term sources and directs the Petitioner to purchase such power from GTAM market which may be considered as Renewable Power Purchase. Further, the Commission approves balance RPO to be met through REC Certificate Purchase. The details of RPO approved by the Commission for the Control Period is as under:

Table 104: RPO targets and compliance plan approved by the Commission for MYT Control Period (MU)

Description	FY 2022-23	FY 2023-24	FY 2024-25
Sales within State (MU)	6924	7199	7485
RPO obligation (%)	**18.35%**	**19.91%**	**21.58%**
Solar	9.00%	10.00%	11.00%
Non-Solar	9.35%	9.91%	10.58%
RPO obligation for the year (MU) (a)	**1271**	**1433**	**1615**
Solar	623	720	823
Non-Solar	647	713	792
RPO Compliance (Procurement and own generation) (MU) (b)	**5.91**	**5.91**	**5.91**
Solar	5.91	5.91	5.91
Non-Solar	0	0	0
Renewable Energy Purchase from Exchange (c)	585	853	1132
RPO Compliance (REC purchase) (d = a - b - c)	**680**	**574**	**477**

The cost of REC purchase has already been considered in the total power purchase cost approved by the Commission for each year of 3rd Control Period as shown in the previous section. The compliance and cost towards RPO for each year of the Control Period as approved by the Commission is provided in the following table:

Table 105: Cost towards compliance of Renewable Purchase Obligation for FY 2022-23 (INR Crore)

S. No	Description	RPO (MU)	Total Cost (INR Cr)	Avg. Rate (INR/kWh)
1	**Solar (Own)**	5.91	4.02	6.80
2	**Green Energy Purchase Through Exchange**	584.76	233.90	4.00
3	**REC Purchase**	680	80.22	1.18
	Total	**1270.67**	**318.15**	

The Commission approves INR 318.15 Cr towards compliance of RPO in the ARR of FY 2022-23 and the same has been considered in the total power purchase cost as approved for FY 2022-23.

Table 106: Cost towards compliance of Renewable Purchase Obligation for FY 2023-24 (INR Crore)

S. No	Description	RPO (MU)	Total Cost (INR Cr)	Avg. Rate (INR/kWh)
1	**Solar (Own)**	5.91	4.02	6.80
2	**Green Energy Purchase Through Exchange**	853.07	341.23	4.00
3	**REC Purchase**	574	67.76	1.18
	Total	**1,432.98**	**413.01**	

The Commission approves INR 413.01 Cr towards compliance of RPO in the ARR of FY 2023-24 and the same has been considered in the total power purchase cost as approved for FY 2023-24.

Table 107: Cost towards compliance of Renewable Purchase Obligation for FY 2024-25 (INR Crore)

S. No	Description	RPO (MU)	Total Cost (INR Cr)	Avg. Rate (INR/kWh)
1	**Solar (Own)**	5.91	4.02	6.80
2	**Green Energy Purchase Through Exchange**	1132.32	452.93	4.00
3	**REC Purchase**	477	56.29	1.18
	Total	**1,615.23**	**513.24**	

The Commission approves INR 513.24 Cr towards compliance of RPO in the ARR of FY 2024-25 and the same has been considered in the total power purchase cost as approved for FY 2024-25.

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 52 of the MYT Regulation, 2021 states the following:

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

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

52.2 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.

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

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

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

Where,

R&Mn = K x GFAn-1 x (1+WPI inflation)

EMPn = (EMPn-1) x (1+Gn) x (1+CPI inflation)

A&Gn = (A&Gn-1) x (1+CPI inflation)

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

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

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

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

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

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

GFAn-1 – Gross Fixed Asset of the 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 nth Year. 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, and 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 – CPI inflation and WPI inflation shall be used for all Years of the Control Period. However, the Commission shall consider the actual values of the factors – CPI inflation and WPI inflation during the truing up exercise for the Year for which true up is being carried out and true up the O&M Expenses for that Year, only to the extent of inflation.

5.9.1. Employee Expenses

Petitioner's submission

The Petitioner has determined the employee expenses for each year of the Control Period based on the norms specified in the MYT Regulations, 2021. The employee expenses for FY 2021-22 have been taken as base. The growth factor (Gn) has been calculated on the basis projected growth in the number of employees year over year during the control period. The average increase in Consumer Price Index (CPI) has been calculated based on the average increase in the Consumer Price Index (CPI) as 6.11%.

The table below provides the employee expenses projected for MYT Control Period by the Petitioner:

Table 108: Employee Expenses submitted by Petitioner for MYT Control Period (INR Crore)

Particular	FY 2022-23	FY 2023-24	FY 2024-25
Employee Expenses	**15.84**	**16.81**	**17.84**

Commission's Analysis

In accordance with the MYT Regulations, 2021, the Commission has determined the Employee expenses for MYT Control Period. The Regulation 6 of the MYT Regulations, 2021 stipulates the following:

"6. Values for Base Year

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

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

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

The Commission has averaged the actual employee expenses for FY 2018-19 to FY 2020-21 to arrive at the employee expenses for the median year. Thereafter, the employee expenses, thus, arrived have been escalated by the CPI inflation twice to arrive at employee expenses for the base year, FY 2021-22. The resultant employee expenses have been escalated by Growth Factor and CPI Inflation to arrive upon the employee expenses of each year of the Control Period.

The CPI Inflation has been computed as follows:

Table 109: Computation of CPI Inflation (%)

FY	Average of (Apr-Mar)	Increase in CPI Index	Average increase in CPI indices over 3 years
2018-19	299.92	5.45%	
2019-20	322.50	7.53%	
2020-21	338.69	5.02%	
		CPI Inflation	6.00%

The growth factor has been computed based on manpower plan approved by the Commission in the Business Plan Order.

Table 110: Growth Factor approved by Commission

Particulars	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Closing number of employees	347	390	429	471
Growth in number of employees (Gn)	0.00%	12.39%	10.00%	9.79%

Accordingly, the employee expenses approved by the Commission for the FY 2021-22 have been provided in the following table:

Table 111: Employee Expenses approved by Commission (INR Crore)

S. No	Particulars	Average of Preceding three years	Base Year	FY 2022-23	FY 2023-24	FY 2024-25
1	Employee Expenses	13.26				
2	Growth in number of employees (Gn)		0.00%	12.39%	10.00%	9.79%
3	CPI Inflation for preceding three years (CPI)		6.00%	6.00%	6.00%	6.00%
	Employee Expenses		14.80	**17.64**	**20.56**	**23.93**

The Commission approves Employee Expenses of INR 17.64 Cr, INR 20.56 Cr and INR 23.93 Cr in the ARR of FY 2022-23, FY 2023-24 and FY 2024-25 respectively.

5.9.2. Administrative and General (A&G) Expenses

Petitioner's submission

The Petitioner has submitted that the Administrative and General (A&G) expense comprise of various sub-heads including the following:

- Telephone, postage & telegrams charges;
- Travel and conveyance expenses;
- Consultancy and regulatory fees; and
- Consumer indexing fee

For projecting the A&G Expenses for MYT Control Period, the petitioner has been used formula as given in MYT Regulations. The A&G Expenses as submitted by the Petitioner are as follows:

The A&G expenses projected for the MYT Control Period are submitted below:

Table 112: A&G Expenses submitted by Petitioner for MYT Control Period (INR Crore)

Particular	FY 2022-23	FY 2023-24	FY 2024-25
A&G expenses	**4.77**	**5.06**	**5.37**

Commission's Analysis

Similar to the methodology followed while estimating the employee expenses, The Commission has averaged the actual A&G expenses for FY 2018-19 to FY 2020-21 to arrive at the A&G expenses for the median year. Thereafter, the A&G expenses, thus, arrived have been escalated by the CPI inflation twice to arrive at A&G expenses for the base year, FY 2021-22. The resultant A&G expenses have been escalated by CPI Inflation to arrive upon the A&G expenses of each year of the Control Period.

The A&G expenses approved by the Commission for FY 2021-22 have been provided in the following table:

Table 113: A&G Expenses approved by Commission (INR Crore)

S. No	Particulars	Average of Preceding three years	Base Year	FY 2022-23	FY 2023-24	FY 2024-25
1	A&G Expenses	8.07*		9.01	9.55	10.12
2	CPI Inflation		6.00%	6.00%	6.00%	6.00%
3	**A&G Expenses**		**9.01**	**9.55**	**10.12**	**10.73**

** Including incremental impact of Licensee fee of Rs. 1.83 Crore*

The Commission approves the Administrative & General (A&G) expenses of INR 9.55 Cr, INR 10.12 Cr and INR 10.73 Cr in the ARR of FY 2022-23, FY 2023-24 and FY 2024-25 respectively.

5.9.3. Repair & Maintenance Expenses (R&M)

Petitioner's submission

The Petitioner submitted that Repairs and Maintenance expense comprise of expenses incurred by them with regard to maintenance and upkeep of the transmission and distribution system. Adequate R&M activities help in reduction of transmission and distribution losses and breakdowns in the system.

The Petitioner has determined the R&M expenses based on the norms specified in the JERC Tariff Regulation, 2021. The average increase in Wholesale Price Index (WPI) has been calculated based on the increase in the Wholesale Price Index (WPI) for FY 2022-23, FY 2023-24 & FY 2024-25 as 2.42%.

The petitioner has considered the R&M Expenses of Rs 28.41 Crore.

Table 114: R&M expenses submitted by Petitioner for MYT Control Period (INR Crore)

Particular	FY 2022-23	FY 2023-24	FY 2024-25
R&M Expenses	**28.41**	**29.22**	**34.60**

<u>Commission's Analysis</u>

The 'K' factor has been determined as the ratio of R&M to opening GFA for FY 2018-19, FY 2019-20 and FY 2020-21 as per audited accounts, averaged for three years. The 'K' factor has been computed as follows:

Table 115: Computation of 'K' Factor for the MYT Control Period WPI (INR Crore)

S. No	Particulars	FY 2022-23	FY 2023-24	FY 2024-25
1	R&M Expenses	9.82	9.34	9.60
2	Opening GFA	432.95	452.36	466.84
3	K Factor	2.27%	2.06%	2.06%
	K Factor Approved by the Commission	**2.13%**		

The 'K' factor is kept constant for all the years and multiplied with the opening GFA approved for (n-1)th year. The resultant amount is then escalated by WPI Inflation to arrive upon the R&M Expenses for each year of the Control Period.

The WPI Inflation has been computed as follows:

Table 116: Computation of WPI Inflation (%)

FY	Average of (Apr-Mar)	Increase in WPI Index	Average increase in WPI indices over 3 years
2018-19	119.79	4.28%	
2019-20	121.80	1.68%	
2020-21	123.38	1.29%	
		WPI Inflation	**2.42%**

The R&M expenses approved by the Commission for MYT Control Period have been provided in the following table:

Table 117: R&M Expenses approved by Commission for MYT Control Period (INR Crore)

S. No	Particulars	FY 2022-23	FY 2023-24	FY 2024-25
1	Opening GFA (GFAn-1) of previous year	639.02	652.90	726.13
2	K factor approved (K)	2.13%	2.13%	2.13%
3	WPI Inflation	2.42%	2.42%	2.42%
	R&M Expenses = (K x (GFA $_{n-1}$) x (1+WPI$_{inflation}$)	**13.94**	**14.24**	**15.84**
	Net R&M Expenses	**13.94**	**14.24**	**15.84**

The Commission approves R&M Expenses of INR 13.94 Cr, INR 14.24 Cr and INR 15.84 Cr for FY 2022-23, FY 2023-24 and FY 2024-25 respectively.

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

The following table provides the total O&M expenses for MYT Control Period is summarized below:

Table 118 : O&M Expenses approved by Commission (INR Crore)

S. No	Particulars	FY 2022-23	FY 2023-24	FY 2024-25
1	Employee Expenses	17.64	20.56	23.93
2	A&G Expenses	9.55	10.12	10.73
3	R&M Expenses	13.94	14.24	15.84
4	**Total O&M Expenses**	**41.12**	**44.93**	**50.50**

The Commission approves total O&M Expenses of INR 41.12 Cr, INR 44.93 Cr and INR 50.50 Cr for FY 2022-23, FY 2023-24 and FY 2024-25 respectively.

5.10. Gross Fixed Assets (GFA) and Capitalization

Petitioner's submission

The Petitioner has requested the Commission to approve the capital expenditure and capitalization as given in Table below:

Table 119: Capital Expenditure and Capitalization proposed by the Petitioner for MYT Control Period (INR Crore)

S. No.	Particulars	FY 2022-23	FY 2023-24	FY 2024-25
1	Capital Expenditure (INR Cr)	21.10	170.94	93.00
2	Capitalization (INR Cr)	18.35	120.94	145.75

Commission's Analysis

The Commission has approved the capital expenditure and capitalization for the next Control Period in the Business Plan Order dated March 31, 2022. The Commission considers the same for the Control Period and approves the capital expenditure and capitalization as shown in the table below.

The year wise details of Revised submissions of Capital Expenditure & Capitalization made by the petitioner and approved by the Commission are provided below:

Table 120: Analysis of GFA and capitalization for the control period (FY 2022-23 to FY 2023-24)

S. No	Particulars	Now Approved by Commission			
		FY 2022-23	FY 2023-24	FY 2024-25	Total
1	Capital Expenditure (INR Cr)	13.88	97.48	46.59	**157.95**
2	Capitalization (INR Cr)	13.88	73.23	70.84	**157.95**

5.11. Capital Structure

Petitioner's Submission

The Petitioner has submitted that the funding of the capital expenditure shall be done through own funds and by availing loans. The debt equity ratio of 70:30 shall be considered for financing the capital expenditure schemes.

Commission's Analysis

The Regulation 27 of the MYT Regulations, 2021 stipulates the following:

27. Debt to Equity Ratio

27.1 In case of Existing Projects, debt to equity ratio allowed by the Commission for determination of tariff for the period ending March 31, 2022 shall be considered:

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

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

27.2 For New Projects, the debt-equity ratio as on the Date of Commercial Operation shall be 70:30 of the amount of capital cost approved by the Commission under Regulation 24, after prudence check for determination of tariff:

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

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

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

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

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

27.3 Any expenditure incurred or projected to be incurred on or after April 1, 2022, as may be admitted by the Commission, as additional capital expenditure for determination of tariff, and renovation and modernization expenditure for life extension shall be serviced in the manner specified in this Regulation."

In accordance with above, since the Petitioner has submitted that the entire capitalization is funded through equity, thus equity higher than 30% of capitalization has been considered as normative loan. The opening Gross Fixed Assets for MYT Control Period has been considered as closing Gross Fixed Assets approved in the APR of FY 2021-22. Further, the values of opening loan and equity has been considered as closing loan and equity approved in APR of FY 2021-22. The loan and equity addition have been considered on normative basis as 70% and 30% respectively of the approved capitalization for the year.

In accordance with the MYT Regulations, 2021, the Commission has determined the Capital Structure for the MYT Control Period as detailed below:

Table 121: Funding Plan approved by the Commission (INR Crore)

S. No	Sources of Funds	FY 2022-23	FY 2023-24	FY 2024-25
1	Total Capitalization in INR Cr	13.88	73.23	70.84
2	Debt (%)	70%	70%	70%
3	Equity (%)	30%	30%	30%
4	Normative Debt (INR Cr) (B x A)	9.72	51.26	49.59
5	Equity (INR Cr) (C x A)	4.16	21.97	21.25

Table 122: GFA addition approved by the Commission (INR Crore)

S. No	Particulars	FY 2022-23	FY 2023-24	FY 2024-25
1	Opening Gross Fixed Assets	639.02	652.90	726.13
2	Addition During FY	13.88	73.23	70.84
3	Adjustment/Retirement During FY			
4	**Closing Gross Fixed Assets**	**652.90**	**726.13**	**796.97**

Table 123: Normative Loan addition approved by the Commission (INR Crore)

S. No	Particulars	FY 2022-23	FY 2023-24	FY 2024-25
1	Opening Normative Loan	101.28	89.78	118.26
2	Add: Normative Loan During the year	9.72	51.26	49.59
3	Less: Normative Repayment equivalent to Depreciation	21.22	22.78	25.38
4	**Closing Normative Loan**	**89.78**	**118.26**	**142.47**

Table 124: Normative Equity addition approved by the Commission (INR Crore)

S. No	Particulars	FY 2022-23	FY 2023-24	FY 2024-25
1	Opening Equity	156.07	160.24	182.21
2	Additions on account of new capitalization	4.16	21.97	21.25
3	**Closing Equity**	**160.24**	**182.21**	**203.46**

5.12. Depreciation

Petitioner's submission

The Petitioner has submitted the depreciation considering the depreciation rate as per MYT Regulations, 2021.

The following table provides the depreciation for MYT Control Period:

Table 125: Projected Depreciation as submitted by the Petitioner (INR Crore)

S. No.	Particulars	FY 2022-23	FY 2023-24	FY 2024-25
1	Opening GFA	639.02	657.37	778.31
2	Additions	18.35	120.94	237.00
3	Closing GFA	657.37	778.31	924.06
4	Average GFA	648.19	717.84	851.18
5	**Depreciation Amount**	**23.28**	**25.78**	**30.58**

Commission's Analysis

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

"31. Depreciation

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

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

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

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

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

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

31.4 In case of existing assets, the balance depreciable value as on April 1, 2022, shall be worked out by deducting the cumulative depreciation as admitted by the Commission up to March 31, 2021, from the gross depreciable value of the assets.

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

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

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

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

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

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

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

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

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

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

The Commission has derived the weighted average rate of depreciation based on the asset wise depreciation rate specified in MYT Regulations, 2021, provided in the following table:

Table 126: Depreciation Rate (%)

Description	Rate
Plant & Machinery	3.60%
Underground Cable	2.57%
Buildings	1.80%
Vehicles	18.00%
Furniture & Fixtures	6.00%
Computers & Others	6.00%
Land	0.00%
Softwares & Others	15.00%

The opening and closing GFA has been considered as approved in *Section 5.10: Capital Structure* of this Order.. Further, depreciation for each year has been computed on average Gross Fixed Assets (GFA) after considering the net addition proposed during the year. The overall depreciation rate is considered as the weighted average depreciation rate calculated based on the computed asset wise depreciation and average GFA.

The following table provides the calculation of deprecation approved for MYT Control Period:

Table 127: Depreciation approved by Commission (INR Crore)

S. No	Particulars	FY 2022-23	FY 2023-24	FY 2024-25
1	Opening GFA	639.02	652.90	726.13
2	Addition During FY	13.88	73.23	70.84

S. No	Particulars	FY 2022-23	FY 2023-24	FY 2024-25
3	Adjustment/Retirement During FY			
4	Closing Gross Fixed Assets	652.90	726.13	796.97
5	Average Gross Fixed Assets	645.96	689.51	761.55
6	Effective Rate of Depreciation (%)	3.28%	3.30%	3.33%
7	**Depreciation**	**21.22**	**22.78**	**25.38**

The Commission approves a depreciation of INR 21.22 Cr, INR 22.78 Cr and INR 25.38 Cr in the ARR of FY 2022-23, FY 2023-24 and FY 2024-25 respectively.

5.13. Interest on Loan

Petitioner's submission

The Interest on Loan has been computed on normative basis according to the MYT Regulations, 2021. The normative loan addition in the FY 2021-22 has been computed as 70% of the capitalization proposed during the MYT Control Period.

The repayment of loans has been considered equal to the depreciation during the FY 2021-22. Further the rate of interest has been considered as 1-year SBI MCLR (7.00%) plus 100 basis points @ 8.00%.
The following table provides the Interest on Loan projected for each year of the MYT Control Period.

Table 128: Interest on loan submitted by the Petitioner (INR Crore)

S. No	Particulars	FY 2022-23	FY 2023-24	FY 2024-25
1	Opening Normative Loan	107.18	96.75	155.62
2	Loan for additional Capex (70:30 debt-equity)	12.85	84.66	102.03
3	Loan Repayment	23.28	25.78	30.58
4	Closing Normative Loan	96.75	155.62	227.07
5	**Interest on Avg Loan**	**8.16**	**10.09**	**15.31**

Commission's Analysis

The Regulation 29 of the MYT Regulations, 2021 specifies the following:

"29. Interest on Loan

29.1 The loans arrived at in the manner indicated in Regulation 27 on the assets put to use, shall be considered as gross normative loan for calculation of interest on the loan:

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

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

29.2 The normative loan outstanding as on April 1, 2022, shall be worked out by deducting the cumulative repayment as admitted by the Commission up to March 31, 2021, from the gross normative loan.

29.3 Notwithstanding any moratorium period availed by the Transmission Licensee or the Distribution Licensee, as the case may be, the repayment of loan shall be considered from the first Year of commercial operation of the project and shall be equal to the annual depreciation allowed in accordance with Regulation 31.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

The Commission has considered the values for opening loan and loan addition as approved in the *Section 5.10: Capital Structure* of this Order. Further, the repayment is considered same as depreciation approved for the corresponding year. In absence of any actual loans, the Commission has considered the 1-year SBI MCLR as on March 10, 2021 (7.00%) plus 100 basis points as rate of interest, in accordance with the JERC MYT Regulations, 2021.

The following table provides the Interest on Loan approved by the Commission for MYT Control Period:

Table 129: Interest on loan approved by Commission (INR Crore)

S. No	Particulars	FY 2022-23	FY 2023-24	FY 2024-25
1	Opening Normative Loan	101.28	89.78	118.26
2	Add: Normative Loan During the year	9.72	51.26	49.59
3	Less: Normative Repayment equal to Depreciation	21.22	22.78	25.38
4	Closing Normative Loan	89.78	118.26	142.47
5	Average Normative Loan	95.53	104.02	130.36
6	Rate of Interest (%)	8.00%	8.00%	8.00%
7	**Interest on Avg Loan**	**7.64**	**8.32**	**10.43**

The Commission approves Interest on Loan as INR 7.64 Cr, INR 8.32 Cr and INR 10.43 Cr in the ARR of FY 2022-23, FY 2023-24 and FY 2024-25 respectively.

5.14. Return on Equity (RoE)

Petitioner's submission

As per the JERC (Multi Year Tariff) Regulations, 2021, Petitioner is entitled for a Return on Equity (RoE). The Regulation 28.2 and 28.3 of the MYT Regulations, 2021 stipulate the following:

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

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

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 MYT Regulations, 2021 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 27 of the MYT Regulations, 2021. The following table provides the ROE for the MYT Control Period, as submitted by the Petitioner:

Table 130: Return on Equity as submitted by the Petitioner for MYT Control Period (INR Crore)

S. No.	Particulars	FY 2022-23	FY 2023-24	FY 2024-25
1	Opening Equity	191.70	197.21	233.49
2	Addition in equity on account of new capitalization	5.51	36.28	43.73
3	Closing Equity	197.21	233.49	277.22
4	Average Equity	194.46	215.35	255.35
5	Average Equity for wire business (90%)	175.01	193.82	229.82
6	Average Equity for Retail Supply Business (10%)	19.45	21.54	25.54
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	27.13	30.04	35.62
10	Return on Equity for Retail Supply Business	3.11	3.45	4.09
11	**Return on Equity**	**30.24**	**33.49**	**39.71**

<u>Commission's Analysis</u>

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

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

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

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

"30. Return on Equity:

………

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

The Commission has segregated the approved average equity (average of opening and closing equity) into average equity for Distribution Wires Business and Retail Supply Business based on the Allocation Statement provided in the MYT Regulations, 2021, 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 pre-tax rate of return on transmission system in 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 5.10: Capital Structure* of this Order.

The following table provides the Return on Equity approved for the Control Period:

Table 131: Return on Equity approved by the Commission (INR Crore)

S. No	Particulars	FY 2022-23	FY 2023-24	FY 2024-25
1	Opening Equity	156.07	160.24	182.21
2	Additions on account of new capitalization	4.16	21.97	21.25
3	Closing Equity	160.24	182.21	203.46
4	Average Equity	158.16	171.22	192.83
5	Average Equity (Wires Business)	142.34	154.10	173.55
6	Average Equity (Retail Supply Business) Business)	15.82	17.12	19.28
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**	22.06	23.89	26.90
10	**Return on Equity for Retail Supply Business**	2.53	2.74	3.09
11	**Total Return on Equity**	**24.59**	**26.63**	**29.99**

The Commission approves Return on Equity of INR 24.59 Cr, INR 26.63 Cr and INR 29.99 Cr in the ARR of FY 2022-23, FY 2023-24 and FY 2024-25 respectively.

5.15. Interest on Security Deposits

Petitioner's submission

Interest on security deposit of INR 3.20 Crore has been claimed towards payment of interest on consumer security deposits during the MYT Control Period.

Commission's Analysis

Regulation 29.11 of the MYT Regulations, 2021 stipulates the following:

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

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

The 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 132: Interest on Security Deposits approved by Commission (INR Crore)

S. No	Particulars	FY 2022-23	FY 2023-24	FY 2024-25
1	Interest on Security Deposit	3.20	3.20	3.20

The Commission approves Interest on Security Deposit as INR 3.20 Crore in the ARR for the FY 2022-23, FY 2023-24, FY 2024-25.

5.16. Interest on Working Capital

Petitioner's submission

The interest on working capital has been calculated based on the normative principles outlined in the MYT Regulations, 2021.

The working capital requirement for the Control Period 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 Power Purchase cost for one (1) month;
- Less Amount, if any, held as security deposits under clause (b) of sub-section (1) of Section 47 of the Act from Consumers except the security deposits held in the form of Bank Guarantees

A rate of interest of 9.00% has been considered on the working capital requirement, being the 1-year SBI MCLR plus 200 basis points. This is in line with the MYT Regulations, 2021 which states as follows:

"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."

Table 133:Interest on Working Capital submitted by the Petitioner (INR Crore)

Particular	FY 2022-23	FY 2023-24	FY2024-25
O&M expense for one month	4.08	4.26	4.82
Maintenance spares at 40% of R&M for one month	0.95	0.97	1.15
Receivables for 2 months	573.47	583.27	602.90
Total	**578.51**	**588.50**	**608.87**
Less Power Purchase Cost of 1 month	283.32	288.56	299.61
Less consumer security deposit but excluding Bank Guarantee/Fixed Deposit Receipt	76.13	76.13	76.13
Net Working Capital required after deduction of Security Deposit	**219.06**	**223.81**	**233.14**
Interest on Working Capital	**19.71**	**20.14**	**20.98**

Commission's Analysis

The Regulation 64 of the JERC MYT Regulations, 2021 stipulates the following:

"64. Norms of Working Capital for Retail Supply Business

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

(e) Amount, if any, held as security deposits under clause (b) of sub-section (1) of Section 47 of the Act from 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 32 of the MYT Regulation, 2021 stipulates the following:

"32. Interest on Working Capital

…….

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

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

In accordance with the MYT Regulation, 2021, the Commission has computed the Interest on Working Capital for each year of the control period. The rate of interest on working capital is considered as 1-yr SBI MCLR rate as on April 1, 2021 plus 200 basis points (7.00%+2.00% = 9.00%). Accordingly, the interest on working capital has been calculated, as shown in the following table:

Table 134: Interest on Working Capital approved by Commission (INR Crore)

S. No	Particulars	FY 2022-23	FY 2023-24	FY2024-25
1	O&M Expenses for One Month	3.43	3.74	4.21
2	Maintenance spares at 40% of R&M expenses for one (1) month	0.46	0.47	0.53
3	Receivables equivalent to two (2) months of the expected revenue Requirement	588.46	611.82	636.17
4	Less: Amount, held as security deposits	76.13	76.13	76.13
5	Total Working Capital	516.23	539.90	564.77
6	Less: Power Purchase Cost 1 month	287.37	296.92	307.51
7	**Net Working Capital**	228.86	242.98	257.27
8	Rate of Interest (%)	9.00%	9.00%	9.00%
9	**Interest on Working Capital**	**20.60**	**21.87**	**23.15**

The Commission approves the Interest on Working Capital as INR 20.60 Cr, INR 21.87 Cr and INR 23.15 Cr in the ARR of FY 2022-23, FY 2023-24 and FY 2024-25 respectively.

5.17. Income Tax

Petitioner's submission

The Petitioner has made provision towards Income Tax amounting to INR 20.00 Cr for MYT Control Period.

Commission's Analysis

Regulation 33 of MYT Regulations, 2021 stipulates the following:

"33. Tax on Income

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

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

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

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

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

For the MYT Control period, the Commission has considered INR 20.00 Crore towards Income Tax same as that proposed by the Petitioner and the same shall be Trued-up based on the actual income tax paid by the Petitioner on respective year of the control period.

Table 135: Income Tax approved by Commission (INR Crore)

S. No	Particulars	FY 2022-23	FY 2023-24	FY2024-25
1	Income Tax	20.00	20.00	20.00

The Commission approves the Income Tax of INR 20.00 Crore in the ARR for each year of the MYT Control Period.

5.18. Provision for Bad & Doubtful Debts

Petitioner's submission

The Petitioner has not earmarked any provision for bad and doubtful debts for the MYT Control Period.

Commission's Analysis

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

"63. Provision for bad and doubtful debts

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

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

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

Provided further that if subsequent to the write off of a particular bad debt, revenue is 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."

As above, 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 respective years.

5.19. Non-Tariff Income

Petitioner's submission

For projecting the non-tariff income for the MYT Control Period, INR 5.87 Crore has been considered by the petitioner.

Commission's Analysis:

The Regulation 65 of the MYT Regulations, 2021 stipulates the following:

"65. Non-Tariff Income

65.1 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.

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

(a) Income from rent of land or buildings;

(b) Income from sale of scrap in excess of 10% of the salvage value;

(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."

Further, the Regulation 35.2 of the MYT Regulations, 2021 stipulates the following:

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

For the MYT Control Period, the Commission has considered Non-Tariff Income (NTI) of INR 5.87 Crore same as approved for FY 2021-22. The same shall be considered at actuals at the time of truing up.

The NTI approved for the MYT Control Period are as follows:

Table 136: Non -tariff Income approved by Commission (INR Crore)

S. No	Particulars	FY 2022-23	FY 2023-24	FY2024-25
1	Non- Tariff Income	5.87	5.87	5.87

The Commission approves Non-Tariff Income of INR 5.87 Crore in the ARR for each year of the MYT Control Period.

5.20. Aggregate Revenue Requirement (ARR)

Petitioner's submission

Based on the expenses as detailed above, the Petitioner submitted the net aggregate revenue requirement for each year as shown in the following table:

Table 137: Aggregate Revenue Requirement submitted by Petitioner (INR Crore)

S. No	Particulars	FY 2022-23	FY 2023-24	FY2024-25
1	Power Purchase Cost	3399.90	3,462.76	3595.37
2	O&M Expense	49.02	51.09	57.81
3	Depreciation	23.28	25.78	30.58

S. No	Particulars	FY 2022-23	FY 2023-24	FY2024-25
4	Interest Cost on Long-term Capital Loans	8.16	10.09	15.31
5	Interest on Working Capital Loans	19.71	20.14	20.98
6	Return on Equity	30.24	33.49	39.71
7	Interest on security deposit	3.20	3.20	3.20
8	Income Tax	20.00	20.00	20.00
9	**Less**			
10	Non-Tariff Income	5.87	5.87	5.87
11	**Annual Revenue Requirement**	**3,547.63**	**3,620.70**	**3,777.09**

Commission's Analysis

On the basis of the detailed analysis of the cost parameters of the ARR the revenue requirement for MYT Control Period is approved as provided in the following table:

Table 138: Aggregate Revenue Requirement approved by Commission for the MYT Control Period(INR Crore)

S. No	Particulars	FY 2022-23	FY 2023-24	FY2024-25
1	Power Purchase Cost	3448.38	3563.08	3690.07
2	O&M Expense	41.12	44.93	50.50
3	Depreciation	21.22	22.78	25.38
4	Interest Cost on Long-term Capital Loans	7.64	8.32	10.43
5	Interest on Working Capital Loans	20.60	21.87	23.15
6	Return on Equity	24.59	26.63	29.99
7	Provision for Bad Debt	0.00	0.00	0.00
8	Interest on security deposit	3.20	3.20	3.20
9	Income Tax	20.00	20.00	20.00
10	**Total**	3586.75	3710.81	3852.72
11	Less: Non-Tariff Income	5.87	5.87	5.87
12	**Annual Revenue Requirement**	**3580.88**	**3704.94**	**3846.85**

The Commission approves net ARR of INR 3580.88 Cr, INR 3704.94 Cr and INR 3846.85 Cr in the ARR of FY 2022-23, FY 2023-24 and FY 2024-25 respectively.

5.21. Revenue at existing Retail Tariff

Petitioner's submission

The Revenue from sale of power for the FY 2022-23 is INR 3,440.84 which is determined based on the energy sales estimated and category wise tariff prevalent in the territory of Dadra & Nagar Haveli as per the tariff notified by the Commission in the Tariff Order for the FY 2020-21 dated 23rd March, 2021.

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 2022-23 has been shown in the following table:

Table 139: Revenue at existing tariff computed by Commission for FY 2022-23 (INR Crore)

S. No	Category	Fixed Charges (INR Crore)	Energy charges (INR Crore)	Total (INR Crore)	ABR (INR/unit)
1	**Domestic**	**0.73**	**41.58**	**42.78**	**2.41**
1	Ist 50 Units	0.14	5.02	5.17	1.44
2	51 to 200 Units	0.29	13.34	13.62	2.15
3	201 to 400 Units	0.17	8.07	8.24	2.65
4	Beyond 401 Units	0.13	15.15	15.28	3.23
5	**LIG**	**0.46**		**0.46**	
2	**Commercial/ Non Domestic**	**0.20**	**15.28**	**15.48**	**3.99**
1	1st 100 Units	0.13	1.98	2.11	3.30
2	Beyond 100 Units	0.08	13.29	13.37	4.12
3	**Agriculture**		**0.39**	**0.39**	**0.86**
1	Upto 10 HP per unit		0.24	0.24	0.75
2	Beyond 10 HP per unit		0.15	0.15	1.10
4	**LT Industry**	**19.51**	**105.97**	**125.47**	**5.15**
1	Upto 20 HP Connected Load	0.13	2.65	2.78	4.32
2	Above 20 HP Connected Load	19.37	103.32	122.69	5.17
5	**Public Lighting**	0.00	1.02	1.02	4.05
6	**Public Water Works**	**0.50**	**2.46**	**2.96**	**5.53**
1	Upto 20 HP Connected Load	0.37	2.46	2.83	5.28
2	Above 20 HP Connected Load	0.13	0.00	0.13	-
7	**HT Category**	**671.88**	**2664.69**	**3336.56**	**5.18**
1	11 kV	309.11	1168.25	1477.36	5.29
2	66 kV	172.99	762.78	935.77	5.07
3	220 kV	189.77	733.66	923.43	5.14
8	**Temporary**		5.66	5.66	7.65
9	**Total**	**693.28**	**2837.04**	**3530.78**	**5.10**

The Commission has determined revenue from sale of power at existing tariff as INR 3530.78 Crore in FY 2022-23.

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 gap of INR 106.80 Crore for FY 2022-23.

Commission's Analysis

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

Table 140: Standalone Revenue Gap/ (Surplus) approved at existing tariff (INR Crore)

S. No	Particulars	Petitioner's submission	Now Approved by Commission
1	Annual Revenue Requirement	3,547.63	3580.88
2	Revenue from sale of power	3,440.84	3530.78
3	Revenue from sale of Surplus Power	0.00	0.00
4	Total Revenue	3,440.84	3530.78
5	**Revenue Gap/(Surplus)**	**106.80**	**50.10**

The standalone revenue gap at existing retail tariff is INR 50.10 Cr for FY 2022-23. The estimated gap is considered while determining the retail tariff for FY 2022-23, as discussed in the subsequent Chapter

6. Chapter 6: Tariff Principles and Design

6.1. Overall Approach

The Commission while designing retail tariffs for the FY 2022-23 has kept in view the principles of determination of tariff as set out in the Electricity Act, 2003 (EA 2003), Tariff Policy, 2016 and the JERC MYT Regulations, 2021.

The provision of supply of electricity to all the people is an essential driver for development, and also influences social and economic change. In this Tariff Order, the Commission has continued with its endeavor to meet the objectives of the EA 2003, as set out in its Preamble, including the protection of the interest of consumers, the supply of electricity to all areas and the rationalisation of tariffs. The EA, 2003 also mandates the Commission to strike a fine balance between the interests of various stakeholders including Utilities and consumers. The Commission has also taken into consideration the Petitioner's submissions as well as the public responses in these proceedings.

6.2. Applicable Regulations

Regulation 20 of the JERC MYT Regulations, 2021 states the following:

"***20. Annual determination of tariff***

20.1 The Commission shall determine the tariff of a Generating Company, Transmission Licensee and Distribution Licensee covered under a Multi Year Tariff framework for each Year during the Control Period, in accordance with timelines specified in Regulation 18, having regard to the following:

a) The approved forecast of Aggregate Revenue Requirement and Expected Revenue from Tariff and Charges of the Generating Company, Transmission Licensee and Distribution Licensee for such Financial Year, including modifications approved at the time of Mid-term Review, if any; and

b) Approved gains and losses, including the incentive available, to be passed through in tariff, following the truing up of previous Year."

Further, Regulation 68 of the JERC MYT Regulations, 2021 states the following:

"68. Determination of Tariff

68.1 The Commission may categorize Consumers on the basis of their load factor, power factor, voltage, total consumption of electricity during any specified period or the time at which the supply is required or the geographical position of any area, the nature of supply and the purpose for which the supply is required and any other factor as considered appropriate by the Commission.

68.2 The Commission shall endeavour to determine cost of supply for each category/ sub-category of Consumers.

68.3 The Commission shall endeavour to reduce gradually the cross-subsidy between Consumer categories with respect to the cost of supply in accordance with the provisions of the Act.

68.4 The tariff proposal by Licensee and the tariff determination by the Commission shall be based on the following principles:

(a) The tariff for all categories shall preferably be two part, consisting of fixed and variable charges.

(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 106.80 Cr till FY 2022-23. The standalone and consolidated revenue Gap/(Surplus) as submitted by the Petitioner has been tabulated below:

Table 141: Standalone Revenue Gap/ (Surplus) submitted by Petitioner (INR Crore)

Particulars	FY 2020-21	FY 2021-22	FY 2022-23
Net Revenue Requirement	2769.87	3517.38	3547.63
Revenue on existing tariff (Including OA charges)	2902.66	3443.72	3440.84
Gap/(Surplus) for the year	**(132.79)**	**73.66**	**106.80**

Table 142: Cumulative Revenue Gap/ (Surplus) submitted by Petitioner (INR Crore)

Particular	FY 2020-21	FY 2021-22	FY 2022-23
Opening Gap/(Surplus)	149.85	24.36	102.91
Add: Gap/(Surplus) during the year	(132.79)	73.66	106.79
Closing Gap/(Surplus)	**17.06**	**98.02**	**209.70**
Carrying cost	7.30	4.90	13.21
Additional Revenue at Proposed Tariff	-	-	-
Total Gap/(Surplus)	**24.36**	**102.91**	**222.91**

Commission's Analysis

Regulation 12.5 (c) of the JERC MYT Regulation, 2021 stipulates the following:

"12.5 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 2020-21 & FY 2021-22 and 1-yr SBI MCLR as on 10.03.2021 for FY 2022-23.

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 2022-23 as shown in the tables as follows:

Table 143: Standalone Revenue Gap/ (Surplus) determined by the Commission at existing tariff (INR Crore)

Particulars	FY 2020-21	FY 2021-22	FY 2022-23
Net Revenue Requirement	2717.90	3542.28	3580.88
Revenue from Retail Sales at Existing Tariff	2854.74	3322.92	3530.78
Revenue from FPPCA	47.92	123.17	0.00
Total Revenue	**2902.66**	**3446.09**	**3530.78**
Standalone Gap/(Surplus) for the year	**(184.76)**	**96.19**	**50.10**

Table 144: Consolidated Revenue Gap/ (Surplus) determined by the Commission at existing tariff (INR Crore)

Particulars	FY 2020-21	FY 2021-22	FY 2022-23
Opening Gap/(Surplus)	146.43	(33.17)	64.22
Addition Gap/(Surplus) due to standalone year	(184.76)	96.19	50.10
Closing Gap/(Surplus)	(38.33)	63.02	114.32
Average Gap/(Surplus)	54.05	14.93	89.27
Rate of Interest	9.55%	8.00%	8.00%
Carrying cost	5.16	1.19	7.14
Closing Gap/ (Surplus)	**(33.17)**	**64.22**	**121.46**

The Commission determines a cumulative revenue gap of INR 121.46 Cr till FY 2022-23 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 2022-23 is INR 121.46 Crore. In view of the substantial gap, the Commission has decided to change the existing tariff schedule and the revised schedule will be applicable for FY 2022-23.

6.4.1. Designing of Tariff

Petitioner's Submission

The Petitioner has proposed an increase in tariff to meet the cumulative revenue gap till FY 2022-23. The category wise existing and proposed tariff submitted by the Petitioner is as follows:

Table 145: Retail Tariff proposed by the Petitioner for FY 2022-23

S.No.	Category/Consumption Slab	Existing FY 2021-22		Proposed FY 2022-23	
		Energy Charges (INR/Kwh)	Fixed Charges	Energy Charges (INR/Kwh)	Fixed Charges
1	**LT-D/Domestic**				
	Ist 50 Units	1.40	10.00 INR/Con/Month	-	-
	51 to 200 Units	2.10	10.00 INR/Con/Month	-	-
	201 to 400 Units	2.60	10.00 INR/Con/Month	-	-
	Beyond 401 Units	3.20	10.00 INR/Con/Month	-	-
	Ist 100 Units	-	-	1.60	10.00 INR/Con/Month
	101 to 300 Units	-	-	2.30	10.00 INR/Con/Month
	301 to 500 Units	-	-	2.80	10.00 INR/Con/Month
	Beyond 501 Units	-	-	3.40	10.00 Rs./Con/Month
	LIGH		20.00 INR./conn/month		20.00 INR./conn/month
2	**LT-C/Commercial**				
	1st 100 Units	3.10	20.00 INR/Con/Month	3.30	20.00 INR/Con/Month
	Beyond 100 Units	4.10	20.00 INR/Con/Month	4.30	20.00 INR/Con/Month
3	**LT- Ag/ Agriculture**				
	Upto 10 HP per unit	0.75		0.95	
	Beyond 10 HP per unit	1.10		1.30	
4	**LTP Industrial**				
	Upto 20 HP Connected Load	3.50	20.00 INR./HP/month	3.80/kVAH	20.00 INR/HP/month
	Above 20 HP Connected Load	3.70	80.00 INR/HP/month	4.00/kVAh	80.00 INR/HP/month
5	**LT-PL/Public Lighting**				
	Public Lighting	4.05		4.25	
6	**LT Public Water Works**				
	Upto 20 HP Connected Load	4.60	50.00 INR/HP/month	4.80	50.00 INR/HP/month
	Above 20 HP Connected Load	4.60	100.00 INR/HP/month	4.80	100.00 INR/HP/month
7	**HT**				
	HT Category				
	11 kV	4.10/kVAh	400.00 INR./kVA/month	4.40/kVAh	400.00 INR./kVA/month
	66 kV	4.05/kVAH	525.00 INR /kVA/month	R.4.35/kVAh	525.00 INR /kVA/month
	220 kV	.4.00/kVAh	575.00 INR /kVA/month	4.30/kVAh	575.00 INR /kVA/month
8	**Hoardings/Advertisements**				
	For all units	7.30	100.00 INR/kVA/month	7.50	100.00 INR/kVA/month
9	**Charging Stations for e-rickshaw/e-vehicle on single point delivery**	4.70	-	4.90	-

Commission's Analysis

The Commission has determined the retail tariff for the FY 2022-23 in accordance with the principles stated in the Electricity Act, 2003 Tariff Policy, 2016, and the JERC MYT Regulations, 2021. The Tariff design in general is guided by the following principles:

1. Cost reflective: The tariffs determined should efficiently reflect the cost of supply for each consumer category.

2. Progressive tariffs: Ensuring progressivity among tariffs by having telescopic tariff slabs which encourages efficient consumption and at the same time allows intra-category cross-subsidy by way of charging higher tariff for higher consumption to subsidise the lower consumption consumers

3. Revenue neutrality: There should be no impact on the utility's yearly revenue due to rationalization of tariffs i.e. the overall status quo should be maintained.

4. Affordability: Assessing affordability of electricity for Domestic and Commercial consumers for defining slab ranges and setting tariffs

5. Revenue stability: Tariff should ensure adequate fixed cost recovery for utilities from fixed/demand charges

6. Avoiding tariff shocks: Tariff shocks should be avoided and stakeholders should be able to predict the future trends in tariffs

7. Demand management and grid stability: Demand management and grid stability should be ensured with demand-based tariffs

8. Simplified tariff structure: Tariff structure should be simplified to make it easily administrable by the utility and easy to understand for the consumer.

9. Smart tariff design: Tariff rate design should take into consideration trends in electric power such as small-scale renewable generation by consumers, energy efficiency, electric vehicle charging, etc.

While all the above parameters contribute significantly in developing a sustainable tariff framework, there are certain parameters namely Cost of Supply and Tariff Affordability which are of importance and constitute the building blocks in achieving the overall objective. The context and the approach for these parameters have been discussed as follows:

1. Cost of Supply

a) Context

Due to electricity being a crucial utility item for all consumers, over the period of time, various socio-economic issues have been factored in to determine the end user's tariffs. This has unfortunately led to severe imbalance between the tariffs levied vis-a-vis the cost of supply of the electricity, causing distress to the Distribution Licensee. For example, in order to ensure that tariffs are kept in check for domestic consumers, while still allowing cost recovery for Distribution Licensees, cross subsidy has been built in between categories. The tariffs so determined, are skewed, with tariff for industrial and commercial consumers being higher and for other categories being lower than their respective costs of supply. The implications of this imbalance in tariffs is two fold – uncompetitive industries owing to higher input costs and inability of Distribution Licensees to recover sufficient tariffs from domestic consumers, resulting in financial distress. The issue is more pronounced for rural supply where tariffs are highly subsidized, actual cost of supply is higher and revenue recovery is poor.

It is thus essential that tariffs reflect the true cost to service a category of consumer. As a crucial first step towards cost-reflective tariffs, it is important for Distribution Licensees to determine the costs of supply (which cascade from generation to transmission and finally to distribution and retail supply of power) that should be prudently recovered from each consumer category. These costs should correspond to the actual costs being caused/contributed by each consumer category towards total cost incurred by the Distribution Licensee. By determining consumer category wise costs of supply, the Distribution Licensee would be in a better position to allocate costs where relevant and determine how tariffs can be levied fairly on each category.

b) Approach:

The overall approach that can be followed for accurately determining the Cost of Supply has been discussed as follows.

Presently, the most commonly used approach for determining the cost of supply of electricity for tariff determination is the Average Cost of Supply (ACoS) method. The ACoS is computed by dividing the Annual Revenue Requirement (ARR) determined by the Commission for recovery through tariffs by the total energy sales for the year. However, this methodology doesn't indicate the costs incurred by consumers at different voltage levels using different assets of the network. Therefore, it doesn't help in determining accurate tariffs for particular consumers, eventually resulting in insufficient cost coverage.

As a next logical step, the Voltage wise cost of supply (VCoS) method provides a better reflection of cost to supply to consumers at different voltage levels.

VCoS uses three parameters for allocating various costs to voltage levels – energy input at each voltage level, energy sales and asset allocation to voltage levels. The losses segregated voltage wise (as percentage of input energy) are to be allocated to different voltage levels based on energy input to each voltage level (as explained in subsequent sections). Subsequently, the cost elements such as power procurement costs, employee expenses, administrative and general expenses and income tax can be allocated to each voltage levels based on total sales at each voltage level. The cost elements, which are dependent on assets such as depreciation, interest costs, return allowed to utility etc. are allocated in ratio of assets allocated to each voltage level. The sum of all the cost components at each voltage level is the cost to supply the particular voltage (EHT/HT/LT).

The Commission is of the opinion that while VCoS differentiates cost allocation based on voltage levels, it does not factor in consumer category level differentiation. For instance, at the same LT level, cost of supplying electricity to a Commercial consumer may be different from that of a domestic consumer. Thus, it believes that the most progressive way forward for the Distribution Licensee is to accurately determine the cost of supply is to attempt to determine Cost of Supply for various consumer categories and also voltage level. The Commission notes that States like Andhra Pradesh and Telangana have determined Category wise Cost of Supply albeit with several assumptions and the Distribution Licensee must also attempt to determine the same.

The Commission is of the opinion that for determination of the Category wise Cost of Supply, the embedded cost methodology is an appropriate starting point.

The Commission strongly believes that determination of Category wise Cost of Supply is essential to ensure cost reflectivity in tariffs fixed for different categories. However, the Commission feels that to carry out this exercise a lot of field level information would be required such as Category wise co-incident and non- co-incident demand, Voltage wise value of assets (Voltage wise asset ratio), Voltage wise losses, Category wise break-up of costs related to Metering, Billing and Collection etc. which currently the Petitioner doesn't maintain. Therefore, in absence of the same, the Commission is unable to determine the Category wise Cost of Supply in this Order but directs the Petitioner to start maintaining this data and submit the same in the tariff proceedings of next year. In absence of the requisite data for determination of voltage-wise/category-wise cost of supply as mentioned above, the Commission as part of this Tariff Order has determined the tariff according to the Average Cost of Supply (ACoS).

2. *Tariff Affordability*

a) Context

The Commission understands that the consumer base of Distribution Licensee is varied and covers a wide spectrum of socio-economic backgrounds, specially the domestic category consumers. It is also aware that most low-income households spend a substantial share of their income on utility services such as electricity, heating and water. However, any envisaged tariff reforms are often objected to avoid further burdening of these consumers. But to improve the quality of service of electricity, the Distribution Licensee has to undertake significant capital expenditure which eventually deteriorates the affordability of tariffs. Thus, to tackle this problem and in the spirit of economic wellbeing of all consumer classes, the concept of cross-subsidies has been built into the current tariff structure.

However, the Commission believes that a more scientific and logical approach can be adopted to identify the right categories of consumers and the right cross-subsidy/subsidy requirement that will benefit the end consumers at the same time. Hence, the Commission believes that there is a strong need to develop a scientific methodology to assess the social impact of electricity tariffs.

The overall approach that can be followed for determining the tariff affordability has been discussed as follows.

b) Approach

On reviewing methodologies adopted globally for social impact assessment of electricity tariffs by studying international research reports and studying model practices internationally, the Commission found that Tariff Affordability Ratio (TAR) is a reliable parameter to measure affordability of electricity in households.

TAR is defined by obtaining the burden incurred by a household for electricity as compared to the overall household expenditure. The rationale behind this concept is that the electricity is basic utility and is unavoidable in today's scenario, however, this does not ensure that the expenditure level is in line with the overall household expenditure. Hence, this concept helps to understand the affordability level of electricity on households with different economic levels.

The electricity expenditure can be determined initially for domestic consumers by computing the average consumption levels across each slab and the household expenditure can be estimated from national surveys of household expenditure across economic levels conducted by organizations like NSSO. Thereafter the distribution of consumers of the Distribution Licensee across tariff slabs can be mapped across the established economic levels to develop the final affordability ratio matrix for the Distribution Licensee's domestic consumer base.

Following the identification of the current ratio of Tariff Affordability, the Commission in consultation with the stakeholders will develop benchmarks for acceptable affordability levels by studying trends across countries with a demography and energy scenario similar to that of India and propose appropriate tariffs. The final output shall help understand the Commission to modify tariffs in cases where there is more room for tariff increase or a need to correct tariffs. The exercise would also help the Commission in setting tariff slabs as per the paying capacity of the consumers which would be beneficial especially for Domestic category consumers. Additionally, this shall also help the Government to formulate better schemes to effectively channelize its intended benefits.

The Commission in these tariff proceedings is not carrying out this exercise due to unavailability of accurate data. The Petitioner is directed to ensure the sanctity of the data maintained pertaining to various categories.

Based on the discussions above, the Commission is continuing with its existing approach of determination of tariff for various consumer categories based on the Average Cost of Supply (ACoS) and reduction of Cross Subsidy amongst various consumer categories, ensuring consumer tariffs progressively moving towards the cost.

Keeping in view the above principles and based on the category wise information submitted by the Petitioner, the Commission has determined and restructured the Retail Tariff applicable for FY 2022-23.

As discussed earlier, the cumulative revenue gap for FY 2022-23 at existing tariffs works out to be INR 121.46 Cr. To meet this cumulative revenue gap, the Commission has decided to increase the tariff by way of increasing the fixed charges and energy charges of all consumers categories. Commission has tried to limit the tariff increase in each category in order to safeguard the interests of consumers by avoiding abnormal increase in tariffs. The revision made in the Tariff for all categories is shown as under:

Table 146: Retail Tariff revised by the Commission for FY 2022-23

S. No.	Category	Revised Tariff Schedule (FY 2022-23)	
		Fixed Charges	Energy Charges
1	**LT-D/Domestic**		
1	0 to 50 Units	10 INR/kW/Month	1.60 INR/kWh
2	51 to 200 Units		2.30 INR/kWh
3	201 to 400 Units		2.80 INR/kWh
4	Beyond 401 Units		3.40 INR/kWh
2	**Lifeline Consumer#**	10 INR/kW/month	1.00 INR/kWh
3	**LT-C/Commercial**		
1	1st 100 Units	20 INR/kW/Month	3.35 INR/kWh
2	Beyond 100 Units		4.35 INR/kWh
5	**LT- Ag/ Agriculture**		
1	For sanctioned load up to 10 HP		0.90 INR/kWh
2	Beyond 10 HP and up to 99 HP sanctioned load		1.30 INR/kWh
6	**LT-PL/Public Lighting**		4.30 INR/kWh
7	**LT-Public Water Works**		
	Upto 20 HP Connected Load	50.00 INR/HP/month	4.75
	Above 20 HP Connected Load	100.00 INR /HP/month	4.75
8	**LTP Industry**		
	Upto 20 HP Connected Load	30.00 INR /HP/month	3.65
	Above 20 HP Connected Load	80.00 INR HP/month	3.85
9	**HT**		
	11 kV	400.00 INR /kVA/month	INR 4.30/kVAh
	66 kV	525.00 INR /kVA/month	INR 4.20/kVAh
	220 kV	575.00 INR /kVA/month	INR 4.15/kVAh
10	**Hoardings/Sign Boards**	110.00 INR /kVA/month	INR 7.30/kVAh
11	**EV Charging Station**	-	
	LT Category		INR 5.10/kVAh
	HT Category		INR 4.90/kVAh

 # If the consumption exceeds 50 units per month then Domestic tariff shall be applicable.

6.4.2. 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 147: Existing and Approved tariff by the Commission for FY 2022-23

S. No.	Category	Existing for FY 2021-22		Approved for FY 2022-23	
		Fixed Charges	Energy Charges	Fixed Charges	Energy Charges
1	**LT-D/Domestic**				
(i)	0-50 Units	10.00 INR/ Con/ Month	1.40 INR/ kWh	10.00 INR/ kW/ Month	1.60 INR/ kWh
(ii)	51 to 200 Units		2.10 INR/kWh		2.30 INR/kWh
(iii)	201 to 400 Units		2.60 INR/ kWh		2.80 INR/ kWh
(iv)	Beyond 401 Units		3.20 INR/kWh		3.40 INR/kWh
(v)	Lifeline Consumer#	20.00 INR/ Con/ Month	-	10.00 INR/ kW/ Month	1.00 INR/kWh
2	**LT-Non Domestic/Commercial**				
(i)	0 - 100 Units	20.00 INR/ Con/ Month	3.10 INR/kWh	20.00 INR/ kW/ Month	3.35 INR/kWh
(ii)	Beyond 100 Units		4.10 INR/ kWh		4.35 INR/ kWh
3	**LT- Ag/ Agriculture and Poultry**				
(i)	Upto 10 HP		0.75 INR/kWh		0.90 INR/kWh
(ii)	Beyond 10 HP		1.10 INR/ kWh		1.30 INR/ kWh
4	**LTP Industrial**				
	(a) LTP Motive Power				
(i)	Upto 20 HP Connected Load	20.00 INR/HP/month	3.50 INR/kVAh	30.00 INR/HP/month	3.65 INR/kVAh
(ii)	Above 20 HP Connected Load	80.00 INR/HP/month	3.70 INR/kVAh	80.00 INR/HP/month	3.85 INR/kVAh
	(b) LT Public Water Works				
(i)	Upto 20 HP Connected Load	50.00 INR/HP/Month	4.60 INR/kWh	50.00 INR/HP/Month	4.75 INR/kWh
(ii)	Above 20 HP Connected Load	100.00 INR/HP/Month	4.60 INR/kWh	100.00 INR/HP/Month	4.75 INR/kWh
5	**LT-PL/Public Lighting**				
	Public Lighting	-	4.05 INR/kWh	-	4.30 INR/kWh
6	**HT INDUSTRIAL**				
(i)	11 kV	400.00 INR/kVA/month	4.10 INR/ kVAh	400.00 INR/kVA/month	4.30 INR/ kVAh
(ii)	66 kV	525.00 INR/kVA/month	4.05 INR/ kVAh	525.00 INR/kVA/month	4.20 INR/ kVAh
(iii)	220 kV	575.00 INR/kVA/month	4.00 INR/ kVAh	575.00 INR/kVA/month	4.15 INR/ kVAh
7	**Hoardings/Advertisements**				
	For all units	100.00 INR/kVA/month	7.30 INR/kWh	110.00 INR/kVA/month	7.30 INR/kWh
8	**Charging Stations for e-rickshaw/e-vehicle on single point delivery**				
	LT Category	-	4.70 INR/kWh	-	5.10 INR/kVAh
	HT Category			-	4.90 INR/kVAh

 # If the consumption exceeds 50 units per month then Domestic tariff shall be applicable.

6.4.3. Revenue from Approved Retail Tariff for FY 2022-23

Based on the retail approved tariff as shown above, the revenue from approved tariff is shown in the following table. The Commission has not estimated any revenue for Electric Vehicle (EV) Charging Station and Hoarding / Advertisements category due to unavailability of requisite data. The Commission **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 two categories**. Further, due to unavailability of EV charging station as on date, k-Factor of 1.00 is considered for the same. The revenue from approved Retail Tariff for FY 2022-23 is shown in the Table below:

Table 148: Revenue from Approved Retail Tariff for FY 2022-23

S. No	Category	Fixed Charges (INR Cr)	Energy charges (INR Cr)	Total (INR Cr)	ABR (INR/ unit)	k-factor
1	**DOMESTIC**	**1.35**	**45.14**	**46.49**	**2.61**	**0.50**
(i)	0-50 units	0.26	5.74	6.00	1.67	0.32
(ii)	51-200 units	0.53	14.61	15.14	2.38	0.45
(iii)	201-400 units	0.31	8.69	9.01	2.90	0.55
(iv)	401 and above	0.24	16.10	16.34	3.45	0.65
(v)	Lifeline Consumer	0.02	0.81	0.83		
2	**COMMERCIAL/Non-Domestic**	**0.94**	**16.25**	**17.19**	**4.43**	**0.84**
(i)	0-100 units	0.59	2.14	2.73	4.26	0.81
(ii)	101 Units and Above	0.35	14.10	14.46	4.46	0.84
3	**LT INDUSTRIAL**					
(i)	**LTP Motive Power (For All Units)**	**19.57**	**110.27**	**129.84**	**5.33**	**1.01**
	Up to 20 HP	0.20	2.76	2.96	4.60	0.87
	Above 20 HP	19.37	107.51	126.88	5.35	1.01
(ii)	**LT Public Water Works (For all units)**	0.50	2.54	3.04	5.68	1.08
	Up to 20 HP	0.37	2.54	2.91	5.43	1.03
	Above 20 HP	0.13	0.00	0.13	-	-
4	**HT/EHT INDUSTRIAL**	**671.88**	**2777.44**	**3449.31**	**5.36**	**1.02**
(i)	11 kV	309.11	1225.24	1534.35	5.49	1.04
(ii)	66 kV	172.99	791.03	964.02	5.22	0.99
(iii)	220 kV	189.77	761.17	950.94	5.29	1.00
5	**AGRICULTURE AND POULTRY**	**0.00**	**0.46**	**0.46**	**1.02**	**0.19**
(i)	For sanctioned load upto 10 HP	0.00	0.28	0.28	0.90	0.17
(ii)	Beyond 10 HP	0.00	0.18	0.18	1.30	0.25
6	**PUBLIC LIGHTING**	**0.00**	**1.08**	**1.08**	**4.30**	**0.81**
7	**HOARDINGS/SIGNBOARDS**	0.00	0.00	0.00	-	-
8	**TEMPORARY***	**0.00**	**5.86**	**5.86**	**7.92**	**1.50**
9	**EV CHARGING STATION**	0.00	0.00	0.00	-	-
	Total	**694.25**	**2959.85**	**3654.10**	**5.28**	**1.00**

**Tariff will be 1.5 Times the ABR of relevant category for FY 2022-23*

The Commission approves revenue from approved Retail Tariff of INR 3654.10 Cr for FY 2022-23.

The following table provides the category wise Existing Average Billing Rate (ABR), Approved ABR and the change in tariff for each of the consumer categories.

Table 149: Tariff increase/decrease approved by the Commission

S. No	Category	ABR at existing tariff (INR /kwh)	ABR at approved tariff (INR /kwh)	Increase in ABR (%)
1	Domestic	2.41	2.61	8.67%
2	LT Commercial	3.99	4.43	11.02%
3	Agriculture	0.86	1.02	19.29%
4	LT Industrial	5.15	5.33	3.48%
5	Public Lighting	4.05	4.305	6.17%
6	Public Water Works	5.53	5.68	2.71%
7	HT Industrial	5.18	5.36	3.38%
8	Temporary	7.65	7.92	3.49%
9	**Total**	**5.10**	**5.28**	**3.49%**

The average increase in the retail tariff now approved by the Commission is 3.49% as compared to existing tariff.

6.4.4. Balance Revenue Gap/ Surplus at approved Retail Tariff

Accordingly, upon consideration of revenue at approved tariff, the resultant Revenue Gap/(Surplus) has been shown in the following table:

Table 150: Cumulative Revenue Gap/ (Surplus) at approved Retail Tariff for FY 2022-23 (INR Crore)

Sr. No.	Particulars	Value
1	Total Revenue Gap till FY 2022-23 at existing tariff	121.46
2	Additional Revenue	123.31
3	**Balance Gap/(Surplus)**	**(1.86)**

The Commission approves a cumulative revenue surplus of INR 1.86 Cr till FY 2022-23 which will be considered at the time of truing up.

6.4.5. Highlights of the Tariff Structure

The highlights of the tariff structure approved by the Commission for FY 2022-23 are as follows:

1. The Commission has made every effort to rationalise the tariffs so that they gradually reflect the average cost of supply in accordance with the provisions of the Act and Tariff Policy. Accordingly, the Commission has approved relatively higher percentage increase in tariff for cross-subsidised categories than the cross-subsiding categories.
2. The Commission has approved an average tariff hike of 3.49%.
3. The Commission in order to rationalise the fixed charges of domestic and Commercial Category has approved the Fixed Charges in INR/kW instead of prevalent mechanism of INR/connection.

6.4.6. Cross Subsidy

As per Section 61 (g) of the Electricity Act 2003

*"(g) that the **tariff progressively reflects the cost of supply** of electricity and also, **reduces and eliminates cross-subsidies** within the period to be specified by the Appropriate Commission;"*

For reduction of cross subsidies, the Tariff Policy 2016 in Section 8.3 stipulates as below:

*"For achieving the objective that the tariff progressively reflects the cost of supply of electricity, the Appropriate Commission would notify a roadmap such that tariffs are brought **within ±20% of the average cost of supply**. The road map would also have intermediate milestones, based on the approach of a gradual reduction in cross subsidy."*

In order to achieve the objectives of the Tariff Policy 2016 of bringing down the cross subsidy levels amongst various consumer categories within ±20% of the average cost of supply, the Commission has tried to rationalize the tariff applicable to various consumer categories.

The limit of cross subsidy, as envisaged in the Tariff Policy 2016, cannot be achieved by rationalizing the tariff in a single year, as this may lead to tariff shock to the cross subsidized consumers. In this Tariff Order, the Commission has continued its approach of rationalization of the tariff for various consumer categories and reducing the cross subsidy.

Accordingly, in this Tariff Order, the Commission has designed tariff for various consumer categories considering the Average Cost of supply in line with the provisions of the Tariff Policy, 2016. While designing the tariff for FY 2022-23, the Commission has reduced the cross-subsidy levels with an endeavored to bring the same within range specified in Tariff Policy 2016. To achieve this objective, the Commission has increased the tariff levels for cross-subsidized categories by higher than the average hike and either reduced/maintained the tariff levels or increased tariff at lower than average tariff hike for cross-subsidizing categories.

The cross subsidy levels for various consumer categories at existing and approved tariff are shown in the table below:

Table 151: Cross Subsidy at Retail Tariff for FY 2022-23 (INR Crore)

Category	ACoS (INR/kWh) - A	ABR at existing tariff (INR/kWh) – B	ABR at approved tariff (INR/kWh) – C	Cross Subsidy level at existing tariff (%) D= (1-B/A) x 100	Cross Subsidy level at approved tariff (%) E= (1-C/A) x 100
Domestic	5.17	2.41	2.61	(53.46%)	(49.44)%
LT Commercial	5.17	3.99	4.43	(22.86%	(14.40)%
Agriculture	5.17	0.86	1.02	(83.42%)	(80.23)%
Public Lighting	5.17	4.05	4.30	(21.66%)	(16.86)%
Public Water Works	5.17	5.53	5.68	6.92%	9.78%
LT Industrial	5.17	5.15	5.33	(0.45%)	2.98%
HT Industrial	5.17	5.18	5.36	0.28%	3.63%

7. Chapter 7 Open Access Charges for the FY 2022-23

7.1. Determination of Additional Surcharge

Petitioner's submission

The Petitioner has submitted the following calculations for Additional Surcharge for FY 2022-23:

Table 152: Additional Surcharge submitted by Petitioner for FY 2022-23

Particulars	Value
Total Power Purchase cost (INR Crores)	3,399.90
Fixed Cost component in Power Purchase Cost (including Transmission Charges) (INR Crores)	1479.87
Energy Sales (MU)	6,809.35
Additional Surcharge (INR/kWh)	**2.17**

<u>Commission's Analysis</u>

The Commission has notified the Joint Electricity Regulatory Commission for the State of Goa and Union Territories (Connectivity and Open Access in Intra-State Transmission and Distribution) Regulations, 2017. Regulation 4.5 (1) of the said Regulations states the following:

"**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

…….

<u>b. Open Access Consumer, who is also a Consumer of the Distribution Licensee</u>

……

The quantum of drawal of electricity by a partial Open Access Consumer from the Distribution Licensee during any Time Block of a Day should not exceed the "Admissible Drawl of Electricity by the Open Access Consumer" which is the difference of Contract Demand and maximum quantum of Open Access for which approval has been granted by the Nodal Agency.

[Illustration: If an Open Access Consumer with a Contract Demand of 10 MW has been given an approval for a maximum Open Access quantum of 6MW for a period of 3 Months, the Admissible Drawl of Electricity from the Distribution Licensee during any Time Block shall be 4 MW for any Day during a period of 3 Months.]"

Therefore, in accordance with the above Regulations, the Commission has determined the Additional Surcharge as per the following:

Table 153: Additional Surcharge approved by Commission for FY 2022-23

S. No.	Particulars	Value
1	Total Power Purchase Fixed Cost approved for (excluding transmission charges) (INR Crores)	986.62
2	Energy Sales (MUs)	6923.89
3	**Additional Surcharge (INR/kWh)**	**1.42**

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 1.42/kWh for FY 2022-23.

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.

7.2. Determination of Wheeling Charges

7.2.1. Allocation Matrix - Allocation of ARR into Wheeling and Retail Supply of Electricity

Petitioner's submission:

The Petitioner has submitted the following calculations for Additional Surcharge for FY 2022-23:

Table 154: Allocation of ARR between Wheeling and Retail Supply as submitted by Petitioner for FY 2022-23

Annual Revenue Requirement	Allocation (%)		Allocation FY 2022-23	
INR Crore	Wheeling	Supply	Wheeling	Supply
Fuel Cost	0%	100%	0.00	0.00
Power Purchase Cost	0%	100%	-	3,399.90
Employee	40%	60%	6.34	9.50
R&M	90%	10%	25.57	2.84
A&G	50%	50%	2.39	2.39
Depreciation	90%	10%	20.95	2.33
Interest Cost on Long-term Capital Loans	90%	10%	7.34	0.82
Interest on Working Capital Loans	10%	90%	1.97	17.74
Interest on Security Deposit	10%	90%	0.32	2.88

Annual Revenue Requirement	Allocation (%)		Allocation FY 2022-23	
INR Crore	Wheeling	Supply	Wheeling	Supply
Return on Equity	90%	10%	27.21	3.02
Income Tax	90%	10%	18.00	2.00
Provision for Bad & Doubtful Debt	0%	100%	-	-
Annual Revenue Requirement			**110.08**	**3443.42**
Less: Non-Tariff Income	10%	90%	0.59	5.28
Less: Income from other business	50%	50%	-	-
Net Revenue Requirement			**109.50**	**3438.14**

In order to determine the wheeling charges the Petitioner has allocated the wheeling cost on the basis of voltage levels. The criteria for allocation of wheeling costs are elaborated as follows:

- O&M Expenses are allocated on the basis of number of consumers under each category.
- All expenses other than the O&M expenses are allocated on the basis of voltage wise asset allocation. The voltage wise asset allocation assumed and the number of consumers in each category as submitted by the Petitioner is shown in table below.

Table 155: Parameters assumed by Petitioner for voltage wise allocation of wheeling charges

Category	Consumers	Sales (MU)	Asset Allocation (%)	Voltage wise losses (%)	Energy Input
Below 11 kV-LT	92041	487.66	40%	22.50%	629.21
11 kV	892	2,742.98	30%	3.80%	2851.33
66 kV	32	1,813.06	20%	1.50%	1840.67
220 kV	2	1,765.64	10%	0.60%	1776.30
Total	**92967**	**6809.35**	**100%**	**4.06%**	**7097.51**

Table 156: Wheeling Charges proposed by the Petitioner for FY 2022-23

Category	O&M	Others	Total	Wheeling Charges (Rs. /kWh)
Below 11 kV-LT	33.95	30.08	64.03	1.02
11 kV	0.33	22.56	22.89	0.08
66 kV	0.01	15.04	15.05	0.08
220 kV	0.00	7.52	7.52	0.04
Total	**34.29**	**75.21**	**109.50**	

<u>Commission's Analysis</u>

As per JERC MYT Regulations 2021,

"49.1 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 Commission as per the MYT Regulations, 2021 has calculated the wheeling charges while taking into consideration the allocation matrix and the ARR approved in the Tariff order for FY 2022-23. The allocation between wheeling and retail supply business for FY 2022-23 as per the ARR approved in this Order is provided in the table below:

Table 157: Allocation matrix approved Commission

Annual Revenue Requirement	Allocation (%)		Allocation FY 2022-23	
INR Cr.	**Wheeling**	**Supply**	**Wheeling**	**Supply**
Power Purchase Cost	0%	100%	0.00	3448.38
Employee	40%	60%	7.05	10.58
A&G	50%	50%	4.78	4.78
R&M	90%	10%	12.54	1.39
Depreciation	90%	10%	19.09	2.12
Interest Cost on Long-term Capital Loans	90%	10%	6.88	0.76
Interest on Working Capital Loans	10%	90%	2.06	18.54
Interest on Security Deposit	10%	90%	0.32	2.88
Return on Equity			22.21	2.55
Provision for Bad & Doubtful Debts	0%	100%	0.00	0.00
Income Tax	90%	10%	18.00	2.00
Annual Revenue Requirement			92.94	3493.98
Less: Non-Tariff Income	10%	90%	0.59	5.28
Less: Income from other business	50%	50%	0.00	0.00
Net Revenue Requirement			**92.35**	**3488.70**

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 on the basis of number of consumers under each category.

All expenses other than the O&M expenses are allocated on the basis of voltage wise asset allocation. The same has considered based on Petitioner's submission in this regard. However, the Commission considering that there are three consumers in EHT category has assumed 10% asset allocation at this voltage level.

The voltage wise asset allocation assumed and the number of consumers in each category has been shown as follows:

Table 158: Parameters assumed for voltage wise allocation of wheeling charges

Category	Consumers	Sales (MU)	Asset Allocation (%)	Voltage wise losses (%)	Energy Input
Below 11 kV-LT	93955	488.29	40%	22.15%	627.18
11 kV	896	2792.41	30%	1.93%	2847.36
66 kV	27	1845.73	20%	1.58%	1875.36
220 kV	3	1797.46	10%	0.30%	1802.87
Total	94881	6923.89	100%	3.20%	7152.78

Accordingly, the Commission approves the Wheeling Charges as follows:

Table 159: Wheeling Charges approved by Commission for FY 2022-23

Category	O&M	Others	Total	Wheeling Charges (INR /kWh)
Below 11 kV-LT	24.13	27.19	51.33	1.05
11 kV	0.23	20.39	20.62	0.07
66 kV	0.01	13.60	13.60	0.07
220 kV	0.00	6.80	6.80	0.04
Total	**24.37**	**67.98**	**92.35**	

The Commission approves wheeling charge of INR 1.05/ kWh at LT voltage level, and INR 0.07/kWh at 11 kV and 66 kV voltage level and INR 0.04/kWh at 220 kV voltage level for FY 2022-23.

7.3. Cross-Subsidy Surcharge

The Petitioner has determined the cross-subsidy charges on the basis of average cost of supply and is shown in the following table:

Table 160: Cross-subsidy Surcharge for FY 2022-23 submitted by Petitioner

Category	VCoS (INR/kWh)	ABR (INR/kWh)	Cross-Subsidy (INR/kWh)
Below 11 kV-LT	7.99	3.80	-4.18
11 kV	5.09	5.30	0.21
66 kV	4.97	5.08	0.11
220 kV	4.88	5.15	0.27

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 11kV, 66kV & 220 kV voltage categories. The remaining losses are adjusted in the LT voltage level in order to maintain the Intra-State T&D losses at 3.20%, as approved in the ARR for FY 2022-23. Voltage wise losses assumed at each level have been shown in the table below:

Table 161: Voltage Wise Losses considered by the Commission

Category	Voltage Level Loss (%)	Cumulative Losses upto that voltage level (%)
Below 11kV	22.15%	22.15%
11kV	1.93%	3.81%
66kV	1.58%	1.88%
220 kV	0.30%	0.30%
Total	**3.20%**	**3.20%**

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 162: Energy Input at each voltage level (MU)

Category	Energy Sales (MU)	Cumulative Losses (%)	Energy Input (MU)
Below 11kV	488.29	22.15%	627.18
11kV	2792.41	3.81%	2847.36
66kV	1845.73	1.88%	1875.36
220 kV	1797.46	0.30%	1802.87
Total	**6923.89**	**3.20%**	**7152.78**

Now the overall ARR approved for FY 2022-23 is divided into variable and fixed ARR with variable ARR comprising of variable component of power purchase cost and fixed ARR comprising of all the other costs.

The fixed component comprising of fixed cost of power purchase, O&M etc. is further allocated to each voltage category as per the following principles:

- The fixed cost of power purchase is assigned to each voltage level on the basis of energy input at respective voltage levels.
- The O&M expenses are allocated to each voltage level on the basis of the number of consumers. The resultant cost allocated to 220 kV level is then further allocated to 66 kV, 11 kV & LT level on the basis of input energy, as the 220 kV network is utilized by remaining network consumers. Similarly, 66 kV and 11 kV costs are allocated to the lower levels following the same approach.
- The remaining fixed costs are allocated on the basis of voltage wise asset allocation assumed earlier and further allocated to respective voltage levels on the basis of input energy.

Table 163: Parameters used for allocation of fixed costs

Category	Energy Input (MU)	Number of Consumers	Voltage wise Asset Allocation (%)
Below 11kV	627.18	40.00%	93955
11kV	2847.36	30.00%	896
66kV	1875.36	20.00%	27
220 kV	1802.87	10.00%	3
Total	**7152.78**	**100.00%**	**94881**

The variable component of the Power purchase cost is allocated on the basis of energy input. The Voltage wise Cost of Supply (VCoS) is then determined on the basis of energy sales of respective categories. Accordingly, the VCoS is determined as shown in the table below:

Table 164: Voltage Wise Cost of Supply (VCoS)

Category	Allocated Fixed Cost (INR Crore)	Allocated Variable Cost (INR Crore)	Total Cost (INR Crore)	Energy Sales (MU)	VCoS (INR/kwh)
Below 11kV	209.58	162.68	372.25	488.29	7.62
11kV	628.44	738.55	1366.99	2792.41	4.90
66kV	413.89	486.43	900.32	1845.73	4.88
220 kV	389.45	467.63	857.08	1797.46	4.77
Total	1641.35	1855.28	3496.64	6923.89	

The VCoS as determined above is used to determine the Cross-Subsidy Surcharge as shown in table below:

Table 165: Cross-Subsidy Surcharge approved by the Commission for FY 2022-23

Category	VCoS (INR/kWh)	ABR (INR/kWh)	Cross- Subsidy Surcharge (INR/kWh)
Below 11kV	7.62	4.19	(3.43)
11kV	4.90	5.49	0.60
66kV	4.88	5.22	0.35
220 kV	4.77	5.29	0.52

Therefore, the Commission approves INR 0.60/kWh for 11 kV, INR 0.35/kWh for 66 kV, INR 0.52/kWh for 220 kV consumers and Nil for below 11 kV consumers as Cross-Subsidy Surcharge for FY 2022-23.

7.4. Other Charges

All other charges would be 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 & 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 20222-23 will be undertaken by the Commission once the audited accounts of the FY 2022-23 are available. If the audited accounts for the FY 2022-23 are prepared timely, the impact of True-up of various cost and revenue items is allowed in the tariff of the FY 2024-25, 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 judgment 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. The relevant amendment to the Regulation has been shown as follows:

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.

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.

1. **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 LIG 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 LIG category consumers for a quarter as approved in the relevant Tariff Order

2. 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 LIG and the agriculture category consumers.

3. The FPPCA charges for a quarter shall be limited to a $\pm$10% of the ABR of the consumer category. The distribution licensee shall be allowed to collect the FPPCA without obtaining 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 $\pm$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 per unit for the FY 2021-22 as shown in following table.

Table 166: $R_{approved}$ determined by Commission for FY 2022-23

S. No.	Particulars	Value
1	Total Power Purchase Cost (INR Crore), Papp	3,448.38
2	Transmission Charges (INR Crore), T_{app}	522.23
3	Power Purchase Quantum from CGS Stations at Generator Ex-bus (NTPC, NSPCL, NPCIL, EMCO) (MU), PPO_{app}	6,812.38
4	Approved Weighted Average Inter-State Transmission Loss (%), TL_{app}	3.66%
5	Power Purchase Quantum from sources within State/ Open Market, PPI_{app}	590.67
6	Quantum of Sale of Surplus Power (MU), PSO_{app}	-
7	Approved Intra-State T&D Loss (%), DL_{app}	3.20%
8	Energy Sales for LIG and Agriculture consumer category (MU), Z_{app} (MU)	12.63
9	**R_{app} (INR/kWh)**	**5.74**

9. Chapter 9: Directives

Over the years, the Commission has issued various directives to the Petitioner for necessary action at its end. It has been observed that the Petitioner is not fully complying with many of the directives issued by the Commission. In order to strengthen the effective monitoring and ensure timely implementation of all the directives in true spirit, the Commission hereby directs that the Petitioner shall now compulsorily submit:

- **The detailed action plan for compliance of all the directives within 1 month of the issuance of this Order.**
- The quarterly progress report as per the detailed action plan for all the directives issued in the subsequent sections within 15 days of the end of each quarter of the calendar year.

9.1. Directives Continued/ Dropped 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 appropriate necessary action under the Electricity Act 2003 and the Regulations made thereunder.

9.1.1. Quarterly Statement of Capital Expenditure

Originally Issued in Tariff Order dated 31st July 2012
Commission's Directive in Tariff Order Dated 23rd March 2021 With regards to non-submission of quarterly report on capital expenditure and capitalization, the Commission directed the Petitioner as follows: The Commission has noted with concern that Petitioner is yet to submit the details as sought by the Commission. The Commission now directs the Petitioner to ensure compliance of this directive and submit the desired reports on quarterly basis, failing which the Commission will be constrained to take appropriate action against the Petitioner.
Petitioner's Response in the Present Tariff Petition *The DNHPDCL would like to submit that the Quarterly report will be submitted to the Commission shortly.*
Commission's direction in this Tariff Order *The Commission has noted with concern that Petitioner is yet to submit the details as sought by the Commission. The Commission now directs the Petitioner to ensure compliance of this directive and submit the desired reports on quarterly basis, failing which the Commission will be constrained to take appropriate action against the Petitioner.*

9.1.2. Implementation of Smart Grid

Originally Issued in Tariff Order dated 07th April 2016
Petitioner's Response The DNHPDCL would like to submit the Silvassa town is declared as a Smart City. Accordingly, measures will be taken up for implementation of Smart Grid projects
Commission's Response in Tariff order dated 23rd March 2021

The Commission notes the submission of the Petitioner with concern and directs it to submit a detailed action plan by 30th September 2021 for rolling out of the smart grid in DNH district within this MYT Control Period.
Petitioner's Response in the Present Tariff Petition The DNHPDCL would like to submit that the detailed action plan will be submitted to the Commission shortly.
Commission's direction in this Tariff Order *The Commission notes the submission of the Petitioner has submitted that the said plan is scrapped.*

9.1.3. Information for determination of Voltage-wise Wheeling Charges

Originally Issued in Tariff Order dated 07th April 2016
Commission's Directive in Tariff Order Dated 23rd March 2021 The Commission notes the submission of the Petitioner with concern and directs it to submit details of voltage wise assets and expenses along with the allocation methodology including allocation at EHT level along with next Tariff Petition.
Petitioner's Response in the Present Tariff Petition The DNHPDCL would like to submit that the details for the EHT consumers shall be submitted to the Commission shortly.
Commission's direction in this Tariff Order *The Commission notes the submission of the Petitioner with concern and directs it to submit details of voltage wise assets and expenses along with the allocation methodology including allocation at EHT level along with next Tariff Petition.*

9.1.4. Timely Submission of Reports

Originally Issued in Tariff Order dated 18th May 2020
Commission's Directive in Tariff Order Dated 23rd March 2021 *The Commission has noted the compliance to the above directive and noticed that the petitioner has not submitted the report related to SAIFI/SAIDI in past on regular basis. Accordingly, the Commission directs the petitioner to submit the aforementioned reports regularly in future*
Petitioner's Response in the Present Tariff Petition The DNHPDCL would like to submit that the report related to SAIFI/SAIDI shall be submitted to the Commission shortly.
Commission's direction in this Tariff Order *The Commission noticed that the petitioner has not submitted the report related to SAIFI/SAIDI in past on regular basis. The Commission directs the petitioner to submit the aforementioned reports regularly in future with respect to the approved trajectory in the Business Plan Order for the upcoming Control Period.*

9.1.5. Quarterly details of Stranded Power (Open Access)

Originally Issued in Tariff Order dated 18th May 2020
Commission's Directive in Tariff Order Dated 23rd March 2021 *The Commission has noted the compliance to the above directive and directs the petitioner to submit the aforementioned report in future if the power is availed by the consumers through open access.*
Petitioner's Response in the Present Tariff Petition The DNHPDCL would like to submit that as per direction given by the Commission, the Corporation will comply with the same.
Commission's direction in this Tariff Order *The Commission directs the petitioner to submit the aforementioned report in future if the power is availed by the consumers through open access.*

9.1.6. Quarterly RPO Compliance Report Submission

Originally Issued in Tariff Order dated 18th May 2020
Commission's Directive in Tariff Order Dated 23rd March 2021 The Commission directs the Petitioner to submit quarterly RPO report henceforth timely within 15 days of the subsequent quarter.
Petitioner's Response in the Present Tariff Petition The DNHPDCL would like to submit that RPO reports are being submitted quarterly to the Commission.
Commission's direction in this Tariff Order *The Commission has noted the compliance to the above directive and directs the petitioner to submit the aforementioned quarterly report regularly in future also. Accordingly, the Commission now drops this directive.*

9.1.7. Status of Metering

Originally Issued in Tariff Order dated 18th May 2020
Commission's Directive in Tariff Order Dated 23rd March 2021 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 metered basis and assessment basis within three months from the issuance of this Tariff Order.
Petitioner's Response in the Present Tariff Petition The DNHPDCL would like to submit that the details regarding metering have submitted to the Commission as per the format provided to the utilities. Further, all the details were also submitted during the course of Suo-moto hearing to the Commission.
Commission's direction 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.*

9.2. New Directives issued in this Order

9.2.1. Voltage wise Cost of Supply

The Commission directs the Petitioner to start maintaining the following data for computing Voltage wise Cost of Supply and Category wise Cost to Serve and submit the same in the tariff proceedings of next year.

- *Category wise co-incident and non- co-incident demand*
- *Voltage wise value of assets (Voltage wise asset ratio)*
- *Voltage wise Energy Input*
- *Voltage wise losses*
- *Voltage-wise Employee, A&G and R&M expenses*
- *Category wise break-up of costs related to Metering, Billing and Collection*
- *Voltage wise No. of Consumers, Connected Load and Energy Sales*

The Commission also directs the Petitioner to submit the Voltage Wise Cost of Supply and propose the tariffs based on Voltage wise Cost of Supply in the tariff proceedings of next year.

9.2.2. Details of Consumer Security Deposit

The Commission directs the Petitioner to submit the details of the Consumer Security Deposit for each financial year starting from FY 2021-22 onwards indicating the opening balance, additions, refunds, interest payable , closing balance and Interest actually paid along with the Tariff Petition to be submitted henceforth.

9.2.3. Details of Income Tax Assessment Order

The Commission directs the Petitioner to submit the details of the Income Tax Assessment Order for previous three years and should submit the assessment order carried out in the financial year while filing the tariff petition henceforth.

10. Chapter 10: Tariff Schedule

10.1. Tariff Schedule

Table 167: Tariff Schedule for FY 2022-23

S. No.	Category	Fixed Charges	Energy Charges
1.	**DOMESTIC**		
(i)	0-50 units	10.00 INR/kW/Month	1.60 INR/kWh
(ii)	51-200 units		2.30 INR/kWh
(iii)	201-400 units		2.80 INR/kWh
(iv)	401 and above		3.40 INR/kWh
(v)	Life Line Consumer# (Up to 2x40 W bulbs only)	10.00 INR/kW/Month	1.00 INR/kWh
2.	**NON DOMESTIC/COMMERCIAL**		
(i)	0-100 units	20.00 INR/kW/Month	3.35 INR/kWh
(ii)	101 units and above	20.00 INR/kW/Month	4.35 INR/kWh
3.	**LT INDUSTRIAL**		
(a)	LTP Motive Power		
(i)	Up to 20 HP	30.00 INR/HP/Month	3.65 INR/kVAh
(ii)	Above 20 HP	80.00 INR/HP/Month	3.85 INR/kVAh
(b)	LT Public Water Works		
(i)	*Up to 20 HP*	50.00 INR/HP/Month	4.75 INR/kWh
(ii)	*Above 20 HP*	100.00 INR/HP/Month	4.75 INR/kWh
4.	**HT/EHT INDUSTRIAL**		
(i)	11 kV supply	400.00 INR/kVA/month	4.30 INR/kVAh
(ii)	66 kV supply	525.00 INR/kVA/month	4.20 INR/kVAh
(iii)	220 kV supply	575.00 INR/kVA/month	4.15 INR/kVAh
5.	**AGRICULTURE AND POULTRY**		
(i)	For sanctioned load up to 10 HP	-	0.90 INR/kWh
(ii)	Beyond 10 HP	-	1.30 INR/kWh
6.	**PUBLIC LIGHTING**		
(i)	For all units	-	4.30 INR/kWh
7.	**HOARDINGS/ SIGNBOARDS**		
(i)	Hoarding/ Signboards	INR 110 per kVA per Month or part thereof	7.30 INR/kWh
8.	**ELECTRIC VEHICLE CHARGING**		
(i)	LT Category	-	5.10 INR/kVAh
	HT Category	-	4.90 INR/kVAh
9.	**Temporary Supply**		

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S. No.	Category	Fixed Charges	Energy Charges
(i)	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.		
# If the consumption exceeds 50 units per month then Domestic tariff shall be applicable.			

10.2. Applicability

Table 168: Applicability of Tariff Schedule for FY 2022-23

S. No	Category	Applicability
1.	**Domestic**	This schedule shall apply to private houses, hospitals run on Non-commercial lines, Government Schools (including Government Schools Hostels), Charitable Religious Institutions for Light, Fans, Radios, Domestic Heating and other household appliances including water pumps up to 2 HP.
2.	**Non Domestic/ Commercial**	This schedule shall apply to Shops, Offices, Restaurants, Bus Stations, Schools (other than Govt. schools & their hostels), Photo Studios, Laundries, Cinema Theatres, Industrial Lighting, clubs and other Commercial installations. This includes all categories which are not covered by other tariff categories including Domestic Category, Lifeline Consumer, Industrial LT, HT/EHT Category (A&B), Agriculture and Poultry, Public Lighting.
3.	**LT Industrial**	This schedule shall apply to all Low Tension Industrial Motive Power Connections including water works/pumps with sanctioned load up to 99 HP.
4.	**HT 11 kV supply**	This schedule shall apply to all Industrial/Motive power/ Ferro Metallurgical / Steel Melting / Steel Rerolling / Power Intensive consumers drawing through 11 kV systems
5.	**HT 66 kV supply**	This schedule shall apply to all Industrial/Motive power/ Ferro Metallurgical / Steel Melting / Steel Rerolling / Power Intensive consumers drawing through 66 kV systems
6.	**HT 220 kV supply**	This schedule shall apply to all Industrial/Motive power/ Ferro Metallurgical / Steel Melting / Steel Rerolling / Power Intensive consumers drawing through 220 kV systems
7.	**Agriculture and Poultry**	This schedule shall apply to Agriculture or poultry loads up to 99 HP sanctioned load will be considered in this category.
8.	**Public Lighting**	-
9.	**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

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S. No	Category	Applicability
		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.
10.	**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.
11.	**Electric Charging Station**	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).

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 Charge**s - LT Commercial 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 amendment 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. DNHPDCL may 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.

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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 Regulations. 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 1.5% 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. 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 Order. Such charges shall be recovered/refunded in accordance with the terms and conditions specified in the FPPCA formula.

15. 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 for the FY 2020-21.

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10.4. Schedule of Miscellaneous Charges

Table 169: 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 50/-
• Three Phase LT	INR 100/-
HT Services	INR 1000/-
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 Equipments	
Single Phase	INR 100/-
Three Phase	INR 300/-
Three Phase Tri-vector Meter (0.5 Class) Industrial LT Consumer	INR 500/-
Three Phase Tri-vector Meter (0.5 Class) 11 kV HT Consumer	INR 500/-
Three Phase Tri-vector Meter (0.2 Class) 66 KV EHT Consumers	INR 1000/-
Combined CT/PT Unit for 11 KV Consumer	INR 500/-
66 KV CT/ PT Unit	INR 500/-
Three Phase CT Block	INR 300/-
CT Coil	INR 100/-
Service Connection Charges	
Single Phase LT	INR250/-
Three Phase LT	INR1,000/-
HT (First 500 KVA)	INR10,000/-
HT (Beyond 500 KVA)	INR1,000/- per 100 KVA or part thereof
Extra Length - Single Phase	INR25/- per meter
Extra Length - Three Phase	INR50/- 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.	

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Description	Approved Charges
Entire Cost of setting up HT connection would be borne by the consumer and 15% supervision charges shall be recovered by DNHPDCL on labor component only as per JERC Supply Code 2018.	
Fees (Non-refundable) for submission of Test Report of wiring Completion	
Single Phase Lighting / Domestic	INR 10/- Per Test Report
Three Phase Lighting / Domestic	INR 25/- Per Test Report
Single Phase Lighting / Non Domestic	INR 50/- Per Test Report
Three Phase Lighting / Non Domestic	INR 100/- Per Test Report
Three Phase LT Industries	INR 250/- Per Test Report
Single Phase / Three phase Agriculture / Streetlight / Public Lighting & others	INR 50/- Per Test Report
HT Industries upto 500 KVA	INR 1,000/- Per Test Report
HT Industries upto 2500 KVA	INR 5,000/- Per Test Report
HT Industries above 2500 KVA	INR 10,000/- Per Test Report
Registration for Change of Name	
1 Phase Domestic / commercial	
3 Phase Domestic / commercial	200
LT Industries	500
HT Industries	1000
EHV Industries	2000
Shifting of meter	
1 Phase Domestic / commercial	100
3 Phase Domestic / commercial	200
LT Industries	500

Annexures

Annexure I: List of Stakeholders

The following is the list of the participants who have attended the Virtual Public Hearing on February 2, 2022:

Table 170: List of participants in Public Hearing

S. No.	Name of Stakeholders	Designation
1.	Shri Chandrakant M. Parekh	President FIA, Silvassa
2.	Shri P.K.Jadia	Executive Secretary, FIA, Silvassa