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BEFORE THE HON'BLE JOINT ELECTRICITY REGULATORY COMMISSION
FOR THE STATE OF GOA AND UNION TERRITORIES,
GURGAON, HARYANA

FILE No.: _____

CASE No.: _____

IN THE MATTER OF:

Tariff Petition for True-up of FY 2020-21 and FY 2021-22,
Annual Performance Review of FY 2022-23 and Aggregate
Revenue Requirement (ARR) Tariff Proposal for FY 2023-24
Electricity Wing of Engineering Department, UT, Chandigarh
(EWEDC).

JD 0006602344

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AND

IN THE MATTER OF: Electricity Wing of Engineering Department, Chandigarh,
Deluxe Building, Sector - 9D, Chandigarh, UT
(**PETITIONER**).

AFFIDAVIT VERIFYING THE PETITION

I, Anil Dhamija son of Sh. G.L. Dhamija, aged 57 years do hereby solemnly affirm and state as follows: -

1. That the deponent is the Superintending Engineer of Electricity Wing of Engineering Department, Chandigarh and is authorized to sign and submit the said petition, and is acquainted with the facts deposed to below.
2. I, on behalf of Electricity Wing of Engineering Department, Chandigarh, hereby verify that the contents of the accompanying the **Tariff Petition for True-up of FY 2020-21 and FY 2021-22, Annual Performance Review of FY 2022-23 and Aggregate Revenue Requirement (ARR) Tariff Proposal for FY 2023-24 Electricity Wing of Engineering Department, UT, Chandigarh (EWEDC)** are based on the records of the Electricity Wing of Engineering Department, Chandigarh maintained in the ordinary course of business and believed to be true and no part of it is false and no material has been concealed therein.

Details of enclosure:

- a) Tariff Petition for True-up of FY 2020-21 and FY 2021-22, Annual Performance Review of FY 2022-23 and Aggregate Revenue Requirement (ARR) Tariff Proposal for FY 2023-24 Electricity Wing of Engineering Department, UT, Chandigarh (EWEDC).

Place: Chandigarh.

Dated: 30th January, 2023.


DEPONENT

VERIFICATION

I, the above named deponent, do hereby verify on this day the 30th day of January, 2023 at Chandigarh and state that the contents of the foregoing submission are true and correct as per record. Nothing stated therein is false and nothing material has been concealed.



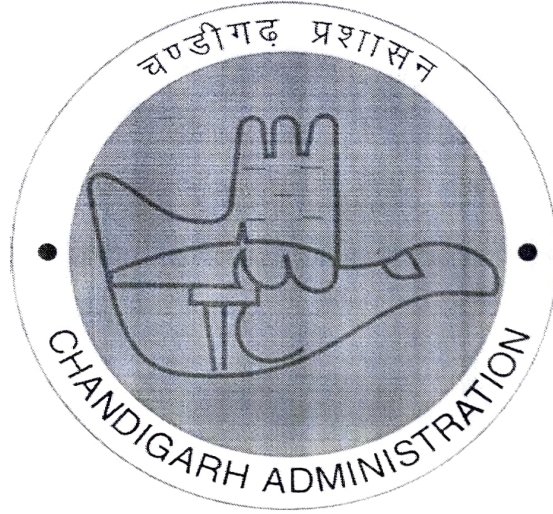
Place: Chandigarh.

Dated: 30th January, 2023.


DEPONENT

ATTESTED AS IDENTIFIED

SURESH KUMAR, D.D. CLERK
EXECUTIVE MAGISTRATE
U.T. CHANDIGARH



**PETITION FOR
TRUE-UP OF FY 2020-21 & FY 2021-22,
ANNUAL PERFORMANCE REVIEW OF FY 2022-23
AND AGGREGATE REVENUE REQUIREMENT FOR FY 2023-24 &
TARIFF PROPOSAL FOR FY 2023-24 OF ELECTRICITY WING OF
ENGINEERING DEPARTMENT, CHANDIGARH**

Submitted to Joint Electricity Regulatory Commission, Gurugram, Haryana

On 30 January 2023

BY

ELECTRICITY WING OF ENGINEERING DEPARTMENT, CHANDIGARH

BEFORE THE HON'BLE JOINT ELECTRICITY REGULATORY COMMISSION

Filing No:

Case No:

IN THE MATTER OF:

Tariff Petition for True-up of FY 2020-21 and FY 2021-22, Annual Performance Review of FY 2022-23 and Aggregate Revenue Requirement (ARR) Tariff Proposal for FY 2023-24 Electricity Wing of Engineering Department, UT, Chandigarh (EWEDC)

AND IN THE MATTER OF:

Electricity Wing of Engineering
Department, Chandigarh
Deluxe Building, Sector - 9D
Chandigarh - UT

PETITIONER

PETITIONER, UNDER SECTIONS 45, 46, 61, 62 AND 64 OF THE ELECTRICITY ACT, 2003 FILES FOR INITIATION OF PROCEEDINGS BY THE HON'BLE COMMISSION FOR DECIDING ON THE MATTERS CONCERNING THE APPROVAL OF THE TARIFF PETITION FOR TRUE-UP OF FY 2020-21 AND FY 2021-22, ANNUAL PERFORMANCE REVIEW OF FY 2022-23 AND AGGREGATE REVENUE REQUIREMENT (ARR) TARIFF PROPOSAL FOR FY 2023-24 ELECTRICITY WING OF ENGINEERING DEPARTMENT, UT, CHANDIGARH (EWEDC)

The applicant respectfully submits hereunder:

- 1) The Petitioner, the Electricity Wing of Engineering Department, Chandigarh (EWEDC) has been allowed to function as an integrated Distribution licensee for the license area of Chandigarh UT.
- 2) Pursuant to the enactment of the Electricity Act, 2003, EWEDC is required to submit its Annual Revenue Requirement (ARR) and Tariff Petition as per the procedures outlined in section 61, 62 & 64 of EA 2003, and the governing regulations thereof.
- 3) EWEDC has submitted its petition for determination of Annual Revenue Requirement and tariff proposal for FY 2023-24 on the basis of the principles outlined in the MYT Regulations, 2021 notified by the Hon'ble Commission.
- 4) This petition includes the True-Up Petition for FY 2020-21 & FY 2021-22, Review Petition for FY 2022-23 and ARR & Tariff Petition for FY 2023-24.
- 5) EWEDC is submitting the True-up for the FY 2020-21 based on the accounts prepared on commercial accounting principle and duly vetted by the Asst. Controller (Finance and accounts), Electricity Department. The same has audited by AG UT and the audit certificate has been issued for the same. However, the Commercial Accounts for FY 2021-22 has been submitted to AG UT for issuance of audit certificate, but the audit certificate is still awaited for the same.
- 6) EWEDC along with this petition is submitting the statutory formats with additional/ supplementary data & information available and shall further make available the same to the extent available with EWEDC as may be required by the Hon'ble Commission during its processing.

Prayers to the Commission

EWEDC respectfully prays that the Hon'ble Commission may

- 1) Admit this Petition filed by EWEDC.
- 2) Examine the proposal submitted by the Petitioner for a favourable dispensation as detailed in the enclosed proposal;
- 3) Consider the submissions and allow the True-Up for FY 2020-21 & FY 2021-22, Annual Performance Review for FY 2022-23 and approve Aggregate Revenue Requirement for FY 2023-24 and Retail Tariff for FY 2023-24;
- 4) Approve the revenue gap/surplus and appropriate tariff increase as detailed in the enclosed proposal;
- 5) Approve revision in Tariff Schedule as proposed;
- 6) Condone any inadvertent omissions/ errors/ shortcomings and permit EWEDC to add/ change/ modify/ alter this filing and make further submissions as may be required at a future date;
- 7) Pass such orders as the Hon'ble Commission may deem fit and proper, keeping in view the facts and circumstances of the case;

Electricity Wing of Engineering Department, Chandigarh


Petitioner

Place: Chandigarh
Date: 30 January 2023

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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
CGRF	Consumer Grievance Redressal Forum
CGS	Central Generating Stations
COD	Commercial Operation Date
Cr	Crores
Discom	Distribution Company
EWEDC	Electricity Wing of Engineering Department, Chandigarh
DSM	Deviation Settlement Mechanism
EHT	Extra High Tension
ERP	Enterprise Resource Planning
FPPCA	Fuel and Power Purchase Cost Adjustment
FY	Financial Year
GFA	Gross Fixed Assets
HT	High Tension
IEX	Indian Energy Exchange Limited
IPP	Independent Power Producer
ISTS	Inter State Transmission System
JERC	Joint Electricity Regulatory Commission for the state of Goa and Union Territories
LT	Low Tension
MU	Million Units
MYT	Multi Year Tariff
NFA	Net Fixed Assets
NTPC	National Thermal Power Corporation
O&M	Operation and Maintenance
PGCIL	Power Grid Corporation of India Limited
PLF	Plant Load Factor
PLR	Prime Lending Rate
POSOCO	Power System Operation Corporation Limited

Abbreviation	Full Form
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 MCLR	SBI Marginal Cost Lending Rate
SBI PLR	SBI Prime Lending Rate
SERC	State Electricity Regulatory Commission
SLDC	State Load Despatch Centre
SOP	Standard of Performance
T&D Loss	Transmission & Distribution Loss
UI	Unscheduled Interchange
UT	Union Territory

Chapter 1: Introduction and Background

1.1 Introduction - Electricity Wing of Engineering Department, Chandigarh

- 1.1.1 Union Territory of Chandigarh came into existence with effect from 1st November, 1966 after re-organization of erstwhile state of Punjab. An early entrant to the planning process, Chandigarh has emerged as one of the most developed Union Territories in India and even achieved the ranking of one of the best UTs in India with regards to investment environment, infrastructure and tourism. The total population of the Union Territory is around 10.55 Lakhs as per 2011 Census.
- 1.1.2 The Local Distribution of electricity in Chandigarh was taken over by the Chandigarh Administration from the PSEB on 2nd May, 1967. The Electricity Wing of Engineering Department, Chandigarh is part of Chandigarh Administration, UT of Chandigarh and is responsible for Transmission and Distribution of power supply up to consumers' door-step. The electricity department of Chandigarh is responsible for ensuing quality and continuous power supply to each and every resident of Chandigarh. The Electricity Operation Circle is headed by Superintending Engineer along with five Executive Engineers.
- 1.1.3 The Electricity Wing of Engineering Department, Chandigarh of UT Administration of Chandigarh, hereinafter called "EWEDC", a deemed licensee under section 14 of the Electricity Act 2003, is carrying out the business of transmission, distribution and retail supply of electricity in Chandigarh (UT). The Electricity Wing of Engineering Department, Chandigarh (EWEDC) has been allowed to function as an integrated distribution licensee of Union Territory of Chandigarh. The Electricity Wing of Engineering Department, Chandigarh doesn't have its own generation except infirm from rooftop and ground mounted solar, therefore, procures power from its allocation from central generating stations NTPC, NHPC, NPCIL, BBMB, SJVNL and THDC. EWEDC has tied up wind

generating stations through SECI to meet non-solar RPO. The balance energy requirement, if any, is met through short term purchase through bilateral transactions and power exchange.

- 1.1.4 All the sectors of Chandigarh are electrified and any desiring consumer can avail power supply by submitting requisition in the prescribed form to the appropriate office of the Department subject to fulfillment of the requisite conditions and payment of charges. EWEDC is under control of Administration of Union Territory of Chandigarh and the maintenance of the accounts or Income and expenditure statement was being done on "cash" basis i.e., single entry system. However, as per the directives of Hon'ble Commission, EWEDC has converted to accounting system based on Accrual Basis i.e., double entry system.
- 1.1.5 EWEDC has prepared the annual accounts on commercial principle for FY 2020-21 & FY 2021-22 along with Fixed Asset Register as on 31.03.2021 & 31.03.2022, respectively.

1.2 Regulatory Process

- 1.2.1 EWEDC had filed its first petition for Annual Revenue Requirement and Determination of Tariff for FY 2011-12 under section 62 of the Electricity Act, 2003 and under the JERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2009 to the Hon'ble Commission on 13th January, 2011. The Tariff Order was issued by the Hon'ble Commission on 16th July, 2011 and the new tariff was made effective from 1st April, 2011
- 1.2.2 EWEDC filed its second Petition for Tariff determination for FY 2012-13. In the Petition, EWEDC had requested for review of Tariff Order for FY 2011-12 based on the actual numbers for part year and projected ARR for FY 2012-13. The Hon'ble Commission processed the Petition and issued a Tariff Order for FY 2012-13 on 7th May, 2012 which included review for FY 2011-12. The tariff was made applicable from 1st May, 2012

- 1.2.3 On 7th February, 2013, the Petitioner filed its petition for approval of provisional true up of ARR for FY 2011-12, revised estimates of ARR for FY 2012-13 and approval of ARR and Tariff for FY 2013-14. The Hon'ble Commission issued the Tariff Order on 15th April, 2013. However, the Hon'ble Commission had not conducted the provisional true-up of ARR of FY 2011-12 as the audited accounts were not available during that time. The tariff was made applicable from 1st May, 2013.
- 1.2.4 The department subsequently filed its fourth petition for determination of Aggregate Revenue Requirement (ARR) & Retail Tariff for distribution and retail sale of electricity for FY 2014-15, Review of FY 2013-14 & True up of FY 2011-12 and FY 2012-13 on 20th January, 2014 according to principles outlined in the JERC Tariff Regulations, 2009. The Commission issued tariff order on 11th April, 2014.

1.3 Filing of Multi Year Tariff Petition and Annual Performance Review Petition

- 1.3.1 Hon'ble Joint Electricity Regulatory Commission (JERC) for the State of Goa and Union Territories, in exercise of powers conferred by sub section (1) of section 181 and clauses (zd), (ze) and (zf) of sub section (2) of section 181, read with sections 61, 62, 83 and 86, of the Electricity Act 2003 (36 of 2003) and all other powers enabling it in this behalf, had issued the Multi Year Distribution Tariff Regulations, 2014, hereinafter referred to as "MYT Regulations, 2014".
- 1.3.2 As per the MYT Regulations, 2014, the Distribution Licensee were required to file a Business Plan for Control Period of three financial years from April 1, 2015 to March 31, 2018, which shall comprise but not be limited to detailed category-wise sales and demand projections, power procurement plan, capital investment plan, financing plan and physical targets before the Hon'ble Commission as part of the Tariff Filing before the beginning of the Control

Period. However, the Control Period was postponed by a year and the revised Control Period was notified as April 1, 2016 to March 31, 2019.

- 1.3.3 Accordingly, the Electricity Wing of Engineering Department, Chandigarh had filed a revised Business Plan for the Control Period of FY 2016-17 to FY 2018-19 based on the available data for FY 2014-15 and previous financial years against which the Hon'ble Commission issued an Order dated 28th December, 2015. In the Order for Business Plan, the Hon'ble Commission had directed EWEDC for submission of MYT Petition for the Control Period FY 2016-17 to FY 2018-19 within 30 days from issuance of the Order for Business Plan.
- 1.3.4 As per the directives of the Hon'ble Commission, EWEDC filed Tariff Petition for approval of Annual Revenue Requirement for MYT Control period of FY 2016-17 to FY 2018-19 and determination of retail tariff for FY 2016-17 in accordance to the principles laid down under section 61, 62 and 64 of the Electricity Act 2003, JERC MYT Regulations, 2014, provisions of National Electricity Policy & National Tariff Policy, JERC (Conduct of Business) regulations 2009 and other relevant regulations. The Hon'ble Commission in its order dated 28th April, 2016 approved True-up of FY 2011-12 to FY 2014-15, carried out performance review of FY 2015-16 and had approved Annual Revenue Requirement for FY 2016-17 to FY 2018-19 and retail tariff for FY 2016-17.
- 1.3.5 As per the multi-year framework outlined in MYT Regulations, 2014, the licensee was required to file Annual Performance Review petition in the subsequent years of the Control Period along with True-up of previous year and Retail Tariff proposal for ensuing year.

- 1.3.6 Accordingly, in line with the MYT Regulations, 2014, Electricity Wing of Engineering Department, Chandigarh had filed the petition comprising of True-up of FY 2015-16, Annual Performance Review of FY 2016-17 and revised ARR and retail tariff proposal for FY 2017-18. The Hon'ble Commission in its order dated 04th May, 2017 approved True-up of FY 2015-16, carried out performance review of FY 2016-17 and had approved revised ARR & retail tariff for FY 2017-18.
- 1.3.7 On 12th January, 2018, the Petitioner filed its petition for approval of True-up of FY 2016-17, performance review of FY 2017-18 and revised ARR and retail tariff proposal for FY 2018-19. The Hon'ble Commission in its order dated 28th March, 2018 approved True-up of FY 2016-17, carried out performance review of FY 2017-18 and had approved revised ARR and retail tariff for FY 2018-19.
- 1.3.8 The Hon'ble Commission notified Joint Electricity Regulatory Commission for the State of Goa and Union Territories (Generation, Transmission and Distribution Multi Year Tariff) Regulations, 2018 (hereinafter referred to as 'MYT Regulations, 2018') on 10th August, 2018. These Regulations were applicable to all the generation companies, transmission and distribution licensees in the State of Goa and Union Territories including Chandigarh for the 2nd Control Period i.e., from FY 2019-20 to FY 2021-22.
- 1.3.9 As per the MYT Regulations, 2018, the Distribution Licensee was required to file a Business Plan for Control Period of three financial years from April 1, 2019 to March 31, 2022, which shall comprise but not be limited to detailed category-wise sales and demand projections, power procurement plan, capital investment plan, financing plan and physical targets before the Hon'ble Commission as part of the Tariff Filing before the beginning of the Control Period.

- 1.3.10 Accordingly, in line with MYT Regulations, 2018, the Electricity Wing of Engineering Department, Chandigarh had filed a Business Plan for the Control Period of FY 2019-20 to FY 2021-22 on 29th August, 2018 based on the available data for FY 2017-18 and previous financial years against which the Hon'ble Commission issued an Order dated 12th November, 2018.
- 1.3.11 On 12th December, 2018, the Petitioner filed Tariff Petition for approval of True-up for FY 2017-18, Annual Performance Review for FY 2018-19 in accordance with the MYT Regulations, 2014 and Aggregate Revenue Requirement (ARR) for the 2nd control period of FY 2019-20 to FY 2021-22 & retail tariff proposal for FY 2019-20 in accordance with the principles laid down under section 61, 62 and 64 of the Electricity Act 2003, JERC MYT Regulations, 2018, provisions of National Electricity Policy & National Tariff Policy, JERC (Conduct of Business) regulations 2009 and other relevant regulations. The Hon'ble Commission in its order dated 20th May, 2019 approved True-up of FY 2017-18, carried out performance review of FY 2018-19 and had approved Annual Revenue Requirement for FY 2019-20 to FY 2021-22 and retail tariff for FY 2019-20.
- 1.3.12 On 4th December, 2019, the Petitioner filed the petition for approval of True-up for FY 2018-19 in accordance with the MYT Regulations, 2014, Annual Performance Review for FY 2019-20 and revised Aggregate Revenue Requirement (ARR) & retail tariff proposal for FY 2020-21 in accordance with the MYT Regulations, 2018. The Hon'ble Commission vide Order dated 19th May, 2020 has Trued Up the Tariff for FY 2018-19, carried out the performance review of FY 2019-20 and determined the Aggregate Revenue Requirement (ARR) & Retail Tariff for FY 2020-21.
- 1.3.13 On 20th January, 2021, the Petitioner filed the petition approval of True-up for FY 2019-20, Annual Performance Review for FY 2020-21 and revised Aggregate Revenue Requirement (ARR) & retail tariff proposal for FY 2021-22 in accordance with the MYT Regulations, 2018. The Hon'ble Commission vide Order dated 30th March, 2021 has Trued Up the Tariff for FY 2019-20, carried

out the performance review of FY 2020-21 and determined the Aggregate Revenue Requirement (ARR) & Retail Tariff for FY 2021-22.

- 1.3.14 The Hon'ble Commission notified Joint Electricity Regulatory Commission for the State of Goa and Union Territories (Generation, Transmission and Distribution Multi Year Tariff) Regulations, 2021 (hereinafter referred to as 'MYT Regulations, 2021') on 25th March, 2021. These Regulations were applicable to all the generation companies, transmission and distribution licensees in the State of Goa and Union Territories including Chandigarh for the 3rd Control Period i.e., FY 2022-23 to FY 2024-25.
- 1.3.15 As per the MYT Regulations, 2021, the Distribution Licensee was required to file a Business Plan for Control Period of three financial years from April 1, 2022 to March 31, 2025, which shall comprise but not be limited to detailed category-wise sales and demand projections, power procurement plan, capital investment plan, financing plan and physical targets before the Hon'ble Commission as part of the Tariff Filing before the beginning of the Control Period.
- 1.3.16 Accordingly, Electricity Wing of Engineering Department, Chandigarh filed the petition for approval of True-up for FY 2020-21, Annual Performance Review for FY 2021-22 in accordance with the MYT Regulations, 2018 and Aggregate Revenue Requirement (ARR) for the 3rd control period of FY 2022-23 to FY 2024-25 & retail tariff proposal for FY 2022-23 in accordance with the principles laid down under section 61, 62 and 64 of the Electricity Act 2003, JERC MYT Regulations, 2021, provisions of National Electricity Policy & National Tariff Policy, JERC (Conduct of Business) regulations 2009 and other relevant regulations against which the Hon'ble Commission issued an Order dated 11th July, 2022.

1.3.17 Further, Electricity Wing of Engineering Department, Chandigarh is filing the instant petition for approval of True-up for FY 2020-21 & FY 2021-22, Annual Performance Review for FY 2022-23 in accordance with the MYT Regulations, 2018 and Aggregate Revenue Requirement (ARR) & retail tariff proposal for FY 2023-24 in accordance with the principles laid down under section 61, 62 and 64 of the Electricity Act 2003, JERC MYT Regulations, 2021, provisions of National Electricity Policy & National Tariff Policy, JERC (Conduct of Business) regulations 2009 and other relevant regulations.

Chapter 2: True-up of FY 2020-21

2.1 Background

- 2.1.1 The True Up for FY 2020-21 is prepared as per the regulatory provisions envisaged in the Joint Electricity Regulatory Commission (Generation, Transmission and Distribution Multi Year Tariff) Regulations, 2018 (hereinafter referred to as MYT Regulations, 2018) and the Aggregate Revenue Requirement (ARR) for FY 2020-21 approved by the Hon'ble Commission in the subsequent Tariff Orders.
- 2.1.2 The Hon'ble Commission had approved the ARR for FY 2020-21 in the Tariff Order dated 20th May, 2019. The revised ARR for FY 2020-21 was approved by the Hon'ble Commission in Tariff Order dated 19th May, 2020. Subsequently, the Annual Performance Review (APR) for FY 2020-21 was approved in the Tariff Order dated 30th March, 2021.
- 2.1.3 The Hon'ble Commission due to the absence of finalized audited accounts has not undertaken the True Up for FY 2020-21 in Tariff Order dated 11th July, 2022. The Hon'ble Commission has further directed to submit the audited accounts for FY 2020-21 along with the Tariff Petition of next financial year.
- 2.1.4 EWEDC submits to the Hon'ble Commission that the directions issued in the Tariff Order dated 11th July 2022 has been complied. The annual accounts for FY 2020-21 along with the auditor certificate are placed at **Annexure-A** for kind consideration of the Hon'ble Commission.
- 2.1.5 In the instant Petition, True Up for FY 2020-21 has been resubmitted as per the provisions of the MYT Regulations, 2018 and audited accounts for FY 2020-21. EWEDC humbly prays to the Hon'ble Commission to kindly approve the True-Up for FY 2020-21 and carry forward the revenue (gap)/surplus along with the carrying cost to determine the aggregate revenue requirement for the ensuing year.

2.2 Energy Sales for FY 2020-21

2.2.1 The Energy Sales for FY 2020-21 as per the audited accounts are lower than the energy sales approved in the APR for FY 2020-21 in Tariff Order dated 30th March, 2021. The details of approved and actual energy sales for FY 2020-21 on category wise basis are tabulated below:

Table 2-1: Approved and Actual Sales for FY 2020-21 (in MU)

Sr. No.	Categories	Approved (T.O. 30.03.2021)	Actual
1	Domestic – (LT+HT)	738.37	689.74
2	Commercial – (LT+HT)	374.44	331.17
3	Large Industrial Supply	120.14	109.11
4	Medium Industrial Supply	98.95	101.65
5	Small Industrial Supply	16.21	16.26
6	Agriculture	1.28	1.36
7	Public Lighting	15.49	12.21
8	Bulk Supply	81.22	77.18
9	Temporary Supply	3.87	3.41
Grand Total		1449.98	1342.08

2.2.2 EWEDC submits that the energy sold in FY 2020-21 has reduced due to the COVID-19 Pandemic. The COVID-19 lockdowns had severely affected the economic activities and reduced energy sales significantly. EWEDC humbly requests the Hon'ble Commission to approve the actual energy sales as given in the table above for FY 2020-21.

2.3 Power Purchase Quantum and Cost

2.3.1 EWEDC submits that its annual energy requirement is met from the allocations from central generating stations and shared plants such as NTPC, NHPC, NPCIL, BBMB, SJVNL & THDC, bilateral agreements and banking arrangements. The allocation from CGS is consisted of two parts, fixed and variable, the variable share keeps changing as the per allocation statement

of unallocated power issued by the Govt. of India. Since, during the peak summer season the allocation of power from various sources is inadequate, therefore the EWEDC procures power under short-term power arrangement through power exchanges.

2.3.2 The table below summarises the actual Power Purchase for FY 2020-21 including transmission charges, power sale and purchase to Power Exchanges and Grid under Deviation Settlement Mechanism.

Table 2-2: Power Purchase Quantum and Cost for FY 2020-21

Sr. No.	Source	Approved (T.O. 30.03.2021)		Actual	
		Quantum (MU)	Cost (Rs. Crore)	Quantum (MU)	Cost (Rs. Crore)
1	NTPC Stations	356.70	147.89	344.94	135.83
2	NHPC Stations	285.07	111.35	272.30	99.80
3	NPCIL	165.39	59.94	149.53	51.61
4	SJVNL	121.17	28.30	119.61	29.36
5	BBMB	665.34	148.32	686.62	159.72
6	THDC	172.86	77.66	175.12	69.14
7	MUNPL	15.75	14.18	25.20	15.33
8	CREST	8.10	6.37	5.95	4.59
9	Private Solar	1.51	1.11	1.43	1.11
10	APCL	20.70	16.47	15.87	14.75
11	UI (Over drawl)	50.54	17.21	70.07	20.95
12	UI (Under drawl)	-	-	-48.10	-
13	PX- Purchase	32.41	11.97	43.45	15.44
14	PX-Sale	-296.90	-62.26	-241.08	-
15	Trans. & SLDC Charges (PGCIL, UPPTCL, PSPTCL, NRPC, POSOCO & ULDC)	-	74.19	-	68.77
Grand Total		1,598.66	652.71	1,620.93	686.42

2.3.3 EWEDC submits that the income from interstate sale of power (either to power exchange or to the grid under deviation settlement mechanism) and rebate on timely payment of energy bills have been accounted under the non-tariff income as per the provisions specified in the Regulation 64 of the MYT Regulations,

2018. Only, the quantum of surplus energy has been accounted in Power Purchase Cost to determine the overall energy requirement for FY 2020-21. The element wise detail of income from sale of surplus power and timely payment of energy bills are tabulated below.

Table 2-3: Income from interstate sale of power & timely payment of bills (Rs Crore)

Particular	Amount (Rs Crore)
Unscheduled Interchange	11.93
Power Exchange	61.46
Rebate on timely payment	6.27
Total	79.67

- 2.3.4 EWEDC submits that in consideration to the details submitted in the above tables (i.e. tables 2-2 & 2-3), the actual net power purchase cost for FY 2020-21 is lower than the approved power purchase cost allowed in Tariff Order dated 30th March, 2021. The income from sale of surplus power and rebate on timely payment of energy bills which had been with power purchase cost in the Tariff Order, are now been considered as the part of non-tariff income in instant True Up Petition. EWEDC prays the Hon'ble Commission that the gross power purchase cost in consideration to the details submitted in above tables may kindly be approved for FY 2020-21.
- 2.3.5 Further, the Hon'ble Commission has notified third amendment to the JERC (Procurement of Renewable Energy) Regulations, 2010 on 22nd August, 2016. As per the aforesaid amendment, 14.10% of total energy shall be purchased by EWEDC from the renewable sources in FY 2020-21, which includes 6.10% from Solar and 8.00% from Non-Solar sources.
- 2.3.6 The Hon'ble Commission in True Up of FY 2019-20 in Tariff Order dated 30th March 2021 has allowed to carry forward the backlog of RPO Target in FY 2020-21. The RPO backlog in FY 2019-20 was attributable to the shortfall of non-solar RPO to the tune of 1.70 MU. The EWEDC has tied up with wind generation capacity of 40 MW through SECI to meet the non-solar RPO targets and its

backlogs in a combined manner. The total annual generation from tied up capacity would be ~151 MU which will meet the overall non-solar RPO target as well as its backlog. The power flow from the tied-up capacity will start in FY 2021-22. Thus, EWEDC humbly prays the Hon'ble Commission that in consideration of the above submission, the shortfall in non-solar RPO targets for FY 2020-21 may kindly be carried forward to FY 2021-22. The details of compliance to RPO targets for FY 2020-21 are tabulated below:

Table 2-4: Effective Conventional Power Consumption for FY 2020-21

Sr. No.	Particulars	Formula	FY 2020-21
1	Energy Sales within UT (In MU)	A	1,342.08
2	Hydro Power Purchase (In MU)	B	1,300.44
3	Inter-State Loss (In Percentage)	C	4.03%
4	Inter-State Loss (In MU)	$d=b*c$	52.41
5	Intra-State Loss (In Percentage)	E	13.81%
6	Intra-State Loss (In MU)	$f=e*(b-d)$	172.39
7	Hydro Power Consumed (In MU)	$g=b-d-f$	1,075.65
8	Conventional Power Consumed (In MU)	$h=a-g$	266.44

Table 2-5: RPO Requirement (Solar and Non-Solar) for FY 2020-21

Sr. No.	Particulars	RPO (%)	Conventional Power Consumed (MU)	RPO for Current year (MU)	RPO Backlog (MU)	Total RPO Target (MU)	Actual Procurement (MU)
1	Solar	6.10%	266.44	16.25	-	16.25	50.71
2	Non-Solar	8.00%	266.44	21.32	1.70	23.02	0.23
Total		14.10%		37.57	1.70	39.27	50.94

Table 2-6: Source-wise Renewable Power Purchase in FY 2020-21 (in MU)

Particulars	Quantum
Solar	
Power/procured from Gross Metering	16.22
Power procured from CREST	34.49
Total (A)	50.71
Non-Solar	

Particulars	Quantum
SECI Wind	0.23
Total (B)	0.23
Total RPO Met (A+B)	50.94

2.4 Intra-State Transmission and Distribution (T&D) Loss

2.4.1 EWEDC submits that considering the actual energy availability and sale of power at intrastate & interstate peripheries, the overall T&D losses for FY 2020-21 works out to 13.81% against 9.30% approved by the Hon'ble Commission in Tariff Order dated 30th March, 2021. The calculation of T&D losses for FY 2020-21 is detailed in table below:

Table 2-7: Energy Balance for FY 2020-21 (MU)

Sr. No.	Particulars	Quantity
1	Net Energy Input Received/Required (Ex bus)	1,796.58
1.a	Total Power Purchase from Inter State Sources	1,789.20
	<i>Central Sector Power Stations (HYDRO)</i>	1,300.44
	<i>Central Sector Power Stations (THERMAL/GAS/NUCLEAR)</i>	488.76
	Short Term Purchase/(Sale)	-197.62
	<i>-IEX/PXIL Purchase</i>	43.45
	<i>-IEX/PXIL Sale</i>	-241.08
	UI Purchase/(Sale)	21.97
	<i>-UI Purchase</i>	70.07
	<i>-UI Sale</i>	-48.10
1.b	Total Power Purchase at UT periphery	1,613.55
2	PGCIL Losses – MU	63.75
	PGCIL Losses - %	3.95%
3	Total Power Purchase availability after PGCIL Losses	1,549.80
4	Total Power Purchased within UT	
	<i>Add: Net-Metering/Within State Solar</i>	7.38
5	Power Purchase at DISCOM Periphery	1,557.18
	<i>Less: Retail Sales to Consumers</i>	1,342.08
	<i>Distribution Losses – MU</i>	215.09
6	Distribution Losses - %	13.81%

- 2.4.2 EWEDC submits that the UT of Chandigarh is one of the most well-planned cities in the nation. It stands in top five position in terms of per capita income. Also, it ranked higher than the national average in terms of per capita electricity consumption. Though, being a place of immense potential, the UT of Chandigarh is a land locked territory and has no further possibility of geographical expansion. This resulted in saturation of energy sales and consumer mix within the UT of Chandigarh. EWEDC submits that due to the saturation in expansion of energy sales and consumer mix, the T&D loss reduction has attained a linear progression curve and become very much sensitive to the variation in energy sales mix. It is submitted that unless there a dedicated capital intervention planned for strengthening of electrical network, drastic reduction in T&D losses would not be possible.
- 2.4.3 EWEDC would also like to draw the kind attention of the Hon'ble Commission on the Abraham Committee recommendations given on fixation of loss reduction targets for Distribution Utilities at time of the roll out of the APDRP Scheme. The Committee has suggested that distribution utilities having losses more than 40% shall be given loss reduction targets of 4% per year; utilities having losses between 30%-40% shall be given reduction target of 3% per years; utilities having losses between 20%-30% shall be given reduction target of 2% per year and utilities having losses below 20% shall be given reduction target of 1% per year. Hence, it is requested to the Hon'ble Commission that in consideration to the above submission, the targets for T&D losses may kindly be realigned in a pragmatic manner.
- 2.4.4 EWEDC also submits that the business as usual were severely affected due to the COVID-19 Pandemic in FY 2020-21. The energy sales were largely contributed by LT Categories ~70% of the overall consumption and HT Categories energy sales have reduced significantly due to COVID-19 Lockdowns. Because of change in energy sales mix the T&D losses have swelled drastically in FY 2020-21.

- 2.4.5 EWEDC further submits that in last nine years T&D losses have reduced from 20.20% to 13.81% from FY 2011-12 to FY 2020-21. This evidently shows that average loss reduction ~0.60% can be possible on annual basis. However, the T&D loss reduction Target of 9.30% for FY 2020-21 is unrealistic and would not be possible without substantial capital intervention.
- 2.4.6 EWEDC prays to the Hon'ble Commission that in consideration to the above submission the actual T&D losses of 13.81% may kindly be allowed for FY 2020-21.

2.5 Operation and Maintenance Expenses

- 2.5.1 Operation & Maintenance Expenses consist of three major elements viz. Employee Expenses, A&G Expenses and R&M Expenses. As per the MYT Regulations, 2018, these expenses are controllable in nature and shall not be revised except those attributable to directions of the Hon'ble Commission.
- 2.5.2 Based on approach followed by the Hon'ble Commission in true up of O&M expenses in previous years Tariff Order and the provision specified in the Regulations 60 & 14 of the MYT Regulations, 2018, the O&M expenses on normative basis have been estimated for FY 2020-21. The extract of relevant regulations related to the true up of operation and maintenance expenses are reproduced below:

"60. Operation and Maintenance (O&M) expenses for Retail Supply Business

60.1 The Operation and Maintenance Expenses for the Retail Supply Business shall be computed in accordance with this Regulation.

60.2 O&M Expenses shall comprise of the following:

- (a) Employee expenses - salaries, wages, pension contribution and other employee costs;*
- (b) Administrative and General expenses including insurance charges if any; and*
- (c) Repairs and Maintenance expenses.*

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

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

$$O\&M_n = (R\&M_n + EMP_n + A\&G_n) \times (1 - X_n) + \text{Terminal Liabilities}$$

Where,

$$R\&M_n = K \times GF_{An-1} \times (WPI_{inflation})$$

$$EMP_n = (EMP_{n-1}) \times (1 + G_n) \times (CPI_{inflation})$$

$$A\&G_n = (A\&G_{n-1}) \times (CPI_{inflation})$$

'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;

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

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

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

GF_{An-1} – Gross Fixed Asset of the transmission Licensee for the n-1th Year;

X_n is an efficiency factor for nth Year. Value of X_n 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;

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

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

60.5 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.

60.6 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

"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."

2.5.3 The O&M expenses approved in True Up for FY 2019-20, in Tariff Order dated 30th March, 2021, are considered to project the O&M Expenses for FY 2020-21. The calculation of O&M Expenses estimated for FY 2020-21 are given in tables below:

Table 2-8: CPI Inflation from Previous 1 Year

Particulars	Average of (Apr-Mar)	CPI Inflation
FY 2020-21	338.69	5.02%
FY 2019-20	322.50	

Table 2-9: WPI Inflation from Previous 1 Year

Particulars	Average of (Apr-Mar)	WPI Inflation
FY 2020-21	123.38	1.29%

FY 2019-20	121.80	
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Table 2-10: Employee Expenses for FY 2020-21 (in Rs Crore)

Particulars	Approved	Actual	Normative
Employee Expenses for Previous Year	75.30		75.30
Growth Factor (Gn) approved in MYT Order	-0.54%		-0.54%
CPI Inflation	5.35%		5.02%
Employee Expenses	79.26	72.70	78.65

Table 2-11: Administrative & General Expenses for FY 2020-21 (in Rs Crore)

Particulars	Approved	Actual	Normative
A&G Expenses for Previous Year	6.93		6.93
CPI Inflation	5.35%		5.02%
Administrative & General Expenses	7.30	5.42	7.28

Table 2-12: Repair & Maintenance Expenses for FY 2020-21 (in Rs Crore)

Particulars	Approved	Actual	Normative
GFA for Previous Year (n-1)	457.77		457.77
K factor approved (K) in MYT Order	2.32%		2.32%
WPI Inflation	2.96%		1.29%
Repair & Maintenance Expenses	10.93	16.65	10.76

2.5.4 The summary of O&M Expenses for FY 2020-21 is detailed in the table below:

Table 2-13: O&M Expenses for FY 2020-21 (in Rs. Crore)

Particulars	Approved (TO dt 30.03.2021)	Actual	Normative
Employee Expenses	79.26	72.70	78.65
A & G Expenses	7.30	5.00	7.28
R & M Expenses	10.93	16.65	10.76
Total O&M Expenses	97.49	94.35	96.69

2.5.5 The Hon'ble Commission is requested to approve the O&M expenses normative basis given in table above for FY 2020-21.

2.6 GFA and Depreciation

2.6.1 Gross Fixed Assets for FY 2020-21 are considered as per the audited accounts. The actual capital expenditure & capitalisation plan against the approved amount for FY 2020-21 in Tariff Order dated 30th March, 2021, is given in table below:

Table 2-14: Capital Expenditure and Capitalisation for FY 2020-21 (in Rs. Crore)

Particulars	Approved (T.O. dt 30.03.2021)	Actual
Capital Expenditure Plan	25.58	48.59
Capitalisation	5.15	18.08

2.6.2 EWEDC submits that the depreciation for FY 2020-21 is accounted as per the MYT Regulations, 2018. The weighted average rate of depreciation has been worked out by considering the asset class wise rates of depreciation specified in the Appendix-I of MYT Regulations, 2018. The depreciation for FY 2020-21, approved vis-à-vis actual, is detailed in table below:

Table 2-15: Depreciation during FY 2020-21 (in Rs. Crore)

Particulars	Approved (T.O. dt 30.03.2021)	Actual
Opening Gross Fixed Assets	332.74	457.77
Addition During the FY	5.15	18.08
Adjustment/Retirement during the FY	-	-
Closing Gross Fixed Assets	337.89	475.85
Average Gross Fixed Assets	335.31	466.81
Weighted Avg. rate of Depreciation (%)	3.45%	3.07%
Depreciation	11.57	14.33

2.6.3 EWEDC humbly requests to the Hon'ble Commission that the depreciation for FY 2020-21 as submitted in the table above may kindly be approved.

2.7 Interest on Loans

- 2.7.1 The closing of normative loans approved for FY 2019-20 in Tariff Order dated 30th March 2021 has been considered as the opening loans for FY 2020-21.
- 2.7.2 The addition in normative loans is calculated by considering the debt-equity ratio of 70:30, as per the Regulations 26 of MYT Regulations, 2018, and capitalisation of assets during the year in FY 2020-21.
- 2.7.3 Loan repayment to the extent of outstanding loans has been funded through depreciation during the year. The same is kept in line with the approach adopted by the Hon'ble Commission in Tariff Order dated 30th March, 2021, for approving the expenses of interest on loans in APR for FY 2020-21.
- 2.7.4 Interest rate equivalent to 1 Year SBI MCLR rate applicable on 1st April of 2020 plus 100 basis points has been applied on the average loan amount to estimate the interest cost on normative loans for FY 2020-21.
- 2.7.5 The details of interest charges on normative loans for FY 2020-21 are given in table below:

Table 2-16: Interest on Loans for FY 2020-21 (in Rs. Crore)

Particulars	Approved (T.O. dt 30.03.2021)	Actual
Opening Normative Loans	-	-
Add: Normative Loans During the year	3.60	12.66
Less: Normative Repayment= Depreciation	3.60	14.33
Closing Normative Loans	-	-
Average Normative Loans	-	-
Rate of Interest (%) - 1 Yr SBI MCLR+ 100 Pts	8.75%	8.75%
Interest on Loans	-	-

2.8 Bank Charges

2.8.1 EWEDC submits that as per the Regulation 28 of the MYT Regulation, 2018, the finance charges incurred in availing of loans shall be allowed at the time of true up. Accordingly, the EWEDC prays to the Hon'ble Commission that the bank/finance charges incurred in FY 2020-21 may kindly be allowed. The details of the finance charges are tabulated below:

Table 2-17: Bank and Finance Charges for FY 2020-21 (in Rs Crore)

Particulars	Amount
Bank Charges	1.35
Total Bank Charges	1.35

2.8.2 The Hon'ble Commission is requested that the Bank/Finance Charges as proposed in the table above may kindly be approved for the FY 2020-21

2.9 Interest on Consumer Security Deposits

2.9.1 The opening balance of consumer security deposits for FY 2020-21 and addition during the year has been considered as per the audited accounts. The RBI Bank Rate applicable on 1st April of 2020 has been considered to calculate the interest on consumer security deposits on normative basis for FY 2020-21.

2.9.2 However, the interest paid on consumer security as per the audited accounts is lower than the normative amount for FY 2020-21. EWEDC humbly submits to the Hon'ble Commission that the interest paid on consumer security deposits as per the audited accounts may kindly be approved for FY 2020-21. The details of Interest on Consumer Security Deposits for FY 2020-21 are given in table below:

Table 2-18: Interest on Consumer Security Deposits for FY 2020-21 (in Rs. Crore)

Particulars	Approved (T.O. dt 30.03.2021)	Normative	Actual
Opening Consumer Security Deposits	195.72	195.72	
Net Addition During the year	8.00	(5.62)	
Closing Consumer Security Deposits	203.72	190.10	
Average Security Deposits	199.72	192.91	
RBI Bank Rate @ 1st Apr (%)	4.65%	4.65%	
Interest on Security Deposits	9.29	8.97	3.78

2.10 Interest on Working Capital

2.10.1 Interest on working capital for FY 2020-21 is calculated as per provisions of Regulation 63 of MYT Regulations, 2018, and rate of interest of 1 Year SBI MCLR Rate applicable on 1st April of 2020 plus 200 basis points.

2.10.2 The working capital requirement for the FY 2020-21 is calculated on the basis of following elements

- a. Receivable of two months of billing
- b. O&M Expenses of one month
- c. 40% of Repair & maintenance expenses for one month
- d. **Less:** consumer security deposits but excluding Bank Guarantee

2.10.3 The calculation of Interest on Working Capital for FY 2020-21 is detailed in table below:

Table 2-19: Interest on Working Capital for FY 2020-21 (in Rs. Crore)

Particulars	Approved (T.O. dt 30.03.2021)	Actual
Two months receivables	138.64	119.31
Add: One month O&M Expenses	8.12	7.86
Add: 40% of repair & maintenance expenses for one month	0.36	0.56
Less: Consumer Security Deposit excl. BG	199.72	192.91
Total Working Capital after deduction of Consumer Security Deposit	(52.59)	(65.18)
SBI MCLR plus 200 Basis Point (%)	9.75%	8.65%
Interest on Working Capital	-	-

2.11 Return on Equity

2.11.1 EWEDC submits that Return on Equity (RoE) for FY 2020-21 is calculated as per the provision of Regulation 27 of MYT Regulations, 2018. The closing equity approved in True Up for FY 2019-20 in Tariff Order dated 30th March 2021 has been considered as the opening Equity for FY 2020-21.

2.11.2 Further, addition in equity has been kept equivalent to 30% of the capitalisation during the year in FY 2020-21. The details of Return on Equity for FY 2020-21 are given in table below:

Table 2-20: Return on Equity for FY 2020-21 (in Rs. Crore)

Particulars	Approved (T.O. dt 30.03.2021)	Actual
Opening Equity	131.38	131.38
Addition in Equity	1.55	5.42
Closing Equity	132.93	136.80
Average Equity	132.15	134.09
Average Equity (Wire Business)	118.94	120.68
Average Equity (Retail Supply Business)	13.22	13.41
Return on Equity for Wire Business (%)	15.50%	15.50%
Return on Equity for Retail Supply Business (%)	16.00%	16.00%
Return on Equity for Wire Business	18.44	18.71
Return on Equity for Retail Supply Business	2.11	2.15
Return on Equity	20.55	20.85

2.12 Bad and Doubtful Debts

2.12.1 The Regulation 62.1 of MYT Tariff Regulation, 2018, states about the bad and doubtful debts as under:

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

Provided that the Commission shall true up the bad debts written off in the Aggregate Revenue Requirement, based on the actual write off of bad debts

excluding delayed payment charges waived off, if any, during the year, subject to prudence check:"

2.12.2 The audited accounts for FY 2020-21 had no book entry related to the written off of bad debts. Hence no claim against the Provision for Bad and Doubtful Debts has been proposed for FY 2020-21.

2.13 Non-Tariff Income

2.13.1 The Non-Tariff Income for FY 2020-21 is calculated as per the provisions of Regulation 64 of MYT Regulations, 2018.

2.13.2 EWEDC submits that the delay payment surcharge should not be treated as the part of non-tariff income, as the same commensurate the burden of interest cost incurred on the excess drawl of working capital on account of the shortfall of revenue collected during the concerned billing cycle. Hence, the same should not be included in the non-tariff income.

2.13.3 The recovery from the doubtful debts is not considered as non-tariff income as provisioning of bad and doubtful debts have not been allowed at the time of approval of ARR

2.13.4 Details of the Non-Tariff Income for the FY 2020-21 along with approved amount are tabulated below:

Table 2-21: Non-Tariff Income for FY 2020-21 (in Rs. Crore)

Particulars	Approved (T.O. dt 30.03.2021)	Actual
Miscellaneous Charges		30.77
Miscellaneous Receipts		8.05
Income from Trading of Surplus Power (PX & UI)		73.40
Rebate on timely payment of energy bills		5.55
Total	17.77	117.77

2.13.5 EWEDC prays to the Hon'ble Commission that the Non-Tariff Income as submitted in the table above may kindly be approved for FY 2020-21.

2.14 Revenue at Current Tarif

2.14.1 The revenue from sale of power to the consumers for FY 2020-21 as per the audited accounts vis-à-vis approved by the Hon'ble Commission in Tariff Order dated 30th March, 2021, is given in the table below:

Table 2-22: Revenue at Current Tariff for FY 2020-21 (in Rs. Crore)

Particulars	Approved (T.O. dt 30.03.2021)	Actual
Domestic – LT	356.53	279.75
Domestic – HT	14.15	8.03
Domestic – Total	370.68	287.78
Commercial – LT	118.43	105.54
Commercial – HT	136.10	114.56
Commercial – Total	254.53	220.10
Large Supply	74.07	65.89
Medium Supply	60.70	63.86
Small Power	8.56	8.53
Agriculture	0.37	0.39
Public Lighting	8.84	7.52
Bulk Supply	49.79	44.59
Others Temporary Supply	3.13	2.72
Total	830.69	701.38

2.15 FPPCA Billed during the year

2.15.1 EWEDC has charged FPPCA to consumers in FY 2020-21. The total income from FPPCA during FY 2020-21 is given in table below:

Table 2-23: FPPCA for FY 2020-21 (in Rs. Crore)

Particulars	Approved (T.O. dt 30.03.2021)	Actual
FPPCA	1.15	0.65

2.16 Regulatory Surcharge Billed during the year

2.16.1 The regulatory surcharge for FY 2020-21 as per the audited accounts is given in below:

Table 2-24: Regulatory Surcharge for FY 2020-21 (in Rs. Crore)

Particulars	Approved (T.O. dt 30.03.2021)	Actual
Regulatory Surcharge	0.00	0.01

2.17 Aggregate Revenue Requirement and Revenue Surplus/(Gap) for FY 2020-21

2.17.1 The Aggregate Revenue Requirement for FY 2020-21, as per the audited accounts vis-à-vis approved is given in the table below:

Table 2-25: Aggregate Revenue Requirement for FY 2020-21 (in Rs. Crore)

Sr. No.	Particulars	Approved (T.O. dt 30.03.2021)	Actual
1	Power Purchase Cost	652.71	686.42
1a	- Power purchase	602.47	617.65
1b	-Transmission & SLDC Charges	63.26	68.77
2	O&M Expenses	97.49	96.69
2a	-Employee costs	79.26	78.65
2b	-Administration and General expenses	7.30	7.28
2c	-R&M expenses	10.93	10.76
3	Depreciation	11.57	14.33
4	Interest & Finance Charges	9.29	5.13
4a	-Interest on Loans	-	-
4b	-Interest on working capital	-	-
4c	-Bank Charges	-	1.35
4d	-Interest on Consumer Security Deposit	9.29	3.78
5	Return on Equity	20.55	20.85
6	Provision for Bad Debt	-	-
7	Total Revenue Requirement	791.60	823.42
8	Less: Non-Tariff Income	17.77	117.77
9	Net Revenue Requirement (A)	773.83	705.65

Sr. No.	Particulars	Approved (T.O. dt 30.03.2021)	Actual
10	Revenue from sales of power	830.69	701.38
11	FPPCA billed	1.15	0.65
12	Regulatory Surcharge billed	-	0.01
13	Total Income from Sale of Power (B)	831.84	702.04
14	Revenue Surplus/(Gap) (B-A)	58.01	(3.61)

2.17.2 EWEDC prays to the Hon'ble Commission that the Revenue Gap for FY 2020-21 as proposed in the table above may kindly be approved. Also, revenue gap along with the appropriate carrying cost should be carried forward to determine the revenue gap for the ensuing year.

Chapter 3: True up of FY 2021-22

3.1 Background

- 3.1.1 The True Up for FY 2021-22 is prepared as per the provisions envisaged in the Joint Electricity Regulatory Commission (Generation, Transmission and Distribution Multi Year Tariff) Regulations, 2018 (hereinafter referred to as MYT Regulations, 2018) and directions issued by the Hon'ble Commission in the Tariff Order related to approval of ARR and APR for FY 2021-22.
- 3.1.2 The ARR for FY 2021-22 were approved by the Hon'ble Commission in Tariff Order dated 20th May, 2019. The revised ARR for FY 2021-22 was approved in Tariff Order dated 30th March, 2021. The APR for FY 2021-22 has been subsequently approved by the Hon'ble Commission in Tariff Order dated 11th July, 2022.
- 3.1.3 EWEDC submits that based on the actual figures as per the provisional annual accounts for FY 2021-22 (**enclosed as Annexure B**) and the regulatory provisions envisaged in the MYT Regulations, 2018, the True Up for FY 2021-22 has been filed in the instant Petition. EWEDC prays the Hon'ble Commission that the True-Up for FY 2021-22 based on the provisional annual accounts may kind be approved and the corresponding revenue surplus/(gap) along with the carrying cost may be kindly carried forward to determine the overall revenue requirement for the ensuing year.

3.2 Energy Sales for FY 2021-22

- 3.2.1 The actual Energy Sales for FY 2021-22, as per the provisional accounts, are lower than the energy sales approved in APR for FY 2021-22 in Tariff Order dated 11th July, 2022.
- 3.2.2 The category wise details of energy sales for FY 2021-22, approved vis-à-vis actual are given in table below:

Table 3-1: Approved and Actual Sales for FY 2021-22 (in MU)

Sr. No.	Categories	Approved (T.O. dt 11.07.2022)	Actual
1	Domestic - (LT+HT)	770.27	706.19
2	Commercial - (LT+HT)	402.16	401.74
3	Large Industrial Supply	117.48	116.66
4	Medium Industrial Supply	98.26	98.29
5	Small Industrial Supply	16.35	16.36
6	Agriculture	1.44	1.33
7	Public Lighting	14.75	14.26
8	Bulk Supply	77.17	76.96
9	Temporary Supply	3.56	4.01
Grand Total		1,501.44	1,435.80

3.2.3 EWEDC submits that the business-as-usual in FY 2021-22 were partially affected by the COVID-19 Pandemic, due to which actual annual sales have reduced than the approved sales for FY 2021-22. The Hon'ble Commission is humbly requested that in consideration to the same the actual sales submitted in table above may kindly be approved for FY 2021-22.

3.3 Power Purchase Quantum and Cost

3.3.1 EWEDC submits that the annual energy requirement is being met from allocations from central generating stations like NTPC, NHPC & NPCIL, other generating stations such as BBMB, SJVNL & THDC, bilateral agreements and banking arrangements. The allocation from CGS consists of fixed and variable portions, which keeps changing from time to time as per the allocation statement issued by the Ministry of Power. Since, during the peak summer season the allocation of power from various sources is inadequate, therefore the power is procured from short-term sources either from power exchanges or from the grid under Deviation Settlement Mechanism.

3.3.2 The Power Purchase for FY 2021-22 from various sources (including Transmission Charges, UI charges and short-term purchase), actual via-a-vis approved, are given in the table below:

Table 3-2: Power Purchase Quantum and Cost for FY 2021-22

Sr. No.	Source	Approved (T.O. 11.07.2022)		Actual	
		Quantum (MU)	Cost (Rs. Crore)	Quantum (MU)	Cost (Rs. Crore)
1	NTPC Stations	299.50	139.58	298.54	144.67
2	NHPC Stations	302.03	98.76	302.03	110.12
3	NPCIL	191.09	63.96	189.73	66.08
4	SJVNL	131.92	35.56	131.93	36.16
5	BBMB	644.70	154.58	644.70	167.58
6	THDC	186.99	74.83	186.99	77.62
7	MUNPL	61.62	31.73	62.09	32.55
8	CREST	15.78	12.16	15.82	12.19
9	Private Solar	2.21	1.49	2.21	1.49
10	SECI	99.27	28.32	99.26	28.46
11	APCL	27.41	22.51	27.41	23.65
12	UI (Over drawl)	51.84	20.99	51.84	20.99
13	UI (Under drawl)	-139.01	-49.47	-139.01	-
14	PX- Purchase	18.08	10.37	17.83	7.63
15	PX-Sale	-182.87	-76.15	-180.33	-
16	Transmission Charges (PGCIL, Reactive Power, NRLDC, ULDC & UPPTCL)		103.72		107.02
17	Other Charges (Adjustment & Surcharge)	-	-		-0.46
18	Surplus Power	-57.00	-22.42	-	-
Grand Total		1,653.57	650.52	1,711.04	835.74

3.3.3 EWEDC submits that as per the Regulation 64 of MYT Regulations, 2018, the income from trading/interstate-sale of power (either to power exchanges or to the grid under deviation settlement mechanism) shall be accounted under non-tariff income. Accordingly, the income from interstate sale of power and rebate on timely payment of bill are accounted under non-tariff income and not adjusted with power purchase cost except their energy quantum. The details of the amount accounted as the part of Non-Tariff Income for FY 2021-22 are tabulated below.

Table 3-3: Income from interstate power sale and timely payment of bills

Particular	Amount (Rs Crore)
Unscheduled Interchange (Under Drawl)	49.47
Sale of power to Power Exchange	74.62
Rebate on timely payment of bill	14.20
Total	138.28

3.3.4 EWEDC submits that net amount of actual power purchase cost for FY 2021-22 is lower than the power purchase cost approved by the Hon'ble Commission in Tariff Order dated 11th July, 2022. The Hon'ble Commission while approving the power purchase cost for FY2021-22 has accounted income from interstate sale of power and rebate on timely payment of energy bill as part of power purchase cost, which in the instant True Up Petition has been considered as the part of non-tariff income. Thus, EWEDC prays to the Hon'ble Commission that in consideration to the above, the gross power purchase cost submitted in the table above may kindly be approved for FY 2021-22.

3.3.5 Further, it is submitted that the Hon'ble Commission has notified third amendment to the JERC (Procurement of Renewable Energy) Regulations, 2010 on 22nd August, 2016. As per the aforesaid amendment, 17.00% of total energy shall be procured by EWEDC from renewable sources in FY 2021-22, which includes 8.00% from Solar and 9.00% from Non-Solar sources.

3.3.6 EWEDC submits that power flow from 40 MW of Wind Generation Capacity tied up through SECI has started in FY 2021-22. The annual generation from wind plants commensurate the non-solar RPO targets along with the backlog of previous years. The details of RPO compliance for FY 2021-22 are given in table below:

Table 3-4: Effective conventional power consumption for FY 2021-22

Sr. No.	Particular	Formula	FY 2021-22
1	Energy Sales within UT (MU)	A	1,435.80
2	Hydro Power Purchase (MU)	B	1,313.53
3	Inter-State Loss (%age)	C	4.03%

Sr. No.	Particular	Formula	FY 2021-22
4	Inter-State Loss (MU)	$d=b*c$	52.94
5	Intra-State Loss (%age)	E	12.88%
6	Intra-State Loss (MU)	$f=e*(b-d)$	162.42
7	Hydro Power Consumed (MU)	$g=b-d-f$	1,098.17
8	Conventional Power Consumed (MU)	$h=a-g$	337.63

Table 3-5: RPO Requirement (Solar and Non-Solar) for FY 2021-22

Sr. No.	Particulars	RPO %	Conventional Power (MU)	RPO Target (MU)	RPO Backlog (MU)	Total RPO Target (MU)	Actual Renewable Procurement (MU)
1	Solar	8.00%	337.63	27.01	-	27.01	45.22
2	Non-Solar	9.00%	337.63	30.39	22.78	53.17	99.60
Total		17.00%		57.40	22.78	80.18	144.82

Table 3-6: Source-wise Renewable Power Procurement for FY 2021-22

Particulars	Procurement (in MU)
Solar	
Power/procured from Gross Metering	17.58
Power procured from CREST	27.65
Total (A)	45.22
Non-Solar	
SECI Wind	99.60
Total (B)	99.60
Total RPO Met (A+B)	144.82

3.4 Intra-State Transmission and Distribution (T&D) Loss

3.4.1 EWEDC submits that considering the actual energy sales and power purchase quantum, the T&D losses for FY 2021-22 works out to 12.88% against 9.20% approved by the Hon'ble Commission for FY 2021-22 in Tariff Order dated 11th July, 2022. The details of the calculation of the T&D losses for FY 2021-22 are tabulated below:

Table 3-7: Energy Balance for FY 2021-22 (MU)

Sr. No.	Particulars	Quantity
1	Net Energy Input Received/Required (Ex bus)	1,960.70
1.a	Total Power Purchase from Inter State Sources	1,942.67
	<i>Central Sector Power Stations (HYDRO)</i>	1,313.53
	<i>Central Sector Power Stations (THERMAL/GAS/NUCLEAR)</i>	529.88
	<i>SECI (WIND)</i>	99.26
	Short Term Purchase/Sale	-162.50
	<i>-IEX/PXIL Purchase</i>	17.83
	<i>-IEX/PXIL Sale</i>	-180.33
	Unscheduled Interchange	-87.17
	<i>-UI Purchase</i>	51.84
	<i>-UI Sale</i>	-139.01
1.b	Total Power Purchase at UT periphery	1,693.01
2	PGCIL Losses – MU	62.88
	PGCIL Losses - %	3.71%
3	Total Power Purchase availability after PGCIL Losses	1,630.12
4	Total Power Purchased within UT	
	Add: Net-Metering/Within State Solar	18.03
5	Power Purchase at DISCOM Periphery	1,648.16
	Less: Retail Sales to Consumers	1,435.80
	Distribution Losses – MU	212.36
6	Distribution Losses - %	12.88%

3.4.2 EWEDC submits that the UT of Chandigarh is one of the most well-planned cities in the nation. It stands in top five position in terms of per capita income. Also, it ranked higher than the national average in terms of per capita electricity consumption. Though, being a place of immense potential, the UT of Chandigarh is a land locked territory and has no further possibility of geographical expansion. This resulted in saturation of energy sales and consumer mix within the UT of Chandigarh. EWEDC submits that due to the saturation in expansion of energy sales and consumer mix, the T&D loss reduction has attained a linear progression curve and become very much sensitive to the variation in energy sales mix. It is submitted that unless there

a dedicated capital intervention planned for strengthening of electrical network, drastic reduction in T&D losses would not be possible.

- 3.4.3 EWEDC would also like to draw the kind attention of the Hon'ble Commission on the Abraham Committee recommendations given on fixation of loss reduction targets for Distribution Utilities at time of the roll out of the APDRP Scheme. The Committee has suggested that distribution utilities having losses more than 40% shall be given loss reduction targets of 4% per year; utilities having losses between 30%-40% shall be given reduction target of 3% per years; utilities having losses between 20%-30% shall be given reduction target of 2% per year and utilities having losses below 20% shall be given reduction target of 1% per year. Hence, it is requested to the Hon'ble Commission that in consideration to the above submission, the targets for T&D losses may kindly be realigned in a pragmatic manner.
- 3.4.4 EWEDC submits that T&D losses in last nine years has reduced from 20.20% to 13.81% from FY 2011-12 to FY 2020-21. This evidently shows that average reduction of T&D losses ~0.60% can be achieved on annual basis. In FY 2021-22, though the COVID-19 Pandemic has affected the economic activities, the T&D loss reduction ~0.90% was achieved by EWEDC. This evidently reflects the concerted efforts being made by EWEDC towards the reduction of T&D losses.
- 3.4.5 The actual T&D losses for FY 2021-22 is 12.88% against the 9.20% approved by the Hon'ble Commission in Tariff order dated 11th July 2022. EWEDC prays the Hon'ble Commission that in view the above submission the actual T&D losses for FY 2021-22 may kindly be allowed.

3.5 Operation and Maintenance Expenses

- 3.5.1 Operation & Maintenance Expenses consists of three elements viz. Employee Expenses, A&G Expenses and R&M Expenses. As per the MYT Regulations, 2018, O&M expenses shall be treated as controllable parameter and shall not be revised except those attributable to directions of the Hon'ble Commission.

3.5.2 Operation and Maintenance expenses for FY 2021-22 are estimated on normative basis based on the provisions specified in Regulations 60 & 14 of MYT Regulations, 2018 and approach followed by the Hon'ble Commission in previous Tariff Orders. The extract of the relevant regulations related to the true up of operation and maintenance expenses are reproduced below:

"60. Operation and Maintenance (O&M) expenses for Retail Supply Business

60.1 The Operation and Maintenance Expenses for the Retail Supply Business shall be computed in accordance with this Regulation.

60.2 O&M Expenses shall comprise of the following:

- (a) Employee expenses - salaries, wages, pension contribution and other employee costs;*
- (b) Administrative and General expenses including insurance charges if any; and*
- (c) Repairs and Maintenance expenses.*

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

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

$$O\&M_n = (R\&M_n + EMP_n + A\&G_n) \times (1 - X_n) + \text{Terminal Liabilities}$$

Where,

$$R\&M_n = K \times GF_{A_{n-1}} \times (WPI_{inflation})$$

$$EMP_n = (EMP_{n-1}) \times (1 + G_n) \times (CPI_{inflation})$$

$$A\&G_n = (A\&G_{n-1}) \times (CPI_{inflation})$$

'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;

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

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

EMP_n - Employee expenses of the Distribution Licensee for the nth Year;

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

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

GFA_{n-1} – Gross Fixed Asset of the transmission Licensee for the n-1th Year;

X_n is an efficiency factor for nthYear. Value of X_n 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;

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

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

60.5 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.

60.6 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

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

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

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

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

3.5.3 The operation and maintenance expenses for FY 2020-21, in previous section, are considered as base for estimating the O&M Expenses for FY 2021-22. Details of O&M Expenses for FY 2021-22 are tabulated below:

Table 3-8: CPI Inflation from Previous 1 Year

Particulars	Average of (Apr-Mar)	CPI Inflation
FY 2021-22	356.06	5.13%
FY 2020-21	338.69	

Table 3-9: WPI Inflation from Previous 1 Year

Particulars	Average of (Apr-Mar)	CPI Inflation
FY 2021-22	139.41	13.00%
FY 2020-21	123.38	

Table 3-10: Employee Expenses for FY 2021-22 (in Rs Crore)

Particulars	Approved	Actual	Normative
Employee Expenses for Previous Year	79.16		78.65
Growth Factor (Gn) approved in MYT Order	1.40%		1.40%
CPI Inflation	6.00%		5.13%
Employee Expenses	85.09	71.91	83.84

Table 3-11: Administrative & General Expenses for FY 2021-22 (in Rs Crore)

Particulars	Approved	Actual	Normative
A&G Expenses for Previous Year	5.04		7.28
CPI Inflation	6.00%		5.13%
Administrative & General Expenses	5.34	5.76	7.65

Table 3-12: Repair & Maintenance Expenses for FY 2021-22 (in Rs Crore)

Particulars	Approved	Actual	Norm
GFA for Previous Year (n-1)	462.92		475.85
K factor approved (K) in MYT Order	2.32%		2.32%
WPI Inflation	2.42%		13.00%
Repair & Maintenance Expenses	11.00	20.24	12.47

3.5.4 Based on the above submission, the details of O&M Expenses for FY 2021-22 are summarized below:

Table 3-13: O&M Expenses for FY 2021-22 (in Rs. Crore)

Particulars	Approved (TO dt 11.07.2022)	Actual	Normative
Employee Expenses	85.09	71.91	83.84
A & G Expenses	5.34	5.76	7.65
R & M Expenses	11.00	20.24	12.47
O&M Expenses	101.43	97.91	103.97

3.5.5 The Hon'ble Commission is requested that the normative O&M expenses as submitted in the table above may kindly be approved for FY 2021-22.

3.6 GFA and Depreciation

3.6.1 Opening of Gross Fixed Assets for FY 2021-22 has been considering as per the actual GFA in the provisional accounts. The approved vis-à-vis actual capital expenditure & capitalisation plan for FY 2021-22 is detailed in table below:

Table 3-14: Capital Expenditure and Capitalisation for FY 2021-22 (in Rs. Crore)

Particulars	Approved (T.O. dt 11.07.2022)	Actual
Capital Expenditure Plan	11.96	14.73
Capitalisation	8.60	3.37

3.6.2 EWEDC submits that the depreciation for FY 2021-22 is estimated based on the asset class wise depreciation rates specified in Appendix-I of MYT Regulations, 2018 and average gross fixed assets as per the provisional accounts for FY 2021-22. The depreciation for FY 2021-22, approved vis-à-vis actual, is detailed in table below:

Table 3-15: Depreciation during FY 2021-22 (in Rs. Crore)

Particulars	Approved (T.O. dt 11.07.2022)	Actual
Opening Gross Fixed Assets	337.89	475.85
Addition During the Year	8.60	3.37

Adjustment/Retirement during the FY	-	-
Closing Gross Fixed Assets	346.49	479.22
Average Gross Fixed Assets	342.19	477.53
Weighted Avg. rate of Depreciation (%)	3.45%	2.90%
Depreciation	11.82	13.84

3.6.3 EWEDC humbly requests the Hon'ble Commission that the depreciation as submitted in the table above may kindly be approved for FY 2021-22.

3.7 Interest on Loans

3.7.1 EWEDC submits that the opening balance of the normative loans for FY 2021-22 is calculated by considering the closing normative loans for FY 2020-21 estimated in the previous chapter.

3.7.2 The addition in normative loans is calculated by considering debt-equity ratio of 70:30 as specified in Regulations 26 of the MYT Regulation, 2018 and assets capitalised during the year.

3.7.3 Repayment of the loan to the extent of outstanding loans has been considered to be funded through depreciation during the year. Similar, approach has been adopted by the Commission in APR for FY 2021-22.

3.7.4 Interest rate equivalent to 1 Year SBI MCLR rate applicable on 1st April of 2021 plus 100 basis points is considered to estimate the interest on loans for FY 2021-22.

3.7.5 The details of interest on normative loans for FY 2021-22, approved vis-à-vis actual, are given in table below:

Table 3-16: Interest on Loans for FY 2021-22 (in Rs. Crore)

Particulars	Approved (T.O. dt 11.07.2022)	Actual
Opening Normative Loans	-	-
Add: Normative Loans During the year	6.02	2.36

Particulars	Approved (T.O. dt 11.07.2022)	Actual
Less: Normative Repayment= Depreciation	6.02	13.84
Closing Normative Loans	-	-
Average Normative Loans	-	-
Rate of Interest (%) - 1 Yr SBI MCLR+ 100 Pts	8.00%	8.00%
Interest on Loans	-	-

3.8 Interest on Consumer Security Deposits

3.8.1 The opening balance and net addition of consumer security deposits for FY 2021-22 has been considered as per the provisional accounts. The RBI Bank Rate applicable on 1st April of 2021 is applied on the average amount of security deposits to calculate the normative interest on consumer security deposits for FY 2021-22.

3.8.2 However, the actual interest paid on the consumer security is lower than the normative amount. EWEDC humbly submits to the Hon'ble Commission that actual interest paid on the consumer security deposits as per the provisional accounts may kindly be approved for FY 2021-22. The details of Interest on Consumer Security Deposits for FY 2021-22 are as under:

Table 3-17: Interest on Consumer Security Deposits for FY 2021-22 (in Rs. Crore)

Particulars	Approved (T.O. dt 11.07.2022)	Normative	Actual
Opening Consumer Security Deposits	203.72	190.10	-
Net Addition During the year	3.66	(16.87)	-
Closing Consumer Security Deposits	207.38	173.23	-
Average Security Deposits	205.55	181.66	-
Rate of Interest (%) (RBI Bank Rate @ 1st Apr)	4.25%	4.25%	-
Interest on Security Deposits	8.74	7.72	4.61

3.9 Bank Charges

3.9.1 EWEDC submits that the as per the Regulation 28 of the MYT Regulation, 2018, the finance charges incurred on availing the loans shall be allowed at the time of true up. Accordingly, the EWEDC prays to the Hon'ble Commission that the bank/finance charges incurred in FY 2021-22 may kindly be allowed. The details of the finance charges are tabulated below:

Table 3-18: Bank and Finance Charges for FY 2021-22 (Rs Crore)

Particular	Amount
Bank Charges	1.66
Total Bank Charges	1.66

3.9.2 The Hon'ble Commission is requested that the Bank/Finance Charges as submitted in the table above may kindly be approved for FY 2021-22.

3.10 Interest on Working Capital

3.10.1 Interest on working capital for FY 2021-22 is estimated based on the provisions specified in Regulation 63 of MYT Regulations, 2018 and interest rate of 1 Year SBI MCLR Rate applicable on 1st April of 2021 year plus 200 basis points.

3.10.2 As per the provisions of the Regulation 63 of MYT Regulations, 2018, the Working capital consists of following elements:

- a. Receivable of two months of billing
- b. O&M Expenses of one month
- c. 40% of Repair & maintenance expenses for one month
- d. **Less:** consumer security deposit but excluding Bank Guarantee

3.10.3 The Interest of Working Capital for FY 2021-22, approved vis-à-vis actual, is detailed in table below:

Table 3-19: Interest on Working Capital for FY 2021-22 (Rs. Crore)

Particulars	Approved (T.O. dt 11.07.2022)	Actual
Two months receivables	130.69	137.62
Add: One month O&M Expenses	8.45	8.16
Add: 40% of repair & maintenance expenses for one month	0.37	0.67
Less: Consumer Security Deposit excl. BG	205.55	181.66
Total Working Capital after deduction of Consumer Security Deposit	(66.04)	(35.21)
SBI MCLR plus 200 Basis Point (%)	9.00%	8.65%
Interest on Working Capital	-	-

3.11 Return on Equity

3.11.1 The Return of Equity for FY 2021-22 is calculated as per the provision of Regulation 27 of MYT Regulations, 2018. The closing equity for FY 2020-21, proposed in previous Chapter, has been considered as the opening Equity for FY 2021-22.

3.11.2 Further, 30% of the proposed capitalisation for FY 2021-22 is considered as addition in opening equity during the year. The details of Return on Equity for FY 2021-22 are tabulated below:

Table 3-20: Return on Equity for FY 2021-22 (Rs. Crore)

Particulars	Approved (T.O. dt 11.07.2022)	Actual
Opening Equity	132.93	136.80
Addition in Equity	2.58	1.01
Closing Equity	135.51	137.81
Average Equity	134.22	137.31
Average Equity (Wire Business)	120.79	123.58
Average Equity (Retail Supply Business)	13.42	13.73
Return on Equity for Wire Business (%)	15.50%	15.50%
Return on Equity for Retail Supply Business (%)	16.00%	16.00%
Return on Equity for Wire Business	18.72	19.15
Return on Equity for Retail Supply Business	2.15	2.20
Return on Equity	20.87	21.35

3.12 Bad and Doubtful Debts

3.12.1 Regulation 62.1 of MYT Tariff Regulations, 2018 states following for the provision of bad and doubtful debts:

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

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

3.12.2 It is submitted that bad debts written off is not provided in provisional account for FY 2021-22. Hence no claim for Bad and Doubtful Debt is proposed for FY 2021-22.

3.13 Non-Tariff Income

3.13.1 Non-Tariff Income for FY 2021-22 is calculated as per the provisions of the Regulation 64 of MYT Regulations 2018.

3.13.2 EWEDC submits that the delay payment surcharge should not be treated as the part of non-tariff income, as the same commensurate the burden of interest cost incurred on the excess drawl of working capital on account of the shortfall of revenue collected during the concerned billing cycle. Hence, the same should not be included in the non-tariff income.

3.13.3 The recovery from the doubtful debts is not considered as non-tariff income as provisioning of bad and doubtful debts have not been allowed at the time of approval of ARR

3.13.4 Details of the Non-Tariff Income for the FY 2021-22 along with approved amount are tabulated below:

Table 3-21: Non-Tariff Income for FY 2021-22 (in Rs. Crore)

Particulars	Approved (T.O. dt 11.07.2022)	Actual
Miscellaneous Charges	-	9.09
Miscellaneous Receipts	-	6.62
Sale of Surplus Power (PX & UI)	-	124.09
Rebate on timely payment of bills	-	14.20
Total	17.77	153.99

3.13.5 EWEDC humbly prays to the Hon'ble Commission to approve the Non-Tariff Income as proposed in table above for FY 2021-22.

3.14 Revenue at Current Tariff

3.14.1 The actual revenue billed on the basis of actual sales vis-à-vis that approved by the Hon'ble Commission is given in the table below:

Table 3-22: Revenue at Current Tariff for FY 2021-22 (Rs. Crore)

Particulars	Approved (T.O. dt 11.07.2022)	Actual
Domestic – LT	332.66	261.57
Domestic – HT	13.26	9.40
Domestic – Total	345.92	270.97
Commercial – LT	116.09	116.99
Commercial – HT	134.43	121.53
Commercial – Total	250.52	238.52
Large Supply	67.27	64.91
Medium Supply	57.55	58.29
Small Power	7.90	7.90
Agriculture	0.38	0.35
Public Lighting	7.64	7.56
Bulk Supply	44.07	39.17
Others Temporary Supply	2.88	3.00
Total	784.13	690.68

3.14.2 EWEDC submits that revenue from sale of power to EV Charging category is booked under Commercial-HT category, as the issue is under deliberation and adjusted appropriately as per the given directions.

3.15 FPPCA Billed during the year

3.15.1 As per the provisional accounts the FPPCA billed during the year for FY 2021-22 is given in table below:

Table 3-23: FPPCA for FY 2021-22 (Rs. Crore)

Particulars	Approved (T.O. dt 11.07.2022)	Actual
FPPCA	-	(0.002)

3.16 Regulatory Surcharge Billed during the year

3.16.1 As per the provisional accounts the total income from Regulatory Surcharge during the years for FY 2021-22 is given in table below:

Table 3-24: Regulatory Surcharge for FY 2021-22 (Rs. Crore)

Particulars	Approved (T.O. dt 11.07.2022)	Actual
Regulatory Surcharge	-	0.003

3.17 Aggregate Revenue Requirement and Revenue Surplus/(Gap) for FY 2021-22

3.17.1 The actual and approved Aggregate Revenue Requirement for FY 2021-22 based on the above estimates are given in the table below:

Table 3-25: Aggregate Revenue Requirement for FY 2021-22 (in Rs. Crore)

Sr. No.	Particulars	Approved (T.O. dt 11.07.2022)	Actual
1	Power Purchase Cost	650.52	835.74
1a	- Power purchase	546.80	728.72
1b	-Transmission Charges	103.72	107.02
2	O&M Expenses	101.43	103.97

Sr. No.	Particulars	Approved (T.O. dt 11.07.2022)	Actual
2a	-Employee costs	85.09	83.84
2b	-Administration and General expenses	5.34	7.65
2c	-R&M expenses	11.00	12.47
3	Depreciation	11.82	13.84
4	Interest & Finance Charges	8.74	6.28
4a	-Interest and finance charges	-	-
4b	-Interest on working capital	-	-
4c	-Bank Charges	-	1.66
4d	-Interest on Consumer Security Deposit	8.74	4.61
5	Return on Equity	20.87	21.35
6	Provision for Bad Debt	-	-
7	Total Revenue Requirement	793.38	981.17
8	Less: Non-Tariff Income	17.77	153.99
9	Net Revenue Requirement	775.61	827.18
10	Revenue from retail sales at Existing Tariff	784.13	690.68
11	FPPCA billed during the year	-	(0.002)
12	Regulatory Surcharge billed during the year	-	0.003
13	Total Income from Sale of Power	784.13	690.68
14	Revenue Surplus/(Gap) for the Year	8.53	(136.50)

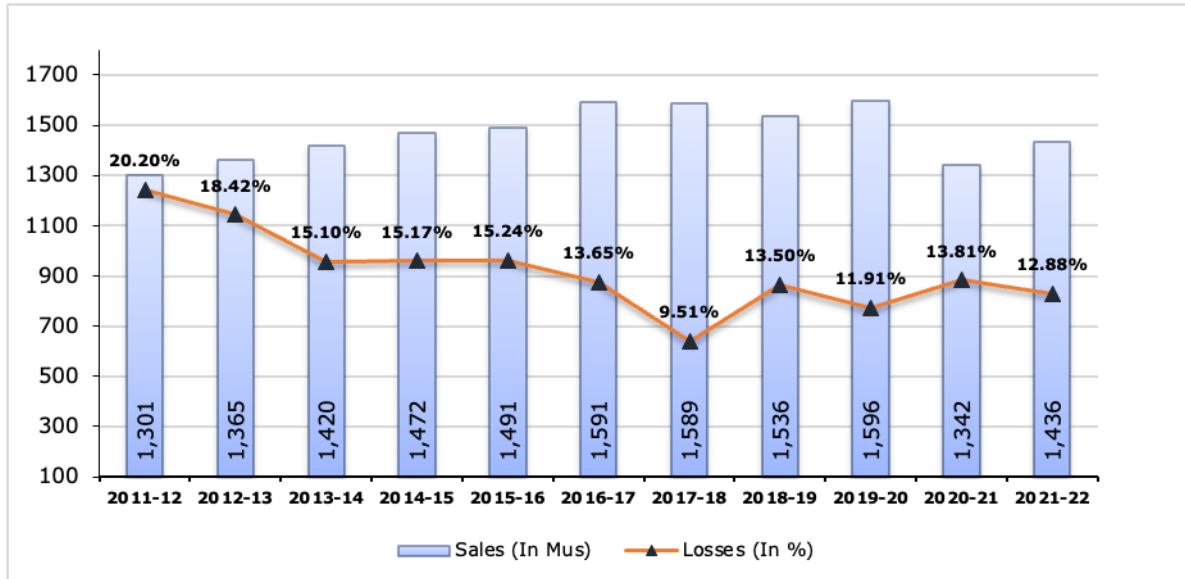
3.17.2 EWEDC prays to the Hon'ble Commission that the Revenue Gap as submitted in the table above may kindly be approved for FY 2021-22. Further, the Revenue Gap approved for FY 2021-22 should be carried forward along with the carrying cost to determine the overall requirement for the ensuing year.

Chapter 4: T&D Losses for FY 2022-23 & FY 2023-24

4.1 Intra-state T&D Losses

- 4.1.1 The T&D loss trajectory for the third MYT Control Period was approved by the Hon'ble Commission in the Tariff Order dated 11th July, 2022. The T&D losses of 8.80%, 8.40% & 8.00% were approved against the proposed T&D losses of 13.06%, 12.81% & 12.56% for FY 2022-23, FY 2023-24 & FY 2024-25, respectively. EWEDC submits that though it is committed to reduce the T&D losses within the UT of Chandigarh, the Hon'ble Commission is requested to kindly consider the following challenges for approving the target of T&D losses in APR for FY 2022-23 and in ARR for FY 2023-24.
- 4.1.2 EWEDC submits that UT of Chandigarh is a land locked territory and have limited possibility for geographical expansion. Due to limitation in possibility of geographical expansion, the scope for addition of new HT consumers have become limited or negligible, which has resulted in stagnation of energy sales in HT categories and linear progression in reduction of T&D losses.
- 4.1.3 It is further submitted that the energy sales ~70% is being contributed by LT consumer categories. This evidently shows that T&D losses have already reached to the technical loss level of the electrical network. Without any dedicated capital subvention, drastic reduction in T&D losses would not be possible.
- 4.1.4 EWEDC also submits that in the last 10 years from FY 2011-12 to FY 2021-22, T&D Losses have reduced from 20.20% to 12.88%. This evidently shows that annual T&D loss reduction ~0.70% can be possible with the conventional approach of strengthening electrical network. In a stage where geographical expansion has no possibility, drastic reduction in T&D losses with conventional approach would not be possible. T&D losses along with energy sales for FY 2011-12 to FY 2020-21 are depicted in figure below:

Graph 2: Actual T&D losses for the period FY 2011-12 to FY 2021-22



4.1.5 EWEDC also submits that it has to additionally bear interstate circuit losses ~4% due to the absence of interconnection points within the periphery of UT of Chandigarh. Input energy for EWEDC is being metered at 400kV Nalagarh, 220kV Mohali & 220kV Dhoolkot (BBMB), due to which interstate circuit losses are passed on directly to the energy accounts of EWEDC.

4.1.6 EWEDC would also like to draw the kind attention of the Hon'ble Commission on the Abraham Committee recommendations given during the fixation of loss reduction targets for Distribution Utilities under the APDRP Scheme. The Committee has recommended that distribution utilities having losses more than 40% shall be given reduction targets of 4% per year; utilities having losses between 30%-40% shall be given reduction target of 3% per years; utilities having loss level between 20%-30% shall be given reduction target of 2% per year and utilities having losses below 20% shall be given reduction target of 1% per year.

4.1.7 Further, the Clause 8.2.1. of the Tariff Policy 2016 states that:

"(2) AT&C loss reduction should be incentivised by linking returns in a MYT framework to an achievable trajectory ..."

4.1.8 T&D losses of EWEDC have ranged within 10% to 15% in past few years, thus the Hon'ble Commission is requested that taking pragmatic a view on the reduction of T&D losses, the target for T&D losses in APR for FY 2022-23 and ARR for FY 2023-24 may kindly be revised to the achievable loss trajectory.

4.1.9 EWEDC also submits that the various technical and technological improvement under smart grid and other schemes shall be able in bring down the T&D loss level to the desired limits. However, these schemes are capital intensive in nature are implemented only on pilot basis. Thus, in view of the same it requested to the Hon'ble Commission that T&D loss target for FY 2022-23 & FY 2023-24 may kindly be realigned to the level proposed in table below.

Table 4-1: T&D Loss Target Proposed for FY 2022-23 & FY 2023-24

Particulars	FY 2022-23	FY 2023-24
T&D loss target	12.38%	11.88%

4.1.10 EWEDC prays to the Hon'ble Commission that in consideration to the circumstances detailed above the T&D loss targets as proposed in the table above may kindly be approved.

Chapter 5: Annual Performance Review for FY 2022-23

5.1 Background

5.1.1 The Hon'ble Joint Electricity Regulatory Commission (JERC) for the state of Goa and Union Territories has notified JERC (Generation, Transmission and Distribution Multi Year Tariff) Regulations, 2021 (hereafter referred to as MYT Regulations, 2021) on March 22, 2021. These Regulations are applicable for the tariff determination matters specified in the MYT Regulations, 2021, and prevails over the Third Control Period consisting of FY 2022-23 to FY 2024-25.

5.1.2 Regulation 12 of the MYT Regulations, 2021 states the following:

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

- a) True-up: a comparison of the audited performance of the Applicant for the Financial Year for which the true up is being carried out with the approved forecast for such previous Financial Year, subject to the prudence check;*
- b) Annual Performance Review: a comparison of the revised performance targets of the Applicant for the current Financial Year with the approved forecast in the Tariff Order corresponding to the Control Period for the current Financial Year subject to prudence check;*
- c) Tariff determination for the ensuing Year of the Control Period based on the revised forecast of the Aggregate Revenue Requirement for the Year;*
- d) Review of compliance with directives issued by the Commission from time to time;*
- e) Other relevant details, if any."*

5.1.3 EWEDC has filed MYT Petition for the third Control Period from FY 2022-23 to FY 2024-25 as per the JERC MYT Regulations, 2021. The Hon'ble Commission has issued the Tariff Order on the same on 11th July, 2022.

5.1.4 EWEDC submits that as per the provisions specified in MYT framework of MYT Regulations, 2021, the Annual Performance Review (APR) for FY 2022-23 is filed in the instant Petition. EWEDC submits to the Hon'ble Commission that the revised estimates in APR for FY 2022-23 may kindly be approved. Further, the revenue gap in APR for FY 2022-23 along with the carrying cost may kindly be carried forward to determine the revenue requirement for the ensuing year.

5.2 Energy Sales and Connected load for FY 2022-23

5.2.1 The energy sales for FY 2022-23, has been estimated by considering the actual energy sales for the first half and revised estimates of energy sales for second half based on the CAGR approach.

5.2.2 The energy sales in first half of FY 2022-23 have shown a strong recovery trend in economic activities and stands highest amongst the energy sales of first half in past financial years before the COVID-19 Pandemic.

5.2.3 The energy sales of the second half for FY 2022-23 have been estimated by considering CAGR of the energy sales in second half from FY 2014-15 to FY 2021-22. It is submitted that the energy sales in second half of the last two financial year has shown normal energy consumption trend, therefore, FY 2020-21 and FY 2021-22 has been considered for CAGR computation.

5.2.4 The CAGR of four/three/two-year is applied on the actual energy sales of the second half for FY 2021-22 to arrive at the revised estimates of energy sales for FY 2022-23. However, where the negative trend has been observed, the actual figures of past year with nil growth rate has been considered for projection purpose. The details of revised estimates of the energy sales for FY 2022-23 is detailed in tables below.

Table 5-1: Energy Sales for Second Half of FY 2022-23 (in MU)

Particulars	Energy Sales for Second Half (H2)					CAGR			Selected CAGR		FY 2022-23 (H2)
	2017-18	2018-19	2019-20	2020-21	2021-22	2 Year	3 Year	4 Year	CAGR	Rate	

Domestic LT	313.35	295.96	358.58	331.59	314.61	-6.33%	2.06%	0.10%	3-Yr	2.06%	321.08
Domestic HT	11.13	11.44	11.81	6.96	9.67	-9.51%	-5.46%	-3.46%	4-Yr	0.00%	9.67
Domestic	324.48	307.41	370.38	338.55	324.28	-6.43%	1.80%	-0.02%			330.75
Commercial LT	121.06	91.39	105.45	83.18	91.93	-6.63%	0.20%	-6.65%	3-Yr	0.20%	92.11
Commercial HT	108.04	106.28	103.53	85.15	92.71	-5.37%	-4.45%	-3.75%	3-Yr	0.00%	92.71
Non-Domestic	229.10	197.67	208.99	168.33	184.64	-6.18%	-2.37%	-5.34%			184.82
Large Supply	56.43	60.96	60.35	59.50	58.51	-1.54%	-1.36%	0.91%	3-Yr	0.00%	58.51
Medium Supply	61.72	59.43	51.91	54.60	49.16	-2.68%	-6.13%	-5.53%	2-Yr	0.00%	49.16
Small Power	117.03	8.91	8.25	8.30	8.21	-0.22%	-2.70%	-48.54%	2-Yr	0.00%	8.21
Agriculture	0.57	0.63	0.64	0.73	0.55	-7.54%	-4.41%	-1.16%	4-Yr	0.00%	0.55
Public Lighting	8.71	8.60	8.52	7.13	7.81	-4.24%	-3.14%	-2.68%	4-Yr	0.00%	7.81
Bulk Supply	32.52	32.22	34.72	32.18	32.86	-2.72%	0.66%	0.26%	4-Yr	0.26%	32.95
Temp. Supply	2.14	2.24	2.37	1.87	2.14	-5.03%	-1.52%	0.01%	4-Yr	0.01%	2.14
EV Charging S/S	-	-	-	-	-	-	-	-	-	-	-
Total	832.70	678.06	746.13	671.19	668.16	-5.42%	-0.52%	-5.38%			674.90

Table 5-2: Energy Sales for FY 2022-23 (in MU)

Sl. No.	Categories	Approved (T.O. dt 11.07.2022)	FY 2022-23		
			H1 (Actual)	H2 (estimated)	Revised Estimates
1	Domestic – LT	798.15	439.78	321.08	760.86
2	Domestic – HT		16.77	9.67	26.44
3	Domestic – Total	798.15	456.55	330.75	787.30
4	Commercial – LT	406.67	129.99	92.11	222.10
5	Commercial – HT		160.12	92.71	252.83
6	Commercial – Total	406.67	290.11	184.82	474.93
7	Large Supply	118.77	63.92	58.51	122.43
8	Medium Supply	98.26	54.38	49.16	103.54
9	Small Power	16.35	10.38	8.21	18.59
10	Agriculture	1.49	0.94	0.55	1.49
11	Public Lighting	14.75	6.88	7.81	14.69
12	Bulk Supply	78.25	50.58	32.95	83.53
13	Others Temp. Supply	3.56	1.78	2.14	3.92
Grand Total		1,536.24	935.52	674.90	1,610.42

5.2.5 The revised estimates of category wise number of consumers for FY 2022-23 are projected by considering the actual number of consumers for FY 2021-22

as per the provisional annual accounts and CAGR of two/three/four-year over the period FY 2021-22 to FY 2017-18. However, where the negative trend has been observed, the actual figures of past year with nil growth rate has been considered for projection purpose. The details of revised estimates of number of consumers for FY 2022-23 are tabulated below:

Table 5-3: CAGR for Number of Consumers for FY 2022-23

Category	2017-18	2018-19	2019-20	2020-21	2021-22	CAGR		
	Actual	Actual	Actual	Actual	Actual	2 Year	3 Year	4 Year
Domestic- LT	2,12,439	1,94,475	1,97,519	1,98,235	2,00,874	0.85%	1.08%	-1.39%
Domestic- HT	60	83	75	71	65	-6.91%	-7.83%	2.02%
Commercial-LT	25,547	24,156	25,351	25,706	26,144	1.55%	2.67%	0.58%
Commercial-HT	395	447	424	469	440	1.87%	-0.52%	2.73%
Large Supply	97	127	98	95	96	-1.03%	-8.91%	-0.26%
Medium Supply	1,305	1,394	1,270	1,443	1,248	-0.87%	-3.62%	-1.11%
Small Power	1,281	1,418	1,311	1,460	1,337	0.99%	-1.94%	1.08%
Agriculture	124	122	122	120	289	53.91%	33.30%	23.56%
Public Lighting	1,168	1,217	1,308	1,411	1,514	7.59%	7.55%	6.70%
Bulk Supply	637	587	560	531	519	-3.73%	-4.02%	-4.99%
Temp. Supply	386	357	413	448	458	5.31%	8.66%	4.37%
Total	2,43,439	2,24,383	2,28,451	2,29,989	2,32,984			

Table 5-4: Revised Number of Consumers for FY 2022-23 (in Nos)

Category	FY 2021-22	CAGR		FY 2022-23
	Actual (unaudited)	Selected	Rate	Revised Estimated
Domestic- LT	2,00,874	2 Year	0.85%	2,02,573
Domestic- HT	65	4 Year	2.02%	66
Domestic (LT+HT)	2,00,939			2,02,639
Commercial-LT	26,144	2 Year	1.55%	26,550
Commercial-HT	440	2 Year	1.87%	448
Commercial (LT+HT)	26,584			26,998
Large Supply	96	2 Year	0.00%	96
Medium Supply	1,248	2 Year	0.00%	1,248

Category	FY 2021-22	CAGR		FY 2022-23
	Actual (unaudited)	Selected	Rate	Revised Estimated
Small Power	1,337	2 Year	0.99%	1,350
Agriculture	289	Manual	0.05%	289
Public Lighting	1,514	2 Year	7.59%	1,629
Bulk Supply	519	2 Year	0.00%	519
Others Temporary Supply	458	2 Year	5.31%	482
Total	2,32,984			2,35,251

5.2.6 Nominal increase of 0.5% on manual basis has been considered to eliminate the erratic increase in release of agriculture category connections in the last financial year.

5.2.7 Similarly, the connected load for FY 2022-23 is estimated by considering the actual figures of FY 2021-22 as per the provisional accounts and CAGR of two/three/four year during the period FY 2021-22 to FY 2017-18. However, where the negative trend has been observed, the actual figures of past year with nil growth rate has been considered for projection purpose. The details of the revised estimates of connected load for FY 2022-23 is tabulated below:

Table 5-5: CAGR for Connected Load for FY 2022-23

Category	2017-18	2018-19	2019-20	2020-21	2021-22	CAGR		
	Actual	Actual	Actual	Actual	Actual	2 Year	3 Year	4 Year
Domestic- LT	8,80,521	8,58,025	8,68,549	8,75,935	8,88,134	1.12%	1.16%	0.22%
Domestic- HT	28,548	38,663	34,921	34,394	32,635	-3.33%	-5.49%	3.40%
Commercial-LT	2,36,960	2,09,930	2,17,195	2,20,617	2,25,961	2.00%	2.48%	-1.18%
Commercial-HT	2,09,045	2,44,648	2,36,099	2,71,038	2,51,140	3.14%	0.88%	4.69%
Large Supply	69,431	69,231	68,639	67,983	69,425	0.57%	0.09%	0.00%
Medium Supply	72,362	76,548	69,572	78,758	69,138	-0.31%	-3.34%	-1.13%
Small Power	19,717	22,321	21,368	23,702	21,909	1.26%	-0.62%	2.67%

Category	2017-18	2018-19	2019-20	2020-21	2021-22	CAGR		
	Actual	Actual	Actual	Actual	Actual	2 Year	3 Year	4 Year
Agriculture	843	835	834	853	1,179	18.91%	12.21%	8.74%
Public Lighting	6,756	4,911	4,583	4,697	4,538	-0.49%	-2.59%	-9.47%
Bulk Supply	42,253	42,053	41,653	41,671	41,291	-0.44%	-0.61%	-0.57%
Temp. Supply	2,191	32,529	2,587	2,136	1,502	-23.80%	-64.12%	-9.01%
Total	15,68,627	15,99,693	15,66,000	16,21,783	16,06,853			

Table 5-6: Revised Connected Load for FY 2022-23 (in KW)

Category	FY 2021-22	CAGR		FY 2022-23
	Actual (unaudited)	Selected	Rate	Revised Estimated
Domestic- LT	8,88,134	2 Year	1.12%	8,98,092
Domestic- HT	32,635	4 Year	0.00%	32,635
Domestic (LT+HT)	9,20,770			9,30,728
Commercial-LT	2,25,961	2 Year	2.00%	2,30,476
Commercial-HT	2,51,140	2 Year	0.88%	2,53,342
Commercial (LT+HT)	4,77,101			4,83,818
Large Supply	69,425	2 Year	0.57%	69,821
Medium Supply	69,138	2 Year	0.00%	69,138
Small Power	21,909	2 Year	1.26%	22,185
Agriculture	1,179	Manual	0.05%	1,180
Public Lighting	4,538	2 Year	0.00%	4,538
Bulk Supply	41,291	2 Year	0.00%	41,291
Others Temporary Supply	1,502	4 Year	0.00%	1,502
Total	16,06,853			16,24,200

5.2.8 Nominal increase of 0.5% on manual basis has been considered to eliminate the erratic increase in connected load of agriculture category in the last financial year.

5.2.9 EWEDC humbly submits to the Hon'ble Commission that in consideration to the details submitted in table above, revised estimates for category wise energy sales, number of consumers and connected load may kindly be approved for FY 2022-23.

5.3 T&D Losses for FY 2022-23

- 5.3.1 The Hon'ble Commission in the Tariff Order dated 11th July, 2022 has approved the T&D loss target for FY 2022-23 as 8.80% against 13.06% proposed in the Petition. EWEDC submits that it is making concerted efforts toward reduction the T&D losses. However, it is pertinent to note here that UT of Chandigarh is a land locked territory and due to limitation in geographical expansion there is very little possibility in increase of energy sales as well as drastic reduction in overall T&D losses.
- 5.3.2 EWEDC also submits that a major portion of energy sales ~60% is contributed by the LT consumer categories. Due to limitation of geographical expansion of UT of Chandigarh, the electrical network of the EWEDC got inherited with consumers having higher T&D losses for electricity supply.
- 5.3.3 Also, the absence of interconnection point within the UT boundary has caused higher T&D losses. The input energy for EWEDC is being metered at 400kV Nalagarh, 220kV Mohali and 220kV Dhoolkot (BBMB), which is causing additional burden ~4% of interstate circuit losses to EWEDC.
- 5.3.4 EWEDC would also like to draw the kind attention of the Hon'ble Commission on the Abraham Committee recommendations given on fixation of loss reduction targets for Distribution Utilities at time of the roll out of the APDRP Scheme. The Committee has suggested that distribution utilities having losses more than 40% shall be given loss reduction targets of 4% per year; utilities having losses between 30%-40% shall be given reduction target of 3% per years; utilities having losses between 20%-30% shall be given reduction target of 2% per year and utilities having losses below 20% shall be given reduction target of 1% per year. Hence, it is requested to the Hon'ble Commission that in consideration to the above submission, the targets for T&D losses may kindly be realigned in a pragmatic manner.
- 5.3.5 Further, the T&D losses in last ten years has reduced from 20.20% to 12.88% from FY 2011-12 to FY 2021-22, this evidently depicts that annual loss

reduction ~0.70% can be achieved under the business-as-usual scenario. However, drastic reduction in losses to achieve the T&D loss target of 8.80% approved by the Hon'ble Commission in the Tariff Order Dated 11th July, 2017, would not be possible with any capital intervention.

- 5.3.6 Thus, EWEDC humbly request to the Hon'ble Commission that keeping in view the pragmatic approach for reduction of T&D losses the T&D loss target of 12.38% may kindly be approved for FY 2022-23.

5.4 Energy Requirement for FY 2022-23

- 5.4.1 The energy requirement for FY 2022-23 is revised by considered the proposed T&D losses of 12.38% and interstate transmission losses of 4.03% approved in Tariff Order dated 11th July 2022.

- 5.4.2 The details of revised energy balance for FY 2022-23 are given in table below. The Hon'ble Commission is requested to approve the same for FY 2022-23.

Table 5-7: Energy Balance for FY 2022-23

Sr. No.	Particulars	Approved (TO 11.07.2022)	Revised Estimated
(A)	ENERGY AVAILABILITY		
1	Availability from firm sources outside state	2,176.81	2,052.33
2	Less: Short Term Purchase/(Sale) incl. UI	(492.33)	(155.70)
3	Total Availability of Energy from outside the state	1,684.48	1,896.62
4	PGCIL Losses – MU		4.03%
5	PGCIL Losses - %		76.60
6	Total Availability of Energy at State Periphery from outside state after Interstate Losses	1,684.48	1,820.02
7	Availability from sources inside the state		18.03
8	Total Availability of Energy for the State	1,684.48	1,838.05

Sr. No.	Particulars	Approved (TO 11.07.2022)	Revised Estimated
(B)	ENERGY REQUIREMENT		
1	Total sales within the State	1,536.24	1,610.42
2	Distribution Losses (MU)	8.80%	12.38%
3	Distribution Losses (%)	148.24	227.63
4	Total Energy Requirement at State Periphery	1,684.48	1,838.05
	Demand Supply (Gap) / Surplus	0.00	0.00

5.5 Power Purchase Quantum and Cost for FY 2022-23

5.5.1 The Petitioner submits that it procures power from following sources:

- Central Generating Stations (CGS) such as that of NTPC, NHPC and NPCIL
- Other Generating Stations such as that of SJVNL, BBMB, THDC, APCPL and MUNPL
- Other Sources such as SECI, State Solar, bilateral agreement, banking arrangement and power exchanges

5.5.2 EWEDC has estimated the power purchase availability for FY 2022-23 by considering the firm and unallocated power allocations from the Central Generating stations and shared projects. The unallocated share has been calculated by averaging the unallocated power share as per the allocation statements issued by Northern Regional Power Committee against the Ministry of Power vide letter No. NRPC/OPR/103/02/2022 dated on 25.03.2022 and 14.10.2022.

5.5.3 Energy availability from the generating sources for FY 2022-23 is projected based on the average energy scheduled from the generating stations in FY 2021-22 and FY 2019-20. The energy scheduled in FY 2020-21 is not considered for projection purpose as the same year was largely affected by the COVID-19 Pandemic.

5.5.4 Energy availability from BBMB generation stations has been project by considering 1 LU/Day and 10LU/Day of committed generation and allocating the balance availability among the generating stations as per the REA Accounts.

5.5.5 Shortfall of power from the allocated generating plants, if any, is considered to be procured from the short-term power arrangements i.e. power exchanges, UI & other trading sources.

5.5.6 The revised estimate of power purchase cost for FY 2022-23 is calculated by considering the following approach for the capacity charges and energy charges:

- Capacity charges of FY 2021-22 escalated by 3% on annual basis;
- Rebate and Late Payment Surcharge deducted from the capacity charges;
- Energy charges realised in first half of FY 2022-23 are escalated by 2.5%;
- Surplus energy is sold at average variable power purchase cost, since the capacity charges are unavoidable in nature;
- Revenue from sales of surplus power is treated as Non-Tariff Income.

5.5.7 The details of the revised Power Purchase Quantum and Cost for FY 2022-23 are given in table below:

Table 5-8: Estimated Power Purchase Quantum and Cost for FY 2022-23

Sr. No.	Sources	Generating Stations	Approved				Revised Estimates			
			Qty	Capacity Charges	Energy Charges	Total	Qty	Capacity Charges	Energy Charges	Total
			MU	Rs Crs	Rs Crs	Rs Crs	MU	Rs Crs	Rs Crs	Rs Crs
1	NHPC	DULHASTI	47.81	11.67	13.19	24.86	38.06	15.39	9.15	24.54
2		PARBATI-III	14.69	6.38	2.37	8.75	12.86	6.40	2.03	8.43
3		URI II	39.27	5.32	8.45	13.78	25.11	7.94	5.49	13.43
4		SEWA II	12.84	0.22	3.57	3.79	7.16	0.89	1.94	2.83
5		CHAMERA III	23.25	5.30	4.81	10.11	20.45	5.33	4.13	9.46
6		TANAKPUR	6.35	1.13	1.08	2.21	4.81	1.17	0.81	1.99
7		DHAULI GANGA	29.60	3.95	3.77	7.72	25.98	5.55	3.28	8.83
8		CHAMERA I	84.06	7.45	10.07	17.52	77.17	8.33	9.03	17.35
9		CHAMERA II	36.04	4.04	3.80	7.84	29.77	4.22	3.07	7.28

Sr. No.	Sources	Generating Stations	Approved				Revised Estimates			
			Qty	Capacity Charges	Energy Charges	Total	Qty	Capacity Charges	Energy Charges	Total
			MU	Rs Crs	Rs Crs	Rs Crs	MU	Rs Crs	Rs Crs	Rs Crs
10		URI	18.45	1.71	1.59	3.30	16.82	2.76	1.42	4.18
11		SALAL	9.50	0.73	0.61	1.34	8.42	1.76	0.53	2.29
11		Kishan Ganga	26.00	4.83	5.37	10.20	16.73	5.21	3.38	8.59
12		Total (A)	347.86	52.73	58.68	111.42	283.34	64.93	44.25	109.18
13	THDC	TEHRI	168.13	34.12	35.25	69.37	150.15	36.57	32.01	68.58
14		KOTESHWAR	17.85	3.64	4.32	7.96	14.11	4.43	3.35	7.78
15		Total (B)	185.98	37.76	39.57	77.33	164.27	41.00	35.36	76.36
16	SJVNL	RAMPUR	21.56	4.78	4.84	9.61	17.53	5.54	3.62	9.17
17		NATHPA JHAKRI	119.48	14.11	14.40	28.51	103.25	14.14	11.67	25.81
18		Total (C)	141.04	18.89	19.24	38.12	120.78	19.69	15.29	34.98
19	BBMB	BBMB 1 LU					38.03	-	15.01	15.01
20		BBMB 10 LU					380.33	-	150.09	150.09
21		Bhakhra	523.12	-	-	-	233.49	6.53	-	6.53
22		Dehar	80.97	-	14.16	14.16	35.84	4.90	-	4.90
23		Pong	14.63	-	141.60	141.60	7.12	1.96	-	1.96
24		Total (D)	618.72	-	155.76	155.76	694.81	13.39	165.10	178.49
25	NTPC	DADRI II	8.53	1.80	2.95	4.75	4.83	2.05	2.43	4.48
26		UNCHAHAHAR I	9.77	1.69	3.39	5.08	10.92	2.03	5.01	7.04
27		UNCHAHAHAR II	18.00	2.69	6.37	9.06	16.37	3.72	7.55	11.26
28		UNCHAHAHAR III	7.53	1.32	2.63	3.95	8.04	1.56	3.68	5.24
29		UNCHAHAHAR IV	27.38	5.70	8.96	14.66	25.00	5.87	10.69	16.55
30		KAHALGAON II	18.03	2.33	4.22	6.55	21.36	2.44	7.38	9.82
31		SINGRAULI	30.23	1.44	4.83	6.28	11.04	1.87	1.68	3.55
32		RIHAND III	59.80	7.60	8.75	16.35	40.08	7.33	6.28	13.61
33		RIHAND I	81.24	6.78	12.10	18.89	55.01	7.61	8.19	15.80
34		RIHAND II	69.99	4.62	10.46	15.09	48.68	4.77	7.09	11.86
35		Tanda II	21.25	6.44	6.13	12.57	24.53	6.61	6.88	13.49
36		KOLDAM HYDRO	50.50	13.58	13.00	26.58	43.70	13.77	10.98	24.76
37		SINGRAULI HYDRO	1.22	-	0.65	0.65	0.27	0.00	0.14	0.14
38		DADRI	18.63	7.30	6.36	13.65	16.52	9.85	5.43	15.28
39		AURIYA	12.11	6.96	5.24	12.21	5.66	6.49	2.39	8.88
40		ANTA	7.43	5.89	1.93	7.83	2.18	6.17	0.55	6.72
41	Total (E)	441.64	76.14	97.97	174.15	334.19	82.14	86.34	168.48	
42	APCPL	JAJJAR	40.43	13.14	14.90	28.05	44.66	14.44	21.76	36.21

Sr. No.	Sources	Generating Stations	Approved				Revised Estimates			
			Qty	Capacity Charges	Energy Charges	Total	Qty	Capacity Charges	Energy Charges	Total
			MU	Rs Crs	Rs Crs	Rs Crs	MU	Rs Crs	Rs Crs	Rs Crs
43		Total (F)	40.43	13.14	14.90	28.05	44.66	14.44	21.76	36.21
44	MUNPL	MEJA I	54.26	17.13	13.80	30.94	62.09	18.14	15.30	33.45
45		Total (G)	54.26	17.13	13.80	30.94	62.09	18.14	15.30	33.45
46	NPCIL	RAPP (5 & 6)	108.64	-	42.56	42.56	92.35	1.21	35.38	36.59
47		RAPP (3 & 4)	19.84	-	6.59	6.59	18.45	0.46	5.99	6.45
48		NAPS	88.14	-	27.50	27.50	85.90	0.51	26.16	26.67
49		Total (H)	216.62	-	76.65	76.65	196.70	2.18	67.53	69.71
50	SECI	Tranche-VI	120.66	-	34.43	34.43	151.48	0.14	43.93	44.07
51		Total (I)	120.66	-	34.43	34.43	151.48	0.14	43.93	44.07
52	Intra Solar	Crest	9.59	-	7.28	7.28	15.82	-	9.76	9.76
53		Pvt. Solar					1.31	-	1.16	1.16
54		Net Solar					0.90	-	0.32	0.32
55		Total (I)	9.59	-	7.28	7.28	18.03	-	11.24	11.24
56		Total-1	2,176.80	215.78	518.32	734.10	2,070.36	256.05	506.10	762.15
57	Trans. Charges	PGCIL	-	105.79	-	105.79	-	111.16	-	111.16
		UPPTCL					-	0.70	-	0.70
		ULDC					-	0.08	-	0.08
		NRLDC					-	0.31	-	0.31
58		Total (J)	-	105.79	-	105.79	-	112.26	-	112.26
59	Short-Term	Short Term & UI	(492.33)	-	(189.96)	(189.96)	(155.70)	-	-	-
60		Total (K)	(492.33)	-	(189.96)	(189.96)	(155.70)	-	-	-
61		Total-2	(492.33)	105.79	(189.96)	(84.17)	(155.70)	112.26	-	112.26
		Grand Total- (1+2)	1,684.48	321.57	328.36	649.94	1,914.66	368.31	506.10	874.41

5.5.8 The Hon'ble Commission had notified fourth amendment to the JERC (Procurement of Renewable Energy) (Fourth Amendment) Regulations, 2022 on 24th March, 2022. As per the aforesaid amendment, 18.35% of total energy is to be procured by EWEDC from renewable sources for FY 2022-23, which includes 9.00% from Solar, 9.00% from Non-Solar and 0.35% from Large Hydro Plants (commissioned after 8th March,2019).

5.5.9 EWEDC submits that the present tied up sources of renewable power generation will be sufficient to meet the Solar and Non-Solar RPO compliance. Solar power

is sourced from the plants installed under gross & net metering arrangements and non-solar power is sourced from wind generating plants tied up through SECI. EWEDC further submits that total solar generation from net metering and gross plants is reconciled at the end of the financial year, thus the RPO compliance will be achieved at the end of the financial year, as experienced in past years. Hence no additional cost for compliance of Solar & Non-Solar RPO has been proposed. The details of Solar & Non-Solar RPO compliance for FY 2022-23 are tabulated below:

Table 5-9: Effective Conventional Power Consumption for FY 2022-23

Sr. No.	Particular	Unit	Formula	FY 2022-23
1	Energy Sales within UT	MU	A	1,610.42
2	Hydro Power Purchase	MU	B	1,307.17
3	Inter-State Losses	%	C	4.03%
4	Inter-State Losses	MU	$d=b*c$	52.68
5	Intra-State Losses	%	E	12.38%
6	Intra-State Losses	MU	$f=e*(b-d)$	155.36
7	Hydro Power Consumed	MU	$g=b-d-f$	1,099.13
8	Conventional Power Consumed	MU	$h=a-g$	511.29

Table 5-10: RPO Requirement (Solar and Non-Solar) for FY 2022-23

Particulars	RPO %	Conventional Power Consumed (in MU)	RPO for current year (MU)	Back-log (MU)	Total RPO Target (MU)	RPO Complied (MU)	RPO Balance
Solar	9.00%	511.29	46.02	-	46.02	18.03	27.98
Non-Solar	9.00%	511.29	46.02	-	46.02	151.75	-
Total	18.00%		92.03	-	92.03	169.78	27.98

Table 5-11: Solar & Non-Solar Power Procurement for FY 2022-23

Particulars	Units	Quantity
Solar Generation		
Power procured from CREST,	MU	15.82
Private Solar	MU	1.31

Particulars	Units	Quantity
Net solar (MU)	MU	0.90
Total Solar Generation	MU	18.03
Non-Solar Generation		
SECI WIND ENERGY	MU	151.48
Small Hydro	MU	0.27
Total Non-Solar Generation	MU	151.75
Total Solar & Non-Solar Generation	MU	169.78

5.5.10 EWEDC submits that the best efforts are being made to allocate a hydro generating source to meet the HPO compliance. However, this process may take some time to get finalized, hence, for the interim measure, adjustment of excess achieved solar and non-solar RPO targets may kindly be allowed to meet the HPO targets. Similar, provision was once allowed by the Hon'ble Commission in the Tariff Order dated 20th May, 2019 for meeting the non-solar RPO targets with the excess achieved solar RPO compliance. It is humbly requested to the Hon'ble Commission that in view of the same, the excess achieved solar and non-solar RPO targets may be allowed to comply with the HPO targets. The details of HPO calculations for FY 2022-23 are tabulated below:

Table 5-12: HPO Targets for FY 2022-23

Particulars	Approved	Revised Estimates
Sales within State (MU)	1536.24	1,610.42
HPO obligation (%)	0.35%	0.35%
HPO compliance for the year (MU)	5.38	5.64

5.5.11 The Hon'ble Commission is requested that in consideration to the submissions made above, the revised power purchase cost and quantity as submitted in the table above may kindly be approved for FY 2022-23.

5.6 Operations and Maintenance Expenses

5.6.1 Operation and Maintenance expenses for FY 2022-23 are estimated normatively based on the provisions specified under the Regulations 61 & 15 of the MYT Regulations, 2021 and approach followed by the Hon'ble Commission for revising the estimates of APR in Tariff Order dated 11th July, 2022. The relevant regulations are reproduced below:

"60. Operation and Maintenance (O&M) expenses for Retail Supply Business

60.1 *The Operation and Maintenance Expenses for the Retail Supply Business shall be computed in accordance with this Regulation.*

60.2 *O&M Expenses shall comprise of the following:*

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

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

(c) *Repairs and Maintenance expenses.*

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

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

$$O\&M_n = (R\&M_n + EMP_n + A\&G_n) \times (1 - X_n) + \text{Terminal Liabilities}$$

Where,

$$R\&M_n = K \times GF_{A_{n-1}} \times (WPI_{inflation})$$

$$EMP_n = (EMP_{n-1}) \times (1+G_n) \times (CPI_{inflation})$$

$$A\&G_n = (A\&G_{n-1}) \times (CPI_{inflation})$$

'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;

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

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

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

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

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

GFA_{n-1} – Gross Fixed Asset of the transmission Licensee for the n-1th Year;

X_n is an efficiency factor for nthYear. Value of X_n 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;

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

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

60.5 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.

60.6 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

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

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

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

15.3 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."

5.6.2 The Operation and Maintenance expenses for the base year i.e. FY 2021-22, approved by the Hon'ble Commission in Tariff Order dated 11th July, 2022 are escalated with inflation factor of appropriate indices and other approved factors to revised the O&M Expenses for FY 2022-23. The details of revised estimates of O&M Expenses for FY 2022-23 are tabulated below:

Table 5-13: CPI Inflation over the 3 Year

Particulars	Average of (Apr-Mar)	CPI Inflation
FY 2018-19	299.92	5.89%
FY 2019-20	322.50	
FY 2020-21	338.69	
FY 2021-22	356.06	

Table 5-14: WPI Inflation over the 3 Year

Particulars	Average of (Apr-Mar)	WPI Inflation
FY 2018-19	119.79	5.32%
FY 2019-20	121.80	
FY 2020-21	123.38	
FY 2021-22	139.41	

Table 5-15: Employee Expenses for FY 2022-23 (Rs Crore)

Particulars	Approved (TO dt 11.07.2022)	Revised Estimates
Employee Expenses for Previous Year	81.29	81.29
Growth Factor (Gn) approved in MYT Order	7.83%	7.83%
CPI Inflation	6.00%	5.89%
Employee Expenses	92.92	92.82

Table 5-16: Administrative & General Expenses for FY 2022-23 (Rs Crore)

Particulars	Approved (TO dt 11.07.2022)	Revised Estimates
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A&G Expenses for Previous Year	6.28	6.28
CPI Inflation	6.00%	5.89%
Administrative & General Expenses	6.65	6.65

Table 5-17: Repair & Maintenance Expenses for FY 2022-23 (Rs Crore)

Particulars	Approved (TO dt 11.07.2022)	Revised Estimates
GFA for Previous Year (n-1)	471.52	479.22
K factor approved (K) in MYT Order	3.21%	3.21%
WPI Inflation	2.42%	5.32%
Repair & Maintenance Expenses	15.51	16.20

5.6.3 EWEDC submits that due to implementation of 6th Pay Commission in FY 2022-23 the employee expenses have significantly increased due to the arrears. The impact of arrears is Rs 25 Cores and incorporated in the revised estimates of the employee cost for FY 2022-23. The Hon'ble Commission is humbly requested that the impact of arrear may kindly be considered and allowed in employee expenses for FY 2022-23.

5.6.4 Based on the details submitted above, the revised estimates of O&M Expenses for FY 2022-23 are summarised in the table below:

Table 5-18: O&M Expenses for FY 2022-23 (in Rs. Crore)

Sr. No.	Particulars	Approved (TO dt 11.07.2022)	Revised Estimates
1	Employee Expenses	92.92	92.82
2	Impact of arrears due 6 th Pay Commission	-	25.00
3	Total Employee Expenses	92.92	117.82
4	A & G Expenses	6.65	6.65
5	R & M Expenses	15.51	16.20
	O&M Expenses	115.08	140.67

5.6.5 The Hon'ble Commission is requested that the O&M expenses for FY 2022-23 as submitted in the table above may kindly be approved.

5.7 Capital Expenditure and Capitalization

5.7.1 The revised capital expenditure plan for FY 2022-23 is kept equivalent to the amount approved in Tariff Order dated 11th July, 2022. However, the revised capitalisation for FY 2022-23 is expected to Rs 64.48 Crore. EWEDC submits to the Hon'ble Commission the revised capital expenditure and capitalisation plan for FY 2022-23 may kindly be approved. Details of revised capital expenditure and capitalisation plan for FY 2022-23 are given in table below.

Table 5-19: Capitalisation Plan for FY 2022-23 (in Rs Crore)

Sr. No.	Particulars	Amount
Existing Schemes		
1	33 KV and Above	44.87
2	11 KV and Below	15.32
	Total (Existing/Spillover Schemes)	60.19
New Schemes		
1	33 KV and Above	-
2	11 KV and Below	4.29
	Total (New Schemes)	4.29
	GRAND TOTAL (Existing and New Schemes)	64.48

Table 5-20: Capital Expenditure and Capitalization Plan for FY 2022-23

Particulars	Approved (TO dt 11.07.2022)	Revised Estimates
Capital Expenditure (Rs Cr)	37.13	37.13
Capitalization (Rs Cr)	73.64	64.48

5.8 GFA and Depreciation

5.8.1 The Opening Gross Fixed Assets (GFA) for FY 2022-23 is kept equivalent to the closing GFA of FY 2021-22. Based on the Opening GFA, proposed Capex &

Capitalisation plan and depreciation rate specified in Appendix-I of MYT Regulations, 2021, depreciation for FY 2022-23 has been revised. The details of approved and revised depreciation for FY 2022-23 are tubulated below:

Table 5-21: Gross Fixed Asset for FY 2022-23 (in Rs. Crore)

Particulars	Dep. Rate	Op. GFA	Add. CAP	Cl. GFA	Avg. GFA	Dep. Amt	Avg. Dep. Rate
Land	0.00%	0.00	0.00	0.00	0.00	-	
Building	1.80%	36.42	0.00	36.42	36.42	0.66	
Plant & Machinery	3.60%	440.65	64.19	504.84	472.74	17.02	
Vehicles	18.00%	1.10	0.16	1.26	1.18	0.21	
Furniture and Fixtures	6.00%	0.18	0.03	0.20	0.19	0.01	
Office Equipment	6.00%	0.20	0.00	0.20	0.20	0.01	
IT Equipment	15.00%	0.67	0.10	0.77	0.72	0.11	
Total		479.22	64.48	543.69	511.45	18.02	3.52%

Table 5-22: Depreciation for FY 2022-23 (in Rs. Crore)

Particulars	Approved (TO dt 11.07.2022)	Revised Estimates
Opening Gross Fixed Assets	346.49	479.22
Addition of Assets during the year	73.64	64.48
Adjustment	-	-
Closing Gross Fixed Assets	420.13	543.69
Average Gross Fixed Assets	383.31	511.45
Average Rate of Depreciation	3.45%	3.52%
Depreciation for the Year	13.24	18.02

5.9 Interest on Loans

5.9.1 The interest on the loans has been revised for FY 2022-23 as per the Regulation 28 of MYT Regulation, 2021. EWEDC has considered the opening normative loans same as the closing normative loans for FY 2021-22 as submitted in True-Up for FY 2021-22. Further, addition to normative loans during the year has been kept 70% of proposed capitalisation for FY 2022-23.

- 5.9.2 Repayment of the normative loans is kept in line with the MYT Regulations and equivalent to the depreciation during the year.
- 5.9.3 Interest rate equivalent to the SBI MCLR rate applicable on April 1st, 2021 plus 100 basis points i.e. 8.00% has been considered on the average normative loans to revised the interest on normative loans for FY 2022-23.
- 5.9.4 The Hon'ble Commission is requested to approve the interest on normative loan as computed in the table below:

Table 5-23: Interest on Normative Loans for FY 2022-23 (in Rs. Crore)

Particulars	Approved (TO dt 11.07.2022)	Revised Estimates
Opening Normative Loans	-	-
Add: Normative Loans during the year	51.55	45.13
Less: Normative Repayment	13.24	18.02
Closing Normative Loans	38.31	27.12
Average Normative Loans	19.16	13.56
Rate of Interest	8%	8.00%
Interest on Normative Loans	1.53	1.08

5.10 Interest on Working Capital

- 5.10.1 Regulation 64 of JERC MYT Regulations, 2021 states that the working capital of a licensee shall consist of following elements:
- Receivable of two months of billing
 - O&M Expenses of one month
 - 40% of Repair & maintenance expenses for one month
 - Less consumer security deposit but excluding Bank Guarantee
 - Power Purchase cost for one (1) month
- 5.10.2 The SBI 1 Year MCLR applicable on 1st April, 2022 plus 200 basis point i.e. 9.00% has been considered to revised the estimates of interest on working capital for FY 2022-23. EWEDC requests to the Hon'ble Commission that revised estimates of interest on working capital for FY 2022-23 as submitted in table below may kind be approved.

Table 5-24: Interest on Working Capital for FY 2022-23 (in Rs. Crore)

Particulars	Approved (TO dt 11.07.2022)	Revised Estimates
Two months receivables	140.51	156.25
Add: One month O&M Expenses	9.90	9.64
Add: 40% of R&M expenses for one month	0.60	0.54
Less: Consumer Security Deposit excl. BG	213.05	174.07
Less: Power Purchase cost for one (1) month	57.21	72.87
Total Working Capital Requirement	(119.24)	(80.50)
Interest Rate (%)	9.00%	9.00%
Interest on Working Capital	-	-

5.11 Interest on Consumer Security Deposits

5.11.1 EWEDC has estimated the Consumer Security Deposits for FY 2022-23 by considering the opening consumer security deposits for FY 2022-23 equivalent to closing amount of FY 2021-22, percentage increase proposed in number of consumers during FY 2022-23 and RBI Bank Rate applicable on 1st April 2022. The details of revised estimates of interest on consumer security deposits for FY 2022-23 is given in the table below:

Table 5-25: Interest on Consumer Security Deposit for FY 2022-23 (in Rs. Crore)

Particulars	Approved (TO dt 11.07.2022)	Revised Estimates
Opening Consumer Security Deposits	193.76	173.23
Net Addition During the year	3.75	1.69
Closing Consumer Security Deposits	197.51	174.91
Average Deposits	195.63	174.07
Bank Rate	4.25%	4.25%
Interest on Consumer Security Deposits	8.31	7.40

5.11.2 EWEDC humbly requests to the Hon'ble Commission that the Interest on consumer security deposits as submitted in table above may kind be approved for FY 2022-23.

5.12 Return on Equity

5.12.1 Regulation 28 of MYT Regulations, 2021 provides the methodology for working out of Return on Equity (RoE). EWEDC has considered the opening equity for FY 2022-23 equivalent to the closing equity of FY 2021-22. Further, 30% of proposed capitalisation during FY 2022-23 has been considered as equity addition during the year. The revised estimate of Return on Equity for FY 2022-23 is given in table below:

Table 5-26: Return on Equity for FY 2022-23 (in Rs. Crore)

Particulars	Approved (TO dt 11.07.2022)	Revised Estimates
Opening Equity	135.51	137.81
Additions on account of new capitalisation	22.10	19.34
Closing Equity	157.61	157.16
Average Equity	146.56	147.49
Average Equity (Wires Business)	131.9	132.74
Average Equity (Retail Supply Business)	14.66	14.75
Return on Equity for Wires Business (%)	15.50%	15.50%
Return on Equity for Retail Supply Business (%)	16.00%	16.00%
Return on Equity for Wires Business	20.44	20.57
Return on Equity for Retail Supply Business	2.34	2.36
Return on Equity	22.79	22.93

5.13 Provision for Bad and Doubtful Debts

5.13.1 The Bad and doubtful debts for FY 2022-23 are claimed as per Regulation 63 of the MYT Regulations, 2021. Revised estimates are kept equivalent to 1% of the revised Aggregate Revenue Requirement for FY 2022-23. The Hon'ble Commission is requested to approve the proposed bad and doubtful debts for FY 2022-23. Details of revised bad and doubtful debts for FY 2022-23 are given in table below:

Table 5-27: Bad and Doubtful Debts for FY 2022-23 (in Rs. Crore)

Particulars	Approved (TO dt 11.07.2022)	Revised Estimates
Revised ARR for FY 2022-23	-	937.53
Provision for Bad & Doubtful Debts (%)	-	1%
Bad and Doubtful Debt	-	9.38

5.14 Non-Tariff Income

5.14.1 Revised estimates of Non-Tariff Income for FY 2022-23 has calculated as per the provisions of the Regulation 64 of MYT Regulations 2021. Details of the Non-Tariff Income for the FY 2022-23 along with approved and revised amount are tabulated below:

Table 5-28: Non-Tariff Income for FY 2022-23 (Rs. Crore)

Particulars	Approved (T.O. dt 11.07.2022)	Actual
Miscellaneous Charges	-	9.09
Miscellaneous Receipts	-	6.62
Sale of Surplus Power (PX & UI)	-	115.91
Rebate on timely payment of bills	-	4.74
Total	17.66	136.36

5.14.2 EWEDC humbly prays to the Hon'ble Commission to approve the revised Non-Tariff Income for FY 2022-23 as proposed in the table above.

5.15 Revenue on Current Tariff

5.15.1 The revenue at current tariff for FY 2022-23 has been projected based on the revised sales and existing tariff approved by the Hon'ble Commission in Tariff Order dated 11th July, 2022. The category wise revenue projected at current tariff vis-à-vis approved are given in table below:

Table 5-29: Revenue at Existing Tariff for FY 2022-23 (in Rs. Crore)

Sr. No.	Consumer Category	Approved (TO dt 11.07.2022)	Revised Estimates
A	Domestic – LT	351.46	349.57
B	Domestic – HT	13.84	10.30
C	Commercial – LT	117.77	142.69
D	Commercial – HT	126.73	131.27
E	Large Supply	68.39	71.85
F	Medium Supply	57.76	60.08
G	Small Power	7.92	8.79
H	Agriculture	0.39	0.39
I	Public Lighting	7.64	8.77
J	Bulk Supply	40.54	42.51
K	Others Temporary Supply	2.88	3.03
	Total	795.34	829.26

5.16 FPPCA Billed during the year

5.16.1 EWEDC submits that no FPPCA has been levied to the consumers in the first half of FY 2022-23. Hence, no income from FPPCA has been accounted for the purpose of revised estimates of revenue gap for FY 2022-23. The Hon'ble Commission is requested to kindly consider the same.

5.17 Aggregate Revenue Requirement and Revenue Surplus/(Gap) for FY 2022-23

5.17.1 EWEDC submits that based on the revised estimates of various components submitted in previous sections the Aggregate Revenue Requirement and the revised revenue (gap)/surplus for FY 2022-23 is summarized in table below:

Table 5-30: Aggregate Revenue Requirement for FY 2022-23 (in Rs. Crore)

Sr. No.	Particulars	Approved (T.O. dt 11.07.2022)	Actual
1	Power Purchase Cost	649.94	874.41
1a	- Power purchase	502.44	762.15

Sr. No.	Particulars	Approved (T.O. dt 11.07.2022)	Actual
1b	-Transmission Charges	147.50	112.26
2	O&M Expenses	115.08	140.67
2a	-Employee costs	92.92	117.82
2b	-Administration and General expenses	6.65	6.65
2c	-R&M expenses	15.51	16.20
3	Depreciation	13.24	18.02
4	Interest & Finance Charges	10.42	8.48
4a	-Interest and finance charges	1.53	1.08
4b	-Interest on working capital	-	-
4c	-Bank Charges		-
4d	-Interest on Consumer Security Deposit	8.89	7.40
5	Return on Equity	22.79	22.93
6	Provision for Bad Debt	-	9.38
7	Total Revenue Requirement	811.47	1,073.89
8	Less: Non-Tariff Income	17.66	136.36
9	Net Revenue Requirement	793.81	937.53
10	Revenue from retail sales at Existing Tariff	796.44	829.26
11	FPPCA billed during the year		-
12	Regulatory Surcharge billed during the year		-
13	Total Income from Sale of Power	796.44	829.26
14	Revenue Surplus/(Gap) for the Year	2.63	(108.27)

5.17.2 The Hon'ble Commission is requested to approve the revised Aggregate Revenue Requirement for FY 2022-23 as submitted in the table above and carried forward the Revenue (Gap)/Surplus for FY 2022-23 along with carrying cost to determine the revenue requirement for ensuing year.

Chapter 6: Aggregate Revenue Requirement for FY 2023-24

6.1 Background

6.1.1 The Hon'ble Joint Electricity Regulatory Commission (JERC) has notified the JERC (Generation, Transmission and Distribution Multi Year Tariff) Regulations, 2021 (hereafter referred to as MYT Regulations, 2021) on March 22, 2021. These regulations shall be applicable for the 3rd Control Period consisting of FY 2022-23 to FY 2024-25 and applies to all the distribution licensees for determination tariff and related matters specified itself in the MYT Regulations, 2021, in the state of Goa and Union Territories except Delhi.

6.1.2 Regulation 5 of the MYT Regulations, 2021 stipulates, that the Hon'ble Commission shall determine the tariff under MYT framework with effect from 1st April 2022. The relevant extract of regulations is reproduced below:

"5.1 The Commission shall determine the tariff for matters covered under clauses (a), (b), (c) and (d) of Regulation 3.1, under a Multi-Year Tariff framework with effect from April 1, 2022."

6.1.3 Further, Regulation 9.2 of the MYT Regulations, 2021 stipulates as follow:

"9.2 The Applicant shall develop the forecast of Aggregate Revenue Requirement using the assumptions relating to the behaviour of individual variables that comprise the Aggregate Revenue Requirement during each year of the Control Period, including inter-alia detailed category-wise sales and demand projections, power procurement plan, Capital Investment Plan, trajectories of parameters specified in these Regulations and Business Plan, in accordance with guidelines and formats, as may be specified by the Commission from time to time."

6.1.4 Regulation 12 of the MYT Regulations, 2021 states the following:

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

- a) True-up: a comparison of the audited performance of the Applicant for the Financial Year for which the true up is being carried out with the approved*

forecast for such previous Financial Year, subject to the prudence check;

- b) Annual Performance Review: a comparison of the revised performance targets of the Applicant for the current Financial Year with the approved forecast in the Tariff Order corresponding to the Control Period for the current Financial Year subject to prudence check;*
- c) Tariff determination for the ensuing Year of the Control Period based on the revised forecast of the Aggregate Revenue Requirement for the Year;*
- d) Review of compliance with directives issued by the Commission from time to time;*
- e) Other relevant details, if any."*

6.1.5 Thus, in compliance to the regulations referred above, EWEDC submits the revised forecast of Aggregate Revenue Requirement (ARR) for FY 2023-24. All the components of ARR for FY 2023-24 are projected as per the provisions of MYT Regulations, 2021 and approach followed by the Hon'ble Commission for approving the ARR in Tariff Order dated 11th July, 2022.

6.2 Principles of Determination of ARR

6.2.1 This chapter summarizes the ARR for FY 2023-24. The revised projections have been forecasted based on the provisions specified in the MYT Regulations, 2021 and actual annual data available in previous years.

6.2.2 The overall performance parameters proposed for the ARR is based on the methodologies discussed in subsequent paragraphs.

6.3 Number of Consumers, Connected Load and Energy Sales for FY 2023-24

6.3.1 The energy sales for FY 2023-24 are projected by the considering the energy sales mix of the normal years, excluding the energy sales data of those financial years who were affected largely by COVID-19 Pandemic. In FY 2021-22 & FY 2020-21, the economic activities were affected largely due to COVID-19 Pandemic, hence both the years are excluded for projection of energy sales for FY 2023-24. The revised projection of energy sales for FY

2023-24 are estimated by applying the CAGR of two/three/four/five/seven year on the revised energy sales figures of FY 2022-23. However, where the negative trend has been observed, the actual figures of FY 2022-23 with nil growth rate has been considered for projection purpose. The details of the revised projection of energy sales for FY 2023-24 are tabulated below:

Table 6-1: CAGR of Energy Sales for FY 2023-24

Category	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	CAGR 2 Year	CAGR 3 Year	CAGR 4 Year	CAGR 5 Year
	Actual	Actual	Actual	Actual	Actual	Actual				
Domestic	655.38	658.50	721.70	731.94	704.67	759.21	1.85%	1.70%	3.62%	2.99%
Commercial	460.21	463.34	498.68	494.02	472.98	484.49	-0.97%	-0.96%	1.12%	1.03%
Large Supply	117.20	131.84	126.74	119.85	125.15	123.76	1.62%	-0.79%	-1.57%	1.10%
Medium Supply	103.58	110.94	116.08	119.33	116.40	106.38	-5.58%	-2.87%	-1.04%	0.53%
Small Power	20.50	19.01	19.53	19.50	18.87	18.43	-2.78%	-1.90%	-0.76%	-2.10%
Agriculture	1.67	1.49	1.30	1.43	1.36	1.41	-0.57%	2.73%	-1.28%	-3.27%
Public Lighting	21.67	22.50	21.83	17.73	15.09	14.78	-8.70%	-12.20%	-9.98%	-7.37%
Bulk Supply	83.49	77.19	80.60	80.60	77.31	82.88	1.40%	0.94%	1.80%	-0.15%
Temp. Supply	7.97	6.52	4.98	4.40	3.93	4.20	-2.30%	-5.50%	-10.42%	-12.03%
Total	1,471.67	1,491.32	1,591.43	1,588.80	1,535.77	1,595.55				

Table 6-2: Category wise Energy Sales for FY 2023-24 (in MU)

Category	2022-23	CAGR		2023-24
	Estimated	Selected	Rate	Projected
Domestic (LT+HT)	787.30	3 Year	1.70%	800.71
Commercial (LT+HT)	474.93	4 Year	1.12%	480.26
Large Supply	122.43	2 Year	1.62%	124.41
Medium Supply	103.54	3 Year	0.00%	103.54
Small Power	18.59	4 Year	0.00%	18.59
Agriculture	1.49	3 Year	2.73%	1.53
Public Lighting	14.69	5 Year	0.00%	14.69
Bulk Supply	83.53	4 Year	1.80%	85.03
Others Temporary Supply	3.92	2 Year	0.00%	3.92
Total	1,610.42			1,632.68

6.3.2 The Hon'ble Commission is requested to approve the above submitted revised projections of energy sales for FY 2023-24.

6.3.3 The revised number of consumers and connected load for FY 2023-24 are projected based on the actual figures for FY 2021-22 as per the provisional accounts and year-over-year implementation of CAGR of two/three/four-year determined as per the actual figure of the period FY 2020-21 to FY 2017-18. However, where the negative trend has been observed, the actual figures of FY 2022-23 with nil growth rate has been considered for projection purpose. Further, to rationalise of erratic variations in the growth trend, manual growth rate instead of CAGR has been considered. The revised projections of number of consumers and connected load for FY 2023-24 are tabulated below:

Table 6-3: CAGR for Number of Consumers for FY 2023-24

Category	2017-18	2018-19	2019-20	2020-21	2021-22	CAGR		
	Actual	Actual	Actual	Actual	Actual	2 Year	3 Year	4 Year
Domestic- LT	2,12,439	1,94,475	1,97,519	1,98,235	2,00,874	0.85%	1.08%	-1.39%
Domestic- HT	60	83	75	71	65	-6.91%	-7.83%	2.02%
Commercial-LT	25,547	24,156	25,351	25,706	26,144	1.55%	2.67%	0.58%
Commercial-HT	395	447	424	469	440	1.87%	-0.52%	2.73%
Large Supply	97	127	98	95	96	-1.03%	-8.91%	-0.26%
Medium Supply	1,305	1,394	1,270	1,443	1,248	-0.87%	-3.62%	-1.11%
Small Power	1,281	1,418	1,311	1,460	1,337	0.99%	-1.94%	1.08%
Agriculture	124	122	122	120	289	53.91%	33.30%	23.56%
Public Lighting	1,168	1,217	1,308	1,411	1,514	7.59%	7.55%	6.70%
Bulk Supply	637	587	560	531	519	-3.73%	-4.02%	-4.99%
Temp. Supply	386	357	413	448	458	5.31%	8.66%	4.37%
Total	2,43,439	2,24,383	2,28,451	2,29,989	2,32,984			

Table 6-4: Revised Number of Consumers for FY 2023-24 (in Nos)

Category	FY 2021-22	CAGR		FY 2023-24
	Actual (unaudited)	Selected	Rate (YOY basis)	Revised Estimated
Domestic- LT	2,00,874	2 Year	0.85%	2,04,286
Domestic- HT	65	4 Year	2.02%	68
Domestic (LT+HT)	2,00,939			2,04,354
Commercial-LT	26,144	2 Year	1.55%	26,962
Commercial-HT	440	2 Year	1.87%	457
Commercial (LT+HT)	26,584			27,418
Large Supply	96	2 Year	0.00%	96
Medium Supply	1,248	2 Year	0.00%	1,248
Small Power	1,337	2 Year	0.99%	1,364
Agriculture	289	Manual	0.05%	289
Public Lighting	1,514	2 Year	7.59%	1,752
Bulk Supply	519	2 Year	0.00%	519
Temp. Supply	458	2 Year	5.31%	508
Total	2,32,984			2,37,548

Table 6-5: CAGR for Connected Load for FY 2023-24

Category	2017-18	2018-19	2019-20	2020-21	2021-22	CAGR		
	Actual	Actual	Actual	Actual	Actual	2 Year	3 Year	4 Year
Domestic- LT	8,80,521	8,58,025	8,68,549	8,75,935	8,88,134	1.12%	1.16%	0.22%
Domestic- HT	28,548	38,663	34,921	34,394	32,635	-3.33%	-5.49%	3.40%
Commercial-LT	2,36,960	2,09,930	2,17,195	2,20,617	2,25,961	2.00%	2.48%	-1.18%
Commercial-HT	2,09,045	2,44,648	2,36,099	2,71,038	2,51,140	3.14%	0.88%	4.69%
Large Supply	69,431	69,231	68,639	67,983	69,425	0.57%	0.09%	0.00%
Medium Supply	72,362	76,548	69,572	78,758	69,138	-0.31%	-3.34%	-1.13%
Small Power	19,717	22,321	21,368	23,702	21,909	1.26%	-0.62%	2.67%
Agriculture	843	835	834	853	1,179	18.91%	12.21%	8.74%
Public Lighting	6,756	4,911	4,583	4,697	4,538	-0.49%	-2.59%	-9.47%
Bulk Supply	42,253	42,053	41,653	41,671	41,291	-0.44%	-0.61%	-0.57%
Temp. Supply	2,191	32,529	2,587	2,136	1,502	-23.80%	-64.12%	-9.01%
Total	15,68,627	15,99,693	15,66,000	16,21,783	16,06,853			

Table 6-6: Category wise Connected Load for FY 2023-24 (in KW)

Category	2021-22	CAGR		2023-24
	Actual (Unaudited)	Selected	Rate (YOY Basis)	Projected
Domestic- LT	8,88,134	2 Year	1.12%	9,08,162
Domestic- HT	32,635	2 Year	0.00%	32,635
Domestic (LT+HT)	9,20,770			9,40,797
Commercial-LT	2,25,961	2 Year	2.00%	2,35,081
Commercial-HT	2,51,140	3 Year	0.88%	2,55,564
Commercial (LT+HT)	4,77,101			4,90,644
Large Supply	69,425	2 Year	0.57%	70,220
Medium Supply	69,138	2 Year	0.00%	69,138
Small Power	21,909	2 Year	1.26%	22,464
Agriculture	1,179	Manual	0.05%	1,180
Public Lighting	4,538	2 Year	0.00%	4,538
Bulk Supply	41,291	2 Year	0.00%	41,291
Temp. Supply	1,502	4 Year	0.00%	1,502
Total	16,06,853			16,41,774

6.3.4 The Hon'ble Commission is requested that the revised number of consumers and connected load as proposed in the tables above may kindly be approved for FY 2023-24.

6.4 Power Purchase Quantum and Cost

6.4.1 EWEDC submits that it does not have any generation capacity and relies entirely on the allocation of power from the Central Generating Stations like NTPC, NHPC, BBMB, NPCIL, SJVNL, APCPL, MUNPL etc. The firm and average power allocation from the unallocated power pool of the Central Generating Stations & Other Power Plants have been considered to project the energy availability for FY 2023-24.

6.4.2 The Energy availability for FY 2023-24 from various generating stations is projected based on the following methodology:

- a. The firm and unallocated power allocation from the various Central

Generating Stations and Share Power Projects have been considered to project the energy availability for FY 2023-24.

- b. The average allocation from the unallocated share of power from central generation stations, as per the allocation statements issued by the Northern Region Power Committee (NRPC) against the Ministry of Power letter No NRPC/OPR/103/02/2022 dated on 16.10.2022 and 23.03.2022 have been considered to project power availability.
- c. Average energy scheduled from the each generating stations in the last two previous years i.e. FY 2021-22 and FY 2019-20 has been considered to determine the plant load factor for FY 2023-24. Energy scheduled during the FY 2020-21 has not considered, as the same was affected largely by the COVID-19 Pandemic.
- d. Energy availability from BBMB plant has been projected by considering 1LU/Day and 10LU/Day of firm commitment and apportioning the balance generation among the generating stations as per their availability recorded in the REA accounts.

6.4.3 Shortfall of power from the allocated source, if any, based on the revised estimates of energy sales and T&D losses for FY 2023-24 has been considered to be sourced from short term sources i.e. power exchange, UI & other trading sources.

6.4.4 For purpose of revised power purchase cost projection for FY 2023-24, the capacity charges and energy charges are calculated by considering the following approach:

- Capacity charges for FY 2021-22 are escalated by 3% on year over year basis;
- Rebate and Late Payment Surcharge are not accounted as part of capacity charges;
- Energy charges realised from the energy bills of the first half of FY 2022-23 are escalate by 2.5% on YOY basis;

- Surplus energy is sold at average variable power purchase cost, since the capacity charges are unavoidable in nature;
- Revenue from sales of surplus power is treated as Non-Tariff Income.

6.4.5 Based on the above assumptions and methodology, the revised power purchase cost and energy availability from various generating stations has been projected for FY 2023-24. The details of power purchase cost and energy availability for FY 2023-24 are summarized in table below:

Table 6-7: Power Purchase cost and availability for FY 2023-24

Sr. No.	Sources	Generating Stations	Approved				Revised Estimates			
			Qty	Capacity Charges	Energy Charges	Total	Qty	Capacity Charges	Energy Charges	Total
			MU	Rs Crs	Rs Crs	Rs Crs	MU	Rs Crs	Rs Crs	Rs Crs
1	NHPC	DULHASTI	47.81	11.90	13.85	25.75	38.06	15.85	9.38	25.23
2		PARBATI-III	14.69	6.51	2.49	9.00	12.86	6.59	2.08	8.67
3		URI II	39.27	5.43	8.88	14.31	25.11	8.18	5.62	13.80
4		SEWA II	12.84	0.23	3.75	3.98	7.16	0.91	1.99	2.90
5		CHAMERA III	23.25	5.41	5.05	10.46	20.45	5.49	4.23	9.72
6		TANAKPUR	6.35	1.15	1.13	2.28	4.81	1.21	0.83	2.04
7		DHAULIGANG A	29.60	4.03	3.96	7.99	25.98	5.71	3.36	9.08
8		CHAMERA I	84.06	7.60	10.57	18.17	77.17	8.58	9.25	17.83
9		CHAMERA II	36.04	4.12	3.99	8.11	29.77	4.34	3.14	7.48
10		URI	18.45	1.74	1.67	3.42	16.82	2.84	1.45	4.30
11		SALAL	9.50	0.74	0.65	1.39	8.42	1.81	0.54	2.35
11		Kishan Ganga	26.00	4.93	5.64	10.57	16.73	5.37	3.46	8.83
12		Total (A)	347.86	53.79	61.63	115.43	283.34	66.88	45.36	112.23
13	THDC	TEHRI	168.13	34.80	37.01	71.81	150.15	37.67	32.81	70.48
14		KOTESHWAR	17.85	3.71	4.53	8.24	14.11	4.56	3.43	7.99
15		Total (B)	185.98	38.51	41.54	80.05	164.27	42.23	36.25	78.47
16	SJVNL	RAMPUR	21.56	4.87	5.08	9.95	17.53	5.71	3.72	9.43
17		NATHPA JHAKRI	119.48	14.39	15.12	29.51	103.25	14.57	11.96	26.53
18		Total (C)	141.04	19.26	20.20	39.46	120.78	20.28	15.67	35.95
19	BBMB	BBMB 1 LU	-	-	-	-	38.03	-	15.38	15.38
20		BBMB 10 LU	-	-	-	-	380.33	-	153.84	153.84
21		Bhakhra	523.12	-	-	-	233.49	6.73	-	6.73

Sr. No.	Sources	Generating Stations	Approved				Revised Estimates			
			Qty	Capacity Charges	Energy Charges	Total	Qty	Capacity Charges	Energy Charges	Total
			MU	Rs Crs	Rs Crs	Rs Crs	MU	Rs Crs	Rs Crs	Rs Crs
22		Dehar	80.97	-	14.87	14.87	35.84	5.05	-	5.05
23		Pong	14.63	-	148.69	148.69	7.12	2.02	-	2.02
24		Total (D)	618.72	-	163.56	163.56	694.81	13.79	169.22	183.01
25	NTPC	DADRI II	8.53	1.83	3.09	4.93	4.83	2.11	2.49	4.60
26		UNCHAHAAR I	9.77	1.72	3.56	5.28	10.92	2.09	5.13	7.22
27		UNCHAHAAR II	18.00	2.74	6.69	9.43	16.37	3.83	7.73	11.56
28		UNCHAHAAR III	7.53	1.34	2.77	4.11	8.04	1.61	3.77	5.38
29		UNCHAHAAR IV	27.38	5.81	9.41	15.22	25.00	6.04	10.96	17.00
30		KAHALGAON II	18.03	2.37	4.43	6.81	21.36	2.52	7.56	10.08
31		SINGRAULI	30.23	1.47	5.08	6.55	11.04	1.93	1.72	3.65
32		RIHAND III	59.80	7.75	9.19	16.94	40.08	7.55	6.43	13.98
33		RIHAND I	81.24	6.92	12.71	19.63	55.01	7.84	8.40	16.23
34		RIHAND II	69.99	4.72	10.98	15.70	48.68	4.91	7.27	12.18
35		Tanda II	21.25	6.57	6.44	13.01	24.53	6.81	7.05	13.86
36		KOLDAM HYDRO	50.50	13.85	13.65	27.50	43.70	14.19	11.26	25.45
37		SINGRAULI HYDRO	1.22	-	0.68	0.68	0.27	0.00	0.14	0.14
38		DADRI	18.63	7.44	6.68	14.12	16.52	10.15	5.56	15.71
39		AURIYA	12.11	7.10	5.50	12.61	5.66	6.68	2.45	9.13
40		ANTA	7.43	6.01	2.03	8.04	2.18	6.35	0.56	6.92
41			Total (E)	441.64	77.64	102.89	180.56	334.19	84.60	88.50
42	APCPL	JAJJAR	40.43	13.41	15.65	29.06	44.66	14.88	22.31	37.18
43		Total (F)	40.43	13.41	15.65	29.06	44.66	14.88	22.31	37.18
44	MUNPL	MEJA I	54.26	17.48	14.49	31.97	62.09	18.69	15.69	34.37
45		Total (G)	54.26	17.48	14.49	31.97	62.09	18.69	15.69	34.37
46	NPCIL	RAPP (5 & 6)	108.64	-	44.68	44.68	92.35	1.25	36.26	37.51
47		RAPP (3 & 4)	19.84	-	6.92	6.92	18.45	0.47	6.14	6.62
48		NAPS	88.14	-	28.87	28.87	85.90	0.52	26.82	27.34
49		Total (H)	216.62	-	80.47	80.47	196.70	2.24	69.22	71.46
50	SECI	Tranche-VI	120.66	-	34.43	34.43	151.48	0.15	43.93	44.08
51		Total (I)	120.66	-	34.43	34.43	151.48	0.15	43.93	44.08
52	Intra Solar	Crest					15.82	-	10.00	10.00
53		Pvt. Solar	11.03		8.37	8.37	1.31	-	1.19	1.19
54		Net Solar					0.90	-	0.33	0.33

Sr. No.	Sources	Generating Stations	Approved				Revised Estimates			
			Qty	Capacity Charges	Energy Charges	Total	Qty	Capacity Charges	Energy Charges	Total
			MU	Rs Crs	Rs Crs	Rs Crs	MU	Rs Crs	Rs Crs	Rs Crs
55		Total (I)	11.03	-	8.37	8.37	18.03	-	11.52	11.52
56		Total-1	2,178.24	220.10	543.24	763.34	2,070.36	263.73	517.66	781.39
57	Trans. Charges	PGCIL	-	107.91	-	107.91	-	116.72	-	116.72
		UPPTCL					-	0.74	-	0.74
		ULDC					-	0.09	-	0.09
		NRLDC					-	0.32	-	0.32
58		Total (J)	-	107.91	-	107.91	-	117.87	-	117.87
59	Short-Term	Short Term & UI	(461.93)	-	(184.76)	(184.76)	(140.86)	-	-	-
60		Total (K)	(461.93)	-	(184.76)	(184.76)	(140.86)	-	-	-
61		Total-2	(461.93)	107.91	(184.76)	(76.85)	(140.86)	117.87	-	117.87
		Grand Total- (1+2)	1,716.30	328.00	358.48	686.48	1,929.49	381.60	517.66	899.26

6.5 T&D Losses

6.5.1 EWEDC has considered the transmission losses for FY 2023-24 at the same level as approved by the Hon'ble Commission in Tariff Order dated 11th July, 2022.

Table 6-8: Inter State Transmission Losses (%) for FY 2023-24

Particular	Approved	Revised
Interstate Transmission Loss	4.03%	4.03%

6.5.2 EWEDC submits that it is making concerted efforts towards the reduction of T&D losses. In FY 2021-22, despite of COVID-19 Pandemic, T&D Losses have reduced from 13.81% to 12.88% during the year. However, it should be noted that UT of Chandigarh is a land locked territory has no further possibility of geographical expansion. Thus, drastic reduction in T&D losses from the existing level to the approved T&D loss targets of 8.40% would not be possible without any capital intervention.

- 6.5.3 EWEDC further submits that T&D losses have already reached to a limit where only technical losses are left into the system. The same is evident from the contribution of energy sales (~70%) by the LT- Consumer categories.
- 6.5.4 Also, in last 10 years the reduction in T&D losses has remained within the range of 0.5%- 1% from FY 2011-12 to FY 2021-22. Thus, taking a pragmatic approach T&D loss target of 11.88% has been proposed for FY 2023-24. Details of approved and proposed T&D losses for FY 2023-24 are given in table below:

Table 6-9: T&D Losses (%) for FY 2023-24

Particular	Approved	Revised
Transmission & Distribution losses	8.40%	11.88%

- 6.5.5 EWEDC submits that in addition to above, absence of interconnection point within the boundary of UT of Chandigarh is also causing higher T&D losses. Input energy is being metered at 400kV Nalagarh, 220kV Mohali and 220kV Dhoolkot (BBMB) which imposes additional losses ~4% of interstate circuit to EWEDC.
- 6.5.6 EWEDC would also like to draw the kind attention of the Hon'ble Commission on the Abraham Committee recommendations given on fixation of loss reduction targets for Distribution Utilities at time of the roll out of the APDRP Scheme. The Committee has suggested that distribution utilities having losses more than 40% shall be given loss reduction targets of 4% per year; utilities having losses between 30%-40% shall be given reduction target of 3% per years; utilities having losses between 20%-30% shall be given reduction target of 2% per year and utilities having losses below 20% shall be given reduction target of 1% per year. Hence, it is requested to the Hon'ble Commission that in consideration to the above submission, the targets for T&D losses may kindly be realigned in a pragmatic manner.
- 6.5.7 Further, the T&D losses in last ten years has reduced from 20.20% to 12.88% from FY 2011-12 to FY 2021-22, this shows evidently that reduction in T&D losses ~0.70% can be achieved on annual basis. However, UT of Chandigarh

having already reached to the limits of geographical expansion, therefore due to the stagnation of consumer mix and increase in the share of energy sale of LT consumers categories, T&D loss target of 11.88% has been proposed for FY 2023-24.

6.5.8 The Hon'ble Commission is requested that in view of above submission, T&D loss targets of 11.88% may kindly be approved for FY 2023-24.

6.6 Energy Balance

6.6.1 The table below show the details of the forecast of Energy balance for FY 2023-24. The Hon'ble Commission is request to approve the same for FY 2023-24.

Table 6-10: Energy Balance for FY 2023-24

Particular	Approved (T.O. 11.07.2022)	Projected
Energy Procured (MU)	2,178.24	2,052.33
Less: Outside Sale – Trading (MU)	(461.93)	(140.86)
Energy Available (MU)	2,640.17	1,911.46
Inter-State Transmission Loss (%)		4.03%
Transmission Loss (MU)		76.60
Net Energy Available at UT Periphery (MU)	2,640.17	1,834.86
Power from Gross & NET Metering Mode (MU)		18.03
Total Energy Available (MU)	2,640.17	1,852.89
Actual Energy Sales (MU)	1,572.14	1,632.68
T&D Loss (%)	8.40%	11.88%
T&D Loss (in MU)	144.16	220.21
Energy Required at UT Periphery (MU)	1,716.30	1,852.89
Demand Supply (Gap) / Surplus (MU)	0.00	0.00

6.7 RPO Obligation

6.7.1 EWEDC has made adequate tie ups for compliance of RPO target for FY 2023-24. The solar power is procured from solar plants installed under gross metering

and net metering, and non-solar power is sourced from wind generating plants through SECI.

6.7.2 As per the JERC (Procurement of Renewable Energy) Regulations, 2010 read with Fourth Amendment Regulations, 2022, the Hon'ble Commission has specified Renewable Purchase Obligation (RPO) targets for all Distribution Licensees/ obligated entities for FY 2022-23 to FY 2025-26. As per the aforesaid amendment, the Petitioner has to purchase 19.91% of total energy purchase from renewable sources for the FY 2023-24 consisting of 10.00% from Solar, 9.25% from Non-Solar and 0.66% from Large Hydro Plants.

6.7.3 The summary of revised Solar and Non-Solar compliance for FY 2023-24 is summarized in table below:

Table 6-11: Effective Conventional Power Consumption for FY 2023-24

Sr. No.	Particular	Unit	Formula	Projection
1	Energy Sales within UT	MU	a	1,632.68
2	Hydro Power Purchase	MU	b	1,307.17
3	Inter-State Loss	%	c	4.03%
4	Inter-State Loss	MU	$d=b*c$	52.68
5	Intra-State Loss	%	e	11.88%
6	Intra-State Loss	MU	$f=e*(b-d)$	149.09
7	Hydro Power Consumed	MU	$g=b-d-f$	1,105.40
8	Conventional Power Consumed	MU	$h=a-g$	527.28

Table 6-12: RPO Requirement (Solar and Non-Solar) for FY 2023-24

Particulars	RPO %	Conventional Power Consumed (MU)	RPO Target (MU)	RE Generation 2023-24 (MU)	RPO to be procured (MU)
Solar	10.00%	527.28	52.73	18.03	34.70
Non-Solar	9.25%	527.28	48.77	151.75	-
Total	19.25%		101.50	169.78	34.70

- 6.7.4 EWEDC submits that solar generation from net and gross metering plants reconciled at the end of the financial year. As perceived in previous years the total generation from solar plants installed under net metering arrangements will be sufficient to meet the RPO targets, hence no cost corresponding to RPO target has been envisaged in the power purchase cost. It is most respectfully submitted that the same may kindly be considered by the Hon'ble Commission.
- 6.7.5 In compliance to the JERC (Procurement of Renewable Energy) (Fourth Amendment) Regulations, 2022 dated March 24, 2022, the HPO Target for FY 2023-24 are as follow:

Table 6-13: HPO Compliance for FY 2023-24

Particular	Units	Quantity
Sales within State	MU	1,632.68
HPO obligation	%	0.66%
HPO obligation for the year	MU	10.78
Energy from LHP (COD after 8 th March, 2019)	MU	-
HPO Shortfall	MU	10.78

- 6.7.6 EWEDC submits that the best efforts are being made to allocate a hydro generating source to meet the HPO compliance. However, this process may take some time to get finalized, hence, for the interim measure, adjustment of excess achieved solar and non-solar RPO targets may kindly be allowed to meet the HPO targets. Similar, provision was once allowed by the Hon'ble Commission in the Tariff Order dated 20th May, 2019 for meeting the non-solar RPO targets with the excess achieved solar RPO compliance. It is humbly requested to the Hon'ble Commission that in view of the same, the excess achieved solar and non-solar RPO targets may be allowed to comply with the HPO targets for FY 2023-24.

6.8 Operation & Maintenance (O&M Expenses)

- 6.8.1 Operation & Maintenance expenses comprise of the following expenditure heads:

- Employee Expenses
- Administration & General Expenses
- Repairs & Maintenance Expenses

6.8.2 Regulation 61 of JERC MYT regulations, 2021, provides the methodology for computing O&M expense. The relevant extracts of the Regulations are reproduced as follow:

"...

61.3 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 distribution Licensee, estimates of the actuals for the Base Year, prudence check and any other factors considered appropriate by the Commission

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

$$O\&M_n = (R\&M_n + EMP_n + A\&G_n) \times (1 - X_n) + \text{Terminal Liabilities}$$

Where,

$$R\&M_n = K \times GF_{A,n-1} \times (1 + \text{WPI inflation})$$

$$EMP_n = (EMP_{n-1}) \times (1 + G_n) \times (1 + \text{CPI inflation})$$

$$A\&G_n = (A\&G_{n-1}) \times (1 + \text{CPI inflation})$$

'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;

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

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

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

GFA_{n-1} – Gross Fixed Asset of the Distribution Licensee for the n-1th Year; X_n is an efficiency factor for nth Year. Value of X_n 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;

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

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

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

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

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

6.8.3 As per the above regulations and the approach followed by the Hon’ble Commission in the revising the estimates of ARR in previous tariff orders, the employee expenses for FY 2023-24 have been revised by considering the employee expenses proposed in APR for FY 2022-23, Growth Rate (G_n) approved for FY 2023-24 in Tariff Order dated 11th July, 2022 and inflation calculated based on the average increase in consumer price index in previous three financial years. The details of revised employee expenses projection for FY 2023-24 are as follow:

Table 6-14: Average CPI Computations

Particulars	Average of (Apr-Mar)	Increase	Average increase
2018-19	299.92		
2019-20	322.50	7.53%	
2020-21	338.69	5.02%	
2021-22	356.06	5.13%	5.89%

Table 6-15: Employee Expenses for FY 2023-24

Particulars	Unit	Approved	Projected
Employee Expenses for Previous Year	Rs Cr	92.92	92.82
Growth Factor (Gn) approved in MYT Order	%	-4.70%	-4.70%
CPI Inflation (previous three years)	%	6.00%	5.89%
Employee Expenses	Rs Cr	93.87	93.67

6.8.4 Similarly, the revised A&G expenses for FY 2023-24 has been projected. The revised estimate of A&G Expenses in APR for FY 2022-23 and CPI inflation calculated based on the actual indices of previous four years have been considered to project the A&G expenses for FY 2023-24. The details of A&G Expenses for FY 2023-24 are as under:

Table 6-16: Administration & General Expenses for FY 2023-24

Particulars	Unit	Approved	Projected
A&G Expenses for Previous Year	Rs Cr	6.65	6.65
CPI Inflation (previous three years)	%	6.00%	5.89%
A& G Expenses	Rs Cr	7.05	7.04

6.8.5 The revised Repair and Maintenance expenses for FY 2023-24 has been projected by considering the opening GFA estimated in APR for FY 2022-23, K factor approved for FY 2023-24 in the Tariff Order dated 11th July, 2022 and WPI inflation Factor assessed on the basis of past four financial years. The details of Repair & Maintenance Expenses for FY 2023-24 are tabulated below:

Table 6-17: Average WPI Computations

Particulars	Average of (Apr-Mar)	Increase in WPI Index	Average increase in WPI
2018-19	119.79		
2019-20	121.80	1.68%	

2020-21	123.38	1.29%	
2021-22	139.41	13.00%	5.32%

Table 6-18: R&M Expenses for FY 2023-24

Particulars	Unit	Approved	Projected
Opening GFA of previous year	Rs Cr	545.16	543.69
K factor approved (K)	%	3.21%	3.21%
WPI Inflation	%	2.42%	5.32%
R&M Expenses	Rs Cr	17.94	18.38

6.8.6 The revised O&M expenses projected for FY 2023-24 is summarized in table below:

Table 6-19: O&M Expenses for FY 2023-24 (in Rs Crore)

Particulars	Approved	Projected
Employee Expenses	93.87	93.67
A&G Expenses	7.05	7.04
R & M Expenses	17.94	18.38
Total O&M Expenses	118.85	119.09

6.8.7 The Hon'ble Commission is requested to approved the O&M expenses as submitted in table above for FY 2023-24.

6.9 Capital Expenditure and Capitalization

6.9.1 The MYT Regulations, 2021 specifies the following provisions for projection of capital expenditure

"8.5 Capital Investment Plan

a) *The Capital Investment Plan to be submitted as part of Business Plan shall include details of New Projects planned during the Control Period, purpose of investment, capital structure, implementation schedule, quarter-wise capital expenditure and capitalisation schedule, financing plan, cost-benefit analysis, improvement in operational efficiency envisaged in the Control Period owing to proposed investment and such details for ongoing projects that will spill over into the Control Period under review along with justification;*

- b) *The Capital Investment Plan proposed by the Transmission Licensee shall be in conformity with the plans made by the Authority/Central Transmission Utility and with the Capital Investment Plan of the Distribution Licensee;*
- c) *During the Annual Performance Review, the Commission shall monitor the progress of the actual capital expenditure incurred by the Licensee vis -à-vis the approved capital expenditure. The Licensees shall submit the actual capital expenditure incurred along with the annual performance review, true-up and determination of tariff filing;*
- d) *The trueing up of the capital cost incurred for the new projects and additional capital cost for the existing projects shall be done on yearly basis based on the actual capital cost incurred.:*

Provided if the actual capital cost incurred on year to year basis is lesser than the capital cost approved for determination of tariff by the Commission on the basis of the projected capital cost as on the date of commercial operation or on the basis of the projected additional capital cost, by twenty (20) percent or more, the excess tariff/revenue realized corresponding to excess capital cost as approved by the Commission, along with interest at 1.10 times of the Carrying Cost, as prevalent on the first day of April of the respective financial year, shall be adjusted from the annual revenue requirement of the respective year at the time of true-up.

Provided if the actual capital cost incurred on year to year basis is higher than the capital cost approved for determination of tariff by the Commission on the basis of the projected capital cost as on the date of commercial operation or on the basis of the projected additional capital cost, by twenty (20) percent or more, the shortfall in tariff/revenue realized corresponding to excess capital cost as incurred by the licensee vis-à-vis approved by the Commission, along with interest at 0.9 times of the Carrying Cost, as prevalent on the first day of April of the respective financial year, shall be allowed in the annual revenue requirement of the respective year at the time of true-up.

- e) *In case the capital expenditure is required for emergency work which has not been approved in the Capital Investment Plan, the Licensee shall submit an application containing all relevant information along with reasons justifying emergency nature of the proposed work seeking approval of the Commission:*

Provided that in case capital expenditure is required for emergency work or unforeseen situation to mitigate threat to life and property and if prior intimation thereof to the Commission shall cause any irreparable loss or injury, the Licensee may undertake that capital expenditure and submit the details along with adequate justification for post facto approval of the Commission:

Provided further that for the purpose of Regulation 8.5(e) above, such approved capital expenditure shall be treated as a part of both the actual capital expenditure incurred by the Licensee and approved capital expenditure by the Commission;

f) *The Licensee shall submit a report for every quarter detailing the progress of the capital expenditure and capitalisation undertaken against that proposed in the Capital Investment Plan, on or before the last Day of the month succeeding the respective quarter for review by the Commission."*

6.9.2 EWEDC submits that the capital expenditure for FY 2023-24 has considered same as approved by the Hon'ble Commission in the Tariff Order dated 11th July, 2022. However, the capitalisation for FY 2023-24 has been projected as Rs 47.39 Crore. Details of revised capital expenditure and capitalisation plan for FY 2023-24 are given in table below.

Table 6-20: Capitalization Plan for FY 2023-24 (in Rs Crore)

Sr. No.	Particulars	Amount
Existing Schemes		
1	33 KV and Above	26.64
2	11 KV and Below	2.84
	Total (Existing/Spillover Schemes)	29.48
New Schemes		
1	33 KV and Above	4.00
2	11 KV and Below	13.91
	Total (New Schemes)	17.91
	GRAND TOTAL (Existing and New Schemes)	47.39

Table 6-21: Capital Expenditure and Capitalization for FY 2023-24 (in Rs. Crore)

Particulars	Approved (TO dt 11.07.2022)	Revised Estimates
Capital Expenditure	50.94	50.94
Capitalization	79.66	47.39

6.9.3 The Hon'ble Commission is requested to approve the Capital Expenditure and Capitalisation plan for FY 2023-24 as proposed in the table above.

6.10 Depreciation

6.10.1 For computation of depreciation, the MYT Regulations, 2021 specifies as follow.

"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 capitalised at the time of truing up of each Year of the Control Period, based on documentary evidence of asset capitalised by the Applicant, subject to the prudence check of the Commission.

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

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

6.10.2 EWEDC has projected the depreciation for FY 2023-24 by considering the revised estimates of Closing GFA in APR for FY 2022-23, capitalisation plan projected for FY 2023-24 and asset class wise depreciation rates given in Appendix-I of the MYT Regulations, 2021. The asset class wise depreciation rates are applied on the average GFA to revised the depreciation projected for FY 2023-24. The Details calculation for projection of depreciation for FY 2023-24 are tabulated below:

Table 6-22: Gross Fixed Asset for FY 2023-24 (in Rs. Crore)

Particulars	Dep. Rate	Op. GFA	Add. CAPEX	Cl. GFA	Avg. GFA	Dep. Amount	Avg. Dep. Rate
Land	0.00%	0.00	0.00	0.00	0.00	-	
Building	1.80%	36.42	0.00	36.42	36.42	0.66	
Plant & Machinery	3.60%	504.84	47.17	552.01	528.43	19.02	
Vehicles	18.00%	1.26	0.12	1.38	1.32	0.24	
Furniture and Fixtures	6.00%	0.20	0.02	0.22	0.21	-	
Office Equipment	6.00%	0.20	0.02	0.22	0.21	0.01	
IT Equipment	15.00%	0.77	0.07	0.84	0.80	0.12	
Total		543.69	47.39	591.09	567.39	20.05	3.53%

Table 6-23: Depreciation for FY 2023-24 (in Rs. Crore)

Particulars	Approved (TO dt 11.07.2022)	Revised Estimates
Opening Gross Fixed Assets	420.13	543.69
Addition of Assets during the year	71.09	47.39
Adjustment	-	-
Closing Gross Fixed Assets	491.22	591.09
Average Gross Fixed Assets	455.67	567.39
Average Rate of Depreciation	3.45%	3.53%
Depreciation for the Year	15.73	20.05

6.11 Interest on Loans

6.11.1 The MYT Regulations, 2021 specifies the following provisions for projection of Interest on Loans.

"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-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 decapitalised 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 capitalisation 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 drawl 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 or Distribution 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; i.e., the Transmission Licensee and the Distribution 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."

6.11.2 Interest on loans for FY 2023-24 has been projected on the normative basis, as per the provisions specified in the MYT Regulations 2021. EWEDC has considered One Year State Bank of India (SBI) MCLR rate prevailing on 1st April 2022 plus 100 basis points for calculating the interest rate, normative debt equivalent to 70% of capitalisation during the year and repayment of loans equivalent to the depreciation during the year for projecting the interest and finance charged for FY 2023-24. The details of estimation of Interest on Loans for FY 2023-24 are tabulated below:

Table 6-24: Interest on Loans for FY 2023-24 (in Rs. Crore)

Particulars	Approved	Projected
Opening Normative Loans	38.31	27.12
Add: Normative Loan during the year	49.76	33.18
Less: Normative Repayment	15.73	20.05
Closing Normative Loans	72.34	40.24
Average Normative Loans	55.33	33.68
Rate of Interest	8.00%	8.00%
Interest on Loans	4.43	2.69

6.11.3 EWEDC humbly requests the Hon'ble Commission to approve the revised Interest on Loans as proposed in the table above for FY 2023-24.

6.12 Return on Equity

6.12.1 The MYT Regulations, 2021 specifies the following provisions for projection of Return on Equity.

"28 Return on Equity

28.1 Return on equity shall be computed on the paid-up equity capital determined in accordance with Regulation 27 for the assets put to use for the Transmission Licensee and shall be allowed in accordance with the prevalent CERC Tariff Regulations for transmission system.

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.

28.4 The return on equity shall be computed on average of equity capital at the beginning and end of Year."

6.12.2 Further, provision of debt-to-equity ratio specified in the MYT regulation 2021 as under: -

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

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 capitalised asset, the actual equity shall be considered for determination of tariff:

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

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

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

Provided further that the premium, if any, raised by the Licensee while issuing share capital and investment of internal resources created out of its free reserves, for the funding of the scheme, shall be reckoned as paid-up capital for the purpose of computing return on equity, provided such premium amount and internal resources are actually utilised 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 modernisation expenditure for life extension shall be serviced in the manner specified in these Regulations.”

6.12.3 As per the MYT Regulations, 2021, the revised estimate of closing equity in APR for FY 2022-23 and addition of equity equivalent to 30% of capitalisation during the year have been considered for projecting the return of equity projection for FY 2023-24. The details of Return on Equity for FY 2023-24 are given in table below:

Table 6-25: Return on Equity for FY 2023-24 (in Rs. Crore)

Particulars	Approved	Projected
Opening Equity	157.61	157.16
Additions on account of new capitalisation	21.33	14.22
Closing Equity	178.94	171.38
Average Equity	168.27	164.27

Particulars	Approved	Projected
Average Equity (Wires Business)	151.44	147.84
Average Equity (Retail Supply Business)	16.83	16.43
Return on Equity for Wires Business (%)	15.50%	15.50%
Return on Equity for Retail Supply Business (%)	16.00%	16.00%
Return on Equity for Wires Business	23.47	22.92
Return on Equity for Retail Supply Business	2.69	2.63
Return on Equity	26.17	25.54

6.13 Interest on Security Deposits

6.13.1 EWEDC has considered the closing balance of the security deposits in APR for FY 2022-23 as opening amount for FY 2023-24. The percentage increase in number of consumers for FY 2023-24 has been considered to determine the addition in consumer security deposits during the year. Further, the RBI Bank rate applicable on 1st April of 2022 has been applied on the average amount of security deposits to calculate the interest on consumer security deposits for FY 2023-24. Details of revised Interest on Security Deposits projected for FY 2023-24 are given in table below:

Table 6-26: Interest on Consumer Security Deposits for FY 2023-24 (in Rs. Crore)

Particulars	Approved	Projected
Opening Consumer Security Deposits	197.51	174.91
Net Addition During the year	3.84	1.71
Closing Consumer Security Deposits	201.35	176.62
Average Deposits	199.43	175.77
Bank Rate	4.25%	4.25%
Interest on Consumer Security Deposits	8.48	7.47

6.14 Interest on Working Capital

6.14.1 The MYT Regulations, 2021 specifies the following provisions for projection of Interest on Working Capital.

"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 Retail Supply Business for the Financial Year, computed as follow:

- a) O&M Expenses for one (1) month; plus
- b) Maintenance spares at 40% of repair and maintenance expenses for one (1) month; plus
- c) Receivables equivalent to two (2) months of the expected revenue from Consumers at the prevailing tariff;

Less

- d) Power Purchase cost for one (1) month; plus
- e) Amount, if any, held as security deposits under clause (b) of sub-section (1) of Section 47 of the Act from Consumers except the security deposits held in the form of Bank Guarantees:

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

6.14.2 In line to the above provisions of MYT Regulations, 2021, the revised working capital requirement has been projected for FY 2023-24. The rate of interest of One Year SBI MCLR rate applicable on 1st April 2022 plus 200 basis point has applied on normative working capital requirement for calculation the interest on working capital for FY 2023-24. Details of Interest on Working Capital projected for FY 2023-24 are tabulate below:

Table 6-27: Interest on Working Capital for FY 2023-24 (in Rs. Crore)

Particulars	Approved	Projected
Two months receivables	132.56	172.03
Add: One month O&M Expenses	9.59	9.92
Add: 40% of R& M expenses for one month	0.52	0.61
Less: Consumer Security Deposit excl. BG	209.26	175.77
Less: Power Purchase cost for one (1) month	54.16	74.94
Total Working Capital	(120.75)	(68.14)
Interest Rate (%)	9.00%	9.30%
Interest on Working Capital	-	-

6.15 Provision for Bad and Doubtful Debts

6.15.1 The Bad and doubtful debts for FY 2023-24 are projected as per Regulation 63 of the MYT Regulations, 2021. Revised estimates are kept equivalent to 1% of the Aggregate Revenue Requirement projected for FY 2023-24. The Hon'ble Commission is requested to approve the proposed bad and doubtful debts as proposed in table below for FY 2023-24.

Table 6-28: Bad and Doubtful Debts for FY 2023-24 (in Rs. Crore)

Particulars	Approved (TO dt 11.07.2022)	Revised Estimates
Revised ARR for FY 2023-24	-	1032.15
Provision for Bad & Doubtful Debts (%)	-	1%
Bad and Doubtful Debt	-	10.32

6.16 Non-Tariff Income

6.16.1 The Regulatory provisions for Non-Tariff Income states the follow:

"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,

6.16.2 The Non-Tariff Income for FY 2023-24 has been project as per the provisions of Regulation 64 of the MYT Regulations, 2021. Details of approved and revised Non-Tariff Income for the FY 2023-24 are given in table below:

Table 6-29: Non-Tariff Income for FY 2023-24 (in Rs. Crore)

Particulars	Approved (T.O. dt 11.07.2022)	Actual
Miscellaneous Charges	-	9.09
Miscellaneous Receipts	-	6.62
Sale of Surplus Power (PX & UI)	-	36.57
Total	17.66	52.28

6.16.3 EWEDC humbly prays to the Hon'ble Commission to approve the Non-Tariff Income for FY 2023-24 as proposed in the table above.

6.17 Revenue at Current Tariff for FY 2023-24

6.17.1 The revenue at existing tariff has been calculated by considering the projected sales for FY 2023-24 and Retail Supply Tariff Schedule approved in Tariff Order dated 11th July 2022. Details of revenue at Current Tariff for FY 2023-24 are tabulated below:

Table 6-30: Revenue at Existing Tariff for FY 2023-24 (in Rs. Crore)

Consumer Category	Proposed
Domestic – LT	343.30
Domestic – HT	10.12
Commercial – LT	146.67
Commercial – HT	135.07
Large Supply	73.45
Medium Supply	59.89
Small Power	8.67
Agriculture	0.38
Public Lighting	8.20
Bulk Supply	42.80
Others Temporary Supply	3.17
Total	831.72

6.18 Aggregate Revenue Requirement and Revenue (Gap)/Surplus for FY 2023-24

6.18.1 EWEDC submits that based on the projection of various components submitted in above sections, the details of ARR & Revenue (Gap)/Surplus for FY 2023-24 are summarized in table below:

Table 6-31: Aggregate Revenue Requirement for FY 2023-24 (in Rs. Crore)

Sr. No.	Particulars	Approved (T.O. dt 11.07.2022)	Actual
1	Power Purchase Cost	686.49	899.26
1a	- Power purchase	578.58	781.39
1b	-Transmission Charges	107.91	117.87
2	O&M Expenses	118.85	119.09

Sr. No.	Particulars	Approved (T.O. dt 11.07.2022)	Actual
2a	-Employee costs	93.87	93.67
2b	-Administration and General expenses	7.05	7.04
2c	-R&M expenses	17.94	18.38
3	Depreciation	15.73	20.05
4	Interest & Finance Charges	13.48	10.16
4a	-Interest and finance charges	4.43	2.69
4b	-Interest on working capital	-	-
4c	-Bank Charges	-	-
4d	-Interest on Consumer Security Deposit	9.05	7.47
5	Return on Equity	26.17	25.54
6	Provision for Bad Debt	-	10.32
7	Total Revenue Requirement	860.72	1,084.44
8	Less: Non-Tariff Income	17.66	52.28
9	Net Revenue Requirement	843.06	1,032.15
10	Revenue from retail sales at Existing Tariff		840.14
11	Total Income from Sale of Power		840.14
12	Revenue Surplus/(Gap) for the Year		(192.01)

6.18.2 The Hon'ble Commission is requested to approve the Aggregate Revenue Requirement for FY 2023-24 as submitted in the table above. Further, the Revenue Surplus/(Gap) for FY 2023-24 along with the carrying cost may be adjusted with accumulated revenue surplus/(gap) of previous years to determination the overall revenue requirement for FY 2023-24.

6.19 Net Revenue Surplus/(Gap) considering the past year Impact

6.19.1 The provision for calculating the carrying cost on the revenue surplus/(gap) is stated in the following clauses of the MYT Regulation, 2021:

"12.5 (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."

6.19.2 The Net Revenue (Gap)/Surplus considering the past year impact and including the carrying cost is as follow.

Table 6-32: Net Revenue Surplus/(Gap) (in Rs. Crore)

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
Opening (Gap)/Surplus for the Year	151.62	160.97	32.48	(77.74)
Addition during the Year	(3.61)	(136.50)	(108.27)	(192.01)
Closing cumulative Revenue (Gap)/Surplus	148.01	24.46	(75.79)	(269.75)
Interest on Working Capital	8.65%	8.65%	9.00%	9.30%
Average of Revenue (Gap)/Surplus	149.81	92.71	(21.66)	(173.75)
Add: Interest on (Gap)/Surplus of Previous Year	12.96	8.02	(1.95)	(16.16)
Closing (Gap)/Surplus for the Year	160.97	32.48	(77.74)	(285.91)

6.19.3 From the above table it is evident that the revenue at current tariff is not sufficient to meet the cumulative revenue requirement for FY 2023-24. Hence, EWEDC proposes the revision of existing tariff schedule to commensurate the net revenue requirement for FY 2023-24.

Chapter 7: Tariff Proposal for FY 2023-24

- 7.1.1 EWEDC submits that the revision in exiting retail supply tariff has been proposed based on the provisions of Tariff Design specified in the National Tariff Policy, 2016, and net revenue requirement proposed for FY 2023-24.
- 7.1.2 The Clause 8.3.1 of National Tariff Policy, 2016, and Section 61(g) of Electricity Act, 2003 states that tariff shall reflect the efficient and prudence cost of supply to the consumer. Besides the Tariff should be brought within the range of $\pm 20\%$ of the average cost of supply, to achieve the above objective.
- 7.1.3 EWEDC submits that to avoid tariff shock to the consumers, average increase $\sim 10.25\%$ in existing retail supply tariff has been proposed to meet the net revenue gap requirement for FY 2023-24.
- 7.1.4 The Hon'ble Commission is requested to approve the balance unfunded revenue gap as regulatory asset and amortised the same appropriately within the ongoing control period.
- 7.1.5 Revised Retail Supply Tariff proposed for FY 2023-24 based on above principles is tabulated below:

Table 7-1: Retail Supply Tariff Proposed for FY 2023-24

Sr. No.	Category	Existing Tariff		Revised Tariff	
		Fixed Charge (Rs./kW/month)	Energy Charge (Rs./kWh)	Fixed Charge (Rs./kW/month)	Energy Charge (Rs./kWh)
1.	Domestic Supply				
A	Domestic LT				
1	0-150 Units	15.00	2.75	25	3.00
2	151-400 Units		4.25		4.50
3	401 and above units		4.65		5.00
B	Domestic HT		4.30		4.80
2	Commercial				
A	Commercial LT				

Sr. No.	Category	Existing Tariff		Revised Tariff	
		Fixed Charge (Rs./kW/month)	Energy Charge (Rs./kWh)	Fixed Charge (Rs./kW/month)	Energy Charge (Rs./kWh)
1	0-150 Units -Single Phase	INR. 25/kW/Month for Single Phase	4.50	INR. 40/kW/Month for Single Phase	4.75
2	151-400 Units - Single Phase		4.70		5.00
3	401 and above units – SP		5.00		5.50
1	0-150 Units - Three Phase	INR. 100/kW/Month for Three Phase	4.50	INR. 120/kW/Month for Three Phase	4.75
2	151-400 Units -Three Phase		4.70		5.00
3	401 and above units - Three Phase		5.00		5.50
B	Commercial HT	100.00	4.50	120.00	5.00
3	Industry				
1	Large Industry	200.00	4.50	220	4.60
2	Medium Industry	200.00	4.20	220	4.40
3	Small Industry	30.00	4.30	50	4.50
4	Agriculture	0.00	2.60	0.00	2.80
5	Public Lighting				
A	Public Lighting system managed by Municipal Corporation, Panchayat and Street Lights maintained / outsourced to an external agency	100.00	4.80	120	5.00
B	Advertisement/ Neon-sign Boards Advertisement boards, billboards (apart from advertisement boards installed on commercial establishments and charged under commercial tariff)	100.00	6.40	120	6.60
6	Bulk Supply	150.00	4.20	220	4.60
7	Temporary Supply	Tariff shall be Fixed/ Demand charges (if any) plus energy charges (for relevant slab, if any) under corresponding			

Sr. No.	Category	Existing Tariff		Revised Tariff	
		Fixed Charge (Rs./kW/month)	Energy Charge (Rs./kWh)	Fixed Charge (Rs./kW/month)	Energy Charge (Rs./kWh)
		permanent supply category plus 50% of both. For multi activity pursuit, applicable Tariff for temporary connection shall be with reference to that of commercial category for permanent supply.			
8	EV Charging Station	0.00	3.60	0.00	3.80

7.1.6 The Revenue from the revised retail supply tariff at the projected energy sales for FY 2023-24 is detailed in the table below.

Table 7-2: Revenue on Existing Tariff for FY 2023-24 (in Rs. Crore)

Sr. No.	Consumer Category	Revenue
A	Domestic – LT	390.38
B	Domestic – HT	12.02
C	Commercial – LT	148.74
D	Commercial – HT	163.13
E	Large Supply	75.77
F	Medium Supply	63.81
G	Small Power	9.71
H	Agriculture	0.43
I	Public Lighting	9.17
J	Bulk Supply	50.01
K	Others Temporary Supply	3.06
	Total	926.23

7.1.7 The revised standalone Revenue Gap/Surplus for FY 2023-24 based on the revised retail supply tariff is given as under:

Table 7-3: Standalone Revenue (Gap)/ Surplus for FY 2023-24 (in Rs Crore)

Particular	Projected
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Net Revenue Requirement	1,032.15
Revenue from Retail Sales at Revised Tariff	926.23
Standalone (Gap) /Surplus for the year	(105.92)

7.1.8 The cumulative revenue (Gap)/Surplus considering the impact revised tariff is summarised below.

Table 7-4: Net Gap/Surplus considering previous years impact (in Rs. Crore)

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
Opening (Gap)/Surplus for the Year	151.62	160.97	32.48	(77.74)
Addition during the Year	(3.61)	(136.50)	(108.27)	(105.92)
Closing cumulative Revenue (Gap)/Surplus	148.01	24.46	(75.79)	(183.66)
Interest on Working Capital	8.65%	8.65%	9.00%	9.30%
Average of Revenue (Gap)/Surplus	149.81	92.71	(21.66)	(130.70)
Add: Interest on (Gap)/Surplus of Previous Year	12.96	8.02	(1.95)	(12.16)
Closing (Gap)/Surplus for the Year	160.97	32.48	(77.74)	(195.82)

7.1.9 EWEDC submits the to the Hon'ble Commission that the proposed tariff revision would be able to commensurate the must needed revenue requirement for the ensuing year. Further, with improvement of efficiency parameters and strong recovery of energy sales anticipated in the ensuing years, the balance revenue requirement will suitably be met for FY 2023-24.

7.1.10 EWEDC submit that recovery of FPPCA from the consumer will be allowed in view of the net revenue surplus/(gap) position projected for FY 2023-24.

7.1.11 **EWEDC humbly requests to the Hon'ble Commission that the revised retail supply tariff schedule as submitted in the table 7-1 above may kindly be approved for FY 2023-24.**

Chapter 8: Open Access Charges for FY 2023-24

8.1 Allocation Matrix – Allocation of ARR into Wheeling and Retail Supply of Electricity

8.1.1 The allocation between wheeling and retail supply business for FY 2023-24 as per the ARR proposed for FY 2023-24 is provided in the table as under:

Table 8-1: Allocation of Proposed ARR between Wheeling and Retail Supply

Particulars	ARR Projected for FY 2023-24 (Rs. Crore)	Allocation %		ARR Allocation for FY 2023-24 (Rs. Crore)	
		Wire Business	Retail Supply	Wire Business	Retail Supply
Power Purchase Expense	899.26	0%	100%	0.00	899.26
Employee Cost	93.67	40%	60%	37.47	56.20
A&G Expenses	7.04	50%	50%	3.52	3.52
R&M Expenses	18.38	90%	10%	16.54	1.84
Depreciation	20.05	90%	10%	18.04	2.00
Interest on Loan	2.69	90%	10%	2.42	0.27
Interest on Working Capital	0.00	10%	90%	0.00	0.00
Interest on Consumer Security Deposit	7.47	10%	90%	0.75	6.72
Return on Equity	25.54	90%	10%	22.99	2.55
Bad and Doubtful Debt	10.32	0%	100%	0.00	10.32
Income Tax	0.00	90%	10%	0.00	0.00
Annual Revenue Requirement	1084.44			101.74	982.70
Less: Non-Tariff Income	52.28	10%	5.23	47.06	47.06
Aggregate Revenue Requirement	1032.15			96.51	935.64

8.2 Voltage Wise Wheeling Charges

8.2.1 In order to determine voltage wise wheeling charges under LT and HT/EHT category, EWEDC has adopted the following approach as adopted by the Hon'ble Commission in its Order dated 11th July, 2022.

- O&M Expenses consisting of Employee, A&G and R&M expenses have been allocated to each voltage level on the basis of number of consumers.
- All the expenses other than the O&M expenses have been allocated to each voltage level on the basis of voltage wise asset allocation.
- The resultant cost at HT/EHT voltage level is divided among LT and HT/EHT voltage levels on the basis of energy sales at respective voltage levels as the HT/EHT network is used by consumers at all voltage levels.
- The loss level of HT/EHT voltage has been considered as 4.03%, same as that approved in the MYT Order.

8.2.2 Based on the above outlined assumptions the Wheeling Charges worked out for FY 2023-24 is submitted as under:

Table 8-2: Wheeling Charges Proposed for FY 2023-24

Category	O&M Expenses	Others	Total	Energy Sales	Wheeling Charges
	Rs Cr	Rs Cr	Rs Cr	MU	Rs/kWh
LT Level	57.39	34.10	91.49	1122.17	0.82
HT/EHT Level	0.14	4.87	5.02	510.51	0.10
Total	57.53	38.98	96.51	1632.68	0.59

8.3 Additional Surcharge

8.3.1 In line with the provisions of Regulation 4.5(2) and 5.2(1)(b) of JERC (Connectivity and Open Access in Intra-State Transmission and Distribution) Regulations, 2017, EWEDC proposes the Additional Surcharge for FY 2023-24 as under:

Table 8-3: Additional Surcharge Proposed for FY 2023-24

Particulars	Unit	Amount
Total Power Purchase Cost	Rs Cr	899.26
Fixed Cost Component (excl. Transmission Charges)	Rs Crs	263.73
Energy Sales	MU	1632.68
Additional Surcharge	Rs/kWh	1.62

8.4 Cross Subsidy Surcharge (CSS)

8.4.1 EWEDC has worked out voltage wise cost of supply based Cross Subsidy Surcharge for FY 2023-24. Following assumptions as also considered by the Hon'ble Commission in its Order dated 30th March 2021 have been taken into account to work out the CSS for FY 2023-24:

- Voltage Wise losses at each voltage level have been assumed for LT & HT/EHT voltage categories. The remaining losses have been adjusted in the LT voltage level in order to maintain the Intra-State T&D losses at 13.06% as proposed for FY 2023-24. Voltage Level wise Input Energy has been worked out taking into account these losses and Energy Sales.
- The overall ARR proposed for FY 2023-24 has been divided into variable and fixed ARR with variable ARR comprising of variable power purchase cost and fixed ARR comprising of all the other costs.
- The fixed cost of power purchase has been assigned to each voltage level on the basis of energy input at respective voltage levels.
- The O&M expenses have been allocated to each voltage level on the basis of the number of consumers. The resultant cost allocated to HT/EHT level is then further allocated to LT level on the basis of input energy, as the HT/EHT network is utilized by both HT/EHT and LT network consumers.
- The remaining fixed costs has been allocated on the basis of voltage wise asset allocation assumed earlier and further allocated to respective voltage levels on the basis of input energy.

- The Variable component of the power purchase cost has been allocated on the basis of energy input. The Voltage wise cost of supply (VCoS) has been then determined on the basis of energy sales of respective categories.

8.4.2 Accordingly, based on the above assumptions the VCoS worked out for FY 2023-24 is summarised as under:

Table 8-4: Voltage Wise Cost of Supply (VCoS)

Category	Energy Sales (MU)	Fixed Cost (Rs. Crore)	Variable Cost (Rs. Crore.)	Total Cost (Rs. Crore)	VCoS (Rs./kWh)
LT	1,122.17	409.13	383.49	792.62	7.06
HT & EHT	510.51	105.36	134.17	239.54	4.69
Total	1,632.68	514.49	517.66	1,032.15	6.32

8.4.3 Based on the VCoS calculate in above para the Cross Subsidy Surcharge determined for FY 2023-24 is summarised as under:

Table 8-5: Proposed Cross Subsidy Surcharge for FY 2023-24

Category	VCoS (Rs./kWh)	ABR (Rs./kWh)	CSS (Rs./kWh)
LT	7.06	4.89	
HT & EHT	4.69	5.71	1.02

Chapter 9: Compliance of Directives

- 9.1.1 This Chapter illustrates the compliance report on the directives issued by the Hon'ble Commission in Tariff Order dated 11th July, 2022.
- 9.1.2 Point wise response to the directives issued in the Tariff Order dated 11th July, 2022 are given in the table below:

Sr. No.	Response to directives
1	<p>Directive 9.1.1- (Metering/ Replacement of Non-Functional or Defective/ 11kv Meters)</p> <p>Commission's Directive: The Petitioner is directed to expedite the Smart Grid Project and submit the quarterly progress report.</p> <p>Petitioner's Response: The Smart Grid Project under Operation Subdivision-5 is about to get completed. So far, 24213 smart meters at consumers premises has been installed and commissioned. Also, SCADA centre for online monitoring of various activities has been established. However, replacement of 11 KV feeder meters with smart meters is yet to be done by M/s REC (implementing agency) and the same is expected to be completed within 06 months by them.</p> <p>Further, due to the privatisation award in process, the Ministry of Power, Govt. of India has dropped the Pan City Smart Grid project in the 8th Meeting of the Empowered Committee of NSGM held on 12th October, 2022. The minutes of meeting was conveyed by NSGM vide letter F.No.27/3/2016-NSGM (230074) dated 18th October, 2022.</p>
2	<p>Directive 9.1.2- (Energy Audit)</p> <p>Commission's Directive: The Commission has noted that Energy Audit report for FY 2021-22 has not been submitted by the Petitioner. The Commission has further noted with serious concern that the Petitioner is yet to submit the Energy Audit Reports for previous years despite repeated directions. The Commission directs the Petitioner to submit quarterly report of the action plan within one month of issuance of this Order and complete the Annual Energy Audit of the UT on priority.</p>

Sr. No.	Response to directives
	<p>Petitioner’s Response: The Smart Grid Project in OP Subdivision-5 is about to get completed. So far 24213 smart meters at consumer premises have been installed & commissioned. Also, SCADA Centre for online operation and monitoring of various activities has been established. However, replacement of 11 KV feeder meters with smart meters is yet to be done by M/s REC (implementing agency) and the same is expected to get completed within 06 months.</p> <p>Further, due to privatisation award in process the Smart Grid Project for Pan City has been dropped by the NSGM. However, the RFP for appointment of consultant for carrying out of energy audit of UT of Chandigarh is prepared in accordance to the guidelines and model RFP issued by the Bureau of Energy Efficiency and submitted for accord of revised principle approval from the competent authority.</p>
<p>3</p>	<p>Directive 9.1.3- (Demand Side Management and Energy Conservation)</p> <p>Commission’s Directive: The Commission appreciates the efforts undertaken by the Petitioner for compliance of this directive. The Petitioner is directed to expedite the process and submit quarterly reports to the Commission.</p> <p>Petitioner’s Response: Under the UJJALA Scheme, in FY 2021-22, 6554 LED bulbs, 203 LED tube lights and 233 energy efficient fans have been distributed. So far up till FY 2021-22, 604071 LED bulbs, 58750 LED tube lights & 17149 energy efficient fans have been distributed. This has led to energy saving of 75932 MWh along with cost saving of over 30 Crores on annual basis.</p> <p>However, the sale of appliances under UJJALA scheme is halted presently due to MoU signed between DoP & EESL for sale of appliances has been expired and further extension is under consideration (as intimated by implementing agency).</p>
<p>4</p>	<p>Directive 9.1.4- (Segregation of T&D Losses and Loss Reduction Trajectory)</p>

Sr. No.	Response to directives
	<p>Commission’s Directive: The Commission directs the Petitioner to expedite the Smart Grid project. The Commission also directs the Petitioner to submit a detailed report of voltage wise T&D losses along with the next Tariff Petition.</p> <p>Petitioner’s Response: The Smart Grid Project in OP Subdivision-5 is about to get completed. So far 24213 smart meters at consumer premises have been installed & commissioned. Also, SCADA Centre for online operation and monitoring of various activities has been established. However, replacement of 11 KV feeder meters with smart meters is yet to be done by M/s REC (implementing agency) and the same is expected to be completed within 06 months by them.</p>
5	<p>Directive 9.1.5- (Assets created by consumer contribution)</p> <p>Commission’s Directive: The Commission considers the delay due to pandemic and directs the Petitioner to submit the desired information positively along with the next Petition.</p> <p>Petitioner’s Response: The assets created by consumer contribution has already been submitted to Hon'ble Commission for consideration and same shall be updated accordingly in future.</p>
6	<p>Directive 9.1.6- (Creation of SLDC)</p> <p>Commission’s Directive: The Commission directs the Petitioner to expedite the process of creation of SLDC.</p> <p>Petitioner’s Response: The Ministry of Power, Govt. of India has advised in its letter dated 8th October 2020 that the operation of STU and SLDC shall remain with UT Administration. Accordingly, the proposal for creation of SLDC along with organisational structure has been proposed and is under consideration of Chandigarh Administration and as per the directions given by the competent authority the same will be created after its approval.</p>
7	<p>Directive 9.1.7- (Operational safety and policy for accidents and compensation)</p>

Sr. No.	Response to directives
	<p>Commission’s Directive: The Commission directs the Petitioner to secure the necessary approvals from the Chandigarh Administration and submit the training plan before the Commission within three months of issuance of the order.</p> <p>Petitioner’s Response: The matter regarding finalization of training schedule for first batch of Lineman of Electricity Wing of Engineering Department, UT, Chandigarh (EWEDC) in the month of November, 2022 onwards, has been taken up with PSPCL Training Institute vide office memo no.1658 dated 10.10.2022. As soon as the training schedule is received, the proposal will be submitted to the competent authority for final approval.</p>
8	<p>Directive 9.1.8- (Non-achievement of capitalization target)</p> <p>Commission’s Directive: The Commission directs the Petitioner to increase its efforts towards undertaking capital expenditure activities necessary to improve the service quality and target 24x7 supply to all consumers. Further, the Petitioner is directed to ensure that the capitalisation targets approved in the complete MYT Period as a whole are achieved by the end of FY 2022-23.</p> <p>Petitioner’s Response: To improve the achievement of capitalisation target concerted efforts are being made. Asset capitalisation of Rs 18.08 Crore was achieved in FY 2020-21. However, due to COVID-19 Pandemic and Privatisation award in process the capitalization target approved by Hon'ble Commission could not be achieved for FY 2021-22. It is submitted that the asset capitalisation target to the larger extend would be achieved in FY 2022-23 & FY 2023-24.</p>
9	<p>Directive 9.1.9- (Monthly Billing for Domestic and Commercial/ Non-Residential category consumers)</p> <p>Commission’s Directive: The Petitioner is directed to expedite the Smart Grid Pilot project and submit the progress report within one month of issuance of this order.</p> <p>Petitioner’s Response: The Smart Grid Project in OP Subdivision-5 is about to get completed. So far 24213 smart meters at consumer</p>

Sr. No.	Response to directives
	<p>premises have been installed & commissioned. Also, SCADA Centre for online operation and monitoring of various activities has been established.</p> <p>Further, due to privatisation award in process the Smart Grid Project for Pan City has been dropped by the NSGM. Therefore, the implementation of monthly billing for domestic and commercial category of consumers at this stage is not feasible</p>
10	<p>Directive 9.1.10- (Determination of Category wise/ Voltage wise Cost of supply)</p> <p>Commission’s Directive: The Petitioner is directed to expedite the process and ensure that the study/report for the same is submitted along with the next tariff petition.</p> <p>Petitioner’s Response: The RFP for category wise cost of supply to start collecting category wise and voltage wise data on losses, connected load and assets allocation was submitted to the higher authorities for the accord of principal approval from the competent authority and on receipt of the approval the same will be implemented, accordingly.</p>
11	<p>Directive 9.1.11- (kVAh based tariff)</p> <p>Commission’s Directive: The Petitioner is directed to expedite the Smart Grid Pilot project and submit the progress report within one month of issuance of this order.</p> <p>Petitioner’s Response: The Smart Grid project in S/Divn. No.5 is about to get completed. So far, 24213 smart meters at consumers premises has been installed and commissioned. Also, setting up of SCADA centre for online monitoring of various activities has been completed.</p> <p>Further, due to privatisation award in process the Smart Grid Project for Pan City has been dropped by the NSGM. Therefore, the implementation of KVAH based tariff at this stage is not feasible</p>
12	<p>Directive 9.2.1- (Hydro Purchase Obligation)</p>

Sr. No.	Response to directives
	<p>Commission's Directive: In order to fulfil the HPO, the Petitioner is directed to procure power from large hydropower projects commissioned on and after 08.03.2019 and upto 31.03.2030.</p> <p>Petitioner's Response: It is most respectfully submitted that the best efforts are being made to allocate a hydro generating source to meet the HPO compliance. However, this process may take some time to get finalise, therefore for the interim measure, adjustment of excess achieved solar and non-solar RPO targets may be allowed to meet the HPO targets.</p>

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Annual Revenue Requirement 2023-24					
Distribution Business (₹ crore)					
Sr. No.	Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
		Estimated	Estimated	Revised Estimates	Projected
A	Receipts				
1	Revenue from Sale of Power				
2	FPPCA Charges	701.38	690.68	829.26	840.14
3	Regulatory Surcharge	0.65	(0.00)	-	-
	Total Receipts	702.04	690.68	829.26	840.14
B	Expenditure				
1	Cost of Power Purchase from other Generating Stations				
2	O&M Expenses (Gross)	686.42	835.74	874.41	899.26
	a) Employee Cost	96.69	103.97	140.67	119.09
	b) A&G Expenses	78.65	83.84	117.82	93.67
	c) R&M Expenses	7.28	7.65	6.65	7.04
3	Depreciation	10.76	12.47	16.20	18.38
4	Interest and Finance Charges	14.33	13.84	18.02	20.05
5	Interest on Working Capital	-	-	1.08	2.69
6	Bank Charges	-	-	-	-
7	Interest on Consumer Security Deposit	1.35	1.66	-	-
8	Extraordinary Items	3.78	4.61	7.40	7.47
9	Bad and Doubtful Debts	-	-	-	-
10	Other Debts and Write-offs	-	-	9.38	10.32
11	Statutory Levies and Taxes, if any	-	-	-	-
12	Less: Expenses Capitalised	-	-	-	-
	a) Interest Charges Capitalized	-	-	-	-
	b) R&M Expenses Capitalized	-	-	-	-
	c) A&G Expenses Capitalized	-	-	-	-
	d) Employee Cost Capitalized	-	-	-	-
	Sub Total (a+b+c+d)	-	-	-	-
	Sub Total Expenditure (1 to 14-15)	802.57	959.82	1,050.96	1,058.89
C	Return on Equity				
D	Less: Non Tariff and other Income	20.85	21.35	22.93	25.54
H	Annual Revenue Requirement (B+C-D-E)	117.77	153.99	136.36	52.28
		705.65	827.18	937.53	1,032.15
I	Surplus(+)/ Shortfall (-) (A-F) - Before Tariff Revision	(3.61)	(136.50)	(108.27)	(192.01)

Summary of Power Purchase from Own Stations and Other Sources for FY 2020-21

S. No	Source	Plant Capacity MW	Energy Sent out (Scheduled)		External Losses (%)	Energy Received by the Licensee MU	Annual Fixed Cost (AFC) ₹ crore	Variable Charges Rs/unit	Variable Cost (VC) ₹ crore	Total Cost ₹ crore	Per Unit Cost Rs/unit
			MU	%							
A Central Sector Power Stations (HYDRO)		11,010.02	1,300.44	3.95%	1,249.07	134.02	1.91	248.25	382.27	2.94	
I	NTPC (HYDRO)	808.00	46.79	3.95%	44.94	11.81	2.43	11.35	23.16	4.95	
1	KOLDAM HYDRO	800.00	46.56	3.95%	44.72	11.81	2.41	11.23	23.04	4.95	
2	SINGRAULI HYDRO	8.00	0.23	3.95%	0.22	0.00	4.98	0.11	0.12	5.04	
II NHPCC		4,215.00	272.30	3.95%	261.54	60.37	1.53	41.75	102.12	3.75	
3	DULHASTI	390.00	40.11	3.95%	38.53	14.84	2.52	10.11	24.95	6.22	
4	PARBATI-III	520.00	12.72	3.95%	12.22	5.16	1.54	1.96	7.12	5.60	
5	URI II	240.00	19.41	3.95%	18.64	3.34	1.88	3.64	6.98	3.60	
6	SEWA II	120.00	8.11	3.95%	7.79	8.88	2.65	2.15	11.02	13.60	
7	CHAMERA III	231.00	19.78	3.95%	19.00	3.58	1.97	3.90	7.47	3.78	
8	TANAKPUR	94.00	4.49	3.95%	4.31	0.99	1.63	0.73	1.72	3.84	
9	DHAULGANGA	280.00	24.65	3.95%	23.68	4.21	1.21	3.00	7.20	2.92	
10	CHAMERA I	540.00	87.19	3.95%	83.74	8.62	1.14	9.95	18.57	2.13	
11	CHAMERA II	300.00	14.35	3.95%	13.79	2.23	1.00	1.44	3.67	2.56	
12	URI	480.00	17.81	3.95%	17.11	3.06	0.82	1.46	4.53	2.54	
13	SALAL	690.00	9.25	3.95%	8.89	2.51	0.62	0.57	3.08	3.32	
14	Kishan Ganga	330.00	14.42	3.95%	13.85	2.96	1.97	2.84	5.80	4.02	
III THDC		1,400.00	175.12	3.95%	168.20	34.09	2.00	35.01	69.10	3.95	
15	TEHRI	1,000.00	161.75	3.95%	155.36	25.22	1.98	32.03	57.24	3.54	
16	KOTESHWAR	400.00	13.37	3.95%	12.84	8.88	2.23	2.98	11.86	8.87	
IV SJVNL		1,912.02	119.61	3.95%	114.89	13.76	1.30	15.60	29.36	2.45	
17	RAMPUR	412.02	16.70	3.95%	16.04	3.50	2.11	3.52	7.02	4.20	
18	NATHTA JHAKRI	1,500.00	102.92	3.95%	98.85	10.25	1.17	12.09	22.34	2.17	
V BMB		2,675.00	686.62	3.95%	659.49	13.98	2.11	144.54	158.52	2.31	
19	BMB I LU	-	36.50	3.95%	35.06	-	3.60	13.14	13.14	3.60	
20	BMB IO LU	-	365.00	3.95%	350.58	-	3.60	131.40	131.40	3.60	
21	Bhakra	1,325.00	241.16	3.95%	231.63	6.93	-	-	6.93	0.29	
22	Dehar	990.00	33.67	3.95%	32.34	5.17	-	-	5.17	1.54	
23	Pong	360.00	10.29	3.95%	9.89	1.88	-	-	1.88	1.83	

Summary of Power Purchase from Own Stations and Other Sources for FY 2020-21

S. No	Source	Plant Capacity MW	Energy Sent out (Scheduled) MU	External Losses(%))	Energy Received by the Licensee MU	Annual Fixed Cost (AFC) ₹ crore	Variable Charges Rs/unit	Variable Cost (VC) ₹ crore	Total Cost ₹ crore	Per Unit Cost Rs/unit
B Central Sector Power Stations (THERMAL/GAS/NUCLEAR)										
VI	APCPL THERMAL	1,500.00	15.87	3.95%	15.24	9.61	3.23	5.13	14.74	9.29
24	JAJAR	1,500.00	15.87	3.95%	15.24	9.61	3.23	5.13	14.74	9.29
VII NTPC (THERMAL)										
25	DADRI II	9,690.00	259.35	3.95%	249.11	37.49	1.88	48.87	86.37	3.33
26	UNCHAHAR I	980.00	2.62	3.95%	2.52	1.24	3.23	0.85	2.09	7.98
27	UNCHAHAR II	420.00	8.92	3.95%	8.57	2.21	3.01	2.69	4.89	5.49
28	UNCHAHAR III	420.00	12.92	3.95%	12.41	2.78	3.04	3.93	6.71	5.19
29	UNCHAHAR IV	210.00	7.06	3.95%	6.78	1.58	3.04	2.14	3.73	5.28
30	KAHALGAON II	500.00	22.21	3.95%	21.33	5.95	2.93	6.50	12.45	5.61
31	SINGRAULI	1,500.00	16.93	3.95%	16.26	1.97	2.12	3.58	5.55	3.28
32	RIHAND III	1,000.00	42.27	3.95%	40.60	6.53	1.38	5.85	12.38	2.93
33	RIHAND I	1,000.00	58.70	3.95%	56.38	5.78	1.41	8.29	14.07	2.40
34	RIHAND II	1,000.00	60.03	3.95%	57.65	4.19	1.40	8.41	12.60	2.10
35	Tanda II	660.00	18.40	3.95%	17.67	4.53	2.89	5.31	9.84	5.35
VIII MUNPL										
36	MEJA I	1,320.00	25.20	3.95%	24.20	8.84	2.58	6.49	15.33	6.08
IX NTPC (GAS)										
37	DADRI	1,912.00	38.80	3.95%	37.27	18.59	2.49	9.65	28.24	7.28
38	ALIBIYA	830.00	23.54	3.95%	22.61	6.56	2.63	6.20	12.76	5.42
39	ANTA	663.00	7.71	3.95%	7.41	6.99	2.63	2.03	9.02	11.69
X NPCIL										
40	RAPP (Unit 5 & 6)-C	1,320.00	149.53	3.95%	143.63	1.75	3.33	49.86	51.61	3.45
41	RAPP (Unit 3 & 4)-B	440.00	67.50	3.95%	64.84	0.85	3.72	25.14	25.99	3.85
42	NAPS	440.00	15.37	3.95%	14.76	0.46	3.16	4.86	5.32	3.46
Total										
		440.00	66.66	3.95%	64.03	0.44	2.98	19.85	20.30	3.04

Summary of Power Purchase from Own Stations and Other Sources for FY 2020-21

S. No	Source	Plant Capacity MW	Energy Sent out (Scheduled) MU	External Losses (%)	Energy Received by the Licensee MU	Annual Fixed Cost (AFC) ₹ crore	Variable Charges Rs/unit	Variable Cost (VC) ₹ crore	Total Cost ₹ crore	Per Unit Cost Rs/unit
C	RPO Obligation	91.43	7.38	-	7.38	-	7.73	5.70	5.70	7.73
XI	SECI (WIND)	40.00	-	-	-	-	-	-	-	-
43	Tranche-VI	40.00	-	-	-	-	-	-	-	-
XII	Intra-Solar	51.43	7.38	-	7.38	-	7.73	5.70	5.70	7.73
42	Crest	26.72	5.95	-	5.95	-	7.72	4.59	4.59	7.72
	Pvt. Solar	0.95	1.18	-	1.18	-	8.71	1.03	1.03	8.71
	Net Solar	23.76	0.25	-	0.25	-	3.33	0.08	0.08	3.33
XII	Solar Short Term GTAM/GDAM/REC									
XIV	Non-Solar Short Term									
D	SUB TOTAL	26,843.45	1,796.58	-	1,725.89	210.30	2.08	373.96	584.26	3.25
E	Short Term Purchase/Sale		(197.62)	3.95%	(189.81)	-	(0.78)	15.44	15.44	(0.78)
	Buy		43.45	3.95%	41.74	-	3.55	15.44	15.44	3.55
	Sell		(241.08)	3.95%	(231.55)	-	-	-	-	-
F	UI		21.97	3.95%	21.10	-	9.53	20.93	20.93	9.53
	UI Buy		70.07	3.95%	67.30	-	2.99	20.93	20.93	2.99
	UI Sold		(48.10)	3.95%	(46.20)	-	-	-	-	-
G	Reactive Energy Charges		-	-	-	0.04	-	-	0.04	-
			-	-	-	0.04	-	-	0.04	-
H	OTHER CHARGES		-	-	-	68.73	-	-	68.73	-
	PCIL Charges and NRLDLC Charges		-	-	-	68.73	-	-	68.73	-
I	Other Charges		-	-	-	(2.98)	-	-	(2.98)	-
	Prior Period		-	-	-	(4.35)	-	-	(4.35)	-
	Late Payment Surcharge		-	-	-	1.36	-	-	1.36	-
J	Total	26,843.45	1,620.93	-	1,557.18	276.09	2.53	410.33	686.42	4.23

Summary of Power Purchase from Own Stations and Other Sources for FY 2021-22

S. No	Source	Plant Capacity MW	Energy Sent out (Scheduled) MU	External Losses (%)	Energy Received by the Licensee MU	Annual Fixed Cost (AFC) ₹ crore	Variable Charges Rs/unit	Variable Cost (VC) ₹ crore	Total Cost ₹ crore	Per Unit Cost Rs/unit
A Central Sector Power Stations (HYDRO)										
I	NTPC (HYDRO)	808.00	47.89	3.71%	46.11	13.37	2.47	11.83	25.20	5.26
1	KOLDAM HYDRO	800.00	47.54	3.71%	45.78	13.37	2.45	11.65	25.03	5.26
2	SINGRAULI HYDRO	8.00	0.34	3.71%	0.33	0.00	5.04	0.17	0.17	5.04
II NHPCC										
3	DULHASTI	4,215.00	302.03	3.71%	290.81	63.04	1.56	47.08	110.12	3.65
4	PARBATTI-III	390.00	43.96	3.71%	42.33	14.94	2.63	11.56	26.50	6.03
5	URI II	520.00	13.72	3.71%	13.21	6.21	1.54	2.11	8.32	6.07
6	SEWA II	240.00	27.96	3.71%	26.92	7.71	2.05	5.73	13.44	4.81
7	CHAMERA II	120.00	1.32	3.71%	1.27	0.86	2.65	0.35	1.21	9.19
8	TAMAKPUR	231.00	22.47	3.71%	21.64	5.17	1.97	4.43	9.60	4.27
9	DHAULIGANGA	94.00	5.37	3.71%	5.17	1.14	1.62	0.87	2.01	3.13
10	CHAMERA I	280.00	28.05	3.71%	27.01	5.39	1.21	3.41	8.79	2.25
11	CHAMERA II	540.00	72.89	3.71%	70.18	8.08	1.14	8.32	16.40	2.25
12	URI	300.00	35.81	3.71%	34.48	4.09	1.01	3.60	7.69	2.15
13	SALAL	480.00	17.72	3.71%	17.06	2.68	0.82	1.46	4.14	2.34
14	Kishan Ganga	690.00	8.83	3.71%	8.50	1.71	0.62	0.54	2.25	2.55
14		330.00	23.94	3.71%	23.05	5.06	1.97	4.71	9.77	4.08
III THDC										
15	TEHRI	1,400.00	186.99	3.71%	180.04	39.80	2.02	37.82	77.62	4.15
16	KOTESHWAR	1,000.00	171.39	3.71%	165.03	35.50	2.00	34.22	69.73	4.07
16		400.00	15.60	3.71%	15.02	4.30	2.30	3.59	7.89	5.06
IV SJVNL										
17	RAMPUR	1,912.02	131.93	3.71%	127.03	19.11	1.29	17.04	36.16	2.74
18	NATHYA JHAKRI	412.02	19.19	3.71%	18.47	5.38	2.14	4.10	9.48	4.94
18		1,500.00	112.74	3.71%	108.55	13.73	1.15	12.94	26.67	2.37
V BBRB										
19	BBRB I LU	2,675.00	644.70	3.71%	620.75	13.00	2.40	154.58	167.58	2.60
20	BBRB IO LU	-	36.50	3.71%	35.14	-	3.85	14.05	14.05	3.85
21	Bhakra	-	365.00	3.71%	351.44	-	3.85	140.53	140.53	3.85
22	Dehar	1,325.00	205.62	3.71%	197.99	6.34	-	-	6.34	0.31
23	Pong	990.00	31.83	3.71%	30.64	4.76	-	-	4.76	1.49
23		360.00	5.75	3.71%	5.54	1.90	-	-	1.90	3.31

Summary of Power Purchase from Own Stations and Other Sources for FY 2021-22

S. No	Source	Plant Capacity	Energy Sent out (Scheduled)	External Losses (%)	Energy Received by the Licensee	Annual Fixed Cost (AFC)	Variable Charges	Variable Cost (VC)	Total Cost	Per Unit Cost
		MW	MU	%	MU	₹ crore	Rs/unit	₹ crore	₹ crore	Rs/unit
B	Central Sector Power Stations (THERMAL/GAS/NUCLEAR)	15,742.00	529.88	3.71%	510.20	100.12	2.67	141.62	241.74	4.56
VI	APCPL THERMAL	1,500.00	27.41	3.71%	26.39	14.02	3.51	9.62	23.65	8.63
24	JAUJAR	1,500.00	27.41	3.71%	26.39	14.02	3.51	9.62	23.65	8.63
VII	NTPC (THERMAL)	9,690.00	240.81	3.71%	231.87	44.52	2.06	49.69	94.21	3.91
25	DADRI II	980.00	6.21	3.71%	5.98	1.99	3.29	2.04	4.03	6.49
26	UNCHAHAR I	420.00	7.27	3.71%	7.00	1.97	3.30	2.40	4.37	6.01
27	UNCHAHAR II	420.00	14.11	3.71%	13.59	3.61	3.37	4.76	8.37	5.93
28	UNCHAHAR III	210.00	6.78	3.71%	6.52	1.52	3.33	2.26	3.77	5.57
29	UNCHAHAR IV	500.00	20.53	3.71%	19.76	5.69	3.12	6.40	12.10	5.89
30	KHALGAON II	1,500.00	21.09	3.71%	20.31	2.37	2.43	5.13	7.50	3.56
31	SINGRAULI	2,000.00	12.78	3.71%	12.31	1.82	1.52	1.95	3.77	2.95
32	RIHAND III	1,000.00	37.90	3.71%	36.49	7.12	1.37	5.20	12.32	3.25
33	RIHAND I	1,000.00	51.31	3.71%	49.41	7.39	1.41	7.26	14.64	2.85
34	RIHAND II	1,000.00	37.33	3.71%	35.94	4.63	1.42	5.31	9.94	2.66
35	Tanda II	660.00	25.50	3.71%	24.55	6.42	2.74	6.98	13.40	5.25
VII	MUNPL	1,320.00	62.09	3.71%	59.79	17.62	2.40	14.93	32.55	5.24
36	MEJA I	1,320.00	62.09	3.71%	59.79	17.62	2.40	14.93	32.55	5.24
IX	NTPC (GAS)	1,912.00	9.84	3.71%	9.47	21.85	3.47	3.41	25.26	25.68
37	DADRI	830.00	5.65	3.71%	5.44	9.57	3.20	1.81	11.38	20.14
38	AURTYA	663.00	3.44	3.71%	3.31	6.30	4.12	1.42	7.71	22.44
39	ANZA	419.00	0.75	3.71%	0.72	5.99	2.45	0.18	6.17	82.39
X	NPCIL	1,320.00	189.73	3.71%	182.69	2.11	3.37	63.96	66.08	3.48
40	RAPP (Unit 5 & 6)-C	440.00	89.38	3.71%	86.06	1.17	3.76	33.62	34.79	3.89
41	RAPP (Unit 3 & 4)-B	440.00	17.89	3.71%	17.23	0.45	3.16	5.66	6.11	3.41
42	NAPS	440.00	82.46	3.71%	79.39	0.49	2.99	24.68	25.17	3.05

Summary of Power Purchase from Own Stations and Other Sources for FY 2021-22

S. No	Source	Plant Capacity		Energy Sent out (Scheduled)		External Losses (%)	Energy Received by the Licensee		Annual Fixed Cost (AFC)	Variable Charges	Variable Cost (VC)	Total Cost	Per Unit Cost
		MW	Capacity	MU	%		MU	₹ crore					
C	RPO Obligation	91.43		117.29	3.14%	113.60	0.14	3.58	42.00	42.14	3.59		
XI	SECI (WIND)	40.00		99.26	3.71%	95.57	0.14	-	28.32	28.46	-		
43	Tranche-VI	40.00		99.26	3.71%	95.57	0.14	-	28.32	28.46	-		
XII	Intra-Solar	51.43		18.03	-	18.03	-	7.59	13.68	13.68	7.59		
42	Crest	26.72		15.82	-	15.82	-	7.70	12.19	12.19	7.70		
	Pvt. Solar	0.95		1.31	-	1.31	-	9.05	1.19	1.19	9.05		
	Net Solar	23.76		0.90	-	0.90	-	3.38	0.30	0.30	3.38		
XII	Solar Short Term GTAM/GDAM/REC												
XIV	Non-Solar Short Term												
D	SUB-TOTAL	26,843.45		1,960.70	-	1,888.55	248.59	2.31	451.96	700.55	3.57		
E	Short Term Purchase/Sale			(162.50)	3.71%	(156.46)	(0.47)	(0.47)	7.63	7.63	(0.47)		
	Buy			17.83	3.71%	17.17	-	4.28	7.63	7.63	4.28		
	Sell			(180.33)	3.71%	(173.63)	-	-	-	-	-		
F	UI			(87.17)	3.71%	(83.93)	(2.41)	(2.41)	20.99	20.99	(2.41)		
	UI Buy			51.84	3.71%	49.91	-	4.05	20.99	20.99	4.05		
	UI Sold			(139.01)	3.71%	(133.84)	-	-	-	-	-		
G	Reactive Energy Charges			-	-	-	0.01	-	-	0.01	0.01		
H	OTHER CHARGES			-	-	-	107.02	-	-	107.02	107.02		
	PGCL Charges and NRDC Charges			-	-	-	107.02	-	-	107.02	107.02		
I	Other Charges			-	-	-	(0.46)	-	-	(0.46)	(0.46)		
	Prior Period			-	-	-	(0.71)	-	-	(0.71)	(0.71)		
	Late Payment Surcharge			-	-	-	0.26	-	-	0.26	0.26		
J	Total	26,843.45		1,711.04	-	1,648.16	355.16	2.81	480.58	835.74	4.88		

Summary of Power Purchase from Own Stations and Other Sources for FY 2022-23

S. No	Source	Plant Capacity MW	Auxiliary Consumption %	PLF %	Licensee's Firm Share MW	Energy Sent out (Scheduled) MU	External Losses (%)	Energy Received by the Licensee MU	Annual Fixed Cost (AFC) ₹ Crore	Variable Charges Rs/unit	Variable Cost (VC) ₹ Crore	Total Cost ₹ Crore	Per Unit Cost Rs/unit
A Central Sector Power Stations (HYDRO)													
I	NTPC (HYDRO)	808.00			11.92	43.97	4.03%	42.20	13.77	2.53	11.12	24.90	5.66
1	KOLDAM HYDRO	800.00	1.00%	49.09%	11.80	43.70	4.03%	41.94	13.77	2.51	10.98	24.76	5.66
2	SINGRAULI HYDRO	8.00	1.00%	26.31%	0.12	0.27	4.03%	0.26	0.00	5.17	0.14	0.14	5.17
II NHPC													
3	DULHASTI	4,215.00			75.16	283.34	4.03%	271.93	64.93	1.56	44.25	109.18	3.85
4	PARBATT-III	390.00	1.20%	65.71%	7.61	38.06	4.03%	36.53	15.39	2.40	9.15	24.54	6.45
5	URI II	520.00	1.20%	15.79%	10.82	12.86	4.03%	12.34	6.40	1.58	2.03	8.43	6.55
6	SEWA II	240.00	1.20%	89.06%	3.70	25.11	4.03%	24.10	7.94	2.19	5.49	13.43	5.35
7	CHAMERA II	120.00	1.20%	33.92%	2.77	7.16	4.03%	6.87	0.89	2.71	1.94	2.83	3.95
8	TANAKPUR	231.00	1.20%	55.92%	4.80	20.45	4.03%	19.63	5.33	2.02	4.13	9.46	4.62
9	DHAULGANGA	94.00	1.00%	52.36%	1.20	4.81	4.03%	4.61	1.17	1.69	0.81	1.99	4.13
10	CHAMERA I	280.00	1.20%	55.37%	6.16	25.98	4.03%	24.93	5.55	1.26	3.28	8.83	3.40
11	CHAMERA I	540.00	1.20%	48.11%	21.06	77.17	4.03%	74.06	8.33	1.17	9.03	17.35	2.25
12	URI	300.00	1.20%	54.01%	7.32	29.77	4.03%	28.57	4.22	1.03	3.07	7.28	2.45
13	SALAI	480.00	1.20%	74.23%	2.98	16.82	4.03%	16.15	2.76	0.84	1.42	4.18	2.48
14	Kishan Ganga	690.00	1.00%	59.21%	1.86	8.42	4.03%	8.08	1.76	0.63	0.53	2.29	2.72
14	Kishan Ganga	330.00	1.20%	44.96%	4.88	16.73	4.03%	16.05	5.21	2.02	3.38	8.59	5.13
III THDC													
15	TEHRI	1,400.00			61.09	164.27	4.03%	157.65	41.00	2.15	35.36	76.36	4.65
16	KOTESHWAR	1,000.00	1.20%	35.36%	55.75	150.15	4.03%	144.10	36.57	2.13	32.01	68.58	4.57
16	KOTESHWAR	400.00	1.00%	34.63%	5.34	14.11	4.03%	13.54	4.43	2.37	3.35	7.78	5.51
IV SJVNL													
17	RAMPUR	1,912.02			26.28	120.78	4.03%	115.91	19.69	1.27	15.29	34.98	2.90
18	NATHTHA JHAKRI	412.02	1.00%	62.67%	3.71	17.53	4.03%	16.83	5.54	2.07	3.62	9.17	5.23
18	NATHTHA JHAKRI	1,500.00	1.20%	60.05%	22.58	103.25	4.03%	99.09	14.14	1.13	11.67	25.81	2.50
V BBMB													
19	BBMB I LU	2,675.00			93.63	694.81	4.03%	666.81	13.39	2.38	165.10	178.49	2.57
20	BBMB II LU	-	0.00%	0.00%	-	38.03	4.03%	36.50	-	3.95	15.01	15.01	3.95
21	Bhaktra	1,325.00	1.20%	58.17%	46.38	380.33	4.03%	365.00	-	3.95	150.09	150.09	3.95
22	Dehar	990.00	1.20%	11.95%	34.65	233.49	4.03%	224.08	6.53	-	-	6.53	0.28
23	Pong	360.00	1.20%	6.53%	12.60	35.84	4.03%	34.39	4.90	-	-	4.90	1.37
23	Pong	360.00	1.20%	6.53%	12.60	7.12	4.03%	6.84	1.96	-	-	1.96	2.75

Summary of Power Purchase from Own Stations and Other Sources for FY 2022-23

S. No	Source	Plant Capacity MW	Auxiliary Consumption %	PLF %	Licensee's Share		Energy Sent out (Scheduled) MU	External Losses (%)	Energy Received by the Licensee		Annual Fixed Cost (AFC) ₹ crore	Variable Charges Rs/unit	Variable Cost (VC) ₹ crore	Total Cost ₹ crore	Per Unit Cost Rs/unit
					MW	%			MU	MU					
B Central Sector Power Stations (THERMAL/GAS/NUCLEAR)															
		15,742.00			158.74	593.67	4.03%	569.75	103.13	3.03	179.81	282.94	4.77		
VI	APCL THERMAL	1,500.00			11.25	44.66	4.03%	42.86	14.44	4.87	21.76	36.21	8.11		
24	JAJAR	1,500.00	5.75%	48.08%											
VII NTPC (THERMAL)															
		9,690.00			53.68	265.85	4.03%	255.14	45.85	2.51	66.85	112.71	4.24		
25	DADRI II	980.00	5.75%	31.60%	1.85	4.83	4.03%	4.64	2.05	5.03	2.43	4.48	9.27		
26	UNCHAHAR I	420.00	9.00%	59.82%	2.29	10.92	4.03%	10.48	2.03	4.59	5.01	7.04	6.45		
27	UNCHAHAR II	420.00	9.80%	53.92%	3.84	16.37	4.03%	15.71	3.72	4.61	7.55	11.26	6.88		
28	UNCHAHAR III	210.00	9.00%	70.15%	1.44	8.04	4.03%	7.72	1.56	4.58	3.68	5.24	6.52		
29	UNCHAHAR IV	500.00	6.25%	58.36%	5.22	25.00	4.03%	23.99	5.87	4.28	10.69	16.55	6.62		
30	KHALGAON II	1,500.00	6.25%	86.69%	3.00	21.36	4.03%	20.50	2.44	3.45	7.38	9.82	4.60		
31	SINGRAULI	2,000.00	7.13%	38.78%	3.50	11.04	4.03%	10.60	1.87	1.52	1.68	3.55	3.22		
32	RIHAND III	1,000.00	6.25%	65.07%	7.50	40.08	4.03%	38.47	7.33	1.57	6.28	13.61	3.40		
33	RIHAND I	1,000.00	8.00%	58.34%	11.70	55.01	4.03%	52.79	7.61	1.49	8.19	15.80	2.87		
34	RIHAND II	1,000.00	6.25%	60.17%	9.85	48.68	4.03%	46.71	4.77	1.46	7.09	11.86	2.44		
35	Tanda II	660.00	5.75%	85.00%	3.49	24.53	4.03%	23.54	6.61	2.81	6.88	13.49	5.50		
VIII MUNICIPAL															
		1,320.00			12.80	62.09	4.03%	59.59	18.14	2.46	15.30	33.45	5.39		
36	MEJA I	1,320.00	6.25%	59.05%											
IX NTPC (GAS)															
		1,912.00			43.71	24.36	4.03%	23.38	22.51	3.43	8.36	30.87	12.67		
37	DADRI	830.00	2.75%	10.89%	17.80	16.52	4.03%	15.85	9.85	3.28	5.43	15.28	9.25		
38	AURTYA	663.00	2.75%	4.52%	14.72	5.66	4.03%	5.43	6.49	4.22	2.39	8.88	15.68		
39	ANVA	419.00	2.75%	2.29%	11.19	2.18	4.03%	2.10	6.17	2.51	0.55	6.72	30.77		
X NPCIL															
		1,320.00			37.29	196.70	4.03%	188.77	2.18	3.43	67.53	69.71	3.54		
40	RAPP (Unit 5 & 6)-C	440.00	10.00%	97.70%	11.99	92.35	4.03%	88.63	1.21	3.83	35.38	36.59	3.96		
41	RAPP (Unit 3 & 4)-B	440.00	10.00%	16.73%	13.99	18.45	4.03%	17.71	0.46	3.25	5.99	6.45	3.50		
42	NAPS	440.00	10.00%	96.35%	11.31	85.90	4.03%	82.44	0.51	3.05	26.16	26.67	3.10		

Summary of Power Purchase from Own Stations and Other Sources for FY 2022-23

S. No	Source	Plant Capacity MW	Auxiliary Consumption %	PLF %	Licensee's Firm Share MW	Energy Sent out (Scheduled) MU	External Losses (%)	Energy Received by the Licensee MU	Annual Fixed Cost (AFC) ₹ crore	Variable Charges Rs/unit	Variable Cost (VC) ₹ crore	Total Cost ₹ crore	Per Unit Cost Rs/unit
C	RPO Obligation	91.43			91.43	169.51		169.51	0.14	3.25	55.17	55.32	3.26
XI	SECI (WIND)	40.00			40.00	151.48		151.48	0.14	-	43.93	44.07	-
43	Tranche-VI	40.00	1.00%	35.00%	40.00	151.48		151.48	0.14	-	43.93	44.07	-
XII	Intra-Solar	51.43			51.43	18.03		18.03	-	6.23	11.24	11.24	6.23
42	Crest	26.72	1.00%	6.83%	26.72	15.82		15.82	-	6.17	9.76	9.76	6.17
	Pvt. Solar	0.95	1.00%	15.91%	0.95	1.31		1.31	-	1.31	1.16	1.16	8.89
	Net Solar	23.76	1.00%	0.44%	23.76	0.90		0.90	-	3.53	0.32	0.32	3.53
XII	Solar Short Term GTAM/GDAM/REC												
XIV	Non-Solar Short Term												
D	SUB-TOTAL	26,843.45			518.25	2,070.36		1,993.75	256.05	2.44	506.10	762.15	3.66
E	Short Term Purchase/Sale					(155.70)		(155.70)					
	Buy					(155.70)		(155.70)					
	Sell					-		-					
F	UI												
	UI Buy												
	UI Sold												
G	Reactive Energy Charges												
H	OTHER CHARGES												
	PGCIL Charges and NRLDC Charges								112.26			112.26	
I	Other Charges												
	Prior Period												
	Late Payment Surcharge												
J	Total	26,843.45			518.25	1,914.66		1,838.05	368.31	2.64	506.10	874.41	4.57

Summary of Power Purchase from Own Stations and Other Sources for FY 2022-23

S. No	Source	Plant Capacity MW	Auxiliary Consumption %	PLF %	Licensee's Firm Share MW	Energy Sent out (Scheduled) MU	External Losses (%)	Energy Received by the Licensee MU	Annual Fixed Cost (AFC) ₹ crore	Variable Charges Rs/unit	Variable Cost (VC) ₹ crore	Total Cost ₹ crore	Per Unit Cost Rs/unit
I	NTPC (HYDRO)	808.00			11.92	43.97	4.03%	42.20	14.19	2.59	11.40	25.59	5.82
1	KOLDAM HYDRO	800.00	1.00%	49.09%	11.80	43.70	4.03%	41.94	14.19	2.58	11.26	25.45	5.82
2	SINGRAULI HYDRO	8.00	1.00%	26.31%	0.12	0.27	4.03%	0.26	0.00	5.30	0.14	0.14	5.30
II	NHPC	4,215.00			75.16	283.34	4.03%	271.93	66.88	1.60	45.36	112.23	3.96
3	DULHASTI	390.00	1.20%	65.71%	7.61	38.06	4.03%	36.53	15.85	2.46	9.38	25.23	6.53
4	PARBATI-III	520.00	1.20%	15.79%	10.82	12.86	4.03%	12.34	6.59	1.62	2.08	8.67	6.74
5	URI II	240.00	1.20%	89.06%	3.70	25.11	4.03%	24.10	8.18	2.24	5.62	13.80	5.50
6	SEWA II	120.00	1.20%	33.92%	2.77	7.16	4.03%	6.87	0.91	2.78	1.99	2.90	4.06
7	CHAMERA III	231.00	1.20%	55.92%	4.80	20.45	4.03%	19.63	5.49	2.07	4.23	9.72	4.75
8	TANAKPUR	94.00	1.00%	52.36%	1.20	4.81	4.03%	4.61	1.21	1.73	0.83	2.04	4.25
9	DHAULIGANGA	280.00	1.20%	55.37%	6.16	25.98	4.03%	24.93	5.71	1.29	3.36	9.08	3.49
10	CHAMERA I	540.00	1.20%	48.11%	21.06	77.17	4.03%	74.06	8.58	1.20	9.25	17.83	2.31
11	CHAMERA II	300.00	1.20%	54.01%	7.32	29.77	4.03%	28.57	4.34	1.06	3.14	4.30	2.51
12	URI	480.00	1.20%	74.23%	2.98	16.82	4.03%	16.15	2.84	0.86	1.45	4.30	2.55
13	SALAL	690.00	1.00%	59.21%	1.86	8.42	4.03%	8.08	1.81	0.65	0.54	2.35	2.80
14	Kishan Ganga	330.00	1.20%	44.96%	4.88	16.73	4.03%	16.05	5.37	2.07	3.46	8.33	5.28
III	THDC	1,400.00			61.09	164.27	4.03%	157.65	42.23	2.21	36.25	78.47	4.78
15	TEHRI	1,000.00	1.20%	35.36%	5.75	150.15	4.03%	144.10	37.67	2.19	32.81	70.48	4.69
16	KOTESHWAR	400.00	1.00%	34.63%	5.34	14.11	4.03%	13.54	4.56	2.43	3.43	7.99	5.66
IV	SIYNI	1,912.02			26.28	120.78	4.03%	115.91	20.28	1.30	15.67	35.95	2.98
17	RAMPUR	412.02	1.00%	62.67%	3.71	17.53	4.03%	16.83	5.71	2.12	3.72	9.43	5.38
18	NATTPA THAKRI	1,500.00	1.20%	60.05%	22.58	103.25	4.03%	99.09	14.57	1.16	11.96	26.53	2.57
V	BBMB	2,675.00			93.63	694.81	4.03%	666.81	13.79	2.44	169.22	183.01	2.63
19	BBMB I LU	-	0.00%	0.00%	-	38.03	4.03%	36.50	-	4.04	15.38	15.38	4.04
20	BBMB 10 LU	-	0.00%	0.00%	-	380.33	4.03%	365.00	-	4.04	153.84	153.84	4.04
21	Bhakhia	1,325.00	1.20%	58.17%	46.38	233.49	4.03%	224.08	6.73	-	-	6.73	0.29
22	Dehar	990.00	1.20%	11.95%	34.65	35.84	4.03%	34.39	5.05	-	-	5.05	1.41
23	Pong	360.00	1.20%	6.53%	12.60	7.12	4.03%	6.84	2.02	-	-	2.02	2.83

Summary of Power Purchase from Own Stations and Other Sources for FY 2022-23

S. No	Source	Plant Capacity MW	Auxiliary Consumption %	PLF %	Licensee's Firm Share MW	Energy Sent out (Scheduled) MU	External Losses (%)	Energy Received by the Licensee MU	Annual Fixed Cost (AFC) ₹ crore	Variable Charges Rs/unit	Variable Cost (VC) ₹ crore	Total Cost ₹ crore	Per Unit Cost Rs/unit
B Central Sector Power Stations (THERMAL/GAS/NUCLEAR)		15,742.00			158.74	593.67	4.03%	569.75	106.22	3.10	184.31	290.53	4.89
VI	APCPL THERMAL	1,500.00			11.25	44.66	4.03%	42.86	14.88	4.99	22.31	37.18	8.33
24	JAJUR	1,500.00	5.75%	48.08%	11.25	44.66	4.03%	42.86	14.88	4.99	22.31	37.18	8.33
VII NTPC (THERMAL)		9,690.00			53.68	265.85	4.03%	255.14	47.23	2.58	68.52	115.75	4.35
25	DADRI II	980.00	5.75%	31.60%	1.85	4.83	4.03%	4.64	2.11	3.16	2.49	4.60	9.52
26	UNCHAHAR I	420.00	9.00%	59.82%	2.29	10.92	4.03%	10.48	2.09	4.70	5.13	7.22	6.62
27	UNCHAHAR II	420.00	9.80%	53.92%	3.84	16.37	4.03%	15.71	3.83	4.72	7.73	11.55	7.06
28	UNCHAHAR III	210.00	9.00%	70.15%	1.44	8.04	4.03%	7.72	1.61	4.69	3.77	5.38	6.69
29	UNCHAHAR IV	500.00	6.25%	58.36%	5.22	25.00	4.03%	23.99	6.04	4.38	10.96	17.00	6.80
30	KAHALGAON II	1,500.00	6.25%	86.69%	3.00	21.36	4.03%	20.50	2.52	3.54	7.56	10.08	4.72
31	SINGRAULI	2,000.00	7.13%	38.78%	3.50	11.04	4.03%	10.60	1.93	1.56	1.72	3.65	3.31
32	RIHAND III	1,000.00	6.25%	65.07%	7.50	40.08	4.03%	38.47	7.55	1.61	6.43	13.98	3.49
33	RIHAND I	1,000.00	8.00%	58.34%	11.70	55.01	4.03%	52.79	7.84	1.53	8.40	16.23	2.95
34	RIHAND II	1,000.00	6.25%	60.17%	9.85	48.68	4.03%	46.71	4.91	1.49	7.27	12.18	2.50
35	Tanda II	660.00	5.75%	85.00%	3.49	24.53	4.03%	23.54	6.81	2.88	7.05	13.86	5.65
VII MUNPL		1,320.00			12.80	62.09	4.03%	59.59	18.69	2.53	15.69	34.37	5.54
36	MEJA I	1,320.00	6.25%	59.05%	12.80	62.09	4.03%	59.59	18.69	2.53	15.69	34.37	5.54
IX NTPC (GAS)		1,912.00			43.71	24.36	4.03%	23.38	23.19	3.52	8.57	31.76	13.04
37	DADRI	830.00	2.75%	10.89%	17.80	16.52	4.03%	15.85	10.15	3.37	5.56	15.71	9.51
38	AURTYA	663.00	2.75%	4.52%	14.72	5.66	4.03%	5.43	6.68	4.33	2.45	9.13	16.13
39	ANTA	419.00	2.75%	2.29%	11.19	2.18	4.03%	2.10	6.35	2.58	0.56	6.92	31.68
X NPCIL		1,320.00			37.29	196.70	4.03%	188.77	2.24	3.52	69.22	71.46	3.63
40	RAPP (Unit 5 & 6)-C	440.00	10.00%	97.70%	11.99	92.35	4.03%	88.63	1.25	3.93	36.26	37.51	4.06
41	RAPP (Unit 3 & 4)-B	440.00	10.00%	16.73%	13.99	18.45	4.03%	17.71	0.47	3.33	6.14	6.62	3.59
42	NAPS	440.00	10.00%	96.35%	11.31	85.90	4.03%	82.44	0.52	3.12	26.82	27.34	3.18

Summary of Power Purchase from Own Stations and Other Sources for FY 2022-23

S. No	Source	Plant Capacity MW	Auxiliary Consumption %	PLF %	Licensee's Firm Share MW	Energy Sent out (Scheduled) MU	External Losses (%)	Energy Received by the Licensee MU	Annual Fixed Cost (AFC) ₹ crore	Variable Charges Rs/unit	Variable Cost (VC) ₹ crore	Total Cost ₹ crore	Per Unit Cost Rs/unit
C	RPO Obligation	91.43			91.43	169.51	-	169.51	0.15	3.27	55.45	55.60	3.28
XI	SECI (WIND)	40.00			40.00	151.48	-	151.48	0.15	-	43.93	44.08	-
43	Tranche-VI	40.00	1.00%	35.00%	40.00	151.48	-	151.48	0.15	-	43.93	44.08	-
XII	Intra-Solar	51.43			51.43	18.03	-	18.03	-	6.39	11.52	11.52	6.39
42	Crest	26.72	1.00%	6.83%	26.72	15.82	-	15.82	-	6.32	10.00	10.00	6.32
	Pvt. Solar	0.95	1.00%	15.91%	0.95	1.31	-	1.31	-	9.11	1.19	1.19	9.11
	Net Solar	23.76	1.00%	0.44%	23.76	0.90	-	0.90	-	3.61	0.33	0.33	3.61
XII	Solar Short Term GTAW/GDAM/REC												
XIV	Non-Solar Short Term												
D	SUB-TOTAL	26,843.45			518.25	2,070.36	-	1,995.75	263.73	2.50	517.66	781.39	3.77
E	Short Term Purchase/Sale					(140.86)	-	(140.86)	-	-	-	-	-
	Buy					(140.86)	-	(140.86)	-	-	-	-	-
	Sell					-	-	-	-	-	-	-	-
F	UI												
	UI Buy												
	UI Sold												
G	Reactive Energy Charges												
H	OTHER CHARGES												
	PCCIL Charges and WRDCC Charges								117.87	-	-	117.87	-
I	Other Charges												
	Prior Period												
	Late Payment Surcharge												
J	Total	26,843.45			518.25	1,929.49	-	1,852.89	381.60	2.68	517.66	899.76	4.66

Sales, Consumers & Connected Load

A) Sales

S.No.	Category	Sales (MU)						Current Year Revised Estimates	Ensuing Year Projection
		Previous Year			Current Year				
		Actual	Actual	Actual	Estimated	Estimated	Estimated		
		FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	
1	Domestic (LT + HT)	731.94	704.67	759.21	689.74	706.19	787.30	800.71	
2	Non-Domestic (LT+ HT)	494.02	472.98	484.49	331.17	401.74	474.93	480.26	
3	Large Supply	119.85	125.15	123.76	109.11	116.66	122.43	124.41	
4	Medium Supply	119.33	116.40	106.38	101.65	98.29	103.54	103.54	
5	Small Power	19.50	18.87	18.43	16.26	16.36	18.59	18.59	
6	Agriculture	1.43	1.36	1.41	1.36	1.33	1.49	1.53	
7	Public Lighting	17.73	15.09	14.78	12.21	14.26	14.69	14.69	
8	Bulk Supply	80.60	77.31	82.88	77.18	76.96	83.53	85.03	
9	Others Temporary Supply	4.40	3.93	4.20	3.41	4.01	3.92	3.92	
	Grand Total	1,588.80	1,535.77	1,595.55	1,342.08	1,435.80	1,610.42	1,632.68	

Sales, Consumers & Connected Load

B) Number of Consumers

S.No.	Category	No. of Consumers (No.s)						
		Previous Year			Current Year		Ensuing Year	
		Actual	Actual	Actual	Actual	Estimated	Revised Estimates	Projection
		FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
1	Domestic (LT + HT)	2,12,499	1,94,558	1,97,594	2,12,499	2,00,939	2,02,639	2,04,354
2	Non-Domestic (LT+ HT)	25,942	24,603	25,775	25,942	26,584	26,998	27,418
3	Large Supply	97	127	98	97	96	96	96
4	Medium Supply	1,305	1,394	1,270	1,305	1,248	1,248	1,248
5	Small Power	1,281	1,418	1,311	1,281	1,337	1,350	1,364
6	Agriculture	124	122	122	124	289	289	289
7	Public Lighting	1,168	1,217	1,308	1,168	1,514	1,629	1,752
8	Bulk Supply	637	587	560	637	519	519	519
9	Others Temporary Supply	386	357	413	386	458	482	508
	Grand Total	2,43,439	2,24,383	2,28,451	2,43,439	2,32,984	2,35,251	2,37,548

Sales, Consumers & Connected Load

C) Connected Load

S.No.	Category	Connected Load (MW)						
		Previous Year		Current Year			Control Period	
		Actual FY 2017-18	Actual FY 2018-19	Actual FY 2019-20	Actual FY 2020-21	Estimated FY 2021-22	Revised FY 2022-23	Projection FY 2023-24
1	Domestic (LT + HT)	909.07	896.69	903.47	909.07	920.77	930.73	940.80
2	Non-Domestic (LT+ HT)	446.01	454.58	453.29	446.01	477.10	483.82	490.64
3	Large Supply	69.43	69.23	68.64	69.43	69.43	69.82	70.22
4	Medium Supply	72.36	76.55	69.57	72.36	69.14	69.14	69.14
5	Small Power	19.72	22.32	21.37	19.72	21.91	22.18	22.46
6	Agriculture	0.84	0.83	0.83	0.84	4.54	1.18	1.18
7	Public Lighting	6.76	4.91	4.58	6.76	4.54	4.54	4.54
8	Bulk Supply	42.25	42.05	41.65	42.25	41.29	41.29	41.29
9	Others Temporary Supply	2.19	32.53	2.59	2.19	1.50	1.50	1.50
	Grand Total	1568.63	1599.69	1566.00	1,568.63	1,610.21	1,624.20	1,641.77

Energy Balance (Availability Vs Requirement)

Sr. No.	Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
		Estimated	Estimated	Revised Estimates	Projected
A) ENERGY REQUIREMENT					
1	Energy sales to metered category within the State	1,342.08	1,435.80	1,610.42	1,632.68
2	Total sales within the State	1,342.08	1,435.80	1,610.42	1,632.68
3	Distribution Losses (MU)	215.09	212.36	227.63	220.21
4	Distribution Losses (%)	13.81%	12.88%	12.38%	11.88%
5	Energy required at DISCOM Periphery	1,557.18	1,648.16	1,838.05	1,852.89
6	Intra-State Transmission Losses	-	-	-	-
9	Total Energy Requirement at DISCOM Periphery	1,557.18	1,648.16	1,838.05	1,852.89
B) ENERGY AVAILABILITY					
1	Availability from firm sources outside state	1,789.20	1,942.67	2,052.33	2,052.33
2	Availability from UI Over-drawal/ Under-drawal	21.97	(87.17)	-	-
3	Net Purchase from open market	(197.62)	(162.50)	(155.70)	(140.86)
5	Total Availability of Energy from outside the state	1,613.55	1,693.01	1,896.62	1,911.46
6	PGCIL Losses - MUs	63.75	62.88	76.60	76.60
7	PGCIL Losses - %	3.95%	3.71%	4.03%	4.03%
8	Total Availability of Energy at State Periphery from outside state after Interstate Losses	1549.80	1630.12	1820.02	1834.86
9	Availability from firm sources inside the state	7.38	18.03	18.03	18.03
10	Total Availability of Energy for the State	1,557.18	1,648.16	1,838.05	1,852.89
11	Surplus / (Deficit)	-	-	-	-

Capital Works in Progress

S. No.	Particulars	FY 2020-21					FY 2021-22			(Rs. Core)	
		Opening Balance	Additions	Capitalisation	Adjustments	Closing Balance	Opening Balance	Additions	Capitalisation		Adjustments
1	ED-Chandigarh	51.73	48.59	18.08		82.25	82.25	14.73	3.37		93.61

Capital Works in Progress

(Rs. Crore)

S. No.	Particulars	FY 2022-23					FY 2023-24				
		Opening Balance	Additions	Capitalisation	Adjustments	Closing Balance	Opening Balance	Additions	Capitalisation	Adjustments	Closing Balance
1	ED-Chandigarh	93.61	37.13	64.48		66.26	66.26	50.94	47.39		69.81

Calculation of Weighted Average Rate of Interest on Actual Loans

(Rs. Crore)

Particulars	FY 2020-21										FY 2021-22									
	Gross Loan - Opening (₹ crore)	Add: Drawls during the year (₹ crore)	Less: Repayment of loan during the year (₹ crore)	Estimated Closing Balance of loan (₹ crore)	Average loan (₹ crore)	Rate of interest on loan (%)	Interest on loan (₹ crore)	Gross Loan - Opening (₹ crore)	Add: Drawls during the year (₹ crore)	Less: Repayment of Loan during the year (₹ crore)	Estimated Closing Balance of loan (₹ crore)	Average loan (₹ crore)	Rate of interest on loan (%)	Interest on loan (₹ crore)						
Normative Loan	0.00	12.66	14.33	0.00	0.00	8.75%	0.00	0.00	2.36	13.84	0.00	0.00	8.00%	0.00						
Total IOL & FC	0.00	12.66	14.33	0.00	0.00	8.75%	0.00	0.00	2.36	13.84	0.00	0.00	8.00%	0.00						

Working Capital Requirements

S. No.	Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
		Actual	Estimated	Revised Estimates	Projection
A)	O&M Expenses for 1 Month	7.86	8.16	9.64	9.92
B	Maintenance Spares @40% of R&M Expenses for One Month				
C	Receivables equivalent to two (2) months	0.56	0.67	0.54	0.61
D	Less: Amount, if any, held as security deposits from Distribution System Users	117.61	137.86	156.25	172.03
E	Less: Power Purchase cost for one (1) month	192.91	181.66	174.07	175.77
F	Total Working Capital (A+B+C-D-E)	0	0	72.87	74.94
G	Rate of Interest **	(66.88) 8.65%	(34.96) 8.65%	(80.50) 9.00%	(68.14) 9.30%
H	Interest on Working Capital	-	-	-	-

(Rs. Crore)

Fixed Assets & Provision for Depreciation

S. No	Particulars	Rate of Depreciation (%)	FY 2020-21						FY 2021-22						
			Estimated						Estimated						
			Fixed Assets, excluding Consumer Contribution / Grants / Subsidies	At the start of the Year	Addition during the Year (D=C)	Deduction	Total Depreciable base	At the end of the Year	Depreciation on	Fixed Assets, excluding Consumer Contribution / Grants / Subsidies	At the start of the Year	Addition during the Year (D=C)	Deduction	Total Depreciable base	At the end of the Year
1	Land	0.00%	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	Building	1.80%	36.42	0.00	-	36.42	36.42	1.00	36.42	0.00	0.00	36.42	36.42	0.97	0.00
3	Plant & Machinery	3.60%	419.53	17.82	-	419.53	437.35	13.28	437.35	3.30	0.00	437.35	440.65	12.79	0.05
4	Vehicles	18.00%	0.96	0.07	-	0.96	1.03	0.03	1.03	0.07	0.00	1.03	1.10	0.01	0.01
5	Furniture and Fixtures	6.00%	0.12	0.06	-	0.12	0.18	0.00	0.18	0.00	0.00	0.18	0.18	0.01	0.01
6	Office Equipments	6.00%	0.20	0.00	-	0.20	0.20	0.00	0.20	0.00	0.00	0.20	0.20	0.00	0.00
7	IT Equipments	6.00%	0.54	0.13	-	0.54	0.67	0.02	0.67	0.00	0.00	0.67	0.67	0.02	0.02
	TOTAL		457.77	18.08	-	457.77	475.85	14.33	475.85	3.37	0.00	475.85	479.22	13.84	

(Rs. Crore)

Fixed Assets & Provision for Depreciation

S. No	Particulars	Rate of Depreciation (%)	FY 2022-23								FY 2023-24				(Rs. Crore)
			Revised Estimates				Projected								
			At the start of the Year	Addition during the Year (D=C)	Deduction	Total Depreciable base	At the end of the Year	Depreciation	At the start of the Year	Addition during the Year (D=C)	Deduction	Total Depreciable base	At the end of the Year	Depreciation	
1	Land	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	Building	1.80%	36.42	0.00	0.00	36.42	0.66	36.42	0.00	36.42	0.66	36.42	0.00	36.42	0.66
3	Plant & Machinery	3.60%	440.65	64.19	0.00	440.65	17.02	504.84	0.00	47.17	0.00	504.84	1.38	552.01	19.02
4	Vehicles	18.00%	1.10	0.16	0.00	1.10	0.21	1.26	0.00	0.12	0.00	1.26	0.24	1.38	0.24
5	Furniture and Fixtures	6.00%	0.18	0.03	0.00	0.18	0.01	0.20	0.00	0.02	0.00	0.20	0.22	0.22	0.01
6	Office Equipments	6.00%	0.20	0.00	0.00	0.20	0.01	0.20	0.00	0.02	0.00	0.20	0.22	0.22	0.00
7	IT Equipments	6.00%	0.67	0.10	0.00	0.67	0.11	0.77	0.00	0.07	0.00	0.77	0.84	0.84	0.12
	TOTAL		479.22	64.48	0.00	479.22	18.02	543.69	18.02	543.69	18.02	543.69	47.39	591.09	20.05

Return on Equity

(Rs. Crore)

S. No	Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
		Estimated	Estimated	Revised Estimates	Projected
1	Opening Balance of Equity	131.38	136.80	137.81	157.16
2	Net Additions during the Year	5.42	1.01	19.34	14.22
3	Closing Balance of Equity	136.80	137.81	157.16	171.38
4	Average Equity	134.09	137.31	147.49	164.27
5	Average Equity (Wires Business)-90%	120.68	123.58	132.74	147.84
6	Average Equity (Retail Supply Business)-10%	13.41	13.73	14.75	16.43
7	Rate of Return on Equity for Wire Business %	15.50%	15.50%	15.50%	15.50%
8	ROE Wire Business	18.71	19.15	20.57	22.92
9	Rate of Return on Equity for Retail Supply Business	16.00%	16.00%	16.00%	16.00%
10	ROE on Retail Supply business	2.15	2.20	2.36	2.63
11	ROE (Wire and Retail Supply business)	20.85	21.35	22.93	25.54

Sr. No.	Particulars	(Rs. Crore)			
		FY 2020-21 Estimated	FY 2021-22 Estimated	FY 2022-23 Revised Estimates	FY 2023-24 Projected
1	Employee Expenses	78.65	83.84	92.82	93.67
2	A&G Expenses	7.28	7.65	6.65	7.04
3	R & M Expenses	10.76	12.47	16.20	18.38
4	6th Pay Commission Impact			25.00	
5	Total O&M Expenses	96.69	103.97	140.67	119.09

Income from Investments and Non-Tariff Income

S. No.	Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
		Estimated	Estimated	Revised Estimates	Projected
1	Meter/metering equipment/service line rentals	-	-	-	-
2	Service Charges	-	-	-	-
3	Customer Charges	-	-	-	-
4	Incentives from CGSS	-	-	-	-
5	Interest on advances to suppliers/contractors	-	-	-	-
6	Interest on Staff Loans and Advances	-	-	-	-
7	Other Income	-	-	-	-
8	Income from Staff Welfare Activities	-	-	-	-
9	Excess found on Physical Verification	-	-	-	-
10	Interest on Investments, Fixed and Call Deposits and Bank Balances	-	-	-	-
11	Prior Period Income	-	-	-	-
12	Sale Proceeds of dead stock, waste paper etc	-	-	-	-
13	Delay Payment Surcharges	-	-	-	-
15	Miscellaneous Charges	-	-	-	-
14	Miscellaneous Receipts	30.77	9.09	9.09	9.09
16	Income from Trading Power (PX & UJ)	8.05	6.62	6.62	6.62
17	Rebate on timely payment of Energy Bills	73.40	124.09	115.91	36.57
18	Recovery of Doubtful Dues	5.55	14.20	4.74	-
	Total	117.77	153.99	136.36	52.28

(Rs. Crore)

Information regarding Security Deposits from Consumers

Sr. No.	Particulars	(Rs. Crore)			
		FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
1	2	3	4	5	6
1	Opening Security Deposit	195.72	190.10	173.23	174.91
3	Net Addition in Security Deposits	(5.62)	(16.87)	1.69	1.71
4	Closing Security Deposit	190.10	173.23	174.91	176.62
5	Bank Rate	4.65%	4.25%	4.25%	4.25%
6	Interest on Security Deposit *	3.78	7.12	7.40	7.47

Sl. No.	Category	Components of tariff				Relevant sales & load/demand		Full year revenue (Rs. Crore)			Average Billing Rate (Rs./kWh)	
		Fixed Charges (specify part name and unit)	Fixed Charge	Energy Charges (specify part name and unit)	Energy Charge	Sanctioned Load in kW	Sales in MU	Revenue from fixed Charges	Revenue from Energy Charges	Total		
1	Domestic LT	Domestic LT										
		0-150 Units	Rs./kW/Month	15.00	Rs./kWh	2.75	2,50,370	64.94	4.51	17.86	22.36	
		151-400 Units	Rs./kW/Month	15.00	Rs./kWh	4.25	3,13,322	246.12	5.64	104.60	110.24	
		401 and above units	Rs./kW/Month	15.00	Rs./kWh	4.65	3,34,047	453.67	6.01	210.96	216.97	
		Domestic HT	Rs./kW/Month	15.00	Rs./kWh	4.30	32,988	22.57	0.59	9.71	10.30	
		Sub-Total					9,30,728	787.30	16.75	343.12	359.87	4.57
		Commercial LT										
		0-150 Units -Single Phase	Rs./kW/Month	25	Rs./kWh	4.50	48,853	5.71	1.47	2.57	4.03	
		151-400 Units -Single Phase	Rs./kW/Month	25	Rs./kWh	4.70	26,065	13.78	0.78	6.48	7.26	
		401 and above units -SP	Rs./kW/Month	25	Rs./kWh	5.00	15,860	21.83	0.48	10.91	11.39	
0-150 Units - Three Phase	Rs./kW/Month	100	Rs./kWh	4.50	2,462	0.29	0.30	0.13	0.42			
151-400 Units -Three Phase	Rs./kW/Month	100	Rs./kWh	4.70	10,862	5.74	1.30	2.70	4.00			
401 and above units - Three Phase	Rs./kW/Month	100	Rs./kWh	5.00	1,28,900	177.39	15.47	88.69	104.16			
Commercial HT	Rs./kW/Month	100	Rs./kWh	4.50	2,50,816	250.20	30.10	112.59	142.69			
Sub-Total					4,83,818	474.93	49.89	224.07	273.96	5.77		
3	Large Supply	Rs./kW/Month	200	Rs./kWh	4.50	69,821	122.43	16.76	55.09	71.85	5.87	
4	Medium Supply	Rs./kW/Month	200	Rs./kWh	4.20	69,138	103.54	16.59	43.49	60.08	5.80	
5	Small Power	Rs./kW/Month	30	Rs./kWh	4.30	22,185	18.59	0.80	7.99	8.79	4.73	
6	Agriculture	Rs./kW/Month	0	Rs./kWh	2.60	1,180	1.49	0.00	0.39	0.39	2.60	
6	Public Lighting	Rs./kW/Month	100	Rs./kWh	5.6	4,538	14.69	0.54	8.23	8.77	5.97	
8	Bulk Supply	Rs./kW/Month	150	Rs./kWh	4.20	41,291	83.53	7.43	35.08	42.51	5.09	
9	Other Categories	Rs./kW/Month	-	Rs./kWh	7.73	1,502	3.92	3.03	3.03	7.73		
9	EV Charging Station	Rs./kW/Month	-	Rs./kWh	3.60							
Grand Total						16,24,200	1610.42	108.77	720.49	829.26	5.15	

Revenue at Existing Tariff for FY 2023-24

Sl. No.	Category	Components of tariff				Relevant sales & load/demand data for revenue calculation		Full year revenue (Rs. Crore)			Average Billing Rate (Rs./kWh)	
		Fixed Charges (specify part name and unit)	Fixed Charge	Energy Charges (specify part name and unit)	Energy Charge	sanctioned Load in kW	Sales in MU	Revenue from Fixed Charges	Revenue from Energy Charges	Total		
1	Domestic LT	Domestic LT										
		0-150 Units	Rs./kW/Month	15	Rs./kWh	2.75	2,53,078.93	66.04	4.56	18.16	22.72	
		151-400 Units	Rs./kW/Month	15	Rs./kWh	4.25	3,16,711.98	250.31	5.70	106.38	112.08	
		401 and above units	Rs./kW/Month	15	Rs./kWh	4.65	3,37,661.12	461.40	6.08	214.55	220.63	
		Domestic HT	Rs./kW/Month	15	Rs./kWh	4.30	33,345.30	22.96	0.60	9.87	10.47	
		Sub-Total					9,40,797.33	800.71	16.93	348.97	365.90	4.57
		Commercial										
		Commercial LT										
		0-150 Units - Single Phase	Rs./kW/Month	25	Rs./kWh	4.50	495,42.33	5.77	1.49	2.60	4.08	
		151-400 Units - Single Phase	Rs./kW/Month	25	Rs./kWh	4.70	26432.58	13.93	0.79	6.55	7.34	
401 and above units - SP	Rs./kW/Month	25	Rs./kWh	5.00	16083.41	22.07	0.48	11.04	11.52			
0-150 Units - Three Phase	Rs./kW/Month	100	Rs./kWh	4.50	2496.32	0.29	0.30	0.13	0.43			
151-400 Units - Three Phase	Rs./kW/Month	100	Rs./kWh	4.70	11015.37	5.81	1.32	2.73	4.05			
401 and above units - Three Phase	Rs./kW/Month	100	Rs./kWh	5.00	130719.09	179.38	15.69	89.69	105.38			
Commercial HT	Rs./kW/Month	100	Rs./kWh	4.50	254355.09	253.01	30.52	113.85	144.38			
Sub-Total					490644.18	480.26	50.59	226.59	277.18	5.77		
3	Large Supply	Rs./kW/Month	200	Rs./kWh	4.50	70220.00	124.41	16.85	55.98	72.84	5.85	
4	Medium Supply	Rs./kW/Month	200	Rs./kWh	4.20	69137.55	103.54	16.59	43.49	60.08	5.80	
5	Small Power	Rs./kW/Month	30	Rs./kWh	4.30	22464.16	18.59	0.81	7.99	8.80	4.73	
6	Agriculture	Rs./kW/Month	0	Rs./kWh	2.60	1180.12	1.53	0.00	0.40	0.40	2.60	
6	Public Lighting	Rs./kW/Month	100	Rs./kWh	5.60	4538.28	14.69	0.54	8.23	8.77	5.97	
8	Bulk Supply	Rs./kW/Month	150	Rs./kWh	4.20	41290.83	85.03	7.43	35.71	43.14	5.07	
9	Other Categories	Rs./kW/Month	0	Rs./kWh	7.73	1502.00	3.92	0.00	3.03	3.03	7.73	
10	EV Charging Station	Rs./kW/Month	0	Rs./kWh	3.60							
	Grand Total					1641774.45	1632.68	109.76	730.38	840.14	5.15	

Revenue at Revised Tarif for FY 2023-24

Sl. No.	Category	Relevant sales & load/demand		Existing Tarif		Proposed Tarif				Revised				
		Sanctioned Load in kW	Sales in MU	Energy Charges	Fixed Charges	FC Rate	FC Rate	FC Amount	FC Amount	Total	ABR	% Inc		
1	Domestic LT	0-150 Units	2,53,078.93	66.04	2.75	15.00	25.00	3.00	7.99	19.81	27.41	4.15	20.64%	
		151-400 Units	3,16,711.98	250.31	4.25	15.00	25.00	4.50	9.50	112.64	122.14	4.88	8.97%	
		401 and above units	3,37,661.12	461.40	4.65	15.00	25.00	5.00	10.13	230.70	240.83	5.22	9.16%	
		Domestic HT	33,345.30	22.96	4.30	15.00	25.00	4.80	1.00	11.02	12.02	5.24	14.78%	
		Sub-Total	9,40,797.33	800.71					28.22	374.17	402.40	5.03	9.97%	
		Commercial												
		Commercial LT												
		0-150 Units - Single Phase	49,542.33	5.77	4.50	25.00	40.00	4.75	2.38	2.74	5.12	8.87	25.37%	
		151-400 Units - Single Phase	2,64,32.58	13.93	4.70	25.00	40.00	5.00	1.27	6.97	8.24	5.91	12.17%	
		401 and above units - SP	1,60,83.41	22.07	5.00	25.00	40.00	5.50	0.77	12.14	12.91	5.85	12.09%	
2	Commercial HT	0-150 Units - Three Phase	2,496.32	0.29	4.50	100.00	120.00	4.75	0.36	0.14	0.50	17.11	15.61%	
		151-400 Units - Three Phase	1,10,15.37	5.81	4.70	100.00	120.00	5.00	1.59	2.90	4.49	7.73	10.83%	
		401 and above units - Three Phase	1,30,719.09	179.38	5.00	100.00	120.00	5.50	18.82	98.66	117.48	6.55	11.49%	
		Commercial HT	2,54,355.09	253.01	4.50	100.00	120.00	5.00	36.63	126.50	163.13	6.45	12.99%	
		Sub-Total	4,90,644.18	480.26					61.82	250.05	311.87	6.49	12.57%	
3	Large Supply	Large Supply	70,220.00	124.41	4.50	200.00	220.00	4.60	18.54	57.23	75.77	6.09	4.02%	
		Medium Supply												
4	Medium Supply	Medium Supply	6,91,97.55	103.54	4.20	200.00	220.00	4.40	18.25	45.56	63.81	6.16	6.21%	
		Small Power												
5	Small Power	Small Power	22,464.16	18.59	4.30	30.00	50.00	4.50	1.35	8.37	9.71	5.22	10.35%	
		Agriculture												
6	Agriculture	Agriculture	1,180.12	1.33	2.60	0.00		2.80	-	0.43	0.43	2.80	7.69%	
		Public Lighting												
6	Public Lighting	Public Lighting	4,538.28	14.69	5.60	100.00	120.00	5.80	0.65	8.52	9.17	6.24	4.59%	
		Bulk Supply												
6	Bulk Supply	Bulk Supply	41,290.83	85.03	4.20	150.00	220.00	4.60	10.90	39.11	50.01	5.88	15.92%	
		Other Categories												
9	Other Temp. Supply	Other Temp. Supply	1,502.00	3.92	7.73	0.00		7.81	-	3.06	3.06	7.81	1.00%	
		EV Charging Station												
9	EV Charging Station	EV Charging Station			3.60	0.00		3.80	-	-	-	-	-	
		Grand Total	16,41,774.43	1,632.68					139.73	786.50	926.23	5.67	10.25%	