

Aggregate Revenue Requirement for

FY 2022-23 to FY 2026-27

&

Tariff Proposal for

FY 2022-23

Submitted by: -

**Madhya Pradesh Power Management Company Limited
Shakti Bhawan, Vidyut Nagar, Jabalpur**



**Madhya Pradesh Poorv Kshetra Vidyut Vitaran Company Limited
Block No. 7, Shakti Bhawan, Vidyut Nagar, Jabalpur**



**Madhya Pradesh Madhya Kshetra Vidyut Vitaran Company Limited
Bijlee Nagar Colony, Nishtha Parisar, Govindpura, Bhopal**



**Madhya Pradesh Pashchim Kshetra Vidyut Vitaran Company Limited
GPH Compound, Polo Ground, Indore**



**BEFORE THE HON'BLE MADHYA PRADESH
ELECTRICITY REGULATORY COMMISSION, BHOPAL**

Petition No. _____ of 2021

- (1) Madhya Pradesh Power Management Company Limited
Shakti Bhawan, Vidyut Nagar, Jabalpur (MP) ----- Petitioner
- (2) Madhya Pradesh Poorv Kshetra Vidyut Vitaran Company Limited
Shakti Bhawan, Vidyut Nagar, Jabalpur (MP) ----- Petitioner
- (3) Madhya Pradesh Paschim Kshetra Vidyut Vitaran Company Limited
GPH, Polo Ground, Indore (MP) ----- Petitioner
- (4) Madhya Pradesh Madhya Kshetra Vidyut Vitaran Company Limited
Nishtha Parisar, Bijlee Nagar, Govindpura, Bhopal (MP) ----- Petitioner

IN THE MATTER OF:

Filing of Petition for Determination of ARR for FY 2022-23 to FY 2026-27 and Tariff Proposal for Distribution & Retail Supply Business for FY 2022-23 under the tariff principles laid down in the “Madhya Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Supply and Wheeling of Electricity and Methods and Principles for Fixation of Charges) Regulations, 2021 dated 03rd December 2021” and for MPPMCL and MPPoKVCL, MPPaKVCL & MPMKVCL as the Distribution Licensee

The Applicant respectfully submits as under: -

1. Madhya Pradesh Power Management Company Ltd. is a Company incorporated under the Companies Act, 1956 (now Companies Act 2013) and having its registered office at Block No.11, Shakti Bhawan, Vidyut Nagar, Jabalpur.
2. Madhya Pradesh Poorv Kshetra Vidyut Vitaran Company Ltd. is a Company incorporated under the Companies Act, 1956 (now Companies Act 2013) and having its registered office at Block No.7, Shakti Bhawan, Vidyut Nagar, Jabalpur. The Petitioner is a deemed licensee under the Fifth Proviso to Section 14 of the Electricity Act, 2003. The area of supply of the Petitioner comprises Jabalpur, Rewa, Sagar and Shahdol Commissionary within the State of Madhya Pradesh ('MP').
3. Madhya Pradesh Madhya Kshetra Vidyut Vitaran Company Ltd. (MPMKVVCL) is a Company incorporated under the Companies Act, 1956 (now Companies Act 2013) and having its registered office at Nishtha Parisar, Bijlee Nagar Colony, Govindpura, Bhopal. The Petitioner is a deemed licensee under the Fifth Proviso to Section 14 of the Electricity Act, 2003. The area of supply of the Petitioner comprises Bhopal, Gwalior,

Hoshangabad and Chambal Commissionary within the State of Madhya Pradesh ('MP').

4. Madhya Pradesh Paschim Kshetra Vidyut Vitaran Company Ltd. is a Company incorporated under the Companies Act, 1956 (now Companies Act 2013) and having its registered office at GPH, Polo Ground, Indore. The Petitioner is a deemed licensee under the Fifth Proviso to Section 14 of the Electricity Act, 2003. The area of supply of the Petitioner comprises Indore and Ujjain Commissionary within the State of Madhya Pradesh ('MP').
5. The Government of Madhya Pradesh ('GoMP' or 'State Government'), vide an Order No. 3679 F₹-18-13- 2002 dated 31st May, 2005, published in the gazette of Madhya Pradesh dated 31st May 2005, have restructured the functions and undertakings of Generation, Transmission, Distribution and Retail Supply of electricity earlier carried out by the Madhya Pradesh State Electricity Board ('MPSEB' or the 'Board') and transferred the same to five Companies to function independently. The five Companies are as under:
 - a. M.P. Power Generating Company Ltd., Jabalpur (MPPGCL) / (GENCO)
 - b. M.P. Power Transmission Company Ltd., Jabalpur (MPPTCL) / (TRANSCO)
 - c. M.P. Poorv Kshetra Vidyut Vitaran Company Ltd., Jabalpur (MPPKVVCL) / (EAST DISCOM)
 - d. M.P. Madhya Kshetra Vidyut Vitaran Company Ltd. Bhopal (MPMKVVCL) / (CENTRAL DISCOM)
 - e. M.P. Paschim Kshetra Vidyut Vitaran Company Ltd., Indore (MPPKVVCL) / (WEST DISCOM)
6. With the issuance of the said Order dated 31st May 2005, the Operation and Management Agreement that existed between MPSEB and the Five Companies came to end with effect from 1st June 2005. The three Vidyut Vitaran Companies viz. East Discom, Central Discom and West Discom, started functioning independently as Distribution Licensees in their respective area of license and from the said date are no longer operating as an agent of or on behalf of the Board, subject to Cash Flow Mechanism (CFM) provided in the said Order.
7. On 3rd June 2006, GoMP, in exercise of its power under Section 23 (Sub-section (1), (2) and (3)) and Section 56 (Sub-section (2)) of Madhya Pradesh Vidyut Sudhar Adhiniyam, 2000 read with Section 131 (Sub-sections (1), (2), (5), (6) and (7) of Electricity Act, 2003, effected the transfer of and vesting of the functions, properties, interests rights and obligations of MPSEB relating to the Bulk Purchase and Bulk Supply of Electricity in the State Government and simultaneously re-transferred and re-vested the same to MP Power Trading Company ('Tradeco' or 'MP Tradeco'). Since then, MP Tradeco is discharging the responsibilities of procurement of power in bulk and supplying to the three Discoms, including the Petitioner herein. The transfer was effected through "M.P. Electricity Reforms Transfer Scheme Rules 2006" (Transfer Scheme Rules) vide Notification No.3474 /FRS/17/XIII/2002 dtd. 3rd June 2006

(Transfer Scheme Rules).

8. In accordance with GoMP decision the name of MP Power Trading Company Ltd has been changed to MP Power Management Company Ltd. The MP Power Management Company has been made holding companies for all the three DISCOMS of MP. The Registrar of Companies, MP has issued the Certificate of Incorporation consequent upon change of name on 10th April 2012. The MPPMCL has been vested with several of functions and power that were earlier vested with the erstwhile M.P. State Electricity Board.
9. GoMP has entrusted MPPMCL with the responsibility inter alia of representing the Discoms before the Commission with regard to filing the tariff petition and facilitating all proceedings thereon. The Management and Corporate functions agreement signed by the MPPMCL with the three Discoms of MP also provide for the same.
10. MPPMCL has signed “Management and Corporate Functions Agreement” on 05th June 2012, with the three Discoms of the State, wherein it has been agreed that MPPMCL shall perform inter alia the following functions of common nature for the Discoms:
 - i. In consultation with Discoms, undertake long-term/ medium-term/short-term planning and assessment of the power purchase requirements for the three Discoms and explore opportunities for power procurement as per the regulations of MPERC;
 - ii. Allocation of power among the Discoms from the forthcoming projects as per retail tariff order and as per the GoMP notification and further instructions in this regard;
 - iii. Economic, reliable and cost-effective power procurement of Short-term, Medium-term and Long-term and sale of surplus power, if any, for the purpose of Banking / maximization of revenue;
 - iv. Exploring opportunities for procurement of power on long-term and medium-term basis, procure power and finalizing Power Purchase Agreements (PPAs);
 - v. The expenses of MPPMCL have been considered to be included as part of power purchase cost of the Discoms.
11. In the backdrop of the above facts and circumstances, the present Petition is being made by the Petitioners (MPPMCL, East Discom, Central Discom and West Discom) under Section 61 and Section 62 (1) (d) of the Electricity Act 2003, read with the “**Madhya Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Supply and Wheeling of Electricity and Methods and Principles for Fixation of Charges) Regulations, 2021 dated 03rd December 2021**” (Hereinafter referred to as "Tariff Regulations, 2021 or “Regulations”) for determination of the ARR for the control period from FY 2022-23 to FY 2026-27 and Tariff for distribution and Retail Supply Business for FY 2022-23.
12. It is submitted that the present ARR for MYT FY 2022-23 to FY 2026-27 & Tariff Proposal for FY 2022-23 has been prepared in accordance with the normative parameters and clauses as defined under Tariff Regulations 2021. The Petitioner has endeavoured to

comply with the various legal and regulatory directions and stipulations applicable, including the directions given by the Hon'ble Commission in the Business Rules of the Commission, the Guidelines, previous ARR and Tariff Orders to the possible extent on the basis of actual and reasonable assumptions and within the limitations of availability of data.

13. It is submitted that as soon as the retail tariff order becomes applicable, the voltage level and consumer category wise cross subsidy surcharge, additional surcharge, wheeling charges and transmission charges in respect of open access customers and captive consumers along with net metering should also be notified and made effective from the tariff application date.
14. Based on the information available, the Petitioner has made sincere efforts to comply with the Regulations of the Hon'ble Commission and discharge its obligations to the best of its abilities and resources in its command. However, should any further material information become available during the process of determination, the Petitioner may be permitted to reserve the right to file such additional information and consequently amend/ revise the petition.
15. Hon'ble Commission in previous year's order has referred to an Appellate Tribunal for Electricity (APTEL) judgment to determine the voltage level wise Cost of Supply in the state of MP. However, this judgment is to determine the voltage level wise cross subsidy surcharge and not consumer tariff. In the present petition, the Petitioners have proposed consumer category wise tariff in line with the National Tariff Policy, 2016 and amendments made therein. The Hon'ble Commission is requested to determine the voltage level and consumer category wise cross subsidy surcharge on the basis of the available data with the Distribution Licensees in accordance with the methodology suggested by the APTEL and also approved by Hon'ble Commission in its Retail Supply Tariff Order for FY 2021-22.
16. In line with Tariff Regulations 2021, the ARR estimated for the control period for FY 2022-23 to FY 2026-27 is shown below,

Annual Revenue Requirement for FY 23 to FY 27						
Sr.	Particular	FY 23	FY 24	FY 25	FY 26	FY 27
A	Expenditures					
1	Purchase of Power cost incl. MPPMCL and Inter-state Transmission Charges	33,760	36,469	39,039	41,633	44,077
2	Intra-State Transmission (MP Transco) Charges and SLDC Charges	4,256	4,339	4,512	4,693	4,880
3	R&M Expense	1,359	1,626	2,235	2,476	2,664
4	Employee Expenses	3,753	4,091	4,427	4,784	5,163
5	A&G Expense	385	402	419	436	455
6	Depreciation and Related debits	1,921	2,155	2,508	2,851	3,055
7	Interest & Finance Charges	1,299	1,406	1,586	1,679	1,640
8	Other Debits, Write-offs (Prior period and bad debts)	450	489	527	562	597
B	Total Expenses	47,184	50,976	55,253	59,115	62,532

Annual Revenue Requirement for FY 23 to FY 27						
Sr.	Particular	FY 23	FY 24	FY 25	FY 26	FY 27
C	RoE	794	846	891	928	959
D=B+C	Total Expenses Including RoE	47,977	51,821	56,144	60,043	63,491
E	Other income	1,135	1,226	1,384	1,568	1,673
F=D-E	Total ARR	46,843	50,595	54,761	58,475	61,818
G	True up amount of Discom	2,031				
H=F+G	Total ARR (including True up)	48,874	50,595	54,761	58,475	61,818

17. For the Distribution & Retail Supply Business of MP Discoms during FY 2022-23 the Petitioners have estimated a net ARR (including the available True-up's of MP Genco, MP Transco and MP Discoms) of Rs 48,874/- Crores for MP State, Rs.14,207/- Crores for East Discom, Rs 15,239/- Crores for Central Discom and Rs 19,428/- Crores for West Discom and a Revenue Gap of Rs 3816/- Crores for MP State, Rs 1,141/- Crores for East Discom, Rs 1,213/- Crores for Central Discom and Rs 1,562/- Crores for West Discom respectively for FY 2022-23. The summary of the Petitioners Claim is shown below:

Sr.	Particular	Unit	MP State	East	Central	West
A	Total ARR	Rs Crs.	48,874	14,207	15,239	19,428
B	Revenue at Current Tariffs	Rs Crs.	44,957	13,066	14,026	17,866
C=(A-B)	Total Revenue Gap (incl. True-Up)	Rs Crs.	3,916	1,141	1,213	1,562
D	Sales	MU	67,964	19,966	21,024	26,973
E=A/D*10	Average Cost of Supply (incl. True-up)	Rs./Unit	7.19	7.12	7.25	7.20

18. However, despite the various measures taken to improve commercial and technical efficiencies, Discoms are unable to recover the costs incurred, which are compelling the Discoms to propose for an increase in the existing tariff.

19. The petitioners would like to reiterate their proposal to alter the mechanism for deriving Fuel Cost Adjustment (FCA) for recovery/adjustment of uncontrollable costs due to increase or decrease in the cost of fuel in case of coal, oil and gas based generating stations. The petitioners would like to resubmit that the existing mechanism to calculate FCA does not have any provision to recover the incremental power purchase. The petitioners also urge that the average power purchase cost should be considered in the formula instead of only variable costs, thus passing on the complete fixed costs on to the consumers as a legitimate cost.
20. Shri Shailendra Saxena, Chief General Manager (Revenue Management) of MPPMCL; Shri B.P. Patel, General Manager (Commercial) of MPPoKVVCL; Shri Ashok Jatav, Dy. Chief General Manager (Regulatory Affairs) of MPMKVVCL and Shri Shailendra Jain, Deputy Director (Commercial) of MPPoKVVCL have been authorized to execute and file all the documents on behalf of the respective petitioner in this regard. Accordingly, the current petition filing is signed and verified by, and backed by the affidavit of respective authorized signatories.

PRAYER

The Petitioners hereby prays to the Hon'ble Commission to:

- a) To invoke the power conferred to it under Section 62 of the Electricity Act, 2003, and to admit the Petition seeking approval of ARR for FY 2022-23 to FY 2026-27 & Tariff Petition for FY 2022-23;
- b) To approve the net ARR of **Rs. 48,874/- Crores for MP State** (Rs. 14,207/- Crores for East Discom, Rs. 15,239 /- Crores for Central Discom and Rs. 19,428 /- Crores for West Discom) and a Revenue Gap of **Rs. 3,916/- Crores for MP State** (Rs. 1,141/- Crores for East Discom, Rs.1,213/- Crores for Central Discom and Rs.1,562/- Crores for West Discom) for FY 2022-23;
- c) To approve the CAPEX and Capitalisation as proposed by the Petitioners;
- d) To approve the additional OPEX as proposed by the Petitioners;
- e) Considering the aforesaid facts and circumstances the Hon'ble Commission may be pleased to allow expenses of MPPMCL as stated to be allowed and include them as a part of power purchase cost of three Discom's to meet the ends of justice;
- f) Consider and approve Petitioner's tariff proposal for FY 2022-23 to recover the costs for the ensuing year;
- g) Consider and determine the wheeling charges, voltage level and consumer category wise cross subsidy surcharge, additional surcharge and transmission charges for open access customers and captive consumers along with net metering on the basis of ARR petition for FY 2022-23 and make applicable w.e.f. the application date of the revised tariff;
- h) To grant other relief as the Hon'ble Commission may consider appropriate;
- i) Condone any inadvertent omissions/ errors/ shortcomings and permit the petitioners to add/ change/ modify/ alter this filing and make further submissions as may be required at a later stage;
- j) Pass such an order as the Hon'ble Commission deems fit and proper in the facts and circumstances of the case in the interest of justice.

Date: 7th February 2022

Shri Shailendra Saxena
CGM (Revenue Management)
MP Power Management Co. Ltd.,
Jabalpur

Shri B.P. Patel
GM (Commercial)
MP Poorv Kshetra Vidyut Vitaran
Co. Ltd, Jabalpur

Shri Ashok Kumar Jatav
Dy. CGM (Regulatory Affairs)
MP Madhya Kshetra Vidyut Vitaran
Co. Ltd, Bhopal

Shri Shailendra Jain
Dy. Director (Commercial)
MP Paschim Kshetra Vidyut Vitaran
Co. Ltd, Indore

TABLE OF CONTENTS

A1:	CONTENTS OF THIS PETITION AND METHODOLOGY ADOPTED IN FILING OF THIS PETITION (INCLUDING CONSTRAINTS)	14
A2:	REGULATORY REQUIREMENT OF FILING OF THIS PETITION	16
A3:	ESTIMATION OF SALES	17
A4:	ENERGY REQUIREMENT AT DISCOM BOUNDARY & EX-BUS REQUIREMENT	79
A5:	ASSESSMENT OF AVAILABILITY	93
A6:	POWER PURCHASE COST.....	143
A7:	INCOME/EXPENSES OF MPPMCL	175
A8:	O&M EXPENSES - DISCOMS.....	181
A9:	INVESTMENT PLAN – DISCOMS.....	191
A10:	OTHER COSTS / INCOME - DISCOMS.....	204
A11:	AGGREGATE REVENUE REQUIREMENT.....	220
A12:	TARIFF PROPOSAL FOR FY 2022-23	224
A13:	VOLTAGE WISE COST OF SUPPLY	230
A14:	CROSS SUBSIDY SURCHARGE AND ADDITIONAL SURCHARGE	236
A15:	MANNER OF BILLING OF DOMESTIC NET METERED CONSUMERS	238
A16:	POWER PURCHASE COST ADJUSTMENT (PPCA).....	240
A17:	COMPLIANCE OF DIRECTIVES.....	245
A18:	GREEN ENERGY TARIFF.....	260
	TARIFF SCHEDULES FOR LOW TENSION CONSUMERS.....	268
	TARIFF SCHEDULES FOR HIGH TENSION CONSUMERS.....	295

Notes and Abbreviations

In this Petition:

- ✓ *All currency figures used in this Petition, unless specifically stated otherwise, are in ₹ Crores.*

Abbreviation	Full Description
ARR	Aggregate Revenue Requirement
APTEL	Appellate Tribunal for Electricity
CERC	Central Electricity Regulatory Commission
CGS	Central Generating Stations
Co-gen	Cogeneration Power Plant
CPP	Captive Power Plant
EA – 2003	The Electricity Act 2003
ERLDC	Eastern Regional Load Dispatch Committee
ERPC	Eastern Regional Power Committee
FY	Financial Year
GFA	Gross Fixed Assets
GoMP	Government of Madhya Pradesh
GoI	Government of India
HT/ HV	High Tension/ High Voltage
IPPs	Independent Power Producers
kV / KVA	Kilo Volt / Kilo Volt Ampere
kW	Kilo Watt
LT/LV	Low Tension/ Low Voltage
MoP	Ministry of Power, Government of India
MPSEB	Madhya Pradesh State Electricity Board
MPERC	Madhya Pradesh Electricity Regulatory Commission
MPMKVVCL	Madhya Pradesh Madhya Kshetra Vidyut Vitran Company Limited
MPPaKVVCL	Madhya Pradesh Paschim Kshetra Vidyut Vitran Company Limited
MPPoKVVCL	Madhya Pradesh Poorv Kshetra Vidyut Vitran Company Limited
MPPMCL	Madhya Pradesh Power Management Company Limited
MPPGCL	Madhya Pradesh Power Generation Company Limited
MPPTCL	Madhya Pradesh Power Transmission Company Limited
MU	Million Units
NCE / NCES	Non-Conventional Energy Sources
PGCIL	Power Grid Corporation India Limited
SSGS	State Sector Generating Stations
SLDC	State Load Dispatch Centre
STOA	Short Term Open Access
TO	Tariff Order
WRLDC	Western Regional Load Dispatch Committee
WRPC	Western Regional Power Committee

List of Tables

TABLE 1 : ENERGY SALES (MUs) (FY 23, FY 24 AND FY 25)	19
TABLE 2: ENERGY SALES (MUs) (FY 26 AND FY 27).....	20
TABLE 3 : ENERGY SALES FOR LV-1 (MUs) (FY23, FY24 AND FY25).....	21
TABLE 4 : ENERGY SALES FOR LV1 (MUs)(FY 26 AND FY 27).....	22
TABLE 5 : GROWTH PERCENTAGE ASSUMPTION EAST DISCOM: URBAN	23
TABLE 6 : GROWTH PERCENTAGE ASSUMPTION EAST DISCOM: RURAL.....	23
TABLE 7 : GROWTH PERCENTAGE ASSUMPTION CENTRAL DISCOM : URBAN	24
TABLE 8 : GROWTH PERCENTAGE ASSUMPTION CENTRAL DISCOM : RURAL.....	24
TABLE 9 : GROWTH PERCENTAGE ASSUMPTION WEST DISCOM : URBAN.....	25
TABLE 10: GROWTH PERCENTAGE ASSUMPTION WEST DISCOM : RURAL.....	25
TABLE 11 : ENERGY SALES FOR LV 2 (MUs) (FY 23, FY24, FY 25).....	26
TABLE 12 : ENERGY SALES FOR LV 2 (MUs) (FY 26, FY27).....	26
TABLE 13 : GROWTH PERCENTAGE ASSUMPTION EAST DISCOM : URBAN.....	26
TABLE 14 : GROWTH PERCENTAGE ASSUMPTION EAST DISCOM : RURAL.....	26
TABLE 15 : GROWTH PERCENTAGE ASSUMPTION CENTRAL DISCOM: URBAN.....	27
TABLE 16 : GROWTH PERCENTAGE ASSUMPTION CENTRAL DISCOM: RURAL.....	27
TABLE 17 : GROWTH PERCENTAGE ASSUMPTION WEST DISCOM: URBAN	28
TABLE 18: GROWTH PERCENTAGE ASSUMPTION WEST DISCOM: RURAL.....	28
TABLE 19: ENERGY SALES FOR LV 3.1 (MUs) (FY 23, FY 24, FY 25).....	28
TABLE 20: ENERGY SALES FOR LV 3.1 (MUs) (FY 26, FY 27).....	29
TABLE 21 : GROWTH PERCENTAGE ASSUMPTION EAST DISCOM: URBAN	29
TABLE 22 : GROWTH PERCENTAGE ASSUMPTION EAST DISCOM: RURAL.....	30
TABLE 23 : GROWTH PERCENTAGE ASSUMPTION CENTRAL DISCOM: URBAN	30
TABLE 24 : GROWTH PERCENTAGE ASSUMPTION CENTRAL DISCOM: RURAL.....	31
TABLE 25 : GROWTH PERCENTAGE ASSUMPTION WEST DISCOM: URBAN	31
TABLE 26 : GROWTH PERCENTAGE ASSUMPTION WEST DISCOM: RURAL.....	32
TABLE 27: ENERGY SALES FOR LV 3.2 (MUs) (FY23, FY 24, FY 25).....	32
TABLE 28: ENERGY SALES FOR LV 3.2 (MUS) (FY26, FY 27).....	33
TABLE 29 : GROWTH PERCENTAGE ASSUMPTION EAST DISCOM: URBAN	33
TABLE 30 : GROWTH PERCENTAGE ASSUMPTION EAST DISCOM: RURAL.....	33
TABLE 31 : GROWTH PERCENTAGE ASSUMPTION CENTRAL DISCOM: URBAN	34
TABLE 32 : GROWTH PERCENTAGE ASSUMPTION CENTRAL DISCOM: RURAL.....	34
TABLE 33 : GROWTH PERCENTAGE ASSUMPTION WEST DISCOM: URBAN	35
TABLE 34 : GROWTH PERCENTAGE ASSUMPTION WEST DISCOM: RURAL.....	35
TABLE 35: ENERGY SALES FOR LV-4.1 (MUs).....	36
TABLE 36: ENERGY SALES FOR LV-4.1 (MUS).....	36
TABLE 37 : GROWTH PERCENTAGE ASSUMPTION EAST DISCOM: URBAN	36
TABLE 38 : GROWTH PERCENTAGE ASSUMPTION EAST DISCOM: RURAL.....	37
TABLE 39 : GROWTH PERCENTAGE ASSUMPTION CENTRAL DISCOM: URBAN	37
TABLE 40 : GROWTH PERCENTAGE ASSUMPTION CENTRAL DISCOM: RURAL.....	38
TABLE 41 : GROWTH PERCENTAGE ASSUMPTION WEST DISCOM: URBAN	38
TABLE 42 : GROWTH PERCENTAGE ASSUMPTION WEST DISCOM: RURAL.....	39
TABLE 43: ENERGY SALES FOR LV-4.2 (MUs).....	39
TABLE 44: ENERGY SALES FOR LV-4.2 (MUS).....	40
TABLE 45 : GROWTH PERCENTAGE ASSUMPTION EAST DISCOM: URBAN	40
TABLE 46 : GROWTH PERCENTAGE ASSUMPTION EAST DISCOM: RURAL.....	40
TABLE 47 : GROWTH PERCENTAGE ASSUMPTION CENTRAL DISCOM: URBAN	41
TABLE 48 : GROWTH PERCENTAGE ASSUMPTION CENTRAL DISCOM: RURAL.....	41
TABLE 49 : GROWTH PERCENTAGE ASSUMPTION WEST DISCOM: URBAN	42
TABLE 50 : GROWTH PERCENTAGE ASSUMPTION WEST DISCOM: RURAL.....	42
TABLE 51: ENERGY SALES FOR LV 5.1 (MUS).....	43
TABLE 52: ENERGY SALES FOR LV 5.1 (MUS).....	43
TABLE 53: PHASE WISE ASSESSMENT FOR UNMETERED PERMANENT AGRICULTURE CONNECTIONS	45
TABLE 54 : GROWTH PERCENTAGE ASSUMPTION EAST DISCOM: URBAN	45
TABLE 55 : GROWTH PERCENTAGE ASSUMPTION EAST DISCOM: RURAL.....	46
TABLE 56 : GROWTH PERCENTAGE ASSUMPTION CENTRAL DISCOM: URBAN	46
TABLE 57 : GROWTH PERCENTAGE ASSUMPTION CENTRAL DISCOM: RURAL.....	46
TABLE 58 : GROWTH PERCENTAGE ASSUMPTION WEST DISCOM: URBAN	47

TABLE 59 : GROWTH PERCENTAGE ASSUMPTION WEST DISCOM: RURAL.....	47
TABLE 60: ENERGY SALES FOR LV 5.2 (MUS).....	47
TABLE 61: ENERGY SALES FOR LV 5.2 (MUS).....	48
TABLE 62 : GROWTH PERCENTAGE ASSUMPTION EAST DISCOM : URBAN.....	48
TABLE 63 : GROWTH PERCENTAGE ASSUMPTION EAST DISCOM : RURAL.....	49
TABLE 64 : GROWTH PERCENTAGE ASSUMPTION CENTRAL DISCOM: URBAN	50
TABLE 65 : GROWTH PERCENTAGE ASSUMPTION CENTRAL DISCOM : RURAL.....	51
TABLE 66 : GROWTH PERCENTAGE ASSUMPTION WEST DISCOM: URBAN	52
TABLE 67 : GROWTH PERCENTAGE ASSUMPTION WEST DISCOM: RURAL.....	52
TABLE 68: ENERGY SALES FOR LV 6 (MUs).....	53
TABLE 69: ENERGY SALES FOR LV 6 (MUs)	53
TABLE 70 : GROWTH PERCENTAGE ASSUMPTION EAST DISCOM : URBAN.....	53
TABLE 71 : GROWTH PERCENTAGE ASSUMPTION EAST DISCOM : RURAL.....	53
TABLE 72 : GROWTH PERCENTAGE ASSUMPTION CENTRAL DISCOM : URBAN.....	54
TABLE 73 : GROWTH PERCENTAGE ASSUMPTION CENTRAL DISCOM : RURAL.....	54
TABLE 74 : GROWTH PERCENTAGE ASSUMPTION WEST DISCOM : URBAN.....	54
TABLE 75 : GROWTH PERCENTAGE ASSUMPTION WEST DISCOM : RURAL.....	54
TABLE 76: ENERGY SALES FOR HV 1 (MUs).....	55
TABLE 77: ENERGY SALES FOR HV 1 (MUs).....	55
TABLE 78: ENERGY SALES FOR HV 2 (MUs).....	56
TABLE 79: ENERGY SALES FOR HV 2 (MUs).....	56
TABLE 80 : GROWTH PERCENTAGE ASSUMPTION EAST DISCOM : URBAN.....	56
TABLE 81 : GROWTH PERCENTAGE ASSUMPTION EAST DISCOM : RURAL.....	56
TABLE 82 : GROWTH PERCENTAGE ASSUMPTION CENTRAL DISCOM : URBAN.....	57
TABLE 83 : GROWTH PERCENTAGE ASSUMPTION CENTRAL DISCOM : RURAL.....	57
TABLE 84: ENERGY SALES FOR HV 3 (MUs).....	57
TABLE 85: ENERGY SALES FOR HV 3 (MUs).....	58
TABLE 86 : GROWTH PERCENTAGE ASSUMPTION EAST DISCOM : URBAN.....	58
TABLE 87 : GROWTH PERCENTAGE ASSUMPTION EAST DISCOM : RURAL.....	58
TABLE 88 : GROWTH PERCENTAGE ASSUMPTION EAST DISCOM : URBAN.....	59
TABLE 89 : GROWTH PERCENTAGE ASSUMPTION EAST DISCOM : RURAL.....	59
TABLE 90 : GROWTH PERCENTAGE ASSUMPTION CENTRAL DISCOM : URBAN.....	60
TABLE 91 : GROWTH PERCENTAGE ASSUMPTION CENTRAL DISCOM : RURAL.....	60
TABLE 92 : GROWTH PERCENTAGE ASSUMPTION CENTRAL DISCOM : URBAN.....	60
TABLE 93 : GROWTH PERCENTAGE ASSUMPTION CENTRAL DISCOM : RURAL.....	61
TABLE 94 : GROWTH PERCENTAGE ASSUMPTION WEST DISCOM : URBAN.....	61
TABLE 95 : GROWTH PERCENTAGE ASSUMPTION WEST DISCOM : RURAL.....	61
TABLE 96 : GROWTH PERCENTAGE ASSUMPTION WEST DISCOM : URBAN.....	62
TABLE 97 : GROWTH PERCENTAGE ASSUMPTION WEST DISCOM : RURAL.....	62
TABLE 98: ENERGY SALES FOR HV 4 (MUs).....	62
TABLE 99: ENERGY SALES FOR HV 4 (MUs).....	63
TABLE 100 : GROWTH PERCENTAGE ASSUMPTION EAST DISCOM : URBAN.....	63
TABLE 101 : GROWTH PERCENTAGE ASSUMPTION EAST DISCOM : RURAL.....	63
TABLE 102 : GROWTH PERCENTAGE ASSUMPTION CENTRAL DISCOM : URBAN	63
TABLE 103 : GROWTH PERCENTAGE ASSUMPTION CENTRAL DISCOM : RURAL.....	63
TABLE 104 : GROWTH PERCENTAGE ASSUMPTION WEST DISCOM : URBAN.....	64
TABLE 105 : GROWTH PERCENTAGE ASSUMPTION WEST DISCOM : RURAL.....	64
TABLE 106: ENERGY SALES FOR HV 5 (MUs).....	64
TABLE 107: ENERGY SALES FOR HV 5 (MUs).....	65
TABLE 108 : GROWTH PERCENTAGE ASSUMPTION EAST DISCOM : URBAN.....	65
TABLE 109 : GROWTH PERCENTAGE ASSUMPTION EAST DISCOM : RURAL.....	66
TABLE 110 : GROWTH PERCENTAGE ASSUMPTION EAST DISCOM : URBAN.....	66
TABLE 111 : GROWTH PERCENTAGE ASSUMPTION EAST DISCOM : RURAL.....	66
TABLE 112 : GROWTH PERCENTAGE ASSUMPTION EAST DISCOM : URBAN.....	67
TABLE 113 : GROWTH PERCENTAGE ASSUMPTION EAST DISCOM : RURAL.....	67
TABLE 114 : GROWTH PERCENTAGE ASSUMPTION CENTRAL DISCOM : URBAN	67
TABLE 115 : GROWTH PERCENTAGE ASSUMPTION CENTRAL DISCOM : RURAL.....	68
TABLE 116 : GROWTH PERCENTAGE ASSUMPTION CENTRAL DISCOM : URBAN	68
TABLE 117 : GROWTH PERCENTAGE ASSUMPTION CENTRAL DISCOM : RURAL.....	68
TABLE 118 : GROWTH PERCENTAGE ASSUMPTION CENTRAL DISCOM : URBAN	69

TABLE 119 : GROWTH PERCENTAGE ASSUMPTION CENTRAL DISCOM : RURAL.....	69
TABLE 120 : GROWTH PERCENTAGE ASSUMPTION WEST DISCOM : URBAN.....	70
TABLE 121 : GROWTH PERCENTAGE ASSUMPTION WEST DISCOM : RURAL.....	70
TABLE 122 : GROWTH PERCENTAGE ASSUMPTION WEST DISCOM : URBAN.....	70
TABLE 123 : GROWTH PERCENTAGE ASSUMPTION WEST DISCOM : RURAL.....	70
TABLE 124 : GROWTH PERCENTAGE ASSUMPTION WEST DISCOM : URBAN.....	71
TABLE 125 : GROWTH PERCENTAGE ASSUMPTION WEST DISCOM : RURAL.....	71
TABLE 126: ENERGY SALES FOR HV 6 (MUS).....	71
TABLE 127: ENERGY SALES FOR HV 6 (MUS).....	72
TABLE 128 : GROWTH PERCENTAGE ASSUMPTION EAST DISCOM : URBAN.....	72
TABLE 129 : GROWTH PERCENTAGE ASSUMPTION EAST DISCOM : RURAL.....	72
TABLE 130 : GROWTH PERCENTAGE ASSUMPTION CENTRAL DISCOM : URBAN	73
TABLE 131 : GROWTH PERCENTAGE ASSUMPTION CENTRAL DISCOM : RURAL.....	73
TABLE 132 : GROWTH PERCENTAGE ASSUMPTION WEST DISCOM : URBAN.....	73
TABLE 133 : GROWTH PERCENTAGE ASSUMPTION WEST DISCOM : RURAL.....	73
TABLE 134: REQUIREMENT OF POWER FOR GENERATORS CONNECTED TO THE GRID (MUS).....	74
TABLE 135: REQUIREMENT OF POWER FOR GENERATORS CONNECTED TO THE GRID (MUS).....	74
TABLE 136 : GROWTH PERCENTAGE ASSUMPTION EAST DISCOM : URBAN.....	74
TABLE 137 : GROWTH PERCENTAGE ASSUMPTION EAST DISCOM : RURAL.....	74
TABLE 138 : GROWTH PERCENTAGE ASSUMPTION CENTRAL DISCOM : URBAN	75
TABLE 139 : GROWTH PERCENTAGE ASSUMPTION CENTRAL DISCOM : RURAL.....	75
TABLE 140 : GROWTH PERCENTAGE ASSUMPTION WEST DISCOM : URBAN.....	75
TABLE 141 : GROWTH PERCENTAGE ASSUMPTION WEST DISCOM : RURAL.....	76
TABLE 142: ENERGY SALES FOR HV 8 (MUS).....	76
TABLE 143: ENERGY SALES FOR HV 8 (MUS).....	76
TABLE 144 : GROWTH PERCENTAGE ASSUMPTION EAST DISCOM : URBAN.....	76
TABLE 145 : GROWTH PERCENTAGE ASSUMPTION EAST DISCOM : RURAL.....	77
TABLE 146 : GROWTH PERCENTAGE ASSUMPTION CENTRAL DISCOM : URBAN	77
TABLE 147 : GROWTH PERCENTAGE ASSUMPTION CENTRAL DISCOM : RURAL.....	77
TABLE 148 : GROWTH PERCENTAGE ASSUMPTION WEST DISCOM : URBAN.....	77
TABLE 149 : GROWTH PERCENTAGE ASSUMPTION WEST DISCOM : RURAL.....	78
TABLE 150: MONTH WISE SALES PROFILE	79
TABLE 151: DISTRIBUTION LOSSES (%).....	81
TABLE 152: MONTHLY ENERGY REQUIREMENT- DISCOM & Ex-BUS (MUs) FOR FY 2022-23 (PROJECTED).....	83
TABLE 153: ENERGY REQUIREMENT- DISCOM & Ex-BUS (MUs) FOR FY 2023-24 (PROJECTED)	84
TABLE 154: ENERGY REQUIREMENT- DISCOM & Ex-BUS (MUs) FOR FY 2024-25 (PROJECTED)	85
TABLE 155: ENERGY REQUIREMENT- DISCOM & Ex-BUS (MUs) FOR FY 2025-26 (PROJECTED)	86
TABLE 156: ENERGY REQUIREMENT- DISCOM & Ex-BUS (MUs) FOR FY 2026-27 (PROJECTED)	87
TABLE 157: ENERGY REQUIREMENT AT MP STATE LEVEL- NORMATIVE LOSSES (MUs).....	89
TABLE 158: ENERGY REQUIREMENT OF EAST DISCOM - NORMATIVE LOSSES (MUs).....	90
TABLE 159: ENERGY REQUIREMENT OF CENTRAL DISCOM - NORMATIVE LOSSES (MUs).....	91
TABLE 160: ENERGY REQUIREMENT OF WEST DISCOM - NORMATIVE LOSSES (MUs).....	92
TABLE 161: UPCOMING CONVENTIONAL STATIONS AND OTHER TECHNICAL PARAMETERS.....	94
TABLE 162: FIXED & VARIABLE CHARGES OF UPCOMING STATIONS	94
TABLE 163: CONTRACTED CAPACITY – MP STATE (EXISTING & NEW).....	95
TABLE 164: EX-BUS AVAILABILITY (MUs) PLANT SOURCE WISE.....	101
TABLE 165: MONTH WISE POWER AVAILABILITY FOR FY 2022-23.....	106
TABLE 166: MONTH WISE POWER AVAILABILITY FOR FY 2023-24.....	110
TABLE 167: MONTH WISE POWER AVAILABILITY FOR FY 2024-25.....	115
TABLE 168: MONTH WISE POWER AVAILABILITY FOR FY 2025-26.....	120
TABLE 169: MONTH WISE POWER AVAILABILITY FOR FY 2026-27.....	124
TABLE 170: RENEWABLE PURCHASE OBLIGATION (MUs).....	128
TABLE 171: BACKING DOWN OF POWER (MUs) PLANT SOURCE WISE.....	131
TABLE 172: MANAGEMENT OF SURPLUS POWER (MUs).....	141
TABLE 173: BASIS FOR CONSIDERATION OF FIXED & VARIABLE CHARGES FOR FY 2022-23.....	143
TABLE 174: MERIT ORDER DISPATCH FOR FY 2022-23 TO FY 2026-27.....	151
TABLE 175: GROSS POWER PURCHASE COST FOR MP STATE.....	156
TABLE 176: TOTAL POWER PURCHASE COST FOR MP STATE.....	165
TABLE 177: INTER STATE TRANSMISSION CHARGES (Rs CRORES).....	168
TABLE 178: INTRA STATE TRANSMISSION CHARGES INCLUDING SLDC (Rs CRORES).....	169

TABLE 179: MPPMCL COST DETAILS.....	170
TABLE 180: TOTAL POWER PURCHASE COST FOR FY 2022-23.....	171
TABLE 181: POWER PURCHASE COST TREND IN LAST FEW FYs.....	173
TABLE 182: PROJECTIONS OF MPPMCL COST FROM FY 2022-23 TO FY 2026-27 (Rs CRORES).....	175
TABLE 183: OTHER INCOME (Rs CRORES).....	176
TABLE 184: OTHER INCOME.....	177
TABLE 185: DEPRECIATION	179
TABLE 186: ESCALATION RATE FOR CONTROL PERIOD (%).....	183
TABLE 187: DEARNESS ALLOWANCE CONSIDERED (%).....	183
TABLE 188: EMPLOYEE EXPENSES FOR WEST DISCOM FROM FY 2022-23 TO FY 2026-27 (Rs. CRORES).....	184
TABLE 189: EMPLOYEE EXPENSES FOR CENTRAL DISCOM FROM FY 2022-23 TO FY 2026-27 (Rs. CRORES).....	184
TABLE 190: EMPLOYEE EXPENSES FOR WEST DISCOM FROM FY 2022-23 TO FY 2026-27 (Rs. CRORES).....	184
TABLE 191: EMPLOYEE EXPENSES FOR DISCOMS AT MP STATE LEVEL FROM FY 2022-23 TO FY 2026-27 (Rs. CRORES).....	185
TABLE 192: A&G EXPENSES FOR EAST DISCOM FROM FY 2022-23 TO FY 2026-27 (Rs. CRORES).....	185
TABLE 193: A&G EXPENSES FOR CENTRAL DISCOM FROM FY 2022-23 TO FY 2026-27 (Rs. CRORES).....	185
TABLE 194: A&G EXPENSES FOR WEST DISCOM FROM FY 2022-23 TO FY 2026-27 (Rs. CRORES).....	186
TABLE 195: A&G EXPENSES OF DISCOMS AT MP STATE LEVEL FROM FY 2022-23 TO FY 2026-27 (Rs. CRORES)	186
TABLE 196: R&M EXPENSES FOR EAST DISCOM FROM FY 2022-23 TO FY 2026-27 (Rs. CRORES).....	187
TABLE 197: R&M EXPENSES FOR CENTRAL DISCOM FROM FY 2022-23 TO FY 2026-27 (Rs. CRORES).....	187
TABLE 198: R&M EXPENSES FOR WEST DISCOM FROM FY 2022-23 TO FY 2026-27 (Rs. CRORES).....	187
TABLE 199: R&M EXPENSES OF DISCOMS AT MP STATE LEVEL FROM FY 2022-23 TO FY 2026-27 (Rs. CRORES)	187
TABLE 200: ADDL. OPEX COST FOR DISCOMS AT STATE LEVEL FROM FY 2022-23 TO FY 2026-27 (Rs. CRORES)	189
TABLE 201: O&M EXPENSES FOR EAST DISCOM FROM FY 2022-23 TO FY 2026-27 (Rs. CRORES).....	189
TABLE 202: O&M EXPENSES FOR CENTRAL DISCOM FROM FY 2022-23 TO FY 2026-27 (Rs. CRORES).....	190
TABLE 203: O&M EXPENSES FOR WEST DISCOM FROM FY 2022-23 TO FY 2026-27 (Rs. CRORES).....	190
TABLE 204: O&M EXPENSES FOR DISCOMS AT STATE LEVEL FROM FY 2022-23 TO FY 2026-27 (Rs. CRORES).....	190
TABLE 205: TOTAL CAPEX ESTIMATION FOR SMART METERIZATION (Rs. CRORES).....	194
TABLE 206: TOTAL CAPEX ESTIMATION FOR LOSS REDUCTION (Rs. CRORES).....	195
TABLE 207: TOTAL CAPEX ESTIMATION FOR SSTD AND MODERNIZATION (Rs. CRORES).....	196
TABLE 208: TOTAL CAPEX ESTIMATION FOR REVAMPED SCHEME (Rs. CRORES).....	198
TABLE 209: CAPITAL EXPENDITURE PLAN (Rs. CRORES).....	199
TABLE 210: SCHEME WISE CAPITALIZATION (Rs. CRORES).....	200
TABLE 211: DISCOM WISE CAPITAL WORK IN PROGRESS (Rs. CRORES).....	201
TABLE 212: FIXED ASSETS ADDITION (Rs. CRORES).....	202
TABLE 213: DEPRECIATION FOR EAST DISCOM - AS PER REGULATION (Rs. CRORES).....	204
TABLE 214: DEPRECIATION FOR CENTRAL DISCOM - AS PER REGULATION (Rs. CRORES).....	205
TABLE 215: DEPRECIATION FOR WEST DISCOM - AS PER REGULATION (Rs. CRORES).....	205
TABLE 216: DEPRECIATION FOR DISCOMS AT STATE LEVEL - AS PER REGULATION (Rs. CRORES).....	205
TABLE 217: EAST DISCOM INTEREST ON PROJECT LOAN - AS PER REGULATION (Rs. CRORES).....	207
TABLE 218: CENTRAL DISCOM INTEREST ON PROJECT LOAN - AS PER REGULATION (Rs. CRORES).....	207
TABLE 219: WEST DISCOM INTEREST ON PROJECT LOAN - AS PER REGULATION (Rs. CRORES).....	208
TABLE 220: MP STATE INTEREST ON PROJECT LOAN - AS PER REGULATION (Rs. CRORES).....	208
TABLE 221: EAST DISCOM INTEREST ON WORKING CAPITAL- AS PER REGULATION (Rs. CRORES).....	209
TABLE 222: CENTRAL DISCOM INTEREST ON WORKING CAPITAL- AS PER REGULATION (Rs. CRORES).....	210
TABLE 223: WEST DISCOM INTEREST ON WORKING CAPITAL- AS PER REGULATION (Rs. CRORES).....	211
TABLE 224: EAST DISCOM INTEREST ON CONSUMER SECURITY DEPOSIT- AS PER REGULATION (Rs. CRORES).....	212
TABLE 225: CENTRAL DISCOM INTEREST ON CONSUMER SECURITY DEPOSIT - AS PER REGULATION (Rs. CRORES)	212
TABLE 226: CENTRAL DISCOM INTEREST ON CONSUMER SECURITY DEPOSIT - AS PER REGULATION (Rs. CRORES)	212
TABLE 227: EAST DISCOM TOTAL INTEREST & FINANCE CHARGES - AS PER REGULATION (Rs. CRORES).....	213
TABLE 228: CENTRAL DISCOM TOTAL INTEREST & FINANCE CHARGES - AS PER REGULATION (Rs. CRORES).....	213
TABLE 229: WEST DISCOM TOTAL INTEREST & FINANCE CHARGES - AS PER REGULATION (Rs. CRORES).....	213
TABLE 230: TOTAL INTEREST & FINANCE CHARGES AT MP STATE LEVEL - AS PER REGULATION (Rs. CRORES)	213
TABLE 231: RETURN ON EQUITY FOR EAST DISCOM - AS PER REGULATION (Rs. CRORES).....	214

TABLE 232: RETURN ON EQUITY FOR CENTRAL DISCOM - AS PER REGULATION (RS. CRORES).....	215
TABLE 233: RETURN ON EQUITY FOR WEST DISCOM - AS PER REGULATION (RS. CRORES).....	216
TABLE 234: EAST DISCOM PROVISION FOR BAD & DOUBTFUL DEBTS- AS PER REGULATION (RS. CRORES)	217
TABLE 235: CENTRAL DISCOM PROVISION FOR BAD & DOUBTFUL DEBTS- AS PER REGULATION (RS. CRORES).....	217
TABLE 236: WEST DISCOM PROVISION FOR BAD & DOUBTFUL DEBTS- AS PER REGULATION (RS. CRORES).....	217
TABLE 237: EAST DISCOM OTHER INCOME & NON-TARIFF INCOME (RS. CRORES).....	218
TABLE 238: CENTRAL DISCOM OTHER INCOME & NON-TARIFF INCOME (RS. CRORES).....	218
TABLE 239: WEST DISCOM OTHER INCOME & NON-TARIFF INCOME (RS. CRORES).....	218
TABLE 240: SUMMARY OF ARR FOR MPPMCL (RS. CRORE).....	220
TABLE 241: SUMMARY OF ARR OF DISCOMS FOR FY 2021-22 AND FY 2022-23 (RS.CRORE).....	221
TABLE 242: SUMMARY OF ARR OF DISCOMS FOR FY 2023-24 AND FY 2024-25 (RS.CRORE).....	222
TABLE 243: SUMMARY OF ARR OF DISCOMS FOR FY 2025-26 AND FY 2026-27 (RS.CRORE).....	223
TABLE 244: SUMMARY OF PROPOSED TARIFF FOR FY 2022-23 (RS. CRORES).....	225
TABLE 245: CATEGORY-WISE PROPOSED REVENUE FOR FY 2022-23 (RS. CRORES).....	226
TABLE 246: COST OF SUPPLY CALCULATION FOR MP STATE FOR FY23	232
TABLE 247: COST OF SUPPLY CALCULATION FOR EAST DISCOM FOR FY23	233
TABLE 248: COST OF SUPPLY CALCULATION FOR CENTRAL DISCOM FOR FY23	234
TABLE 249: COST OF SUPPLY CALCULATION FOR WEST DISCOM FOR FY23	234
TABLE 250: ADDITIONAL SURCHARGE FOR FY 2022-23	237
TABLE 251: COMPUTATION OF AUTHORIZED LOAD FOR A NET METERED DOMESTIC CONSUMER	238
TABLE 252: DOMESTIC TARIFF AS PER TARIFF ORDER FY-22.....	239

A1: CONTENTS OF THIS PETITION AND METHODOLOGY ADOPTED IN FILING OF THIS PETITION (INCLUDING CONSTRAINTS)

The contents of this Petition covers in detail basis the actuals of individual elements constituting the ARR for Control Period FY 2022-23 to FY 2026-27 & Tariff Proposal for FY 2022-23 based on Tariff Regulations, 2021. The following elements have been explained in detail for FY 2022-23 to FY 2026-27:

- a. Energy Sales
- b. Distribution Loss and Energy Requirement
- c. Power Purchase from various sources to meet the Energy Requirement
- d. Computation of Other Expenses
 - i. O&M Expenses
 - ii. Investment Plan
 - iii. Depreciation
 - iv. Interest & Finance Charges
 - v. Interest on Working Capital
 - vi. Interest on Security Deposit
 - vii. Return on Equity
 - viii. Bad Debts
 - ix. MPPMCL Cost/ (Income)
 - x. Other Expenses if any
 - xi. Other Income & Non-Tariff Income
- e. Computation of Total ARR
- f. Computation of Revenue Category wise as collected
- g. Determination of Deficit/(Surplus) between Revenue as collected & Costs
- h. Tariff Proposal for FY 2022-23 and its Salient Features
 - i. Voltage Wise Cost of Supply
 - j. Wheeling Charges, Cross Subsidy Surcharge & Additional Surcharge
 - k. Net Metering Charges
 - l. Fuel Cost Adjustment Charge
 - m. Compliance of Directives
 - n. Green Energy Tariff

1.1 Methodology

1.1.1 The Petitioners are submitting the ARR for MYT FY 2022-23 to FY 2026-27 & Tariff

Proposal for FY 2022-23 on the basis of actual and reasonable assumptions and within the limitations of availability of data within the purview of the Electricity Act, 2003, Tariff Regulations, 2021. It consists of details of projected expenditures envisaged by the Petitioner and details of expected revenue leading to projected revenue deficit/ (surplus) to be incurred from April 2022 to March 2027. It is a measure of projected accounting gains / losses and expenditures incurred to carry forward the electricity distribution business. It is humbly requested to the Hon'ble Commission to approve the ARR for MYT FY 2022-23 to FY 2026-27 & Tariff Petition for FY 2022-23 in accordance with the applicable Regulations as expenses and income have been considered while issuing the Tariff Order for FY 2022-23.

1.1.2 For Reference

- FY 2020-21 or FY 21 is from 01st April 20 to 31st March 21 (Actual)
- FY 2021-22 or FY 22 is from 01st April 21 to 31st March 22 (Re-Estimate)
- FY 2022-23 or FY 23 is from 01st April 22 to 31st March 23 (Projected)
- FY 2023-24 or FY 24 is from 01st April 23 to 31st March 24 (Projected)
- FY 2024-25 or FY 25 is from 01st April 24 to 31st March 25 (Projected)
- FY 2025-26 or FY 26 is from 01st April 25 to 31st March 26 (Projected)
- FY 2026-27 or FY 27 is from 01st April 26 to 31st March 27 (Projected)

A2: REGULATORY REQUIREMENT OF FILING OF THIS PETITION

2.1 Regulations

This petition has been prepared based on the provisions of following regulation notified by the Madhya Pradesh Electricity Regulatory Commission:

"Madhya Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Supply and Wheeling of Electricity and Methods and Principles for Fixation of Charges) Regulations, 2021 dated 03rd December 2021" (Hereinafter referred to as "Tariff Regulations, 2021) – Applicable from FY 2022-23 to FY 2026-27;

A3: ESTIMATION OF SALES

3.1 Sales forecast as projected by the Petitioners

- 3.1.1 The Petitioners have submitted that for projection of sales for FY 2022-23, FY 2023-24, FY 2024-25, FY 2025-26 and FY 2026-27, category-wise and slab-wise actual data of the sales, number of consumers, connected/contract load, etc. in line with the Annual R15 statements of the preceding four years, i.e., FY 2017-18, FY 2018-19, FY 2019-20 and FY 2020-21 and available data till month of August 2021 have been also used.
- 3.1.2 The Petitioners, in their previous year's filing for FY 2021-22, had projected the Sales based on the actual data of FY 2019-20. Since the actual data of FY 2020-21 is now available and it has been observed that the actual sales during FY 2020-21 have variations from the sales forecasted by the Petitioners and those allowed by the Hon'ble Commission during the previous filings, the licensees feel that it will be appropriate to revise the sales forecast for FY 2021-22 and thereafter project the sales for FY 2022-23, FY 2023-24, FY 2024-25, FY 2025-26 and FY 2026-27. There is an impact of Covid on sales since imposition of Nation-wise lockdown which is also been considered in the model.
- 3.1.3 Thus, the sales for FY 2022-23, FY 2023-24, FY 2024-25, FY 2025-26 and FY 2026-27 have been projected on the basis of the actual data of Number of Consumers, Connected Load and Consumption during the last 4 years and on the basis of revised estimate for FY 2021-22.
- 3.1.4 The approach being followed is to analyse 3 year and 2-year Compound Annual Growth Rates (CAGRs) and year on year growth rate of each category and its sub-categories in respect of urban & rural consumers separately. After analysis of the data, appropriate/reasonable growth rates have been assumed for future consumer forecasts from the past CAGRs of the Category/Sub-category by the three Discoms.
- 3.1.5 Further, the Petitioners have signed a contract with Railways for on-demand supply of electricity for the currently under-development corridor between Itarsi and Katni. With the electrification of Railway Section between Itarsi-Pipariya-Bankhedi-Gadarwada, one new connection under Central DISCOM is expected. Similarly, with the electrification of the Railway Line between Gadarwara-Kareli-Katni, a new connection is expected under East DISCOM. Accordingly, the East and Central DISCOMs have projected approximately 55 MU sales each for FY 2022-23, FY 2023-24, FY 2024-25, FY 2025-26 and FY 2026-27 under this category.
- 3.1.6 The past CAGR on sales per consumer / sales per kW and connected load has been applied while forecasting the connected load and sales in each category/sub-category. The use of specific consumption, i.e., consumption per consumer and/or consumption per unit load is the basic forecasting variable and is widely used in load and energy sales forecasting. The basic intent in using this model is that, the specific consumption

per consumer and / or consumption per unit load captures the trends and variations in the usage of electricity over a growth cycle more precisely. This method has been recommended by the C.E.A. also. The projections for each tariff category and the relevant assumptions of the three Discoms have been discussed in the following sections. The overall sales forecast is as follows:

Table 1: Energy Sales (MUs) (FY 23, FY 24 and FY 25)

TC	Category	East Discom			Central Discom			West Discom			MP State		
		FY 23	FY 24	FY 25	FY 23	FY 24	FY 25	FY 23	FY 24	FY 25	FY 23	FY 24	FY 25
LV 1	Domestic	6,405	7,057	7,616	6,064	6,707	7,401	6,605	7,139	7,637	19,074	20,903	22,653
LV 2	Non-Domestic	1,417	1,598	1,801	1,029	1,133	1,270	1,330	1,419	1,536	3,776	4,150	4,606
LV 3	WW & Street Light	421	451	484	431	455	478	599	689	783	1,451	1,595	1,745
LV 4	LT Industrial	498	572	656	305	327	351	734	806	887	1,537	1,705	1,894
LV 5.1	Agriculture Irrigation Pumps	7,178	7,536	7,913	9,150	9,867	10,451	11,322	12,142	12,809	27,650	29,546	31,173
LV 5.2	Agriculture related Use	7	8	8	4	4	5	4	4	5	15	17	18
LV6	LTEV	0	0	0	2	2	2	1	1	1	3	3	3
	Total (LT)	15,926	17,222	18,478	16,985	18,496	19,957	20,596	22,201	23,658	53,506	57,919	62,093
HV1	Railway Traction	55	55	55	55	55	55	-	-	-	111	111	111
HV2	Coal Mines	527	564	603	27	28	29	-	-	-	554	592	632
HV3.1	Industrial	2,716	2,947	3,157	3,108	3,283	3,443	4,708	5,186	5,716	10,532	11,415	12,316
HV3.2	Non-Industrial	264	309	348	392	430	471	510	570	636	1,166	1,309	1,455
HV4	Seasonal	12	14	16	2	2	2	10	11	11	25	27	29
HV5.1	HV irrigation	12	12	13	19	20	21	458	491	528	489	523	563
HV5.2	HV Other Agriculture	19	20	22	10	11	11	9	9	10	38	40	43
HV5.3	HV water works	158	181	207	261	277	295	638	697	763	1,057	1,155	1,265
HV6	Bulk Residential Users	275	298	323	155	157	160	27	28	30	457	483	513
HV7	Synchronization & Start Up Power	1	1	1	5	5	5	16	18	20	22	24	27
HV8	HTEV	2	2	2	3	3	4	1	1	1	6	7	7
	Total (HT)	4,041	4,403	4,746	4,038	4,272	4,497	6,378	7,012	7,716	14,457	15,687	16,960
	TOTAL LT+HT	19,966	21,625	23,224	21,024	22,769	24,454	26,973	29,213	31,375	67,963	73,606	79,053

Table 2: Energy Sales (MUs) (FY 26 and FY 27)

TC	Category	East Discom		Central Discom		West Discom		MP State	
		FY 26	FY 27	FY 26	FY 27	FY 26	FY 27	FY 26	FY 27
LV 1	Domestic	8,191	8,590	8,103	8,796	8,076	8,495	24,370	25,881
LV 2	Non-Domestic	2,030	2,288	1,422	1,594	1,666	1,803	5,118	5,685
LV 3	WW & Street Light	515	549	503	530	888	988	1,906	2,067
LV 4	LT Industrial	754	867	376	404	983	1,080	2,113	2,351
LV 5.1	Agriculture Irrigation Pumps	8,308	8,723	11,018	11,466	13,515	14,137	32,841	34,326
LV 5.2	Agriculture related Use	9	10	5	5	6	8	20	23
LV6	LTEV	0	0	2	3	1	1	3	4
Total (LT)		19,808	21,028	21,431	22,798	25,135	26,513	66,371	70,337
HV 1	Railway Traction	55	55	55	55	-	-	110	110
HV 2	CoalMines	645	690	31	32	-	-	676	722
HV 3.1	Industrial	3,304	3,458	3,611	3,788	6,243	6,748	13,158	13,994
HV 3.2	Non-Industrial	391	441	517	567	706	765	1,614	1,773
HV 4	Seasonal	18	20	2	2	11	11	31	33
HV 5.1	HV irrigation	14	15	22	23	572	622	608	660
HV 5.2	HV Other Agriculture	24	26	11	12	11	12	46	50
HV 5.3	HV water works	237	272	313	333	837	921	1,387	1,526
HV 6	Bulk Residential Users	351	381	163	166	31	33	545	580
HV 7	Synchronization & Start Up Power	1	1	6	6	23	25	30	32
HV 8	HTEV	2	2	4	4	2	2	8	8
Total (HT)		5,042	5,362	4,736	4,991	8,435	9,138	18,213	19,488
TOTAL LT+HT		24,850	26,390	26,166	27,788	33,570	35,651	84,584	89,825

3.2 Category-wise sales Projection.

The methodology adopted by the petitioners for category-wise projection of sales for FY 2022-23, FY 2023-24, FY 2024-25, FY 2025-26 and FY 2026-27 is elaborated in detail in the following paras:

3.2.1 LV-1: Domestic

Assumptions for Projecting Unmetered Domestic Sales

The projections for consumption of un-metered domestic connections, in this petition, have been considered as NIL for urban areas (since all domestic consumers in urban areas have been metered).

After factoring the growth in consumers, the following projections have been arrived at for LV-1 category:

Table 3 : Energy Sales for LV-1 (MUs) (FY23, FY24 and FY25)

Area	Sub Category	East Discom			Central Discom			West Discom			MP State		
		FY 23	FY 24	FY 25	FY 23	FY 24	FY 25	FY 23	FY 24	FY 25	FY 23	FY 24	FY 25
Urban	Metered	2,561	2,677	2,798	3,295	3,636	3,990	3,117	3,300	3,461	8,974	9,614	10,249
Urban	Un-metered	-	-	-	-	-	-	-	-	-	-	-	-
Urban	Temporary	23	23	23	20	22	24	34	34	34	76	79	81
Urban	Total	2,584	2,700	2,821	3,315	3,658	4,014	3,151	3,334	3,495	9,050	9,692	10,330
Rural	Metered	3,492	4,027	4,465	2,431	2,731	3,068	3,416	3,766	4,102	9,339	10,524	11,636
Rural	Un-metered	327	327	327	315	315	315	30	31	32	673	673	674
Rural	Temporary	3	3	3	3	3	3	8	8	8	13	13	14
Rural	Total	3,821	4,357	4,794	2,749	3,049	3,387	3,454	3,805	4,142	10,024	11,211	12,323
Total	Metered	6,053	6,705	7,263	5,726	6,367	7,058	6,533	7,066	7,564	18,312	20,138	21,885
Total	Un-metered	327	327	327	315	315	315	30	31	32	673	673	674
Total	Temporary	25	25	26	22	25	27	42	42	42	89	92	95
Total	Total	6,405	7,057	7,616	6,064	6,707	7,401	6,605	7,139	7,637	19,074	20,903	22,653

Table 4 : Energy Sales for LV 1 (MUs) (FY 26 and FY 27)

Area	Sub Category	East Discom		Central Discom		West Discom		MP State	
		FY 26	FY 27	FY 26	FY 27	FY 26	FY 27	FY 26	FY 27
Urban	Metered	2,925	3,057	4,357	4,712	3,625	3,774	10,907	11,543
Urban	Un-metered	-	-	-	-	-	-	-	-
Urban	Temporary	23	23	27	29	34	34	84	87
Urban	Total	2,948	3,080	4,384	4,741	3,659	3,808	10,991	11,629
Rural	Metered	4,914	5,181	3,401	3,735	4,376	4,647	12,691	13,563
Rural	Un-metered	327	327	315	315	32	33	674	675
Rural	Temporary	3	3	4	4	8	8	14	14
Rural	Total	5,243	5,510	3,720	4,054	4,416	4,687	13,379	14,252
Total	Metered	7,839	8,238	7,758	8,447	8,002	8,420	23,598	25,105
Total	Un-metered	327	327	315	315	32	33	674	675
Total	Temporary	26	26	30	33	42	42	98	101
Total	Total	8,191	8,590	8,103	8,796	8,076	8,495	24,370	25,881

3.2.1.1 East Discom

The growth percentages assumed for the category for the FY 2022-23, FY 2023-24, FY 2024-25, FY 2025-26 and FY 2026-27 are as shown below:

Table 5 : Growth Percentage Assumption East Discom: Urban

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Urban
Metered	Consumer	7.50%	4.00%	4.00%	4.00%	4.00%	Nominal Growth Considered
	Average Load per Consumer	0%	0%	0%	0%	0%	No Growth Considered
	Average consumption per consumer per month	0.50%	0.50%	0.50%	0.50%	0.50%	Nominal Growth Considered
Un-metered	Consumer	0%	0%	0%	0%	0%	No Growth Considered
	Average Load per Consumer	0%	0%	0%	0%	0%	No Growth Considered
	Average consumption per consumer per month	0%	0%	0%	0%	0%	No Growth Considered
Temporary	Consumer	8%	1%	1%	1%	1%	Nominal Growth Considered
	Average Load per Consumer	0%	0%	0%	0%	0%	No growth Considered
	Average consumption per consumer per month	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered

Table 6 : Growth Percentage Assumption East Discom: Rural

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Rural
Metered	Consumer	13%	13%	9%	8%	3%	Nominal Growth Considered
	Average Load per Consumer	0%	0%	0%	0%	0%	No Growth Considered
	Average consumption per consumer per month	2.00%	2.00%	2.00%	2.00%	4.00%	Nominal Growth Considered
Un-metered	Consumer	0%	0%	0%	0%	0%	No Growth Considered
	Average Load per Consumer	0%	0%	0%	0%	0%	
	Average consumption per consumer per month	0%	0%	0%	0%	0%	
Temporary	Consumer	0%	0%	0%	0%	0%	No growth Considered
	Average Load per Consumer	0%	0%	0%	0%	0%	No growth Considered
	Average consumption per consumer per month	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered

3.2.1.2 Central Discom

The growth percentages assumed for the category for the FY 2022-23, FY 2023-24, FY 2024-25, FY 2025-26 and FY 2026-27 are as shown below:

Table 7 : Growth Percentage Assumption Central Discom : Urban

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Urban
Metered	Consumer	3%	5%	5%	5%	5%	Nominal Growth Considered
	Average Load per Consumer	0%	0%	0%	0%	0%	No Growth Considered
	Average consumption per consumer per month	3%	5%	5%	4%	3%	Nominal Growth Considered
Un-metered	Consumer	0%	0%	0%	0%	0%	No Growth Considered
	Average Load per Consumer	0%	0%	0%	0%	0%	
	Average consumption per consumer per month	0%	0%	0%	0%	0%	
Temporary	Consumer	5%	5%	5%	5%	5%	Nominal Growth Considered
	Average Load per Consumer	0%	0%	0%	0%	0%	No growth Considered
	Average consumption per consumer per month	0%	5%	5%	5%	5%	Nominal Growth Considered

Table 8 : Growth Percentage Assumption Central Discom : Rural

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Rural
Metered	Consumer	3%	7%	7%	7%	7%	Nominal Growth Considered
	Average Load per Consumer	0%	0%	0%	0%	0%	No Growth Considered
	Average consumption per consumer per month	5%	5%	5%	4%	3%	Nominal Growth Considered
Un-metered	Consumer	0%	0%	0%	0%	0%	No Growth Considered
	Average Load per Consumer	0%	0%	0%	0%	0%	
	Average consumption per consumer per month	0%	0%	0%	0%	0%	
Temporary	Consumer	5%	5%	5%	5%	5%	Nominal Growth Considered
	Average Load per Consumer	0%	0%	0%	0%	0%	No growth Considered
	Average consumption per consumer per month	0%	5%	5%	5%	5%	Nominal Growth Considered

3.2.1.3 West Discom

The growth percentages assumed for the category for the FY 2022-23, FY 2023-24, FY 2024-25, FY 2025-26 and FY 2026-27 are as shown below:

Table 9 : Growth Percentage Assumption West Discom : Urban

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Urban
Metered	Consumer	0.95%	0.95%	1.00%	1.00%	1.00%	Nominal Growth Considered
	Average Load per Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Average consumption per consumer per month	5.77%	4.88%	3.84%	3.71%	3.06%	Nominal Growth Considered
Un-metered	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Average Load per Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	
	Average consumption per consumer per month	0.00%	0.00%	0.00%	0.00%	0.00%	
Temporary	Consumer	3.00%	3.00%	3.00%	3.00%	3.00%	Nominal Growth Considered
	Average Load per Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No growth Considered
	Average consumption per consumer per month	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered

Table 10: Growth Percentage Assumption West Discom : Rural

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Rural
Metered	Consumer	1.04%	1.04%	2.00%	2.00%	2.00%	Nominal Growth Considered
	Average Load per Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Average consumption per consumer per month	8.55%	9.10%	6.80%	4.58%	4.10%	Nominal Growth Considered
Un-metered	Consumer	3.00%	2.00%	2.00%	2.00%	2.00%	Nominal Growth Considered
	Average Load per Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Average consumption per consumer per month	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
Temporary	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Average Load per Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Average consumption per consumer per month	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered

3.2.2 LV-2: Non-Domestic

The future projections for FY 2022-23, FY 2023-24, FY 2024-25, FY 2025-26 and FY 2026-27 are as below:

Table 11 : Energy Sales for LV 2 (MUs) (FY 23, FY 24, FY 25)

Sub-category	East Discom			Central Discom			West Discom			MP State		
	FY 23	FY 24	FY 25	FY 23	FY 24	FY 25	FY 23	FY 24	FY 25	FY 23	FY 24	FY 25
Metered	1,378	1,555	1,756	969	1068	1199	1,277	1,365	1,481	3,396	3,737	4,156
Temporary	40	43	45	60	65	71	53	54	55	141	149	157
Total	1,417	1,598	1,801	1029	1133	1270	1,330	1,419	1,536	3,535	3,886	4,313

Table 12 : Energy Sales for LV 2 (MUs) (FY 26, FY 27)

Sub-category	East Discom		Central Discom		West Discom		MP State	
	FY 26	FY 27	FY 26	FY 27	FY 26	FY 27	FY 26	FY 27
Metered	1,983	2,239	1,345	1,509	1,609	1,746	4,625	5,147
Temporary	47	49	78	85	56	57	166	175
Total	2,030	2,288	1,422	1,594	1,666	1,803	4,792	5,322

3.2.2.1 East Discom

The growth percentages assumed for the category for the FY 2022-23, FY 2023-24, FY 2024-25, FY 2025-26 and FY 2026-27 are as shown below:

Table 13 : Growth Percentage Assumption East Discom : Urban

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Urban
Metered	Consumer	5.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered
	Average Load (kW) per Consumer	4.00%	4.00%	4.00%	4.00%	4.00%	Nominal Growth Considered
	Average consumption per kW per month	3.00%	3.00%	3.00%	3.00%	3.00%	Nominal Growth Considered
Temporary	Consumer	5.00%	1.00%	1.00%	1.00%	1.00%	Nominal Growth Considered
	Average Load (kW) per Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Average consumption per consumer per month	2.00%	2.00%	2.00%	2.00%	2.00%	Nominal Growth Considered

Table 14 : Growth Percentage Assumption East Discom : Rural

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Rural
Metered	Consumer	6.00%	6.00%	6.00%	6.00%	6.00%	Nominal Growth Considered

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Rural
	Average Load(kW) per Consumer	4.00%	4.00%	4.00%	4.00%	4.00%	Nominal Growth Considered
	Average consumption per kW per month	3.00%	3.00%	3.00%	3.00%	3.00%	Nominal Growth Considered
Temporary	Consumer	5.57%	5.57%	5.57%	5.57%	5.57%	2 Year CAGR Considered
	Average Load(kW) per Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Average consumption per consumer per month	2.00%	2.00%	2.00%	2.00%	2.00%	Nominal Growth Considered

3.2.2.2 Central Discom

The growth percentages assumed for the category for the FY 2022-23, FY 2023-24, FY 2024-25, FY 2025-26 and FY 2026-27 are as shown below:

Table 15 : Growth Percentage Assumption Central Discom: Urban

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Urban
Metered	Consumer	5.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered
	Average Load(kW) per Consumer	3.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered
	Average consumption per kW per month	2.00%	2.00%	2.00%	2.00%	2.00%	Nominal Growth Considered
Temporary	Consumer	5.00%	5.00%	7.00%	7.00%	7.00%	Nominal Growth Considered
	Average Load(kW) per Consumer	0.00%	1.00%	1.00%	1.00%	1.00%	Nominal Growth Considered
	Average consumption per consumer per month	2.00%	2.00%	2.00%	2.00%	2.00%	Nominal Growth Considered

Table 16 : Growth Percentage Assumption Central Discom: Rural

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Rural
Metered	Consumer	5.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered
	Average Load(kW) per Consumer	4.00%	4.00%	5.00%	5.00%	5.00%	Nominal Growth Considered
	Average consumption per kW per month	2.00%	1.00%	1.00%	1.00%	1.00%	Nominal Growth Considered
Temporary	Consumer	5.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered
	Average Load(kW) per Consumer	1.00%	1.00%	1.00%	1.00%	1.00%	Nominal Growth Considered
	Average consumption per consumer per month	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered

3.2.2.3 West Discom

The growth percentages assumed for the category for the FY 2022-23, FY 2023-24, FY 2024-25, FY 2025-26 and FY 2026-27 are as shown below:

Table 17 : Growth Percentage Assumption West Discom: Urban

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Urban
Metered	Consumer	1.00%	1.00%	1.00%	1.00%	1.00%	Nominal Growth Considered
	Average Load(kW) per Consumer	2.63%	2.63%	2.63%	2.63%	2.63%	2 Year CAGR Considered
	Average consumption per kW per month	3.00%	4.00%	4.00%	5.07%	3.00%	Nominal Growth Considered
Temporary	Consumer	1.00%	1.00%	1.00%	1.00%	1.00%	Nominal Growth Considered
	Average Load(kW) per Consumer	1.00%	1.00%	1.00%	1.00%	1.00%	Nominal Growth Considered
	Average consumption per consumer per month	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered

Table 18: Growth Percentage Assumption West Discom: Rural

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Rural
Metered	Consumer	1.00%	1.00%	1.00%	1.00%	1.00%	Nominal Growth Considered
	Average Load(kW) per Consumer	1.94%	1.94%	1.94%	1.94%	1.94%	1 Year Growth Considered
	Average consumption per kW per month	4.00%	7.32%	8.00%	4.19%	4.00%	Nominal Growth Considered
Temporary	Consumer	1.00%	1.00%	1.00%	1.00%	1.00%	Nominal Growth Considered
	Average Load(kW) per Consumer	1.00%	1.00%	1.00%	1.00%	1.00%	Nominal Growth Considered
	Average consumption per consumer per month	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered

3.2.3 LV-3.1 : Public Water Works & Street Light

Public Water Works

The future projections for FY 2022-23, FY 2023-24, FY 2024-25, FY 2025-26 and FY 2026-27 for Public water works are as follows:

Table 19: Energy Sales for LV 3.1 (MUs) (FY 23, FY 24, FY 25)

Sub Category	East Discom			Central Discom			West Discom			MP State		
	FY 23	FY 24	FY 25	FY 23	FY 24	FY 25	FY 23	FY 24	FY 25	FY 23	FY 24	FY 25
Municipal Corp.	37	39	42	107	112	116	66	76	86	209	227	244

Sub Category	East Discom			Central Discom			West Discom			MP State		
	FY 23	FY 24	FY 25	FY 23	FY 24	FY 25	FY 23	FY 24	FY 25	FY 23	FY 24	FY 25
Nagar Panchayat	80	90	101	74	74	74	69	77	85	223	241	260
Gram Panchayat	145	155	166	124	136	150	258	300	345	528	592	661
Temporary	6	6	7	4	4	4	7	8	8	17	18	19
Total	268	291	315	310	327	344	400	460	525	978	1078	1183

Table 20: Energy Sales for LV 3.1 (MUs) (FY 26, FY 27)

Sub Category	East Discom		Central Discom		West Discom		MP State	
	FY 26	FY 27	FY 26	FY 27	FY 26	FY 27	FY 26	FY 27
Municipal Corp.	45	48	119	123	96	106	261	277
Nagar Panchayat	113	127	74	74	94	104	281	305
Gram Panchayat	177	189	164	180	397	457	739	827
Temporary	7	7	4	5	9	9	20	21
Total	342	371	362	382	596	677	1300	1430

3.2.4 LV-3.1 Public Water Works

3.2.4.1 East Discom

The growth percentages assumed for the category are as shown below:

Table 21 : Growth Percentage Assumption East Discom: Urban

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Urban
Municipal Corporation	Consumer	2.00%	2.00%	2.00%	2.00%	2.00%	Nominal Growth Considered
	Average Load (kW) per Consumer	3.96%	3.96%	3.96%	3.96%	3.96%	5-Months Variation considered
	Average unit per kW per month	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
Nagar Panchayat	Consumer	3.75%	3.75%	3.75%	3.75%	3.75%	3 Year CAGR Considered
	Average Load (kW) per Consumer	0.23%	0.23%	0.23%	0.23%	0.23%	2 Year CAGR Considered
	Average unit per kW per month	1.00%	1.00%	1.00%	1.00%	1.00%	Nominal Growth Considered
Gram Panchayat	Consumer	4.00%	4.00%	4.00%	4.00%	4.00%	Nominal Growth Considered
	Average Load (kW) per Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Average unit per kW per month	1.00%	1.00%	1.00%	1.00%	1.00%	Nominal Growth Considered
Temporary	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Average Load (kW) per Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Urban
	Average unit per kW per month	3.21%	3.21%	3.21%	3.21%	3.21%	5-Months Variation considered

Table 22 : Growth Percentage Assumption East Discom: Rural

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Rural
Municipal Corporation	Consumer	4.00%	4.00%	4.00%	4.00%	4.00%	Nominal Growth Considered
	Average Load (kW) per Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Average unit per kW per month	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
Nagar Panchayat	Consumer	4.00%	4.00%	4.00%	4.00%	4.00%	Nominal Growth Considered
	Average Load (kW) per Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Average unit per kW per month	1.00%	1.00%	1.00%	1.00%	1.00%	Nominal Growth Considered
Gram Panchayat	Consumer	10.02%	10.02%	10.02%	10.02%	10.02%	3 Year CAGR Considered
	Average Load (kW) per Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Average unit per kW per month	6.55%	6.55%	6.55%	6.55%	6.55%	5-Months Variation considered
Temporary	Consumer	4.18%	4.18%	4.18%	4.18%	4.18%	1 Year Growth Considered
	Average Load (kW) per Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Average unit per kW per month	9.13%	9.13%	9.13%	9.13%	9.13%	3 Year CAGR Considered

3.2.4.2 Central Discom

The growth percentages assumed for the category are as shown below:

Table 23 : Growth Percentage Assumption Central Discom: Urban

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Urban
Municipal Corporation	Consumer	6.90%	6.90%	6.90%	6.90%	6.90%	3 Year CAGR Considered
	Average Load (kW) per Consumer	1.52%	1.52%	1.52%	1.52%	1.52%	3 Year CAGR Considered
	Average consumption per kW per month	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
Nagar Panchayat	Consumer	(-) 4.30%	(-) 4.30%	(-) 4.30%	(-) 4.30%	(-) 4.30%	3 Year CAGR Considered
	Average Load (kW) per Consumer	5.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered
	Average unit per kW per month	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
Gram Panchayat	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Average Load (kW) per Consumer	2.73%	2.73%	2.73%	2.73%	2.73%	2 Year CAGR Considered

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Urban
	Average unit per kW per month	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
Temporary	Consumer	(-) 1.00%	(-) 1.00%	(-) 1.00%	(-) 1.00%	(-) 1.00%	2 Year CAGR Considered
	Average Load (kW) per Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Average unit per kW per month	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered

Table 24 : Growth Percentage Assumption Central Discom: Rural

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Rural
Municipal Corporation	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Average Load (kW) per Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Average unit per kW per month	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
Nagar Panchayat	Consumer	9.68%	9.68%	9.68%	9.68%	9.68%	1 Year Growth Considered
	Average Load (kW) per Consumer	5.33%	5.33%	5.33%	5.33%	5.33%	3 Year CAGR Considered
	Average unit per kW per month	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
Gram Panchayat	Consumer	24.32%	24.32%	24.32%	24.32%	24.32%	3 Year CAGR Considered
	Average Load (kW) per Consumer	1.94%	1.94%	1.94%	1.94%	1.94%	3 Year CAGR Considered
	Average unit per kW per month	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
Temporary	Consumer	(-) 13.94%	(-) 13.94%	(-) 13.94%	(-) 13.94%	(-) 13.94%	Negative Growth Considered
	Average Load (kW) per Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Average unit per kW per month	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered

3.2.4.3 West Discom

The growth percentages assumed for the category are as shown below:

Table 25 : Growth Percentage Assumption West Discom: Urban

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Urban
Municipal Corporation	Consumer	3.23%	3.00%	3.00%	2.00%	2.00%	Nominal Growth Considered
	Average Load (kW) per Consumer	1.00%	1.00%	1.00%	1.00%	1.00%	Nominal Growth Considered
	Average consumption per kW per month	12.30%	10.95%	9.21%	9.04%	7.00%	Nominal Growth Considered
Nagar Panchayat	Consumer	4.55%	3.00%	3.00%	2.00%	3.00%	Nominal Growth Considered
	Average Load (kW) per Consumer	6.83%	6.83%	6.83%	6.83%	6.83%	5-Months Variation considered
	Average unit per kW per month	1.00%	1.00%	1.00%	1.00%	1.00%	Nominal Growth Considered
	Consumer	6.00%	6.00%	4.00%	4.00%	2.00%	Nominal Growth Considered

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Urban
Gram Panchayat	Average Load(kW) per Consumer	1.00%	1.00%	1.00%	1.00%	1.00%	Nominal Growth Considered
	Average unit per kW per month	1.00%	1.00%	1.00%	1.00%	1.00%	Nominal Growth Considered
Temporary	Consumer	8.20%	8.20%	6.00%	6.00%	5.00%	Nominal Growth Considered
	Average Load(kW) per Consumer	1.00%	1.00%	1.00%	1.00%	1.00%	Nominal Growth Considered
	Average unit per kW per month	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered

Table 26 : Growth Percentage Assumption West Discom: Rural

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Rural
Municipal Corporation	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Average Load(kW) per Consumer	1.00%	1.00%	1.00%	1.00%	1.00%	Nominal Growth Considered
	Average consumption per kW per month	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
Nagar Panchayat	Consumer	5.00%	5.00%	5.00%	4.00%	4.00%	Nominal Growth Considered
	Average Load(kW) per Consumer	6.44%	6.44%	6.44%	6.44%	6.44%	5-Months Variation considered
	Average unit per kW per month	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
Gram Panchayat	Consumer	10.37%	9.00%	8.00%	8.00%	8.00%	Nominal Growth Considered
	Average Load(kW) per Consumer	6.66%	6.66%	6.66%	6.66%	6.66%	5-Months Variation considered
	Average unit per kW per month	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
Temporary	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Average Load(kW) per Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Average unit per kW per month	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered

3.2.5 LV-3.2 Street Light

The future projections for FY 2022-23, FY 2023-24, FY 2024-25, FY 2025-26 and FY 2026-27 for Street Lights are as follows:

Table 27: Energy Sales for LV 3.2 (MUs) (FY 23, FY 24, FY 25)

Sub Category	East Discom			Central Discom			West Discom			MP State		
	FY 23	FY 24	FY 25	FY 23	FY 24	FY 25	FY 23	FY 24	FY 25	FY 23	FY 24	FY 25
Municipal Corp.	58	62	66	69	74	78	92	112	131	219	247	276
Nagar Panchayat	64	67	70	43	45	46	58	66	73	165	177	189
Gram Panchayat	31	32	32	9	10	10	49	52	55	89	93	97
Total	153	161	169	122	128	134	199	229	259	473	518	561

Table 28: Energy Sales for LV 3.2 (MUs) (FY 26, FY 27)

Sub Category	East Discom		Central Discom		West Discom		MP State	
	FY 26	FY 27	FY 26	FY 27	FY 26	FY 27	FY 26	FY 27
Municipal Corp.	69	72	83	88	154	167	306	327
Nagar Panchayat	72	73	47	49	80	86	199	208
Gram Panchayat	32	33	11	11	57	59	101	103
Total	173	178	141	148	292	311	606	637

3.2.5.1 East Discom

The growth percentages assumed for the category are as shown below:

Table 29 : Growth Percentage Assumption East Discom: Urban

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Urban
Municipal Corporation	Consumer	5.63%	5.63%	2.00%	2.00%	2.00%	Nominal Growth Considered
	Average Load (kW) per Consumer	1.00%	1.00%	1.00%	1.00%	1.00%	Nominal Growth Considered
	Average consumption per kW per month	1.00%	1.00%	1.00%	1.00%	1.00%	Nominal Growth Considered
Nagar Panchayat	Consumer	3.03%	3.03%	3.03%	3.03%	3.03%	3 Year CAGR Considered
	Average Load (kW) per Consumer	0.15%	0.15%	0.15%	0.15%	0.15%	3 Year CAGR Considered
	Average unit per kW per month	2.90%	2.90%	2.90%	2.90%	2.90%	2 Year CAGR Considered
Gram Panchayat	Consumer	2.00%	2.00%	2.00%	2.00%	2.00%	Nominal Growth Considered
	Average Load (kW) per Consumer	0.15%	0.15%	0.15%	0.15%	0.15%	3 Year CAGR Considered
	Average unit per kW per month	5.71%	5.71%	5.71%	5.71%	5.71%	3 Year CAGR Considered

Table 30 : Growth Percentage Assumption East Discom: Rural

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Rural
Municipal Corporation	Consumer	4.00%	4.00%	4.00%	4.00%	4.00%	Nominal Growth Considered
	Average Load (kW) per Consumer	0.00%	0.00%	0.00%	10.00%	20.00%	Nominal Growth Considered
	Average consumption per kW per month	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
Nagar Panchayat	Consumer	7.99%	7.99%	7.99%	7.99%	7.99%	3 Year CAGR Considered
	Average Load (kW) per Consumer	5.14%	5.14%	5.14%	5.14%	5.14%	3 Year CAGR Considered
	Average unit per kW per month	4.52%	4.52%	4.52%	4.52%	4.52%	3 Year CAGR Considered
	Consumer	11.82%	11.82%	11.82%	11.82%	11.82%	1 Year Growth Considered

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Rural
Gram Panchayat	Average Load(kW) per Consumer	1.88%	1.88%	1.88%	1.88%	1.88%	2 Year CAGR Considered
	Average unit per kW per month	22%	22%	22%	22%	22%	5 Month Variation is Considered

3.2.5.2 Central Discom

The growth percentages assumed for the category are as shown below:

Table 31 : Growth Percentage Assumption Central Discom: Urban

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Urban
Municipal Corporation	Consumer	7.55%	1.00%	1.00%	1.00%	1.00%	Nominal Growth Considered
	Average Load(kW) per Consumer	4.67%	4.67%	4.67%	4.67%	4.67%	3 Year CAGR Considered
	Average consumption per kW per month	4.43%	4.43%	4.43%	4.43%	4.43%	5 Month Variation Considered
Nagar Panchayat	Consumer	0.90%	0.90%	0.90%	0.90%	0.90%	3 Year CAGR Considered
	Average Load(kW) per Consumer	0.01%	0.01%	0.01%	0.01%	0.01%	1 Year Growth Considered
	Average unit per kW per month	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
Gram Panchayat	Consumer	1.00%	1.00%	1.00%	1.00%	1.00%	Nominal Growth Considered
	Average Load(kW) per Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Average unit per kW per month	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered

Table 32 : Growth Percentage Assumption Central Discom: Rural

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Rural
Municipal Corporation	Consumer	5.88%	5.88%	5.88%	5.88%	5.88%	1 Year Growth Considered
	Average Load(kW) per Consumer	9.68%	9.68%	9.68%	9.68%	9.68%	3 Year CAGR Considered
	Average unit per kW per month	9.68%	9.68%	9.68%	9.68%	9.68%	3 Year CAGR Considered
Nagar Panchayat	Consumer	5.13%	5.13%	5.13%	5.13%	5.13%	2 Year CAGR Considered
	Average Load(kW) per Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Average unit per kW per month	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
Gram Panchayat	Consumer	10.97%	10.97%	10.97%	10.97%	10.97%	2 Year CAGR Considered
	Average Load(kW) per Consumer	5.94%	5.94%	5.94%	5.94%	5.94%	2 Year CAGR Considered
	Average unit per kW per month	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered

3.2.5.3 West Discom

The growth percentages assumed for the category are as shown below:

Table 33 : Growth Percentage Assumption West Discom: Urban

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Urban
Municipal Corporation	Consumer	7.28%	7.28%	5.00%	5.00%	4.00%	Nominal Growth Considered
	Average Load(kW) per Consumer	1.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Average consumption per kW per month	1.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
Nagar Panchayat	Consumer	7.66%	7.66%	5.00%	5.00%	4.00%	Nominal Growth Considered
	Average Load(kW) per Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Average consumption per consumer per month	1.00%	1.00%	1.00%	1.00%	1.00%	Nominal Growth Considered
Gram Panchayat	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Average Load(kW) per Consumer	5.21%	5.21%	5.21%	5.21%	3.00%	3 Year CAGR Considered
	Average consumption per consumer per month	1.97%	0.00%	0.00%	0.00%	0.00%	No Growth Considered

Table 34 : Growth Percentage Assumption West Discom: Rural

	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Rural
Municipal Corporation	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Average Load(kW) per Consumer	14.84%	12.93%	12.05%	11.83%	4.00%	Nominal Growth Considered
	Average consumption per kW per month	11.11%	10.00%	5.45%	5.17%	4.92%	Nominal Growth Considered
Nagar Panchayat	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Average Load(kW) per Consumer	5.00%	5.00%	5.00%	5.00%	3.00%	Nominal Growth Considered
	Average consumption per consumer per month	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
Gram Panchayat	Consumer	1.83%	1.83%	1.83%	1.00%	1.00%	Nominal Growth Considered
	Average Load(kW) per Consumer	8.30%	6.00%	4.00%	4.00%	1.00%	Nominal Growth Considered
	Average consumption per consumer per month	5.00%	4.00%	4.00%	4.00%	1.00%	Nominal Growth Considered

3.2.6 LV-4: Industrial

3.2.7 LV-4.1 Non- Seasonal Industrial

The projections for FY 2022-23, FY 2023-24, FY 2024-25, FY 2025-26 and FY 2026-27 for LV 4.1 Non- Seasonal Industrial are as follows:

Table 35: Energy Sales for LV-4.1 (MUs)

Sub Category	East Discom			Central Discom			West Discom			MP State		
	FY 23	FY 24	FY 25	FY 23	FY 24	FY 25	FY 23	FY 24	FY 25	FY 23	FY 24	FY 25
Up to 25HP	228	260	296	154	167	181	267	290	318	650	717	795
Above 25HP to 100HP	146	167	192	105	113	122	255	273	294	505	553	608
Above 100HP	112	131	154	41	42	43	206	237	269	359	410	466
Temporary LT Ind.	11	11	12	3	3	3	1	2	2	15	16	16
Total	496	570	654	303	325	348	729	802	882	1529	1696	1885

Table 36: Energy Sales for LV-4.1 (MUs)

Subcategory	East Discom		Central Discom		West Discom		MP State	
	FY 26	FY 27	FY 26	FY 27	FY 26	FY 27	FY 26	FY 27
Up to 25HP	338	385	195	212	347	380	881	976
Above 25HP to 100HP	221	254	131	142	317	336	669	732
Above 100HP	180	212	44	45	312	357	537	614
Temporary LT Ind.	13	14	3	3	2	2	17	18
Total	752	865	374	401	978	1075	2104	2341

3.2.7.1 East Discom

The assumptions for sales forecast for the category are given below:

Table 37 : Growth Percentage Assumption East Discom: Urban

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Urban
Upto 25HP	Consumer	6.00%	6.00%	6.00%	6.00%	6.00%	Nominal Growth Considered
	Average Load (kW) per Consumer	3.00%	3.00%	3.00%	3.00%	3.00%	Nominal Growth Considered
	Average consumption per kW per month	3.00%	3.00%	3.00%	3.00%	3.00%	Nominal Growth Considered
Above 25HP to 100HP	Consumer	6.00%	6.00%	6.00%	6.00%	6.00%	Nominal Growth Considered
	Average Load (kW) per Consumer	3.00%	3.00%	3.00%	3.00%	3.00%	Nominal Growth Considered
	Average unit per kW per month	3.00%	3.00%	3.00%	3.00%	3.00%	Nominal Growth Considered
Above 100HP	Consumer	13.53%	13.53%	13.53%	13.53%	13.53%	3 Year CAGR Considered
	Average Load (kW) per Consumer	3.00%	3.00%	3.00%	3.00%	3.00%	Nominal Growth Considered
	Average unit per kW per month	3.00%	3.00%	3.00%	3.00%	3.00%	Nominal Growth Considered
Temporary	Consumer	6.00%	6.00%	6.00%	6.00%	6.00%	Nominal Growth Considered
	Average Load (kW) per Consumer	2.00%	2.00%	2.00%	2.00%	2.00%	Nominal Growth Considered

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Urban
	Average unit per kW per month	2.00%	2.00%	2.00%	2.00%	2.00%	Nominal Growth Considered

Table 38 : Growth Percentage Assumption East Discom: Rural

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Rural
Upto 25HP	Consumer	8.24%	8.24%	8.24%	8.24%	8.24%	1 Year Growth Considered
	Average Load (kW) per Consumer	3.00%	3.00%	3.00%	3.00%	3.00%	Nominal Growth Considered
	Average consumption per kW per month	3.00%	3.00%	3.00%	3.00%	3.00%	Nominal Growth Considered
Above 25HP to 100HP	Consumer	11.1%	11.1%	11.1%	11.1%	11.1%	3 Year CAGR Considered
	Average Load (kW) per Consumer	3.00%	3.00%	3.00%	3.00%	3.00%	Nominal Growth Considered
	Average unit per kW per month	3.00%	3.00%	3.00%	3.00%	3.00%	Nominal Growth Considered
Above 100HP	Consumer	8.28%	8.28%	8.28%	8.28%	8.28%	1 Year Growth Considered
	Average Load (kW) per Consumer	3.00%	3.00%	3.00%	3.00%	3.00%	Nominal Growth Considered
	Average unit per kW per month	3.00%	3.00%	3.00%	3.00%	3.00%	Nominal Growth Considered
Temporary	Consumer	2.00%	2.00%	2.00%	2.00%	2.00%	Nominal Growth Considered
	Average Load (kW) per Consumer	2.00%	2.00%	2.00%	2.00%	2.00%	Nominal Growth Considered
	Average unit per kW per month	2.00%	2.00%	2.00%	2.00%	2.00%	Nominal Growth Considered

3.2.7.2 Central Discom

The assumptions for sales forecast for the category are given below:

Table 39 : Growth Percentage Assumption Central Discom: Urban

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Urban
Upto 25HP	Consumer	2.00%	2.00%	2.00%	2.00%	2.00%	Nominal Growth Considered
	Average Load (kW) per Consumer	1.59%	2.29%	2.29%	2.29%	2.29%	2 Year CAGR Considered
	Average consumption per kW per month	2.00%	2.00%	2.00%	2.00%	2.00%	Nominal Growth Considered
Above 25HP to 100HP	Consumer	3.17%	3.17%	3.17%	3.17%	3.17%	3 Year CAGR Considered
	Average Load (kW) per Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Average unit per kW per month	5.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered
Above 100HP	Consumer	2.00%	2.00%	2.00%	2.00%	2.00%	Nominal Growth Considered
	Average Load (kW) per Consumer	0.58%	0.58%	0.58%	0.58%	0.58%	3 Year CAGR Considered

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Urban
	Average unit per kW per month	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
Temporary	Consumer	3.00%	3.00%	3.00%	3.00%	3.00%	Nominal Growth Considered
	Average Load(kW) per Consumer	2.32%	2.32%	2.32%	2.32%	2.32%	3 Year CAGR Considered
	Average unit per kW per month	2.00%	2.00%	2.00%	2.00%	2.00%	Nominal Growth Considered

Table 40 : Growth Percentage Assumption Central Discom: Rural

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Rural
Upto 25HP	Consumer	5.30%	5.30%	5.30%	5.30%	5.30%	3 Year CAGR Considered
	Average Load(kW) per Consumer	3.39%	3.39%	3.39%	3.39%	3.39%	1 Year Growth Considered
	Average consumption per kW per month	0.00%	2.00%	2.00%	2.00%	2.00%	Nominal Growth Considered
Above 25HP to 100HP	Consumer	3.00%	3.00%	3.00%	3.00%	3.00%	Nominal Growth Considered
	Average Load(kW) per Consumer	0.40%	0.40%	0.40%	0.40%	0.40%	3 Year CAGR Considered
	Average unit per kW per month	0.00%	0.00%	1.29%	1.29%	1.29%	3 Year CAGR Considered
Above 100HP	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Average Load(kW) per Consumer	0.87%	0.87%	0.87%	0.87%	0.87%	3 Year CAGR Considered
	Average unit per kW per month	1.00%	1.00%	1.00%	1.00%	1.00%	Nominal Growth Considered
Temporary	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Average Load(kW) per Consumer	- 8.89%	- 8.89%	- 2.00%	- 2.00%	- 2.00%	Negative Growth Considered
	Average unit per kW per month	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered

3.2.7.3 West Discom

The assumptions for sales forecast for the category are given below:

Table 41 : Growth Percentage Assumption West Discom: Urban

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Urban
Upto 25HP	Consumer	0.62%	0.62%	0.62%	0.62%	0.62%	1 Year Growth Considered
	Average Load(kW) per Consumer	1.17%	1.17%	1.17%	1.17%	1.17%	1 Year Growth Considered
	Average consumption per kW per month	6.00%	6.00%	8.00%	8.00%	8.00%	Nominal Growth Considered
Above 25HP to 100HP	Consumer	3.39%	3.39%	3.39%	3.39%	3.39%	1 Year Growth Considered
	Average Load(kW) per Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Urban
	Average unit per kW per month	2.00%	2.00%	3.00%	3.00%	1.00%	Nominal Growth Considered
Above 100HP	Consumer	9.31%	9.31%	9.31%	9.31%	9.31%	1 Year Growth Considered
	Average Load(kW) per Consumer	0.68%	0.68%	0.68%	0.68%	0.68%	1 Year Growth Considered
	Average unit per kW per month	2.00%	2.00%	3.00%	3.00%	1.00%	Nominal Growth Considered
Temporary	Consumer	3.30%	3.30%	3.30%	3.30%	3.30%	1 Year Growth Considered
	Average Load(kW) per Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Average unit per kW per month	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered

Table 42 : Growth Percentage Assumption West Discom: Rural

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Rural
Upto 25HP	Consumer	3.06%	3.06%	3.06%	3.06%	3.06%	1 Year Growth Considered
	Average Load (kW) per Consumer	1.81%	1.81%	1.81%	1.81%	1.81%	1 Year Growth Considered
	Average consumption per kW per month	5.00%	5.00%	3.00%	3.00%	3.00%	Nominal Growth Considered
Above 25HP to 100HP	Consumer	9.60%	9.60%	9.60%	9.60%	9.60%	1 Year Growth Considered
	Average Load (kW) per Consumer	1.00%	1.00%	1.00%	1.00%	1.00%	Nominal Growth Considered
	Average unit per kW per month	5.00%	5.00%	3.00%	3.00%	3.00%	Nominal Growth Considered
Above 100HP	Consumer	17.37%	17.37%	10.00%	17.37%	17.37%	1 Year Growth Considered
	Average Load (kW) per Consumer	0.01%	0.01%	0.01%	0.01%	0.01%	1 Year Growth Considered
	Average unit per kW per month	5.00%	5.00%	4.00%	4.00%	4.00%	Nominal Growth Considered
Temporary	Consumer	6.51%	6.51%	6.51%	6.51%	6.51%	1 Year Growth Considered
	Average Load (kW) per Consumer	5.66%	5.66%	5.66%	5.66%	5.66%	1 Year Growth Considered
	Average unit per kW per month	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered

3.2.8 LV-4.2 Seasonal Industrial

The projections for FY 2022-23, FY 2023-24, FY 2024-25, FY 2025-26 and FY 2026-27 for LV 4.2 Seasonal Industrial are as follows:

Table 43: Energy Sales for LV-4.2 (MUs)

Sub Category	East Discom			Central Discom			West Discom			MP State		
	FY 23	FY 24	FY 25	FY 23	FY 24	FY 25	FY 23	FY 24	FY 25	FY 23	FY 24	FY 25
Up to 25HP	0.23	0.27	0.31	0.19	0.21	0.23	1.32	1.34	1.36	1.74	1.82	1.9

Sub Category	East Discom			Central Discom			West Discom			MP State		
	FY 23	FY 24	FY 25	FY 23	FY 24	FY 25	FY 23	FY 24	FY 25	FY 23	FY 24	FY 25
Above 25HP to 100HP	0.45	0.48	0.52	1.46	1.58	1.71	1.77	1.84	1.91	3.68	3.9	4.14
Above 100HP	0.95	1.13	1.22	0.68	0.70	0.71	1.39	1.46	1.54	3.02	3.29	3.47
Total	1.63	1.88	2.05	2.34	2.49	2.65	4.48	4.64	4.82	8.45	9.01	9.52

Table 44: Energy Sales for LV-4.2 (MUs)

Subcategory	East Discom		Central Discom		West Discom		MP State	
	FY 26	FY 27	FY 26	FY 27	FY 26	FY 27	FY 26	FY 27
Up to 25HP	0.37	0.43	0.26	0.28	1.39	1.41	2.02	2.12
Above 25HP to 100HP	0.56	0.60	1.85	2.00	1.99	2.07	4.4	4.67
Above 100HP	1.33	1.44	0.72	0.74	1.63	1.71	3.68	3.89
Total	2.25	2.47	2.83	3.02	5.00	5.19	10.08	10.68

3.2.8.1 East Discom

The assumptions for sales forecast for the category are given below:

Table 45 : Growth Percentage Assumption East Discom: Urban

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Urban
Upto 25HP	Consumer	14%	14%	14%	14%	14%	3 Year CAGR Considered
	Average Load(kW) per Consumer	3.00%	3.00%	3.00%	3.00%	3.00%	3 Year CAGR Considered
	Average consumption per kW per month	3.00%	3.00%	3.00%	3.00%	3.00%	Nominal Growth Considered
Above 25HP to 100HP	Consumer	9%	9%	9%	9%	9%	3 Year CAGR Considered
	Average Load(kW) per Consumer	3.00%	3.00%	3.00%	3.00%	3.00%	3 Year CAGR Considered
	Average unit per kW per month	3.00%	3.00%	3.00%	3.00%	3.00%	Nominal Growth Considered
Above 100HP	Consumer	5%	5%	5%	5%	5%	3 Year CAGR Considered
	Average Load(kW) per Consumer	3.00%	3.00%	3.00%	3.00%	3.00%	3 Year CAGR Considered
	Average unit per kW per month	3.00%	3.00%	3.00%	3.00%	3.00%	Nominal Growth Considered

Table 46 : Growth Percentage Assumption East Discom: Rural

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Rural
Upto 25HP	Consumer	5%	5%	5%	5%	5%	Nominal Growth Considered
	Average Load(kW) per Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Average consumption per kW per month	5%	5%	5%	5%	5%	Nominal Growth Considered
	Consumer	2.6%	2.6%	2.6%	2.6%	2.6%	3 Year CAGR Considered

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Rural
Above 25HP to 100HP	Average Load (kW) per Consumer	5%	5%	5%	5%	5%	3 Year CAGR Considered
	Average unit per kW per month	5%	5%	5%	5%	5%	3 Year CAGR Considered
Above 100HP	Consumer	5%	5%	5%	5%	5%	Nominal Growth Considered
	Average Load (kW) per Consumer	5%	5%	5%	5%	5%	Nominal Growth Considered
	Average unit per kW per month	10%	10%	10%	10%	10%	1 Year CAGR Considered

3.2.8.2 Central Discom

The assumptions for sales forecast for the category are given below:

Table 47 : Growth Percentage Assumption Central Discom: Urban

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Urban
Upto 25HP	Consumer	10.00%	10.00%	10.00%	10.00%	10.00%	Estimated Growth Considered
	Average Load (kW) per Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Average consumption per kW per month	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
Above 25HP to 100HP	Consumer	5.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered
	Average Load (kW) per Consumer	2.00%	2.00%	2.00%	2.00%	2.00%	Nominal Growth Considered
	Average unit per kW per month	1.00%	1.00%	1.00%	1.00%	1.00%	Nominal Growth Considered
Above 100HP	Consumer	0%	0%	0%	0%	0%	No Growth Considered
	Average Load (kW) per Consumer	1.00%	1.00%	1.00%	1.00%	1.00%	Nominal Growth Considered
	Average unit per kW per month	1.00%	1.00%	1.00%	1.00%	1.00%	Nominal Growth Considered

Table 48 : Growth Percentage Assumption Central Discom: Rural

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Rural
Upto 25HP	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Average Load (kW) per Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Average consumption per kW per month	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
Above 25HP to 100HP	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Average Load (kW) per Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Average unit per kW per month	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Consumer	0%	0%	0%	0%	0%	No Growth Considered

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Rural
Above 100HP	Average Load (kW) per Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Average unit per kW per month	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered

3.2.8.3 West Discom

The assumptions for sales forecast for the category are given below:

Table 49 : Growth Percentage Assumption West Discom: Urban

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Urban
Upto 25HP	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Average Load (kW) per Consumer	1.59%	1.59%	1.59%	1.59%	1.59%	1 Year Growth Considered
	Average consumption per kW per month	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
Above 25HP to 100HP	Consumer	2.39%	2.39%	2.39%	2.39%	2.39%	1 Year Growth Considered
	Average Load (kW) per Consumer	1.00%	1.00%	1.00%	1.00%	1.00%	Nominal Growth Considered
	Average unit per kW per month	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
Above 100HP	Consumer	5.41%	5.41%	5.41%	5.41%	5.41%	2 Year CGR Considered
	Average Load (kW) per Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Average unit per kW per month	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered

Table 50 : Growth Percentage Assumption West Discom: Rural

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Rural
Upto 25HP	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Average Load (kW) per Consumer	1.90%	1.90%	1.90%	1.90%	1.90%	3 Year CAGR Considered
	Average consumption per kW per month	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
Above 25HP to 100HP	Consumer	5.13%	5.13%	5.13%	5.13%	5.13%	2 Year CAGR Considered
	Average Load (kW) per Consumer	0.70%	0.70%	0.70%	0.70%	0.70%	3 Year CAGR Considered
	Average unit per kW per month	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
Above 100HP	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Average Load (kW) per Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Average unit per kW per month	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered

3.2.9 LV-5.1: Agricultural

The projections for LV 5.1 Agricultural category are as follows

Table 51: Energy Sales for LV 5.1 (MUs)

Area	Sub-category	East Discom			Central Discom			West Discom			MP State		
		FY 23	FY 24	FY 25	FY 23	FY 24	FY 25	FY 23	FY 24	FY 25	FY 23	FY 24	FY 25
Urban	Metered General	9.3	9.6	9.9	54.3	57.0	59.9	16.9	18.5	20.3	80.5	85.1	90.1
Urban	Metered Temporary	0.8	0.9	0.9	8.7	8.9	9.2	-	-	-	9.5	9.8	10.1
Urban	Unmetered General	298.7	313.6	329.3	182.8	184.7	186.7	171.7	178.6	185.9	653.2	677.0	701.8
Urban	Unmetered Temporary	19.4	20.4	21.4	6.7	6.9	7.1	-	-	-	26.1	27.2	28.5
Urban	Total	328	344	361	252	257	263	189	197	206	769	799	830
Rural	Metered General	1.5	1.5	1.5	16.8	17.7	18.6	4.7	5.0	5.3	23.0	24.1	25.4
Rural	Metered Temporary	0.3	0.3	0.4	2.6	2.7	2.7	-	-	-	2.9	3.0	3.1
Rural	Unmetered General	6529.4	6855.8	7198.6	8651.2	9354.3	9925.9	11129.0	11940.0	12597.2	26309.5	28150.2	29721.7
Rural	Unmetered Temporary	318.3	334.2	350.9	227.3	234.1	241.1	-	-	-	545.5	568.3	592.0
Rural	Total	6849	7192	7551	8898	9610	10188	11134	11945	12602	26881	28747	30342
Total	Metered General	10.7	11.1	11.4	71.1	74.7	78.5	21.6	23.5	25.6	103.5	109.3	115.4
Total	Metered Temporary	1.2	1.2	1.3	11.3	11.6	11.9	-	-	-	12.4	12.8	13.2
Total	Unmetered General	6828.1	7169.5	7527.9	8833.9	9539.0	10112.6	11300.7	12118.7	12783.0	26962.7	28827.1	30423.5
Total	Unmetered Temporary	337.7	354.6	372.3	233.9	240.9	248.2	-	-	-	571.6	595.5	620.4
Total	Total	7178	7536	7913	9150	9867	10451	11322	12142	12809	27650	29546	31173

Table 52: Energy Sales for LV 5.1 (MUs)

Area	Sub-category	East Discom		Central Discom		West Discom		MP State	
		FY 26	FY 27	FY 26	FY 27	FY 26	FY 27	FY 26	FY 27
Urban	Metered General	10.15	10.45	62.98	66.25	22.23	24.38	95.36	101.08

Area	Sub-category	East Discom		Central Discom		West Discom		MP State	
		FY 26	FY 27	FY 26	FY 27	FY 26	FY 27	FY 26	FY 27
Urban	Metered Temporary	0.96	1.01	9.48	9.76	-	-	10.44	10.77
Urban	Unmetered General	345.77	363.06	188.69	190.75	193.36	201.17	727.82	754.98
Urban	Unmetered Temporary	22.45	23.58	7.28	7.49	-	-	29.73	31.07
Urban	Total	379.34	398.10	268.43	274.26	215.59	225.55	863.36	897.91
Rural	Metered General	1.58	1.63	19.48	20.42	5.64	6.03	26.7	28.08
Rural	Metered Temporary	0.38	0.40	2.82	2.91	-	-	3.2	3.31
Rural	Unmetered General	7,558.55	7,936.48	10,478.77	10,912.23	13,293.92	13,905.54	31331.24	32754.25
Rural	Unmetered Temporary	368.44	386.86	248.33	255.78	-	-	616.77	642.64
Rural	Total	7,928.95	8,325.37	10,749.41	11,191.34	13,299.56	13,911.57	31977.92	33428.28
Total	Metered General	11.73	12.08	82.47	86.68	27.87	30.41	122.07	129.17
Total	Metered Temporary	1.34	1.40	12.30	12.67	-	-	13.64	14.07
Total	Unmetered General	7,904.33	8,299.54	10,667.46	11,102.98	13,487.28	14,106.71	32059.07	33509.23
Total	Unmetered Temporary	390.90	410.44	255.61	263.27	-	-	646.51	673.71
Total	Total	8,308.29	8,723.47	11,017.83	11,465.60	13,515.15	14,137.12	32841.27	34326.19

For Temporary Metered & Temporary Permanent Connections, the estimation of Consumers and Load has been carried out on Monthly basis instead of directly applying the growth rate to annual figures. For unmetered temporary agriculture consumers under this category, the assessed consumption is considered as per the norms stipulated by Hon'ble Commission in the Tariff order for FY 2021-22. The same is shown as below:

The month-wise segregation of norms for assessed consumption of unmetered permanent agricultural connections are as shown below:

Table 53: Phase Wise Assessment for Unmetered Permanent Agriculture Connections

Figures in Unit	Three Phase		Single Phase		
	Months	Urban	Rural	Urban	Rural
April	95	95	95	95	95
May	95	95	95	95	95
June	95	95	95	95	95
July	95	95	95	95	95
Aug	95	95	95	95	95
Sept	95	95	95	95	95
Oct	170	170	180	180	
Nov	170	170	180	180	
Dec	170	170	180	180	
Jan	170	170	180	180	
Feb	170	170	180	180	
March	170	170	180	180	

The Hon'ble Commission had increased the normative units for permanent agriculture consumers in the Tariff Order for FY 2018-19 from 1560 Units to 1650 Units per HP per Annum. Till FY 2013-14, agriculture pump consumers were being supplied with 8 Hrs of electricity per day in groups. From FY 2014-15, feeder separation work started and as a result 10 Hours of electricity was supplied on daily basis on separated feeders to agriculture consumers whereas for mixed feeders it was on 24 Hours supply. On mixed feeders there are many agriculture pump connections that are being supplied by more than 20 Hours of supply.

3.2.9.1 East Discom

The growth rates assumed for future projections for this category by East Discom are as follows:

Table 54 : Growth Percentage Assumption East Discom: Urban

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Urban
Metered General	Consumer	5.00%	5.00%	5.00%	5.00%	5.00%	Estimated Growth Considered
	Load	3.00%	3.00%	3.00%	3.00%	3.00%	Estimated Growth Considered
	Consumption per HP	5.00%	5.00%	5.00%	5.00%	5.00%	Estimated Growth Considered
Unmetered Permanent	Consumer	5.00%	5.00%	5.00%	5.00%	5.00%	Estimated Growth Considered
	Load	5.00%	5.00%	5.00%	5.00%	5.00%	Estimated Growth Considered
	Consumption per HP	5.00%	5.00%	5.00%	5.00%	5.00%	Estimated Growth Considered

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Urban
Metered Temporary	Consumer	5.00%	5.00%	5.00%	5.00%	5.00%	Estimated Growth Considered
	Load	5.00%	5.00%	5.00%	5.00%	5.00%	Estimated Growth Considered
	Consumption per HP	5.00%	5.00%	5.00%	5.00%	5.00%	Estimated Growth Considered

Table 55 : Growth Percentage Assumption East Discom: Rural

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Rural
Metered General	Consumer	5.00%	5.00%	5.00%	5.00%	5.00%	Estimated Growth Considered
	Load	3.00%	3.00%	3.00%	3.00%	3.00%	Estimated Growth Considered
	Consumption per HP	5.00%	5.00%	5.00%	5.00%	5.00%	Estimated Growth Considered
Unmetered Permanent	Consumer	5.00%	5.00%	5.00%	5.00%	5.00%	Estimated Growth Considered
	Load	5.00%	5.00%	5.00%	5.00%	5.00%	Estimated Growth Considered
	Consumption per HP	5.00%	5.00%	5.00%	5.00%	5.00%	Estimated Growth Considered
Metered Temporary	Consumer	5.00%	5.00%	5.00%	5.00%	5.00%	Estimated Growth Considered
	Load	5.00%	5.00%	5.00%	5.00%	5.00%	Estimated Growth Considered
	Consumption per HP	5.00%	5.00%	5.00%	5.00%	5.00%	Estimated Growth Considered

3.2.9.2 Central Discom

The growth rates assumed for future projections for this category by Central Discom are as follows:

Table 56 : Growth Percentage Assumption Central Discom: Urban

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Urban
Metered General	Consumer	3.13%	3.17%	3.22%	3.27%	3.32%	Nominal Growth Considered
	Load	4.98%	5.04%	5.09%	5.14%	5.19%	Nominal Growth Considered
	Consumption per HP	4.98%	5.04%	5.09%	5.14%	5.19%	Nominal Growth Considered
Unmetered Permanent	Consumer	(-) 3.15%	(-) 3.09%	(-) 3.03%	(-) 2.97%	(-) 2.91%	Negative Growth Considered
	Load	1.05%	1.06%	1.07%	1.08%	1.09%	Nominal Growth Considered
	Consumption per HP	1.05%	1.06%	1.07%	1.08%	1.09%	Nominal Growth Considered
Metered Temporary	Consumer	10.00%	10.00%	10.00%	10.00%	10.00%	Nominal Growth Considered
	Load	7.81%	7.81%	7.81%	7.82%	7.82%	Nominal Growth Considered
	Consumption per HP	3.00%	3.00%	3.00%	3.00%	3.00%	Nominal Growth Considered

Table 57 : Growth Percentage Assumption Central Discom: Rural

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Rural
Metered General	Consumer	4.77%	4.79%	4.81%	4.83%	4.79%	Nominal Growth Considered
	Load	5.18%	4.97%	4.99%	5.01%	4.83%	Nominal Growth Considered
	Consumption per HP	5.18%	4.97%	4.99%	5.01%	4.83%	Nominal Growth Considered
	Consumer	3.90%	4.47%	4.48%	4.49%	4.50%	Nominal Growth Considered

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Rural
Unmetered Permanent	Load	4.48%	8.13%	6.11%	5.57%	4.14%	Nominal Growth Considered
	Consumption per HP	7.75%	8.13%	6.11%	5.57%	4.14%	Nominal Growth Considered
Metered Temporary	Consumer	20.00%	20.00%	20.00%	20.00%	20.00%	Nominal Growth Considered
	Load	14.00%	14.00%	14.00%	14.00%	14.00%	Nominal Growth Considered
	Consumption per HP	3.00%	3.00%	3.00%	3.00%	3.00%	Nominal Growth Considered

3.2.9.3 West Discom

The growth rates assumed for future projections for this category by West Discom are as follows:

Table 58 : Growth Percentage Assumption West Discom: Urban

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Urban
Metered General	Consumer	2.00%	2.00%	2.00%	2.00%	2.00%	Nominal Growth Considered
	Load	2.00%	2.00%	2.00%	2.00%	2.00%	Nominal Growth Considered
	Consumption per HP	9.37%	9.42%	9.48%	9.56%	9.67%	Nominal Growth Considered
Unmetered Permanent	Consumer	2.00%	2.00%	2.00%	2.00%	2.00%	Nominal Growth Considered
	Load	2.00%	2.00%	2.00%	2.00%	2.00%	Nominal Growth Considered
	Consumption per HP	4.04%	4.04%	4.04%	4.04%	4.04%	Nominal Growth Considered

Table 59 : Growth Percentage Assumption West Discom: Rural

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Rural
Metered General	Consumer	2.00%	2.00%	2.00%	2.00%	2.00%	Nominal Growth Considered
	Load	2.00%	2.00%	2.00%	2.00%	2.00%	Nominal Growth Considered
	Consumption per HP	30.07%	6.18%	6.39%	6.62%	6.87%	Nominal Growth Considered
Unmetered Permanent	Consumer	4.53%	2.44%	2.44%	2.44%	2.47%	Nominal Growth Considered
	Load	6.82%	5.27%	5.50%	5.53%	4.60%	Nominal Growth Considered
	Consumption per HP	6.87%	7.29%	5.50%	5.53%	4.60%	Nominal Growth Considered

3.2.10 LV-5.2: Other agricultural Use

The projections for LV 5.2 Agricultural category are as follows:

Table 60: Energy Sales for LV 5.2 (MUs)

Sub-category	East Discom			Central Discom			West Discom			MP State		
	FY 23	FY 24	FY 25	FY 23	FY 24	FY 25	FY 23	FY 24	FY 25	FY 23	FY 24	FY 25
Upto 20HP	3.9	4.0	4.1	3.1	3.3	3.5	1.5	1.7	2.1	8.5	9.1	9.7
greater than 20HP	3.3	3.6	4.1	1.0	1.0	1.1	2.1	2.6	3.2	6.4	7.3	8.3
Temporary	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.3	0.3	0.3

Sub-category	East Discom			Central Discom			West Discom			MP State		
	FY 23	FY 24	FY 25	FY 23	FY 24	FY 25	FY 23	FY 24	FY 25	FY 23	FY 24	FY 25
Total	7.3	7.7	8.3	4.3	4.5	4.7	3.6	4.4	5.3	15.2	16.6	18.4

Table 61: Energy Sales for LV 5.2 (MUs)

Sub-category	East Discom		Central Discom		West Discom		MP State	
	FY 26	FY 27	FY 26	FY 27	FY 26	FY 27	FY 26	FY 27
Upto 20HP	4.29	4.47	3.72	3.94	2.48	2.96	10.49	11.37
greater than 20HP	4.67	5.44	1.09	1.13	3.88	4.75	9.64	11.32
Temporary	0.09	0.10	0.16	0.17	0.09	0.10	0.34	0.37
Total	9.05	10.01	4.97	5.24	6.45	7.81	20.47	23.06

3.2.10.1 East Discom

The growth rates assumed for future projections and revised estimates for this category by East Discom are as follows:

Table 62 : Growth Percentage Assumption East Discom : Urban

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Urban
Upto 3HP	Consumer	4.00%	4.00%	4.00%	4.00%	4.00%	Nominal Growth Considered
	Average Load(kW) per Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Average consumption per kW per month	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
Above 3HP to 5HP	Consumer	10.26%	10.26%	10.26%	10.26%	10.26%	5 Month Variation
	Average Load(kW) per Consumer	13.74%	13.74%	13.74%	13.74%	13.74%	5 Month Variation
	Average consumption per kW per month	5.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered
Above 5HP to 10HP	Consumer	5.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered
	Average Load(kW) per Consumer	0.74%	0.74%	0.74%	0.74%	0.74%	5 Month Variation
	Average consumption per kW per month	10.00%	10.00%	10.00%	10.00%	10.00%	Nominal Growth Considered
Above 10HP to 20HP	Consumer	5.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered
	Average Load(kW) per Consumer	9.50%	9.50%	9.50%	9.50%	9.50%	5 Month Variation
	Average consumption per kW per month	5.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered
Above 20HP	Consumer	8.92%	8.92%	8.92%	8.92%	8.92%	3 Year CAGR Considered
	Average Load(kW) per Consumer	6.80%	6.80%	6.80%	6.80%	6.80%	5 Month Variation
	Average consumption per kW per month	3.94%	3.94%	3.94%	3.94%	33.94%	3 Year CAGR Considered
Temporary	Consumer	5.00%	5.00%	5.00%	5.00%	5.00%	5 Month Variation

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Urban
	Average Load(kW) per Consumer	5.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered
	Average consumption per kW per month	10.00%	10.00%	10.00%	10.00%	10.00%	Estimated Growth Considered

Table 63 : Growth Percentage Assumption East Discom : Rural

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Rural
Upto 3HP	Consumer	3.80%	3.80%	3.80%	3.80%	3.80%	3 Year CAGR Considered
	Average Load (kW) per Consumer	0.85%	0.85%	0.85%	0.85%	0.85%	3 Year CAGR Considered
	Average consumption per kW per month	0.0%	0.0%	0.0%	0.0%	0.0%	No Growth Considered
Above 3HP to 5HP	Consumer	8.97%	8.97%	8.97%	8.97%	8.97%	3 Year CAGR Considered
	Average Load (kW) per Consumer	20.39%	20.39%	20.39%	20.39%	20.39%	1 Year CAGR
	Average consumption per kW per month	3.00%	3.00%	3.00%	3.00%	3.00%	Nominal Growth Considered
Above 5HP to 10HP	Consumer	14.22%	14.22%	14.22%	14.22%	14.22%	3 Year CAGR Considered
	Average Load (kW) per Consumer	13.19%	13.19%	13.19%	13.19%	13.19%	3 Year CAGR Considered
	Average consumption per kW per month	5.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered
Above 10HP to 20HP	Consumer	3.00%	3.00%	3.00%	3.00%	3.00%	5 Month Variation
	Average Load (kW) per Consumer	29.50%	29.50%	29.50%	29.50%	29.50%	5 Month Variation
	Average consumption per kW per month	2.00%	2.00%	2.00%	2.00%	2.00%	Nominal Growth Considered
Above 20HP	Consumer	4.85%	4.85%	4.85%	4.85%	4.85%	5 Month Variation
	Average Load (kW) per Consumer	4.85%	4.85%	4.85%	4.85%	4.85%	5 Month Variation
	Average consumption per kW per month	2.00%	2.00%	2.00%	2.00%	2.00%	Nominal Growth Considered
Temporary	Consumer	3.63%	3.63%	3.63%	3.63%	3.63%	5 Month Variation
	Average Load (kW) per Consumer	4.38%	4.38%	4.38%	4.38%	4.38%	3 Year CAGR Considered
	Average consumption per kW per month	3.00%	3.00%	3.00%	3.00%	3.00%	Nominal Growth Considered

3.2.10.2 Central Discom

The growth rates assumed for future projections and revised estimates for this category by Central Discom are as follows:

Table 64 : Growth Percentage Assumption Central Discom: Urban

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Urban
Upto 3HP	Consumer	3.08%	3.08%	3.08%	3.08%	3.08%	3 Year CAGR Considered
	Average Load (kW) per Consumer	5.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered
	Average consumption per kW per month	5.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered
Above 3HP to 5HP	Consumer	4.94%	4.94%	4.94%	4.94%	4.94%	3 Year CAGR Considered
	Average Load (kW) per Consumer	5.63%	5.63%	5.63%	5.63%	5.63%	3 Year CAGR Considered
	Average consumption per kW per month	6.66%	6.66%	6.66%	6.66%	6.66%	2 Year CAGR Considered
Above 5HP to 10HP	Consumer	2.50%	2.50%	2.50%	2.50%	2.50%	5 Month Variation
	Average Load (kW) per Consumer	0.41%	0.41%	0.41%	0.41%	0.41%	2 Year CAGR Considered
	Average consumption per kW per month	2.00%	2.00%	2.00%	2.00%	2.00%	Nominal Growth Considered
Above 10HP to 20HP	Consumer	5.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered
	Average Load (kW) per Consumer	7.00%	7.00%	7.00%	7.00%	7.00%	Nominal Growth Considered
	Average consumption per kW per month	10.00%	10.00%	10.00%	10.00%	10.00%	Estimated Growth Considered
Above 20HP	Consumer	5.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered
	Average Load (kW) per Consumer	7.00%	7.00%	7.00%	7.00%	7.00%	Nominal Growth Considered
	Average consumption per kW per month	10.00%	10.00%	10.00%	10.00%	10.00%	Estimated Growth Considered
Temporary	Consumer	10.00%	10.00%	10.00%	10.00%	10.00%	Estimated Growth Considered
	Average Load (kW) per Consumer	7.00%	7.00%	7.00%	7.00%	7.00%	Nominal Growth Considered
	Average consumption per kW per month	10.00%	10.00%	10.00%	10.00%	10.00%	Estimated Growth Considered

Table 65 : Growth Percentage Assumption Central Discom : Rural

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Rural
Upto 3HP	Consumer	5.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered
	Average Load (kW) per Consumer	5.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered
	Average consumption per kW per month	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
Above 3HP to 5HP	Consumer	5.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered
	Average Load (kW) per Consumer	5.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered
	Average consumption per kW per month	5.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered
Above 5HP to 10HP	Consumer	5.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered
	Average Load (kW) per Consumer	5.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered
	Average consumption per kW per month	6.32%	6.32%	6.32%	6.32%	6.32%	1 Year Growth Considered
Above 10HP to 20HP	Consumer	10.00%	10.00%	10.00%	10.00%	10.00%	Estimated Growth Considered
	Average Load (kW) per Consumer	10.00%	10.00%	10.00%	10.00%	10.00%	Estimated Growth Considered
	Average consumption per kW per month	10.00%	10.00%	10.00%	10.00%	10.00%	Estimated Growth Considered
Above 20HP	Consumer	6.45%	6.45%	6.45%	6.45%	6.45%	5 Month Variation
	Average Load (kW) per Consumer	10.00%	10.00%	10.00%	10.00%	10.00%	Estimated Growth Considered
	Average consumption per kW per month	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
Temporary	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Average Load (kW) per Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Average consumption per kW per month	5.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered

3.2.10.3 West Discom

The growth rates assumed for future projections and revised estimates for this category by West Discom are as follows:

Table 66 : Growth Percentage Assumption West Discom: Urban

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Urban
Upto 3HP	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Average Load(kW) per Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Average consumption per kW per month	9.04%	9.04%	9.04%	9.04%	9.04%	3 Year CAGR Considered
Above 3HP to 5HP	Consumer	5.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered
	Average Load(kW) per Consumer	5.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered
	Average consumption per kW per month	8.51%	8.51%	8.51%	8.51%	8.51%	3 Year CAGR Considered
Above 5HP to 10HP	Consumer	2.50%	2.50%	2.50%	2.50%	2.50%	3 Year CAGR Considered
	Average Load(kW) per Consumer	2.19%	2.19%	2.19%	2.19%	2.19%	3 Year CAGR Considered
	Average consumption per kW per month	23.21%	23.21%	23.21%	10.00%	10.00%	Estimated Growth Considered
Above 10HP to 20HP	Consumer	5.41%	5.41%	5.41%	5.41%	5.41%	2 Year CAGR Considered
	Average Load(kW) per Consumer	4.73%	4.73%	4.73%	4.73%	4.73%	2 Year CAGR Considered
	Average consumption per kW per month	9.07%	9.07%	9.07%	9.07%	9.07%	2 Year CAGR Considered
Above 20HP	Consumer	11.20%	11.20%	11.20%	11.20%	11.20%	3 Year CAGR Considered
	Average Load(kW) per Consumer	8.23%	8.23%	8.23%	8.23%	8.23%	3 Year CAGR Considered
	Average consumption per kW per month	19.00%	19.00%	19.00%	19.00%	19.00%	1 Year Growth Considered
Temporary	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Average Load(kW) per Consumer	5.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered
	Average consumption per kW per month	15.00%	15.00%	0.00%	0.00%	0.00%	No Growth Considered

Table 67 : Growth Percentage Assumption West Discom: Rural

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Rural
Upto 3HP	Consumer	16.67%	16.67%	16.67%	16.67%	16.67%	1 Year Growth Considered
	Average Load(kW) per Consumer	18.18%	18.18%	18.18%	18.18%	18.18%	1 Year Growth Considered
	Average consumption per kW per month	18.28%	18.28%	18.28%	18.28%	18.28%	3 Year CAGR
Above 3HP to 5HP	Consumer	5.56%	5.56%	5.56%	5.56%	5.56%	1 Year Growth Considered
	Average Load(kW) per Consumer	11.32%	11.32%	11.32%	11.32%	11.32%	1 Year Growth Considered
	Average consumption per kW per month	23.00%	23.00%	23.00%	23.00%	23.00%	1 Year Growth Considered
Above 5HP to 10HP	Consumer	6.38%	6.38%	6.38%	6.38%	6.38%	3 Year CAGR Considered
	Average Load(kW) per Consumer	4.31%	4.31%	4.31%	4.31%	4.31%	3 Year CAGR Considered
	Average consumption per kW per month	16.24%	16.24%	16.24%	16.24%	16.24%	3 Year CAGR Considered
	Consumer	14.71%	14.71%	14.71%	14.71%	14.71%	1 Year Growth Considered

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Rural
Above 10HP to 20HP	Average Load(kW) per Consumer	18.69%	18.69%	18.69%	18.69%	18.69%	1 Year Growth Considered
	Average consumption per kW per month	30.00%	30.00%	30.00%	30.00%	30.00%	Estimated Growth
Above 20HP	Consumer	10.00%	10.00%	10.00%	10.00%	10.00%	Estimated Growth Considered
	Average Load(kW) per Consumer	10.00%	10.00%	10.00%	10.00%	10.00%	Estimated Growth Considered
	Average consumption per kW per month	25.00%	25.00%	25.00%	25.00%	25.00%	Estimated Growth considered
Temporary	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Average Load(kW) per Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Average consumption per kW per month	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered

3.2.11 LV-6 E- Vehicle / E-Rickshaw Charging Station

The projection of sales for this category is as follows:

Table 68: Energy Sales for LV 6 (MUs)

Sub-category	East Discom			Central Discom			West Discom			MP State		
	FY 23	FY 24	FY 25	FY 23	FY 24	FY 25	FY 23	FY 24	FY 25	FY 23	FY 24	FY 25
LV-6 EV Charging Stations	0.05	0.06	0.06	1.63	1.88	2.16	0.94	1.04	1.16	2.62	2.98	3.38

Table 69: Energy Sales for LV 6 (MUs)

Sub-category	East Discom		Central Discom		West Discom		MP State	
	FY 26	FY 27	FY 26	FY 27	FY 26	FY 27	FY 26	FY 27
LV-6 EV Charging Stations	0.07	0.08	2.48	2.86	1.28	1.42	3.83	4.36

3.2.11.1 East Discom

The growth rates assumed for future projections are as follows:

Table 70 : Growth Percentage Assumption East Discom : Urban

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Urban
Metered	Consumer	0.00%	0.00%	10.00%	10.00%	10.00%	Estimated Growth
	Load (kW)	10.00%	10.00%	10.00%	10.00%	10.00%	Estimated Growth
	Units (MUS)	20.00%	20.00%	20.00%	20.00%	20.00%	Estimated Growth

Table 71 : Growth Percentage Assumption East Discom : Rural

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Rural
Metered	Consumer	0.00%	0.00%	10.00%	10.00%	10.00%	Estimated Growth

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Rural
	Load (kW)	10.00%	10.00%	10.00%	10.00%	10.00%	Estimated Growth
	Units (MUS)	15.00%	15.00%	15.00%	15.00%	15.00%	Estimated Growth

3.2.11.2 Central Discom

The growth rates assumed for future projections are as follows:

Table 72 : Growth Percentage Assumption Central Discom : Urban

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Urban
Metered	Consumer	0.00%	0.00%	10.00%	10.00%	10.00%	Estimated Growth
	Load (kW)	10.00%	10.00%	15.00%	15.00%	15.00%	Estimated Growth
	Units (MUS)	15.00%	15.00%	15.00%	15.00%	15.00%	Estimated Growth

Table 73 : Growth Percentage Assumption Central Discom : Rural

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Rural
Metered	Consumer	0.00%	10.00%	10.00%	10.00%	10.00%	Estimated Growth
	Load (kW)	10.00%	15.00%	15.00%	15.00%	15.00%	Estimated Growth
	Units (MUS)	15.00%	15.00%	15.00%	15.00%	15.00%	Estimated Growth

3.2.11.3 West Discom

The growth rates assumed for future projections are as follows:

Table 74 : Growth Percentage Assumption West Discom : Urban

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Urban
Metered	Consumer	10.00%	10.00%	10.00%	10.00%	10.00%	Estimated Growth
	Load (kW)	5.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered
	Units (MUS)	11.00%	11.00%	11.00%	11.00%	11.00%	Estimated Growth

Table 75 : Growth Percentage Assumption West Discom : Rural

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Rural
Metered	Consumer	5.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered
	Load (kW)	5.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered
	Units (MUS)	5.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered

3.2.12 HV-1: Railway Traction

The petitioners have signed a contract with Railways last year for on-demand supply of electricity for the currently under-development corridor between Itarsi and Katni.

With the electrification of Railway Line between Itarsi-Pipariya-Bankhedi-Gadarwara, one new connection for Central Discom is expected. Similarly, with the electrification of the Railway Line between Gadarwara-Kareli-Katni, a new connection is expected for East Discom. There is no expectation of sales to Railways from West Discom.

The projection of sales for this category is as follows:

Table 76: Energy Sales for HV 1 (MUs)

Sub-Category	East Discom			Central Discom			West Discom			MP State		
	FY 23	FY 24	FY 25	FY 23	FY 24	FY 25	FY 23	FY 24	FY 25	FY 23	FY 24	FY 25
HV-1 Railway Traction	55.3	55.3	55.3	55.3	55.3	55.3	-	-	-	110.6	110.6	110.6

Table 77: Energy Sales for HV 1 (MUs)

Sub-Category	East Discom		Central Discom		West Discom		MP State	
	FY 26	FY 27	FY 26	FY 27	FY 26	FY 27	FY 26	FY 27
HV-1 Railway Traction	55.32	55.32	55.32	55.32	-	-	110.64	110.64

3.2.12.1 East Discom

There has been no sale to Railways in FY 2017-18, FY 2018-19, FY 2019-20, FY 2020-21 and FY 2021-22 till date. However, owing to the new contract signed with Railways, and looking at the historic trend of sales from the time when, Railways used to draw power from Discom's, One Connection of 10,000 kVA is expected in the year FY 2022-23. With a load factor of 30% and power factor of 0.95, approximately 55 MUs worth of sales is expected.

3.2.12.2 Central Discom

There has been no sale to Railways in FY 2017-18, FY 2018-19, FY 2019-20, FY 2020-21 and FY 2021-22 till date. However, owing to the new contract signed with Railways, and looking at the historic trend of sales from the time when, Railways used to draw power from Discom's, One Connection of 10,000 kVA is expected in the year FY 2022-23. With a load factor of 30% and power factor of 0.95, approximately 55 MUs worth of sales is expected.

3.2.12.3 West Discom West Discom lacks any consumer base for this category.

3.2.13 HV -2: Coal Mines

The projection of sales for this category is as shown below:

Table 78: Energy Sales for HV 2 (MUs)

Sub-Category	East Discom			Central Discom			West Discom			MP State		
	FY 23	FY 24	FY 25	FY 23	FY 24	FY 25	FY 23	FY 24	FY 25	FY 23	FY 24	FY 25
132 kV	254	273	293	-	-	-	-	-	-	254	273	293
33 kV	271	288	307	27	28	29	-	-	-	298	316	336
11 kV	3	3	3	-	-	-	-	-	-	3	3	3
Total	527	564	603	27	28	29	-	-	-	554	592	632

Table 79: Energy Sales for HV 2 (MUs)

Sub-Category	East Discom		Central Discom		West Discom		MP State	
	FY 26	FY 27	FY 26	FY 27	FY 26	FY 27	FY 26	FY 27
132 kV	314.80	338.45	-	-	-	-	314.8	338.45
33 kV	326.51	347.90	30.54	31.73	-	-	357.05	379.63
11 kV	3.37	3.59	-	-	-	-	3.37	3.59
Total	644.68	689.95	30.54	31.73	-	-	675.22	721.68

3.2.13.1 East Discom

Table 80 : Growth Percentage Assumption East Discom : Urban

Voltage Level	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Urban
132 kV	Consumer	7.00%	7.00%	7.00%	7.00%	7.00%	Nominal Growth Considered
	Load (kW)	7.00%	7.00%	7.00%	7.00%	7.00%	Nominal Growth Considered
	Units (MUS)	8.00%	8.00%	8.00%	8.00%	8.00%	Nominal Growth Considered
33 kV	Consumer	7.00%	7.00%	7.00%	7.00%	7.00%	Nominal Growth Considered
	Load (kW)	7.00%	7.00%	7.00%	7.00%	7.00%	Nominal Growth Considered
	Units (MUS)	8.00%	8.00%	8.00%	8.00%	8.00%	Nominal Growth Considered
11 kV	Consumer	7.00%	7.00%	7.00%	7.00%	7.00%	Nominal Growth Considered
	Load (kW)	7.00%	7.00%	7.00%	7.00%	7.00%	Nominal Growth Considered
	Units (MUS)	8.00%	8.00%	8.00%	8.00%	8.00%	Nominal Growth Considered

Table 81 : Growth Percentage Assumption East Discom : Rural

Voltage Level	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Rural
132 kV	Consumer	1.00%	1.00%	1.00%	1.00%	1.00%	Nominal Growth Considered
	Load (kW)	1.00%	1.00%	1.00%	1.00%	1.00%	Nominal Growth Considered
	Units (MUS)	2.00%	2.00%	1.00%	1.00%	1.00%	Nominal Growth Considered
33 kV	Consumer	2.70%	2.70%	2.70%	2.70%	2.70%	3 Year CAGR Considered
	Load (kW)	2.00%	2.00%	2.00%	2.00%	2.00%	Nominal Growth Considered
	Units (MUS)	4.00%	2.00%	2.00%	2.00%	2.00%	Nominal Growth Considered
11 kV	Consumer	2.00%	2.00%	2.00%	2.00%	2.00%	Nominal Growth Considered
	Load (kW)	2.00%	2.00%	2.00%	2.00%	2.00%	Nominal Growth Considered
	Units (MUS)	4.00%	6.00%	4.00%	4.00%	4.00%	Nominal Growth Considered

3.2.13.2 Central Discom

Table 82 : Growth Percentage Assumption Central Discom : Urban

Voltage Level	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Urban
132 kV	Consumer	0.0%	0.0%	0.0%	0.0%	0.0%	No Growth Considered
	Load (kW)	0.0%	0.0%	0.0%	0.0%	0.0%	No Growth Considered
	Units (MUS)	0.0%	0.0%	0.0%	0.0%	0.0%	No Growth Considered
33 kV	Consumer	0.0%	0.0%	0.0%	0.0%	0.0%	No Growth Considered
	Load (kW)	0.0%	0.0%	0.0%	0.0%	0.0%	No Growth Considered
	Units (MUS)	3.90%	3.90%	3.90%	3.90%	3.90%	1 Year Growth Considered
11 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Units (MUS)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered

Table 83 : Growth Percentage Assumption Central Discom : Rural

Voltage Level	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Rural
132 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Units (MUS)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
33 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Units (MUS)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
11 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Units (MUS)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered

3.2.13.3 West Discom

West Discom lacks any consumer base for this category.

3.2.14 HV 3: Industrial and Non-Industrial

The future projections are as follows:

Table 84: Energy Sales for HV 3 (MUs)

Sub-Category	East Discom			Central Discom			West Discom			MP State			
	FY 23	FY 24	FY 25	FY 23	FY 24	FY 25	FY 23	FY 24	FY 25	FY 23	FY 24	FY 25	
Industrial 1 - Unit (MU)	220 kV	538	586	637	-	-	-	40	44	47	578	630	685
	132 kV	1090	1170	1227	1519	1594	1672	1205	1323	1424	3814	4087	4322
	33 kV	931	1015	1098	1527	1625	1707	3229	3560	3958	5686	6201	6763
	11 kV	158	176	194	62	63	64	234	258	287	454	497	546
	Total	2716	2947	3157	3108	3282	3443	4708	5186	5716	10532	11415	12316
Non Industrial	132 kV	0	0	0	4	5	5	47	52	59	51	57	64
	33 kV	169	197	221	286	314	344	325	363	404	780	874	969

Sub-Category	East Discom			Central Discom			West Discom			MP State		
	FY 23	FY 24	FY 25	FY 23	FY 24	FY 25	FY 23	FY 24	FY 25	FY 23	FY 24	FY 25
1 - Unit (MU)	11 kV	94	112	126	102	112	122	138	155	173	334	378
	Total	264	309	348	392	430	471	510	570	636	1166	1309
												1455

Table 85: Energy Sales for HV 3 (MUs)

Sub-Category		East Discom		Central Discom		West Discom		MP State	
		FY 26	FY 27	FY 26	FY 27	FY 26	FY 27	FY 26	FY 27
Industrial - Unit (MU)	220 kV	672	708	-	-	51	54	723	763
	132 kV	1269	1314	1754	1839	1525	1633	4548	4787
	33 kV	1155	1215	1792	1882	4352	4715	7299	7811
	11 kV	208	221	66	67	315	346	589	635
	Total	3304	3458	3611	3788	6243	6748	13157	13995
Non Industrial - Unit (MU)	132 kV	0	0	5	5	66	72	71	78
	33 kV	248	279	378	414	450	486	1076	1179
	11 kV	143	162	134	148	190	206	468	516
	Total	391	441	517	567	706	765	1615	1773

3.2.14.1 East Discom

The assumptions for sales forecast for the Industrial category HV 3.1 are as given below:

Table 86 : Growth Percentage Assumption East Discom : Urban

Voltage Level	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Urban
440/220 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Units (MUS)	10.00%	10.00%	10.00%	6.00%	6.00%	Nominal Growth Considered
132 kV	Consumer	6.00%	6.00%	6.00%	6.00%	6.00%	Nominal Growth Considered
	Load (kW)	5.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered
	Units (MUS)	12.00%	10.00%	10.00%	6.00%	6.00%	Nominal Growth Considered
33 kV	Consumer	6.00%	6.00%	6.00%	6.00%	6.00%	Nominal Growth Considered
	Load (kW)	15.00%	15.00%	15.00%	15.00%	15.00%	Estimated Growth
	Units (MUS)	12.00%	10.00%	10.00%	6.00%	6.00%	Nominal Growth Considered
11 kV	Consumer	6.00%	6.00%	6.00%	6.00%	6.00%	Nominal Growth Considered
	Load (kW)	5.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered
	Units (MUS)	10.00%	10.00%	10.00%	6.00%	6.00%	Nominal Growth Considered

Table 87 : Growth Percentage Assumption East Discom : Rural

Voltage Level	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Rural
	Consumer	5.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered

Voltage Level	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Rural
440/220 kV	Load (kW)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Units (MUS)	2.00%	2.00%	1.00%	1.00%	1.00%	Nominal Growth Considered
132 kV	Consumer	10.06%	10.06%	10.06%	10.06%	10.06%	3 Year CAGR Considered
	Load (kW)	5.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered
	Units (MUS)	8.00%	6.00%	2.00%	2.00%	2.00%	Nominal Growth Considered
33 kV	Consumer	16.81%	16.81%	16.81%	16.81%	16.81%	3 Year CAGR Considered
	Load (kW)	11.48%	11.48%	11.48%	11.48%	11.48%	3 Year CAGR Considered
	Units (MUS)	8.00%	6.00%	2.00%	2.00%	2.00%	Nominal Growth Considered
11 kV	Consumer	12.96%	12.96%	12.96%	12.96%	12.96%	3 Year CAGR Considered
	Load (kW)	14.50%	14.50%	14.50%	14.50%	14.50%	3 Year CAGR Considered
	Units (MUS)	16.17%	16.17%	12.00%	10.00%	8.00%	Estimated Growth

The assumptions for sales forecast for the Non-Industrial category HV 3.2 are as given below:

Table 88 : Growth Percentage Assumption East Discom : Urban

Voltage Level	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Urban
132 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	1.00%	1.00%	1.00%	1.00%	1.00%	Nominal Growth Considered
	Units (MUS)	10.00%	10.00%	5.00%	5.00%	5.00%	Nominal Growth Considered
33 kV	Consumer	6.25%	6.25%	6.25%	6.25%	6.25%	5 Month Variation Considered
	Load (kW)	4.00%	4.00%	4.00%	4.00%	4.00%	Nominal Growth Considered
	Units (MUS)	20.00%	20.00%	14.00%	14.00%	14.00%	Estimated Growth
11 kV	Consumer	5.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered
	Load (kW)	4.00%	4.00%	4.00%	4.00%	4.00%	Nominal Growth Considered
	Units (MUS)	20.00%	20.00%	14.00%	14.00%	14.00%	Estimated Growth

Table 89 : Growth Percentage Assumption East Discom : Rural

Voltage Level	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Rural
132 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Units (MUS)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
33 kV	Consumer	17.57%	17.57%	17.57%	17.57%	17.57%	3 Year CAGR Considered
	Load (kW)	13.28%	13.28%	13.28%	13.28%	13.28%	3 Year CAGR Considered
	Units (MUS)	4.00%	4.00%	4.00%	4.00%	4.00%	Nominal Growth Considered
11 kV	Consumer	19.17%	19.17%	19.17%	19.17%	19.17%	3 Year CAGR Considered
	Load (kW)	5.67%	5.67%	5.67%	5.67%	5.67%	3 Year CAGR Considered
	Units (MUS)	5.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered

3.2.14.2 Central Discom

The assumptions for sales forecast for the Industrial category HV 3.1 are as given below:

Table 90 : Growth Percentage Assumption Central Discom : Urban

Voltage Level	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Urban
440/220 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	0%	0%	0%	0%	0%	No Growth Considered
	Units (MUS)	5%	10%	10%	10%	10%	Nominal Growth Considered
132 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	6%	6%	6%	6%	6%	Nominal Growth Considered
	Units (MUS)	5%	5%	5%	5%	5%	Nominal Growth Considered
33 kV	Consumer	6.60%	6.60%	6.60%	6.60%	3.00%	3 Year CAGR Considered
	Load (kW)	4%	4%	4%	4%	4%	Nominal Growth Considered
	Units (MUS)	5%	7%	5%	5%	5%	Nominal Growth Considered
11 kV	Consumer	2.08%	2.08%	2.08%	2.08%	2.08%	3 Year CAGR Considered
	Load (kW)	2%	2%	2%	2%	2%	Nominal Growth Considered
	Units (MUS)	1%	1%	1%	1%	1%	Nominal Growth Considered

Table 91 : Growth Percentage Assumption Central Discom : Rural

Voltage Level	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Rural
440/220 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	0%	0%	0%	0%	0%	No Growth Considered
	Units (MUS)	0%	0%	0%	0%	0%	No Growth Considered
132 kV	Consumer	10.00%	10.00%	10.00%	10.00%	10.00%	Estimated Growth Considered
	Load (kW)	2%	2%	2%	2%	2%	Nominal Growth Considered
	Units (MUS)	3%	3%	3%	3%	3%	Nominal Growth Considered
33 kV	Consumer	3.14%	3.14%	3.14%	3.14%	3.14%	3 Year CAGR Considered
	Load (kW)	4%	4%	4%	4%	4%	Nominal Growth Considered
	Units (MUS)	5%	5%	5%	5%	5%	Nominal Growth Considered
11 kV	Consumer	3.23%	3.23%	3.23%	3.23%	3.23%	3 Year CAGR Considered
	Load (kW)	5%	5%	5%	5%	5%	Nominal Growth Considered
	Units (MUS)	15%	10%	10%	10%	10%	Estimated Growth Considered

The assumptions for sales forecast for the Non-Industrial category HV 3.2 are as given below:

Table 92 : Growth Percentage Assumption Central Discom : Urban

Voltage Level	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Urban
132 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	2.00%	2.00%	2.00%	2.00%	2.00%	Nominal Growth Considered
	Units (MUS)	5.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered
33 kV	Consumer	2.64%	2.64%	2.64%	2.64%	2.64%	1 Year Growth Considered
	Load (kW)	1.58%	1.58%	1.58%	1.58%	1.58%	3 Year CAGR Considered
	Units (MUS)	5.00%	10.00%	10.00%	10.00%	10.00%	Nominal Growth Considered
11 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Units (MUS)	5.00%	10.00%	10.00%	10.00%	10.00%	Nominal Growth Considered

Table 93 : Growth Percentage Assumption Central Discom : Rural

Voltage Level	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Rural
132 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Units (MUS)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
33 kV	Consumer	4.00%	4.00%	4.00%	4.00%	4.00%	Nominal Growth Considered
	Load (kW)	3.00%	3.00%	3.00%	3.00%	3.00%	Nominal Growth Considered
	Units (MUS)	3.00%	3.00%	3.00%	3.00%	3.00%	Nominal Growth Considered
11 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	5.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered
	Units (MUS)	2.00%	2.00%	2.00%	2.00%	2.00%	Nominal Growth Considered

3.2.14.3 West Discom

The assumptions for sales forecast for the Industrial category HV 3.1 are as given below:

Table 94 : Growth Percentage Assumption West Discom : Urban

Voltage Level	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Urban
440/220 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Units (MUS)	8.00%	9.84%	7.55%	7.06%	7.07%	Estimated Growth Considered
132 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	3.46%	3.46%	3.46%	3.46%	3.46%	1 Year Growth Considered
	Units (MUS)	9.00%	9.84%	7.55%	7.06%	7.07%	Estimated Growth Considered
33 kV	Consumer	6.31%	6.31%	6.31%	6.31%	6.31%	3 Year CAGR Considered
	Load (kW)	4.24%	4.24%	4.24%	4.24%	4.24%	1 Year Growth Considered
	Units (MUS)	9.89%	10.30%	11.70%	10.25%	8.38%	Estimated Growth Considered
11 kV	Consumer	6.26%	6.26%	6.26%	6.26%	6.26%	3 Year CAGR Considered
	Load (kW)	5.32%	5.32%	5.32%	5.32%	5.32%	1 Year Growth Considered
	Units (MUS)	9.00%	10.11%	11.00%	10.00%	10.00%	Estimated Growth Considered

Table 95 : Growth Percentage Assumption West Discom : Rural

Voltage Level	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Rural
440/220 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Units (MUS)	10.85%	5.00%	4.95%	4.92%	5.27%	Estimated Growth Considered
132 kV	Consumer	2.00%	2.00%	2.00%	2.00%	2.00%	Nominal Growth Considered
	Load (kW)	5.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered
	Units (MUS)	10.85%	10.00%	8.00%	8.00%	8.00%	Estimated Growth Considered
33 kV	Consumer	5.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered
	Load (kW)	5.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered
	Units (MUS)	10.00%	10.00%	8.00%	8.00%	8.00%	Estimated Growth Considered
11 kV	Consumer	5.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered

Voltage Level	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Rural
	Load (kW)	6.00%	6.00%	6.00%	6.00%	6.00%	Nominal Growth Considered
	Units (MUS)	11.00%	13.00%	13.00%	8.00%	8.00%	Estimated Growth Considered

The assumptions for sales forecast for the Non-Industrial category HV 3.2 are as given below:

Table 96 : Growth Percentage Assumption West Discom : Urban

Voltage Level	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Urban
132 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Units (MUS)	12.00%	12.00%	12.00%	12.00%	10.00%	Estimated Growth Considered
33 kV	Consumer	1.66%	1.66%	1.66%	1.66%	1.66%	3 Year CAGR Considered
	Load (kW)	1.86%	1.86%	1.86%	1.86%	1.86%	3 Year CAGR Considered
	Units (MUS)	12.00%	12.00%	12.00%	12.00%	8.50%	Estimated Growth Considered
11 kV	Consumer	3.89%	3.89%	3.89%	3.89%	3.89%	3 Year CAGR Considered
	Load (kW)	3.13%	3.13%	3.13%	3.13%	3.13%	3 Year CAGR Considered
	Units (MUS)	12.00%	12.00%	12.00%	10.00%	8.50%	Estimated Growth Considered

Table 97 : Growth Percentage Assumption West Discom : Rural

Voltage Level	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Rural
132 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Units (MUS)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
33 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	3.96%	3.96%	3.96%	3.96%	3.96%	3 Year CAGR Considered
	Units (MUS)	4.00%	7.69%	3.57%	3.45%	0.00%	Nominal Growth Considered
11 kV	Consumer	11.11%	11.11%	11.11%	11.11%	11.11%	1 Year Growth Considered
	Load (kW)	6.36%	6.36%	6.36%	6.36%	6.36%	3 Year CAGR Considered
	Units (MUS)	4.00%	7.69%	3.57%	3.45%	0.00%	Nominal Growth Considered

3.2.15 HV 4: Seasonal

The future projections are as follows:

Table 98: Energy Sales for HV 4 (MUs)

Sub-Category	East Discom			Central Discom			West Discom			MP State		
	FY 23	FY 24	FY 25	FY 23	FY 24	FY 25	FY 23	FY 24	FY 25	FY 23	FY 24	FY 25
33 kV	10.0	11.2	12.5	1.6	1.6	1.7	8.0	8.1	8.2	19.5	20.9	22.4
11 kV	2.2	2.6	3.1	0.5	0.5	0.5	2.4	2.5	2.5	5.1	5.6	6.2
Total	12.2	13.8	15.7	2.1	2.1	2.2	10.4	10.6	10.7	24.7	26.5	28.6

Table 99: Energy Sales for HV 4 (MUs)

Sub-Category	East Discom		Central Discom		West Discom		MP State	
	FY 26	FY 27	FY 26	FY 27	FY 26	FY 27	FY 26	FY 27
33 kV	14.03	15.74	1.74	1.80	8.35	8.48	24.12	26.02
11 kV	3.75	4.48	0.58	0.62	2.57	2.62	6.9	7.72
Total	17.79	20.22	2.32	2.42	10.92	11.10	31.03	33.74

3.2.15.1 East Discom

The assumptions for sales forecast for the category are given below:

Table 100 : Growth Percentage Assumption East Discom : Urban

Voltage Level	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Urban
33 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	3.12%	3.12%	3.12%	3.12%	3.12%	5 Month Variation
	Units (MUS)	10.00%	7.45%	7.45%	7.45%	7.45%	2 Year CAGR Considered
11 kV	Consumer	10.06%	10.06%	10.06%	10.06%	10.06%	3 Year CAGR Considered
	Load (kW)	2.00%	2.00%	2.00%	2.00%	2.00%	Nominal Growth Considered
	Units (MUS)	22.00%	19.57%	19.57%	19.57%	19.57%	2 Year CAGR Considered

Table 101 : Growth Percentage Assumption East Discom : Rural

Voltage Level	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Rural
33 kV	Consumer	6.27%	6.27%	6.27%	6.27%	6.27%	3 Year CAGR Considered
	Load (kW)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Units (MUS)	15.00%	15.00%	15.00%	15.00%	15.00%	Estimated Growth Considered
11 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Units (MUS)	15.00%	15.00%	15.00%	15.00%	15.00%	Estimated Growth

3.2.15.2 Central Discom

The assumptions for sales forecast for the category are given below:

Table 102 : Growth Percentage Assumption Central Discom : Urban

Voltage Level	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Urban
33 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	10.00%	10.00%	10.00%	10.00%	10.00%	Nominal Growth Considered
	Units (MUS)	8.05%	8.05%	8.05%	8.05%	8.05%	3 Year CAGR Considered
11 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	5.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered
	Units (MUS)	6.58%	6.58%	6.58%	6.58%	6.58%	2 Year CAGR Considered

Table 103 : Growth Percentage Assumption Central Discom : Rural

Voltage Level	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Rural
33 kV	Consumer	2.00%	2.00%	2.00%	2.00%	2.00%	Nominal Growth Considered
	Load (kW)	2.00%	2.00%	2.00%	2.00%	2.00%	Nominal Growth Considered
	Units (MUS)	2.00%	2.00%	2.00%	2.00%	2.00%	Nominal Growth Considered
11 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Units (MUS)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered

3.2.15.3 West Discom

The assumptions for sales forecast for the category are given below:

Table 104 : Growth Percentage Assumption West Discom : Urban

Voltage Level	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Urban
33 kV	Consumer	3.57%	3.57%	3.57%	3.57%	3.57%	3 Year CAGR Considered
	Load (kW)	5.24%	5.24%	5.24%	5.24%	5.24%	3 Year CAGR Considered
	Units (MUS)	1.20%	1.20%	1.20%	1.20%	1.20%	3 Year CAGR Considered
11 kV	Consumer	4.00%	4.00%	4.00%	4.00%	4.00%	Estimated Growth
	Load (kW)	1.87%	1.87%	1.87%	1.87%	1.87%	3 Year CAGR Considered
	Units (MUS)	1.80%	1.80%	1.80%	1.80%	1.80%	Nominal Growth Considered

Table 105 : Growth Percentage Assumption West Discom : Rural

Voltage Level	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Rural
33 kV	Consumer	2.00%	2.00%	2.00%	2.00%	2.00%	Nominal Growth Considered
	Load (kW)	4.62%	4.62%	4.62%	4.62%	4.62%	Estimated Growth
	Units (MUS)	2.00%	2.00%	2.00%	2.00%	2.00%	Nominal Growth Considered
11 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Units (MUS)	1.00%	1.00%	1.00%	1.00%	1.00%	Nominal Growth Considered

3.2.16 HV 5: Water Works, Lift Irrigation & Other Agricultural use

The future projections are as follows:

Table 106: Energy Sales for HV 5 (MUs)

Sub-Category	East Discom			Central Discom			West Discom			MP State		
	FY 23	FY 24	FY 25	FY 23	FY 24	FY 25	FY 23	FY 24	FY 25	FY 23	FY 24	FY 25
Irrigation - Units (MU)	220 kV	-	-	-	-	-	-	-	-	-	-	-
	132 kV	-	-	-	-	-	173	192	214	173	192	214
	33 kV	12	12	13	18	19	20	195	210	225	225	241
	11 kV	0.06	0.06	0.06	0.80	0.84	0.88	89	89	89	90	90
	Total	12	12	13	19	20	21	458	491	528	489	523
	132 kV	1	1	1	62	63	63	436	465	497	498	528
												561

Water Works - Units (MU)	33 kV	145	167	192	185	199	215	189	217	251	519	584	658
	11 kV	12	13	14	14	15	16	13	15	16	40	43	46
	Total	158	181	207	261	277	295	638	697	763	1057	1155	1265
Other than Agricultural - Units (MU)	132 kV	-	-	-	-	-	-	-	-	-	-	-	-
	33 kV	11	11	11	8	8	8	0.51	0.54	0.56	19	19	20
	11 kV	8	10	11	3	3	3	8	9	10	19	21	24
	Total	19	20	22	10	11	11	9	9	10	38	40	43

Table 107: Energy Sales for HV 5 (MUs)

Sub-Category	East Discom		Central Discom		West Discom		MP State	
	FY 26	FY 27	FY 26	FY 27	FY 26	FY 27	FY 26	FY 27
Irrigation - Units (MU)	220 kV							
	132 kV	-	-	-	-	240.99	273.04	240.99
	33 kV	14.12	15.06	21.29	22.36	241.59	259.63	277
	11 kV	0.06	0.06	0.93	0.97	89.15	89.15	90.14
	Total	14.18	15.12	22.22	23.33	571.73	621.82	608.13
Water Works - Units (MU)	132 kV	0.75	0.82	63.98	64.62	530.36	566.36	595.09
	33 kV	220.60	253.54	232.13	250.51	289.51	335.03	742.24
	11 kV	15.68	17.17	16.97	17.91	17.50	19.15	50.15
	Total	237.03	271.53	313.08	333.05	837.37	920.53	1387.48
Other than Agricultural - Units (MU)	132 kV	-	-	-	-	-	-	-
	33 kV	11.19	11.41	8.43	8.75	0.59	0.62	20.21
	11 kV	12.60	14.42	3.01	3.14	10.54	11.45	26.15
	Total	23.79	25.84	11.44	11.89	11.13	12.07	46.36
								49.8

3.2.16.1 East Discom

The growth percentages for sales forecast for the HT Water Works category are given below:

Table 108 : Growth Percentage Assumption East Discom : Urban

Voltage Level	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Urban
132 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Units (MUS)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
33 kV	Consumer	20.51%	20.51%	20.51%	20.51%	20.51%	5 Month Variation
	Load (kW)	10.54%	10.54%	10.54%	10.54%	10.54%	5 Month Variation
	Units (MUS)	15.00%	15.00%	15.00%	15.00%	15.00%	Estimated Growth
11 kV	Consumer	5.26%	5.26%	5.26%	5.26%	5.26%	5 Month Variation
	Load (kW)	1.57%	1.57%	1.57%	1.57%	1.57%	5 Month Variation

Voltage Level	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Urban
	Units (MUS)	10.00%	10.00%	10.00%	10.00%	10.00%	Nominal Growth Considered

Table 109 : Growth Percentage Assumption East Discom : Rural

Voltage Level	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Rural
132 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Units (MUS)	10.00%	10.00%	10.00%	10.00%	10.00%	Nominal Growth Considered
33 kV	Consumer	2.78%	2.78%	2.78%	2.78%	2.78%	1 Year Growth Considered
	Load (kW)	11.00%	8.29%	8.29%	8.29%	8.29%	5 Month Variation
	Units (MUS)	14.82%	14.82%	14.82%	14.82%	14.82%	3 Year CAGR Considered
11 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	5.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered
	Units (MUS)	7.20%	7.20%	7.20%	7.20%	7.20%	1 Year Growth Considered

The growth percentages for sales forecast for the HT – Irrigation category are given below:

Table 110 : Growth Percentage Assumption East Discom : Urban

Voltage Level	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Urban
132 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Units (MUS)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
33 kV	Consumer	5.42%	5.42%	5.42%	5.42%	5.42%	3 Year CAGR Considered
	Load (kW)	7.16%	7.16%	7.16%	7.16%	7.16%	1 Year Growth Considered
	Units (MUS)	6.23%	6.23%	6.23%	6.23%	6.23%	3 Year CAGR Considered
11 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Units (MUS)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered

Table 111 : Growth Percentage Assumption East Discom : Rural

Voltage Level	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Rural
132 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Units (MUS)	1.00%	1.00%	1.00%	1.00%	1.00%	Nominal Growth Considered
33 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Units (MUS)	6.81%	6.81%	6.81%	6.81%	6.81%	3 Year CAGR Considered
11 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Units (MUS)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered

The growth percentages for sales forecast for the HT – Other Agricultural category are given below:

Table 112 : Growth Percentage Assumption East Discom : Urban

Voltage Level	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Urban
132 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Units (MUS)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
33 kV	Consumer	5.00%	2.00%	2.00%	2.00%	2.00%	Nominal Growth Considered
	Load (kW)	1.00%	1.00%	1.00%	1.00%	1.00%	Nominal Growth Considered
	Units (MUS)	1.00%	2.00%	2.00%	2.00%	2.00%	Nominal Growth Considered
11 kV	Consumer	2.00%	2.00%	2.00%	2.00%	2.00%	Nominal Growth Considered
	Load (kW)	2.00%	2.00%	2.00%	2.00%	2.00%	Nominal Growth Considered
	Units (MUS)	14.80%	10.00%	10.00%	10.00%	10.00%	Nominal Growth Considered

Table 113 : Growth Percentage Assumption East Discom : Rural

Voltage Level	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Rural
132 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Units (MUS)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
33 kV	Consumer	5.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered
	Load (kW)	2.00%	2.00%	2.00%	2.00%	2.00%	Nominal Growth Considered
	Units (MUS)	2.00%	2.00%	2.00%	2.00%	2.00%	Nominal Growth Considered
11 kV	Consumer	5.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered
	Load (kW)	5.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered
	Units (MUS)	20.00%	20.00%	20.00%	20.00%	20.00%	Estimated Growth Considered

3.2.16.2 Central Discom

The growth percentages for sales forecast for the HT Water Works category are given below:

Table 114 : Growth Percentage Assumption Central Discom : Urban

Voltage Level	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Urban
132 kV	Consumer	10.00%	10.00%	10.00%	10.00%	10.00%	Estimated Growth Considered
	Load (kW)	10.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered
	Units (MUS)	1.00%	1.00%	1.00%	1.00%	1.00%	Nominal Growth Considered
33 kV	Consumer	5.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered
	Load (kW)	10.00%	10.00%	10.00%	10.00%	10.00%	Estimated Growth Considered
	Units (MUS)	8.12%	8.12%	8.12%	8.12%	8.12%	3 Year CAGR Considered
11 kV	Consumer	5.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered

Voltage Level	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Urban
	Load (kW)	5.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered
	Units (MUS)	5.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered

Table 115 : Growth Percentage Assumption Central Discom : Rural

Voltage Level	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Rural
132 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Units (MUS)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
33 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	10.00%	10.00%	10.00%	10.00%	10.00%	Nominal Growth Considered
	Units (MUS)	5.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered
11 kV	Consumer	10.00%	10.00%	10.00%	10.00%	10.00%	Nominal Growth Considered
	Load (kW)	10.00%	10.00%	10.00%	10.00%	10.00%	Nominal Growth Considered
	Units (MUS)	10.00%	10.00%	10.00%	10.00%	10.00%	Nominal Growth Considered

The growth percentages for sales forecast for the HT – Irrigation category are given below:

Table 116 : Growth Percentage Assumption Central Discom : Urban

Voltage Level	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Urban
132 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Units (MUS)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
33 kV	Consumer	10.00%	10.00%	10.00%	10.00%	10.00%	Estimated Growth Considered
	Load (kW)	2.00%	2.00%	2.00%	2.00%	2.00%	Nominal Growth Considered
	Units (MUS)	16.21%	10.00%	5.00%	5.00%	5.00%	Nominal Growth Considered
11 kV	Consumer	10.00%	10.00%	10.00%	10.00%	10.00%	Estimated Growth Considered
	Load (kW)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Units (MUS)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered

Table 117 : Growth Percentage Assumption Central Discom : Rural

Voltage Level	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Rural
132 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Units (MUS)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
33 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	10.00%	10.00%	10.00%	10.00%	10.00%	Estimated Growth Considered
	Units (MUS)	5.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered
11 kV	Consumer	5.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered

Voltage Level	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Rural
	Load (kW)	3.00%	3.00%	3.00%	3.00%	3.00%	Nominal Growth Considered
	Units (MUS)	20.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered

The growth percentages for sales forecast for the HT – Other Agricultural category are given below:

Table 118 : Growth Percentage Assumption Central Discom : Urban

Voltage Level	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Urban
132 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Units (MUS)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
33 kV	Consumer	2.00%	2.00%	2.00%	2.00%	2.00%	Nominal Growth Considered
	Load (kW)	1.90%	1.90%	1.90%	1.90%	1.90%	3 Year CAGR Considered
	Units (MUS)	1.71%	1.71%	1.71%	1.71%	1.71%	3 Year CAGR Considered
11 kV	Consumer	2.00%	2.00%	2.00%	2.00%	2.00%	Nominal Growth Considered
	Load (kW)	3.36%	3.36%	3.36%	3.36%	3.36%	Estimated Growth Considered
	Units (MUS)	3.44%	3.44%	3.44%	3.44%	3.44%	3 Year CAGR Considered

Table 119 : Growth Percentage Assumption Central Discom : Rural

Voltage Level	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Rural
132 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Units (MUS)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
33 kV	Consumer	5.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered
	Load (kW)	5.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered
	Units (MUS)	6.76%	6.76%	6.76%	6.76%	6.76%	2 Year CAGR Considered
11 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	20.00%	10.00%	10.00%	10.00%	10.00%	Estimated Growth Considered
	Units (MUS)	20.00%	5.00%	5.00%	5.00%	5.00%	Estimated Growth Considered

3.2.16.3 West Discom

The growth percentages for sales forecast for the HT Water Works category are given below:

Table 120 : Growth Percentage Assumption West Discom : Urban

Voltage Level	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Urban
132 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	5.08%	5.08%	5.08%	5.08%	5.08%	
	Units (MUS)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
33 kV	Consumer	17.71%	17.71%	17.71%	17.71%	17.71%	1 Year Growth Considered
	Load (kW)	11.62%	11.62%	11.62%	11.62%	11.62%	1 Year Growth Considered
	Units (MUS)	17.63%	17.63%	17.63%	17.63%	17.63%	3 Year CAGR Considered
11 kV	Consumer	7.72%	7.72%	7.72%	7.72%	7.72%	3 Year CAGR Considered
	Load (kW)	6.61%	6.61%	6.61%	6.61%	6.61%	3 Year CAGR Considered
	Units (MUS)	7.31%	7.31%	7.31%	7.31%	7.31%	3 Year CAGR Considered

Table 121 : Growth Percentage Assumption West Discom : Rural

Voltage Level	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Rural
132 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	3.76%	3.76%	3.76%	3.76%	3.76%	3 Year CAGR Considered
	Units (MUS)	6.79%	6.79%	6.79%	6.79%	6.79%	3 Year CAGR Considered
33 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Units (MUS)	3.50%	3.50%	3.50%	3.50%	3.50%	1 Year Growth Considered
11 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	3.61%	3.61%	3.61%	3.61%	3.61%	3 Year CAGR Considered
	Units (MUS)	11.13%	11.13%	11.13%	11.13%	11.13%	2 Year CAGR Considered

The growth percentages for sales forecast for the HT – Irrigation category are given below:

Table 122 : Growth Percentage Assumption West Discom : Urban

Voltage Level	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Urban
132 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Units (MUS)	20.00%	20.00%	20.00%	20.00%	20.00%	Estimated Growth
33 kV	Consumer	10.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	9.50%	9.50%	9.50%	9.50%	9.50%	Nominal Growth Considered
	Units (MUS)	10.00%	10.00%	10.00%	10.00%	10.00%	Nominal Growth Considered
11 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Units (MUS)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered

Table 123 : Growth Percentage Assumption West Discom : Rural

Voltage Level	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Rural
132 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Units (MUS)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered

Voltage Level	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Rural
33 kV	Consumer	14.47%	14.47%	14.47%	14.47%	14.47%	3 Year CAGR Considered
	Load (kW)	10.00%	10.00%	10.00%	10.00%	10.00%	Nominal Growth Considered
	Units (MUS)	5.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered
11 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Units (MUS)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered

The growth percentages for sales forecast for the HT – Other Agricultural category are given below:

Table 124 : Growth Percentage Assumption West Discom : Urban

Voltage Level	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Urban
132 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Units (MUS)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
33 kV	Consumer	5.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered
	Load (kW)	26.10%	26.10%	26.10%	26.10%	26.10%	2 Year CAGR Considered
	Units (MUS)	5.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered
11 kV	Consumer	2.00%	2.00%	2.00%	2.00%	2.00%	Nominal Growth Considered
	Load (kW)	3.92%	3.92%	3.92%	3.92%	3.92%	1 Year Growth Considered
	Units (MUS)	8.66%	8.66%	8.66%	8.66%	8.66%	Estimated Growth Considered

Table 125 : Growth Percentage Assumption West Discom : Rural

Voltage Level	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Rural
132 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Units (MUS)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
33 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Units (MUS)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
11 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Units (MUS)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered

3.2.17 HV 6: Bulk Residential users

The future projections are as follows:

Table 126: Energy Sales for HV 6 (MUs)

Sub-Category	East Discom			Central Discom			West Discom			MP State		
	FY 23	FY 24	FY 25	FY 23	FY 24	FY 25	FY 23	FY 24	FY 25	FY 23	FY 24	FY 25
132 kV							-	-	-			
33 kV	255	277	300	133	133	133	21	22	23	410	432	456

Sub-Category	East Discom			Central Discom			West Discom			MP State		
	FY 23	FY 24	FY 25	FY 23	FY 24	FY 25	FY 23	FY 24	FY 25	FY 23	FY 24	FY 25
11 kV	19	21	23	22	24	27	6	6	7	47	52	56
Total	275	298	323	155	157	160	27	28	30	457	483	513

Table 127: Energy Sales for HV 6 (MUs)

Sub-Category	East Discom		Central Discom		West Discom		MP State	
	FY 26	FY 27	FY 26	FY 27	FY 26	FY 27	FY 26	FY 27
132 kV					-	-		
33 kV	326.08	354.45	133.10	133.10	23.54	24.31	482.72	511.86
11 kV	24.42	26.44	29.99	33.36	7.54	8.25	61.95	68.05
Total	350.50	380.89	163.10	166.46	31.08	32.56	544.68	579.91

3.2.17.1 East Discom

The assumptions for sales forecast for the category are given below:

Table 128 : Growth Percentage Assumption East Discom : Urban

Voltage Level	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Urban
33 kV	Consumer	2.00%	2.00%	2.00%	2.00%	2.00%	Nominal Growth Considered
	Load (kW)	2.00%	2.00%	2.00%	2.00%	2.00%	Nominal Growth Considered
	Units (MUS)	10.00%	10.00%	10.00%	10.00%	10.00%	Nominal Growth Considered
11 kV	Consumer	5.00%	1.72%	1.72%	1.72%	1.72%	3 Year CAGR Considered
	Load (kW)	2.00%	2.00%	2.00%	2.00%	2.00%	Nominal Growth Considered
	Units (MUS)	10.00%	10.00%	10.00%	10.00%	10.00%	Nominal Growth Considered

Table 129 : Growth Percentage Assumption East Discom : Rural

Voltage Level	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Rural
33 kV	Consumer	6.27%	6.27%	6.27%	6.27%	6.27%	3 Year CAGR Considered
	Load (kW)	1.00%	1.00%	1.00%	1.00%	1.00%	Nominal Growth Considered
	Units (MUS)	1.56%	1.56%	1.56%	1.56%	1.56%	3 Year CAGR Considered
11 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	1.00%	1.00%	1.00%	1.00%	1.00%	Nominal Growth Considered
	Units (MUS)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered

3.2.17.2 Central Discom

The assumptions for sales forecast for the category are given below:

Table 130 : Growth Percentage Assumption Central Discom : Urban

Voltage Level	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Urban
33 kV	Consumer	6.25%	6.25%	6.25%	6.25%	6.25%	5 Month Variation
	Load (kW)	2.76%	2.76%	2.76%	2.76%	2.76%	2 Year CAGR Considered
	Units (MUS)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
11 kV	Consumer	2.00%	2.00%	2.00%	2.00%	2.00%	Nominal Growth Considered
	Load (kW)	5.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered
	Units (MUS)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered

Table 131 : Growth Percentage Assumption Central Discom : Rural

Voltage Level	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Rural
33 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Units (MUS)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
11 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	5.00%	5.00%	5.00%	5.00%	5.00%	Estimated Growth Considered
	Units (MUS)	0.00%	0.00%	0.00%	0.00%	0.00%	2 Year CAGR Considered

3.2.17.3 West Discom

The assumptions for sales forecast for the category are given below:

Table 132 : Growth Percentage Assumption West Discom : Urban

Voltage Level	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Urban
33 kV	Consumer	11.87%	11.87%	11.87%	11.87%	11.87%	3 Year CAGR Considered
	Load (kW)	16.05%	16.05%	16.05%	16.05%	16.05%	3 Year CAGR Considered
	Units (MUS)	2.90%	2.90%	2.90%	2.90%	2.90%	5 Month Variation
11 kV	Consumer	14.47%	14.47%	14.47%	14.47%	14.47%	3 Year CAGR Considered
	Load (kW)	10.61%	10.61%	10.61%	10.61%	10.61%	1 Year Growth Considered
	Units (MUS)	9.43%	9.43%	9.43%	9.43%	9.43%	1 Year Growth Considered

Table 133 : Growth Percentage Assumption West Discom : Rural

Voltage Level	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Rural
33 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	1.87%	1.87%	1.87%	1.87%	1.87%	3 Year CAGR Considered
	Units (MUS)	10.29%	10.29%	10.29%	10.29%	10.29%	1 Month Variation
11 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Units (MUS)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered

3.2.18 HV-7: Requirement of Power For Generators Connected to the grid

The future projections are as follows:

Table 134: Requirement of Power for Generators Connected to the grid (MUs)

Sub-Category	East Discom			Central Discom			West Discom			MP State		
	FY 23	FY 24	FY 25	FY 23	FY 24	FY 25	FY 23	FY 24	FY 25	FY 23	FY 24	FY 25
132 kV	-	-	-	0.8	0.8	0.8	4.1	4.3	4.5	4.8	5.0	5.3
33 kV	-	-	-	3.6	3.9	4.1	12.0	13.6	15.4	15.5	17.5	19.6
11 kV	1.0	1.0	1.1	0.5	0.6	0.6	0.2	0.3	0.3	1.7	1.8	2.0
Total	1.0	1.0	1.1	4.9	5.3	5.5	16.3	18.1	20.2	22.1	24.4	26.8

Table 135: Requirement of Power for Generators Connected to the grid (MUs)

Sub-Category	East Discom		Central Discom		West Discom		MP State	
	FY 26	FY 27	FY 26	FY 27	FY 26	FY 27	FY 26	FY 27
132 kV	-	-	0.78	0.78	4.70	4.93	5.48	5.71
33 kV	-	-	4.32	4.54	17.52	19.89	21.84	24.43
11 kV	1.15	1.20	0.63	0.67	0.29	0.31	2.07	2.18
Total	1.15	1.20	5.73	5.99	22.50	25.13	29.38	32.32

3.2.18.1 East Discom

The assumptions for sales forecast for the category are given below:

Table 136 : Growth Percentage Assumption East Discom : Urban

Voltage Level	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Urban
132 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0%	No Growth Considered
	Load (kW)	0.00%	0.00%	0.00%	0.00%	0%	No Growth Considered
	Units (MUS)	0.00%	0.00%	0.00%	0.00%	0%	No Growth Considered
33 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0%	No Growth Considered
	Load (kW)	0.00%	0.00%	0.00%	0.00%	0%	No Growth Considered
	Units (MUS)	0.00%	0.00%	0.00%	0.00%	0%	No Growth Considered
11 kV	Consumer	25.00%	25.00%	25.00%	25.00%	25%	Estimated Growth Considered
	Load (kW)	20.00%	20.00%	20.00%	20.00%	20%	Estimated Growth Considered
	Units (MUS)	5.00%	5.00%	5.00%	5.00%	5%	Nominal Growth Considered

Table 137 : Growth Percentage Assumption East Discom : Rural

Voltage Level	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Rural
132 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0%	No Growth Considered
	Load (kW)	0.00%	0.00%	0.00%	0.00%	0%	No Growth Considered
	Units (MUS)	0.00%	0.00%	0.00%	0.00%	0%	No Growth Considered
33 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0%	No Growth Considered
	Load (kW)	0.00%	0.00%	0.00%	0.00%	0%	No Growth Considered
	Units (MUS)	0.00%	0.00%	0.00%	0.00%	0%	No Growth Considered
11 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0%	No Growth Considered
	Load (kW)	0.00%	0.00%	0.00%	0.00%	0%	No Growth Considered

Voltage Level	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Rural
	Units (MUS)	0.00%	0.00%	0.00%	0.00%	0%	No Growth Considered

3.2.18.2 Central Discom

The assumptions for sales forecast for the category are given below:

Table 138 : Growth Percentage Assumption Central Discom : Urban

Voltage Level	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Urban
132 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Units (MUS)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
33 kV	Consumer	5.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered
	Load (kW)	5.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered
	Units (MUS)	10.00%	10.00%	5.00%	5.00%	5.00%	Estimated Growth Considered
11 kV	Consumer	5.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered
	Load (kW)	10.00%	10.00%	10.00%	10.00%	10.00%	Estimated Growth Considered
	Units (MUS)	6.74%	6.74%	6.74%	6.74%	6.74%	5 Month Variation

Table 139 : Growth Percentage Assumption Central Discom : Rural

Voltage Level	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Rural
132 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Units (MUS)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
33 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Units (MUS)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
11 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Units (MUS)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered

3.2.18.3 West Discom

The assumptions for sales forecast for the category are given below:

Table 140 : Growth Percentage Assumption West Discom : Urban

Voltage Level	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Urban
132 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Units (MUS)	5.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered
33 kV	Consumer	5.93%	5.93%	5.93%	5.93%	5.93%	3 Year CAGR Considered
	Load (kW)	0.46%	0.46%	0.46%	0.46%	0.46%	3 Year CAGR Considered

Voltage Level	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Urban
	Units (MUS)	14.05%	14.05%	14.05%	14.05%	14.05%	3 Year CAGR Considered
11 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Units (MUS)	7.76%	7.76%	7.76%	7.76%	7.76%	5 Month Variation Considered

Table 141 : Growth Percentage Assumption West Discom : Rural

Voltage Level	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Rural
132 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Units (MUS)	5.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered
33 kV	Consumer	4.13%	4.13%	4.13%	4.13%	4.13%	3 Year CAGR Considered
	Load (kW)	10.00%	10.00%	10.00%	10.00%	10.00%	Nominal Growth Considered
	Units (MUS)	12.36%	12.36%	12.36%	12.36%	12.36%	3 Year CAGR Considered
11 kV	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Units (MUS)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered

3.2.19 HV-8 E- Vehicle / E-Rickshaws Charging Station

The projection of sales for this category is as follows:

Table 142: Energy Sales for HV 8 (MUs)

Sub-category	East Discom			Central Discom			West Discom			MP State		
	FY 23	FY 24	FY 25	FY 23	FY 24	FY 25	FY 23	FY 24	FY 25	FY 23	FY 24	FY 25
LV-8 EV Charging Stations	2.10	2.18	2.28	3.04	3.35	3.68	1.12	1.28	1.48	6.26	6.81	7.44

Table 143: Energy Sales for HV 8 (MUs)

Sub-category	East Discom		Central Discom		West Discom		MP State	
	FY 26	FY 27	FY 26	FY 27	FY 26	FY 27	FY 26	FY 27
LV-8 EV Charging Stations	2.38	2.49	4.05	4.46	1.70	1.95	8.13	8.9

3.2.19.1 East Discom

The growth rates assumed for future projections are as follows:

Table 144 : Growth Percentage Assumption East Discom : Urban

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Urban
Metered	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	10.00%	10.00%	10.00%	10.00%	10.00%	Nominal Growth Considered

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Urban
	Units (MUS)	10.00%	10.00%	10.00%	10.00%	10.00%	Nominal Growth Considered

Table 145 : Growth Percentage Assumption East Discom : Rural

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Rural
Metered	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	5.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered
	Units (MUS)	8.00%	8.00%	8.00%	8.00%	8.00%	Nominal Growth Considered

3.2.19.2 Central Discom

The growth rates assumed for future projections are as follows:

Table 146 : Growth Percentage Assumption Central Discom : Urban

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Urban
Metered	Consumer	5.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered
	Load (kW)	10.00%	10.00%	10.00%	10.00%	10.00%	Nominal Growth Considered
	Units (MUS)	10.00%	10.00%	10.00%	10.00%	10.00%	Nominal Growth Considered

Table 147 : Growth Percentage Assumption Central Discom : Rural

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Rural
Metered	Consumer	5.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered
	Load (kW)	5.00%	5.00%	5.00%	5.00%	5.00%	Nominal Growth Considered
	Units (MUS)	10.00%	10.00%	10.00%	10.00%	10.00%	Nominal Growth Considered

3.2.19.3 West Discom

The growth rates assumed for future projections are as follows:

Table 148 : Growth Percentage Assumption West Discom : Urban

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Urban
Metered	Consumer	10.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	10.00%	10.00%	10.00%	10.00%	10.00%	Nominal Growth Considered
	Units (MUS)	10.00%	15.00%	15.00%	15.00%	15.00%	Estimated Growth Considered

Table 149 : Growth Percentage Assumption West Discom : Rural

Area	Category	FY 23	FY 24	FY 25	FY 26	FY 27	Rural
Metered	Consumer	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Load (kW)	0.00%	0.00%	0.00%	0.00%	0.00%	No Growth Considered
	Units (MUS)	10.00%	10.00%	10.00%	10.00%	10.00%	Nominal Growth Considered

A4: ENERGY REQUIREMENT AT DISCOM BOUNDARY & EX-BUS REQUIREMENT

Conversion of Annual Sales into Monthly Sales

The annual sales of the Discoms have been converted into monthly sales using the sales profile actually observed in the past five years including FY 2020-21 for each Discom. This profile is then used to compute monthly sales for the control period for FY 2022-23 to FY 2026-27. The profiling for all Discoms is given in the table below:

Table 150: Month wise Sales Profile

Month-wise Sales Profile Mix (%)														
Sr.no.	Discom	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
1	FY 2020-21 (Actual)													
a	East	6.12%	7.59%	7.54%	7.66%	7.57%	7.83%	9.31%	9.24%	9.41%	9.45%	9.19%	9.09%	100.00%
b	Central	5.73%	6.78%	7.56%	7.62%	7.47%	7.56%	9.41%	9.51%	9.40%	9.72%	9.66%	9.58%	100.00%
c	West	5.87%	7.13%	7.54%	7.48%	7.40%	7.29%	9.38%	9.48%	9.54%	9.75%	9.70%	9.44%	100.00%
2	FY 2021-22 (Re-Estimate)													
a	East	7.01%	7.65%	7.56%	7.25%	7.30%	7.44%	8.92%	8.97%	9.20%	9.77%	9.47%	9.46%	100.00%
b	Central	6.65%	7.33%	7.77%	7.60%	7.41%	7.43%	9.14%	9.26%	9.20%	9.41%	9.42%	9.38%	100.00%
c	West	6.74%	7.33%	7.58%	7.33%	7.06%	7.00%	9.23%	9.52%	9.53%	9.62%	9.62%	9.44%	100.00%
3	FY 2022-23 (Projected)													
a	East	7.01%	7.65%	7.56%	7.25%	7.30%	7.44%	8.92%	8.97%	9.20%	9.77%	9.47%	9.46%	100.00%
b	Central	6.65%	7.33%	7.77%	7.60%	7.41%	7.43%	9.14%	9.26%	9.20%	9.41%	9.42%	9.38%	100.00%
c	West	6.74%	7.33%	7.58%	7.33%	7.06%	7.00%	9.23%	9.52%	9.53%	9.62%	9.62%	9.44%	100.00%

Month-wise Sales Profile Mix (%)														
Sr.no.	Discom	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
4	FY 2023-24 (Projected)													
a	East	7.01%	7.65%	7.56%	7.25%	7.30%	7.44%	8.92%	8.97%	9.20%	9.77%	9.47%	9.46%	100.00%
b	Central	6.65%	7.33%	7.77%	7.60%	7.41%	7.43%	9.14%	9.26%	9.20%	9.41%	9.42%	9.38%	100.00%
c	West	6.74%	7.33%	7.58%	7.33%	7.06%	7.00%	9.23%	9.52%	9.53%	9.62%	9.62%	9.44%	100.00%
5	FY 2024-25 (Projected)													
a	East	7.01%	7.65%	7.56%	7.25%	7.30%	7.44%	8.92%	8.97%	9.20%	9.77%	9.47%	9.46%	100.00%
b	Central	6.65%	7.33%	7.77%	7.60%	7.41%	7.43%	9.14%	9.26%	9.20%	9.41%	9.42%	9.38%	100.00%
c	West	6.74%	7.33%	7.58%	7.33%	7.06%	7.00%	9.23%	9.52%	9.53%	9.62%	9.62%	9.44%	100.00%
6	FY 2025-26 (Projected)													
a	East	7.01%	7.65%	7.56%	7.25%	7.30%	7.44%	8.92%	8.97%	9.20%	9.77%	9.47%	9.46%	100.00%
b	Central	6.65%	7.33%	7.77%	7.60%	7.41%	7.43%	9.14%	9.26%	9.20%	9.41%	9.42%	9.38%	100.00%
c	West	6.74%	7.33%	7.58%	7.33%	7.06%	7.00%	9.23%	9.52%	9.53%	9.62%	9.62%	9.44%	100.00%
7	FY 2026-27 (Projected)													
a	East	7.01%	7.65%	7.56%	7.25%	7.30%	7.44%	8.92%	8.97%	9.20%	9.77%	9.47%	9.46%	100.00%
b	Central	6.65%	7.33%	7.77%	7.60%	7.41%	7.43%	9.14%	9.26%	9.20%	9.41%	9.42%	9.38%	100.00%
c	West	6.74%	7.33%	7.58%	7.33%	7.06%	7.00%	9.23%	9.52%	9.53%	9.62%	9.62%	9.44%	100.00%

4.1 Distribution Losses

Hon'ble Commission in its Tariff Regulations, 2021 had notified normative distribution loss level for the MYT period FY 2022-23 to FY 2026-27. The distribution loss level trajectory as specified in the Regulations is given in the table below:

Table 151: Distribution Losses (%)

Sr.no.	Discom	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26	FY 2026-27
1	East Discom	15.75%	15.50%	15.25%	15.00%	14.75%
2	Central Discom	16.75%	16.50%	16.25%	16.00%	15.75%
3	West Discom	14.75%	14.50%	14.25%	14.00%	13.75%

The actual losses of the Discom's for FY 2020-21 have been observed at 29.19% for East Discom, 28.69% for Central Discom and 12.71% for West Discom. However, for the purpose of the instant petition the normative loss targets as specified by the Commission in Tariff Regulations' 2021 have been considered for computation of Energy Balance and power purchase costs of Discoms for the control period from FY 2022-23 to FY 2026-27.

4.2 Intra State Transmission Losses

The Discoms have considered the actual Intra-state Transmission Losses of 2.59% for FY 2019-20 as reported by MPPTCL to the MPPMCL. The same has been considered for the control period from FY 2022-23 to FY 2026-27.

4.3 Inter-State Transmission Losses

4.3.1 Hon'ble Commission in its earlier directive had directed to submit Region-wise PGCIL losses, the Discoms have shown actual Inter-state Transmission losses as reported during the FY 2020-21 by the Eastern Region Load Dispatch Centre applicable for Eastern Region Plants (ERLDC- <https://erldc.in/market-operation/52weeksloss/>, for Central Region Plants (NRLDC- <https://nrldc.in/Websitedata/OpenAccess/docs/OAlosses.pdf>) and Western Region Load Dispatch Centre applicable for Western Region Plants (<https://posoco.in/sidebar-menu-pages/applicable-transmission-losses/transmission-losses-2021-22/>).

4.3.2 The Discoms have considered the actual losses for FY 2020-21 for Western Region, Northern Region & Eastern Region i.e. 2.82%, 3.34% and 2.53% respectively and last 52 weeks moving average losses (1st November 2020 – 31th October 21) for the control period for FY 2022-23 to FY 2026-27 i.e. 3.04%, 3.43% and 3.29% respectively.

4.4 Energy Requirement at Discom Boundary and Ex-Bus Requirement

- 4.4.1 The annual distribution loss trajectory is converted into monthly loss trajectory based on the standard deviations of monthly losses from the cumulative annual losses during the past 5 years. In this method, the actual monthly loss levels and the cumulative annual losses of the Discoms for the past years are taken and standard deviation of loss levels of each month from the cumulative annual average has been calculated. The monthly standard deviations are then used to calculate the monthly loss levels using the annual MPERC loss level trajectory.
- 4.4.2 As a result, the annual energy requirement at the Discom boundary is grossed up by a higher loss figure than observed as per the MPERC loss trajectory. The energy requirement is computed for all three Discoms and MP state at the state boundary as shown in tables below:

Table 152: Monthly Energy Requirement- Discom & Ex-Bus (MUs) for FY 2022-23 (projected)

Sr.no.	Particulars	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
1	Sales	4,615	5,045	5,188	5,023	4,920	4,936	6,192	6,306	6,341	6,521	6,467	6,409	67,964
<i>a</i>	<i>East</i>	1,399	1,527	1,510	1,447	1,457	1,486	1,781	1,792	1,837	1,950	1,891	1,890	19,966
<i>b</i>	<i>Central</i>	1,398	1,542	1,634	1,599	1,557	1,563	1,922	1,946	1,934	1,978	1,980	1,972	21,024
<i>c</i>	<i>West</i>	1,818	1,976	2,044	1,978	1,906	1,887	2,489	2,569	2,570	2,594	2,596	2,547	26,973
2	Distribution Loss (%)													
<i>a</i>	<i>East</i>	25%	22%	13%	17%	18%	19%	11%	16%	19%	14%	8%	6%	16%
<i>b</i>	<i>Central</i>	23%	21%	9%	17%	19%	20%	13%	19%	24%	20%	11%	5%	17%
<i>c</i>	<i>West</i>	21%	24%	15%	7%	2%	5%	9%	18%	25%	25%	16%	11%	15%
3	Distribution Loss	1,359	1,470	737	781	735	851	733	1,338	1,909	1,661	912	550	13,036
<i>a</i>	<i>East</i>	463	442	228	293	322	359	218	330	431	310	176	131	3,703
<i>b</i>	<i>Central</i>	424	417	159	329	372	398	276	455	601	480	238	114	4,263
<i>c</i>	<i>West</i>	472	611	351	158	41	94	239	553	877	871	499	305	5,070
4	Energy at Discom Periphery	5,974	6,515	5,925	5,804	5,655	5,786	6,925	7,644	8,250	8,183	7,379	6,959	81,000
<i>a</i>	<i>East</i>	1,862	1,969	1,737	1,740	1,779	1,845	1,999	2,121	2,268	2,260	2,067	2,021	23,669
<i>b</i>	<i>Central</i>	1,822	1,959	1,793	1,928	1,929	1,960	2,198	2,401	2,535	2,458	2,218	2,086	25,287
<i>c</i>	<i>West</i>	2,289	2,587	2,395	2,136	1,947	1,981	2,728	3,122	3,447	3,465	3,095	2,852	32,044
5	State Transmission Losses	159	173	158	154	150	154	184	203	219	218	196	185	2,154
<i>a</i>	<i>East</i>	50	52	46	46	47	49	53	56	60	60	55	54	629
<i>b</i>	<i>Central</i>	48	52	48	51	51	52	58	64	67	65	59	55	672
<i>c</i>	<i>West</i>	61	69	64	57	52	53	73	83	92	92	82	76	852
6	Energy at State Boundary	6,133	6,688	6,082	5,959	5,805	5,940	7,109	7,848	8,470	8,400	7,576	7,144	83,154
<i>a</i>	<i>East</i>	1,912	2,021	1,783	1,786	1,827	1,894	2,052	2,178	2,329	2,320	2,122	2,075	24,299
<i>b</i>	<i>Central</i>	1,871	2,011	1,841	1,979	1,980	2,012	2,256	2,465	2,602	2,523	2,277	2,142	25,959
<i>c</i>	<i>West</i>	2,350	2,656	2,458	2,193	1,998	2,034	2,801	3,205	3,539	3,557	3,177	2,928	32,896
7	External/PGCIL Losses (WR/ER)	125	152	122	117	106	103	109	126	120	123	164	159	1,525
<i>a</i>	<i>East</i>	39	46	36	35	33	33	31	35	33	34	46	46	447
<i>b</i>	<i>Central</i>	38	46	37	39	36	35	35	39	37	37	49	48	475

Sr.no.	Particulars	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
c	West	48	60	49	43	37	35	43	51	50	52	69	65	603
8	Energy Requirement (Ex-Bus)	6,258	6,840	6,205	6,075	5,912	6,043	7,218	7,973	8,590	8,523	7,739	7,303	84,679
a	East	1,951	2,067	1,819	1,821	1,860	1,927	2,083	2,213	2,362	2,354	2,168	2,121	24,746
b	Central	1,909	2,056	1,878	2,018	2,017	2,047	2,291	2,504	2,639	2,560	2,326	2,189	26,435
c	West	2,398	2,716	2,508	2,236	2,035	2,069	2,844	3,256	3,589	3,609	3,246	2,993	33,498

Table 153: Energy Requirement- Discom & Ex-Bus (MUs) for FY 2023-24 (Projected)

Sr.no.	Particulars	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
1	Sales	4,998	5,464	5,618	5,440	5,328	5,345	6,706	6,830	6,868	7,063	7,004	6,941	73,605
a	East	1,516	1,654	1,635	1,567	1,578	1,609	1,929	1,940	1,990	2,112	2,048	2,047	21,624
b	Central	1,514	1,670	1,770	1,731	1,686	1,692	2,081	2,108	2,094	2,142	2,144	2,136	22,769
c	West	1,968	2,140	2,213	2,142	2,064	2,044	2,696	2,782	2,784	2,809	2,811	2,759	29,212
2	Distribution Loss (%)													
a	East	25%	22%	13%	17%	18%	19%	11%	15%	19%	13%	8%	6%	16%
b	Central	23%	21%	9%	17%	19%	20%	12%	19%	23%	19%	10%	5%	17%
c	West	20%	23%	14%	7%	2%	5%	9%	17%	25%	25%	16%	10%	15%
3	Distribution Loss	1,451	1,569	780	827	779	903	773	1,424	2,038	1,771	965	575	13,856
a	East	495	472	241	312	343	383	230	350	459	329	184	136	3,934
b	Central	453	445	167	350	396	424	292	484	642	512	251	118	4,534
c	West	503	652	372	165	39	96	251	589	937	931	530	321	5,388
4	Energy at Discom Periphery	6,449	7,033	6,398	6,268	6,107	6,248	7,479	8,254	8,906	8,834	7,969	7,517	87,461
a	East	2,010	2,126	1,876	1,879	1,921	1,992	2,159	2,291	2,449	2,440	2,232	2,183	25,558
b	Central	1,967	2,115	1,937	2,082	2,083	2,116	2,373	2,592	2,736	2,654	2,395	2,253	27,303
c	West	2,472	2,793	2,586	2,307	2,103	2,140	2,947	3,371	3,720	3,740	3,342	3,080	34,600
5	State Transmission Losses	171	187	170	167	162	166	199	219	237	235	212	200	2,325
a	East	53	57	50	50	51	53	57	61	65	65	59	58	680
b	Central	52	56	51	55	55	56	63	69	73	71	64	60	726
c	West	66	74	69	61	56	57	78	90	99	99	89	82	920
6	Energy at State Boundary	6,621	7,220	6,569	6,434	6,269	6,414	7,678	8,473	9,143	9,069	8,181	7,716	89,787

Sr.no.	Particulars	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
a	East	2,064	2,182	1,926	1,929	1,972	2,045	2,216	2,352	2,514	2,505	2,292	2,241	26,237
b	Central	2,019	2,171	1,988	2,137	2,138	2,173	2,437	2,661	2,809	2,724	2,459	2,313	28,029
c	West	2,537	2,867	2,655	2,369	2,159	2,197	3,025	3,461	3,819	3,839	3,430	3,162	35,520
7	External/PGCIL Losses (WR/ER)	130	155	128	121	111	106	115	126	126	128	173	169	1,587
a	East	41	47	37	36	35	34	33	35	35	35	48	49	465
b	Central	40	46	39	40	38	36	37	40	39	38	52	51	494
c	West	50	61	52	45	38	36	45	52	53	54	72	69	627
8	Energy Requirement (Ex-Bus)	6,751	7,374	6,696	6,555	6,380	6,521	7,793	8,599	9,269	9,197	8,354	7,885	91,373
a	East	2,104	2,229	1,963	1,965	2,007	2,079	2,249	2,387	2,549	2,540	2,340	2,290	26,702
b	Central	2,059	2,217	2,027	2,177	2,176	2,209	2,473	2,701	2,848	2,763	2,511	2,364	28,524
c	West	2,587	2,928	2,706	2,413	2,197	2,233	3,070	3,512	3,872	3,894	3,503	3,231	36,147

Table 154: Energy Requirement- Discom & Ex-Bus (MUs) for FY 2024-25 (Projected)

Sr.no.	Particulars	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
1	Sales	5,368	5,868	6,034	5,843	5,722	5,741	7,202	7,335	7,376	7,585	7,522	7,455	79,052
a	East	1,628	1,776	1,756	1,683	1,695	1,729	2,072	2,084	2,137	2,268	2,200	2,198	23,224
b	Central	1,626	1,793	1,901	1,860	1,811	1,817	2,235	2,264	2,249	2,300	2,303	2,294	24,454
c	West	2,114	2,299	2,377	2,301	2,217	2,195	2,895	2,988	2,990	3,017	3,019	2,963	31,374
2	Distribution Loss (%)													
a	East	24%	22%	13%	16%	18%	19%	10%	15%	19%	13%	8%	6%	15%
b	Central	23%	21%	8%	17%	19%	20%	12%	18%	23%	19%	10%	5%	16%
c	West	20%	23%	14%	7%	2%	4%	8%	17%	25%	25%	16%	10%	14%
3	Distribution Loss	1,536	1,661	818	869	817	950	807	1,503	2,158	1,873	1,012	596	14,602
a	East	524	499	253	329	362	404	240	369	485	345	191	140	4,144
b	Central	479	470	173	370	419	448	306	512	680	541	262	120	4,782
c	West	532	691	392	171	36	98	261	622	993	986	559	336	5,676
4	Energy at Discom Periphery	6,904	7,529	6,852	6,712	6,540	6,691	8,010	8,838	9,534	9,458	8,534	8,051	93,654
a	East	2,152	2,276	2,009	2,012	2,057	2,133	2,312	2,453	2,622	2,613	2,391	2,338	27,368
b	Central	2,106	2,264	2,074	2,229	2,230	2,266	2,542	2,775	2,929	2,841	2,565	2,414	29,236

Sr.no.	Particulars	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
c	West	2,646	2,989	2,769	2,471	2,253	2,292	3,156	3,610	3,982	4,003	3,578	3,299	37,050
5	State Transmission Losses	184	200	182	178	174	178	213	235	253	251	227	214	2,490
a	East	57	61	53	53	55	57	61	65	70	69	64	62	728
b	Central	56	60	55	59	59	60	68	74	78	76	68	64	777
c	West	70	79	74	66	60	61	84	96	106	106	95	88	985
6	Energy at State Boundary	7,088	7,729	7,035	6,891	6,714	6,869	8,223	9,073	9,788	9,710	8,761	8,265	96,144
a	East	2,209	2,336	2,063	2,065	2,112	2,189	2,373	2,518	2,692	2,683	2,454	2,400	28,096
b	Central	2,162	2,324	2,129	2,288	2,289	2,326	2,609	2,849	3,007	2,917	2,634	2,478	30,013
c	West	2,717	3,069	2,843	2,537	2,313	2,353	3,240	3,706	4,088	4,110	3,673	3,387	38,035
7	External/PGCIL Losses (WR/ER)	144	157	140	133	124	119	127	132	126	128	172	167	1,669
a	East	45	48	41	40	39	38	37	37	35	35	48	48	490
b	Central	44	47	42	44	42	40	40	41	39	39	52	50	521
c	West	55	63	56	49	43	41	50	54	53	54	72	68	658
8	Energy Requirement (Ex-Bus)	7,231	7,887	7,174	7,024	6,837	6,988	8,350	9,204	9,914	9,838	8,933	8,432	97,813
a	East	2,254	2,384	2,103	2,105	2,151	2,227	2,410	2,555	2,727	2,718	2,503	2,449	28,586
b	Central	2,206	2,371	2,172	2,333	2,332	2,366	2,650	2,890	3,046	2,956	2,685	2,528	30,534
c	West	2,772	3,132	2,899	2,586	2,355	2,394	3,290	3,759	4,141	4,164	3,745	3,455	38,693

Table 155: Energy Requirement- Discom & Ex-Bus (MUs) for FY 2025-26 (Projected)

Sr.no.	Particulars	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
1	Sales	5,744	6,279	6,456	6,252	6,123	6,143	7,706	7,849	7,892	8,116	8,049	7,977	84,586
a	East	1,742	1,900	1,879	1,801	1,813	1,850	2,217	2,230	2,286	2,427	2,354	2,352	24,849
b	Central	1,740	1,919	2,034	1,990	1,938	1,945	2,392	2,422	2,407	2,461	2,464	2,454	26,166
c	West	2,262	2,460	2,544	2,462	2,372	2,348	3,098	3,197	3,199	3,228	3,231	3,170	33,570
2	Distribution Loss (%)													
a	East	24%	22%	12%	16%	17%	19%	10%	15%	18%	13%	8%	6%	15%
b	Central	23%	21%	8%	16%	19%	20%	12%	18%	23%	19%	10%	5%	16%
c	West	20%	23%	14%	7%	1%	4%	8%	17%	25%	24%	15%	10%	14%
3	Distribution Loss	1,620	1,751	855	910	855	996	840	1,579	2,277	1,972	1,057	615	15,326

Sr.no.	Particulars	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
a	East	553	527	265	346	381	426	250	387	511	362	198	143	4,348
b	Central	506	496	179	388	441	472	320	539	717	570	273	122	5,023
c	West	561	729	411	176	33	98	270	654	1048	1041	587	350	5,956
4	Energy at Discom Periphery	7,364	8,030	7,311	7,162	6,978	7,138	8,547	9,428	10,169	10,089	9,106	8,591	99,912
a	East	2,295	2,427	2,144	2,146	2,194	2,275	2,467	2,617	2,797	2,788	2,551	2,495	29,197
b	Central	2,246	2,415	2,213	2,378	2,379	2,417	2,712	2,960	3,124	3,031	2,737	2,576	31,189
c	West	2,823	3,188	2,954	2,637	2,404	2,446	3,368	3,851	4,247	4,269	3,817	3,520	39,526
5	State Transmission Losses	196	214	194	190	186	190	227	251	270	268	242	228	2,657
a	East	61	65	57	57	58	60	66	70	74	74	68	66	776
b	Central	60	64	59	63	63	64	72	79	83	81	73	68	829
c	West	75	85	79	70	64	65	90	102	113	114	101	94	1051
6	Energy at State Boundary	7,559	8,244	7,506	7,352	7,163	7,328	8,774	9,679	10,439	10,357	9,348	8,820	102,568
a	East	2,356	2,492	2,201	2,203	2,253	2,336	2,533	2,687	2,872	2,862	2,619	2,562	29,974
b	Central	2,306	2,479	2,272	2,441	2,442	2,481	2,784	3,039	3,207	3,112	2,810	2,644	32,018
c	West	2,898	3,273	3,033	2,707	2,468	2,511	3,457	3,953	4,360	4,383	3,919	3,614	40,577
7	External/PGCIL Losses (WR/ER)	134	155	131	133	135	134	121	139	148	141	195	180	1,745
a	East	42	47	38	40	42	43	35	38	41	39	55	52	512
b	Central	41	46	40	44	46	45	38	44	45	42	58	54	545
c	West	51	61	53	49	46	46	48	57	62	60	82	74	688
8	Energy Requirement (Ex-Bus)	7,694	8,398	7,637	7,485	7,298	7,462	8,895	9,817	10,587	10,498	9,543	9,000	104,313
a	East	2,398	2,538	2,239	2,243	2,295	2,378	2,568	2,725	2,912	2,901	2,674	2,614	30,485
b	Central	2,347	2,525	2,312	2,485	2,488	2,527	2,823	3,083	3,253	3,154	2,869	2,698	32,563
c	West	2,949	3,335	3,086	2,756	2,515	2,557	3,505	4,010	4,422	4,443	4,000	3,687	41,265

Table 156: Energy Requirement- Discom & Ex-Bus (MUs) for FY 2026-27 (Projected)

Sr.no.	Particulars	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
1	Sales	6,100	6,668	6,857	6,640	6,503	6,523	8,184	8,335	8,381	8,619	8,548	8,471	89,830
a	East	1,850	2,018	1,995	1,912	1,926	1,964	2,354	2,368	2,428	2,577	2,500	2,498	26,390
b	Central	1,848	2,038	2,160	2,113	2,058	2,065	2,540	2,572	2,556	2,614	2,617	2,606	27,788

Sr.no.	Particulars	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
c	West	2,402	2,612	2,701	2,614	2,519	2,494	3,290	3,395	3,397	3,428	3,431	3,367	35,651
2	Distribution Loss (%)													
a	East	24%	21%	12%	16%	17%	18%	10%	15%	18%	13%	7%	5%	15%
b	Central	22%	20%	8%	16%	18%	19%	12%	18%	23%	19%	10%	4%	16%
c	West	20%	23%	14%	6%	1%	4%	8%	17%	24%	24%	15%	10%	14%
3	Distribution Loss	1,695	1,833	886	944	886	1035	867	1,647	2,383	2,061	1,096	628	15,962
a	East	580	551	275	360	398	444	259	403	533	375	203	145	4,526
b	Central	529	518	184	405	460	494	332	562	751	595	282	122	5,235
c	West	586	763	427	179	28	97	277	682	1098	1091	611	361	6,201
4	Energy at Discom Periphery	7,795	8,501	7,743	7,584	7,389	7,559	9,051	9,983	10,764	10,681	9,643	9,099	105,792
a	East	2,429	2,569	2,270	2,273	2,323	2,409	2,613	2,771	2,962	2,953	2,702	2,643	30,916
b	Central	2,378	2,556	2,344	2,518	2,519	2,559	2,872	3,134	3,307	3,209	2,899	2,729	33,024
c	West	2,988	3,375	3,128	2,793	2,547	2,591	3,567	4,077	4,496	4,519	4,042	3,728	41,852
5	State Transmission Losses	207	226	206	202	196	201	241	265	286	284	256	242	2,813
a	East	65	68	60	60	62	64	69	74	79	79	72	70	822
b	Central	63	68	62	67	67	68	76	83	88	85	77	73	878
c	West	79	90	83	74	68	69	95	108	120	120	107	99	1113
6	Energy at State Boundary	8,002	8,727	7,949	7,785	7,585	7,760	9,292	10,248	11,051	10,965	9,900	9,341	108,605
a	East	2,494	2,638	2,330	2,333	2,385	2,473	2,682	2,845	3,040	3,031	2,774	2,713	31,738
b	Central	2,441	2,624	2,407	2,585	2,586	2,627	2,948	3,218	3,395	3,294	2,976	2,801	33,902
c	West	3,068	3,465	3,212	2,867	2,615	2,660	3,662	4,185	4,615	4,639	4,150	3,827	42,965
7	External/PGCIL Losses (WR/ER)	146	165	143	137	139	151	121	149	152	158	207	162	1,830
a	East	46	50	42	41	44	48	35	41	42	44	58	47	537
b	Central	45	49	43	46	47	51	38	47	47	48	62	49	572
c	West	56	65	58	51	48	52	48	61	63	67	87	66	722
8	Energy Requirement (Ex-Bus)	8,149	8,891	8,091	7,923	7,724	7,911	9,413	10,397	11,202	11,123	10,107	9,504	110,435
a	East	2,539	2,687	2,372	2,374	2,429	2,521	2,717	2,886	3,082	3,075	2,832	2,760	32,276
b	Central	2,485	2,674	2,450	2,630	2,633	2,678	2,987	3,264	3,442	3,342	3,038	2,850	34,473
c	West	3,124	3,530	3,269	2,918	2,663	2,712	3,709	4,246	4,678	4,706	4,236	3,893	43,686

4.4.3 The ex-bus energy to be purchased during FY 2020-21 to FY 2026-27 (Normative & Actual Losses) is shown in the following table:

Table 157: Energy Requirement at MP State level- Normative Losses (MUs)

Sr. No	Particulars	Normative Distribution Losses						
		MP State						
		FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27
1	Sales (MUs)	58,830	62,818	67,963	73,606	79,053	84,587	89,830
a	<i>LT</i>	46,890	49,671	53,506	57,919	62,093	66,373	70,339
b	<i>HT</i>	11,940	13,147	14,457	15,687	16,960	18,213	19,491
2	Distribution Losses							
a	%	16.27%	16.85%	16.10%	15.84%	15.59%	15.34%	15.09%
b	<i>MUs</i>	11,434	12,727	13,037	13,855	14,601	15,325	15,962
3	Energy Requirement at Discom Boundary (MUs)	70,265	75,545	81,000	87,461	93,654	99,912	105,792
4	State Transmission Losses							
a	%	2.59%	2.59%	2.59%	2.59%	2.59%	2.59%	2.59%
b	<i>MUs</i>	1,868	2,009	2,154	2,325	2,490	2,657	2,813
5	Energy Requirement at State Boundary (MUs)	72,133	77,554	83,154	89,787	96,144	102,568	108,605
6	External/PGCIL Losses							
a	<i>WR %</i>	3.04%	3.04%	3.04%	3.04%	3.04%	3.04%	3.04%
b	<i>NR%</i>	3.29%	3.29%	3.29%	3.29%	3.29%	3.29%	3.29%
c	<i>ER %</i>	3.43%	3.43%	3.43%	3.43%	3.43%	3.43%	3.43%
d	<i>WR MUs</i>							
e	<i>NR MUs</i>	1,319	1,421	1,525	1,587	1,669	1,745	1,830
f	<i>ER MUs</i>							
7	Energy Requirement Ex-Bus	73,452	78,974	84,679	91,373	97,813	104,313	110,435

Table 158: Energy Requirement of East Discom - Normative Losses (MUs)

Sr. No	Particulars	Normative Distribution Losses						
		East Discom						
		FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27
1	Sales (MUs)	16,630	18,285	19,966	21,625	23,224	24,850	26,390
a	<i>LT</i>	13,485	14,664	15,926	17,221	18,478	19,808	21,028
b	<i>HT</i>	3,145	3,621	4,041	4,403	4,746	5,042	5,362
2	Distribution Losses							
a	%	16.00%	16.00%	15.75%	15.50%	15.25%	15.00%	14.75%
b	<i>MUs</i>	3,138	3,856	3,703	3,933	4,144	4,347	4,526
3	Energy Requirement at Discom Boundary (MUs)	19,767	22,141	23,669	25,558	27,368	29,197	30,916
4	State Transmission Losses							
a	%	2.59%	2.59%	2.59%	2.59%	2.59%	2.59%	2.59%
b	<i>MUs</i>	526	589	629	680	728	776	822
5	Energy Requirement at State Boundary (MUs)	20,293	22,730	24,299	26,237	28,096	29,974	31,738
6	External/PGCIL Losses							
a	<i>WR %</i>	3.04%	3.04%	3.04%	3.04%	3.04%	3.04%	3.04%
b	<i>NR%</i>	3.29%	3.29%	3.29%	3.29%	3.29%	3.29%	3.29%
c	<i>ER %</i>	3.43%	3.43%	3.43%	3.43%	3.43%	3.43%	3.43%
d	<i>WR MUs</i>	372	416	447	465	490	512	537
e	<i>NRMUs</i>							
f	<i>ERMUs</i>							
7	Energy Requirement Ex-Bus	20,665	23,146	24,746	26,702	28,586	30,485	32,276

Table 159: Energy Requirement of Central Discom - Normative Losses (MUs)

Sr. No	Particulars	Normative Distribution Losses						
		Central Discom						
		FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27
1	Sales (MUs)	19,167	19,648	21,024	22,769	24,454	26,166	27,788
a	LT	15,500	15,859	16,985	18,496	19,957	21,431	22,798
b	HT	3,668	3,789	4,038	4,272	4,497	4,736	4,991
2	Distribution Losses							
a	%	17.00%	17.00%	16.75%	16.50%	16.25%	16.00%	15.75%
b	MUs	3,929	4,082	4,264	4,535	4,782	5,022	5,235
3	Energy Requirement at Discom Boundary (MUs)	23,097	23,730	25,287	27,303	29,236	31,189	33,024
4	State Transmission Losses							
a	%	2.59%	2.59%	2.59%	2.59%	2.59%	2.59%	2.59%
b	MUs	614	631	672	726	777	829	878
5	Energy Requirement at State Boundary (MUs)	23,711	24,361	25,959	28,029	30,013	32,018	33,902
6	External/PGCIL Losses							
a	WR %	3.04%	3.04%	3.04%	3.04%	3.04%	3.04%	3.04%
b	NR%	3.29%	3.29%	3.29%	3.29%	3.29%	3.29%	3.29%
c	ER %	3.43%	3.43%	3.43%	3.43%	3.43%	3.43%	3.43%
d	WR MUs	432	447	475	494	521	545	572
e	NR MUs							
f	ER MUs							
7	Energy Requirement Ex-Bus	24,143	24,808	26,435	28,524	30,534	32,563	34,473

Table 160: Energy Requirement of West Discom - Normative Losses (MUs)

Sr. No	Particulars	Normative Distribution Losses						
		West Discom						
		FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27
1	Sales (MUs)	23,033	24,885	26,973	29,213	31,375	33,570	35,651
a	LT	17,906	19,148	20,596	22,201	23,658	25,135	26,513
b	HT	5,127	5,737	6,378	7,012	7,716	8,435	9,138
2	Distribution Losses							
a	%	15.00%	14.00%	14.75%	14.50%	14.25%	14.00%	13.75%
b	MUs	4,368	4,789	5,070	5,387	5,675	5,955	6,201
3	Energy Requirement at Discom Boundary (MUs)	27,401	29,674	32,044	34,600	37,050	39,526	41,852
4	State Transmission Losses							
a	%	2.59%	2.59%	2.59%	2.59%	2.59%	2.59%	2.59%
b	MUs	729	789	852	920	985	1,051	1,113
5	Energy Requirement at State Boundary (MUs)	28,130	30,463	32,896	35,520	38,035	40,577	42,965
6	External/PGCIL Losses							
a	WR %	3.04%	3.04%	3.04%	3.04%	3.04%	3.04%	3.04%
b	NR%	3.29%	3.29%	3.29%	3.29%	3.29%	3.29%	3.29%
c	ER %	3.43%	3.43%	3.43%	3.43%	3.43%	3.43%	3.43%
d	WR MUs	514	557	603	627	658	688	722
e	NR MUs							
f	ER MUs							
7	Energy Requirement Ex-Bus	28,644	31,020	33,498	36,147	38,693	41,265	43,686

4.4.4 It is prayed to the Hon'ble Commission to approve energy requirement as shown above.

A5: ASSESSMENT OF AVAILABILITY

5.1 Availability Assessment- Existing and Upcoming

The Discoms have broadly categorised the sources of energy into State-Owned Generation, i.e., Generation from MPPGCL (MP Genco), Allocation (firm and non-firm) from Central Generating Stations (CGS), Independent Power Producers (IPPs), Biomass, Wind, Hydro and Solar Power Plants etc.

5.2 This section details the availability of power and related costs for the ensuing years for the state of Madhya Pradesh. The forecast takes into account the following aspects:

- Existing long term allocated generation capacity of MP.
- New generation capacity additions during the control period from FY 2022-23 to FY 2026-27 for MPPGCL, Central Sector, Joint venture and by Private players awarded through competitive bidding
- Impact of generation capacity allocation in WR, NR and ER

5.3 Based on the above available information, power purchase for the ensuing years has been forecasted. The same has been detailed in the subsequent sections. We further submit that new Central and State Generating Plants are scheduled to commence generation during FY 2022-23 to FY 2026-27 as follows:

Table 161: Upcoming Conventional Stations and Other Technical Parameters

Sr.no.	Particulars	Capacity (MW)	PLF/DE/CFU Considered (%) first 90 days	PLF/DE/CFU Considered (%) after 90 Days	Remarks	MP Share (%)	MP Share (MW)	Energy Availability (MU)	CoD	
1	NHPC Lower Subansiri HEP Unit-1	1x250	As per the Design Energy				5%	13	73	Jun-23
2	NTPC Lara STPS, Raigarh, Unit III	1x800	65.00%	85.00%	CERC Norms	8%	64	361	Sep-24	
3	NTPC Lara STPS, Raigarh, Unit IV	1x800	65.00%	85.00%	CERC Norms	8%	64	361	Mar-25	
4	NTPC Lara STPS, Raigarh, Unit V	1x800	65.00%	85.00%	CERC Norms	8%	64	440	Dec-25	
5	DB Power STPS Unit-1	1x660	65.00%	85.00%	CERC Norms	38%	248	320	Oct-22	
6	Pench Thermal Energy, Unit-1	1x660	65.00%	85.00%	MPERC Order	100%	660	889	Dec-26	
7	Total						1,112	2,446		

Table 162: Fixed & Variable Charges of upcoming Stations

Sr. no.	Particulars	Fixed Cost	Basis	Variable Cost in Rs. Per Unit	Basis
1	NHPC Lower Subansiri HEP			9.32	Variable Charges considered same as that of Singrauli Small HEP
2	NTPC Lara STPS, Raigarh, Unit III	85.85	As per the Tariff Order for FY 2021-22	2.28	As per the Tariff Order for FY 2021-22
3	NTPC Lara STPS, Raigarh, Unit IV	85.85	As per the Tariff Order for FY 2021-22	2.28	As per the Tariff Order for FY 2021-22
4	NTPC Lara STPS, Raigarh, Unit V	85.85	As per the Tariff Order for FY 2021-22	2.28	As per the Tariff Order for FY 2021-22
5	DB Power STPS Unit-1	320.33	Since there is no tariff order available, therefore Considered in Fixed Charges in MW proportions w.r.t. MB Power and variable Cost as per the MB Power	2.43	Since there is no tariff order available, therefore Considered in Fixed Charges in MW proportions w.r.t. MB Power and variable Cost as per the MB Power
6	Pench Thermal Energy, Unit-1	257.69	fixed cost of Rs. 2.898 per unit as per the MPERC Order in Petition No. 28 of 2020 dated 26th May 2020	1.89	Fuel cost of Rs. 1.982 per unit as per the MPERC Order in Petition No. 28 of 2020 dated 26th May 2020

5.4 Allocation of Power to the state of MP, from Central Sector stations is as per **Western Regional Power Committee** in their letter No. WRPC/Comml-I/6/Alloc/2020/9876 dated 6th Nov'2020 and from **Eastern Region** NTPC Kahalgaon-2 vide GoI MoP letter no. 5/31/2006-Th.2 dated 21st February 2007 **and Northern Region** as per Northern Regional Power Committee letter no. NRPC/OPR/103/02/2020/6084/6111 dated 25th June 2020 and communication held with their concerned office. Allocation from MP Genco and other sources have been considered based on inputs provided and latest updates from their concerned office.

5.5 The various stations both new and existing in which MPPMCL/Discom's has been allocated share are listed in the table below.

Table 163: Contracted Capacity – MP State (Existing & New)

Sr. no.	Source	Plant Capacity (MW)	FY 2022-23		FY 2023-24		FY 2024-25		FY 2025-26		FY 2026-27	
			MP's Share in %	MP's Share in MW	MP's Share in %	MP's Share in MW	MP's Share in %	MP's Share in MW	MP's Share in %	MP's Share in MW	MP's Share in %	MP's Share in MW
1	Amarkantak TPS Ph-III	210	100%	210	100%	210	100%	210	100%	210	100%	210
2	Satpura TPS Ph-II & III	840	99%	830	99%	830	99%	830	99%	830	99%	830
3	Satpura TPS Ph-IV	500	100%	500	100%	500	100%	500	100%	500	100%	500
4	SGTPS Ph-I & II	840	100%	840	100%	840	100%	840	100%	840	100%	840
5	SGTPS Ph-III	500	100%	500	100%	500	100%	500	100%	500	100%	500
6	Shri Singaji STPS Phase-I	1200	100%	1200	100%	1200	100%	1200	100%	1200	100%	1200
7	Shri Singaji STPS Phase-II	1320	100%	1320	100%	1320	100%	1320	100%	1320	100%	1320
A	Total (MP Genco Thermal-MP Share)	5410	100%	5400								
8	Rani Awanti Bai Sagar, Bargi HPS	90	100%	90	100%	90	100%	90	100%	90	100%	90
9	Bansagar Ph I HPS (Tons)	315	100%	315	100%	315	100%	315	100%	315	100%	315
10	Bansagar Ph-II HPS (Silpara)	30	100%	30	100%	30	100%	30	100%	30	100%	30
11	Bansagar Ph-III HPS (Deolond)	60	100%	60	100%	60	100%	60	100%	60	100%	60

Sr. no.	Source	Plant Capacity (MW)	FY 2022-23		FY 2023-24		FY 2024-25		FY 2025-26		FY 2026-27	
			MP's Share in %	MP's Share in MW	MP's Share in %	MP's Share in MW	MP's Share in %	MP's Share in MW	MP's Share in %	MP's Share in MW	MP's Share in %	MP's Share in MW
12	Bansagar Ph-IV HPS (Jhinna)	20	100%	20	100%	20	100%	20	100%	20	100%	20
13	Birsinghpur HPS	20	100%	20	100%	20	100%	20	100%	20	100%	20
14	Madikheda HPS	60	100%	60	100%	60	100%	60	100%	60	100%	60
15	Rajghat HPS	45	50%	23	50%	23	50%	23	50%	23	50%	23
16	Gandhisagar HPS	115	50%	58	50%	58	50%	58	50%	58	50%	58
17	Ranapratap Sagar HPS	172	50%	86	50%	86	50%	86	50%	86	50%	86
18	Jawahar Sagar HPS	99	50%	50	50%	50	50%	50	50%	50	50%	50
19	Pench HPS	160	67%	107	67%	107	67%	107	67%	107	67%	107
B	Total (MP Genco Hydel)	1186	77%	917								
20	NHDC Indira Sagar HPS	1000	100%	1000	100%	1000	100%	1000	100%	1000	100%	1000
21	NHDC Omkareshwar HPS	520	100%	520	100%	520	100%	520	100%	520	100%	520
22	NVDA Sardar Sarovar HPS	1450	57%	827	57%	827	57%	827	57%	827	57%	827
23	Rihand HPS	300	15%	45	15%	45	15%	45	15%	45	15%	45
24	Matatila HPS	31	33%	10	33%	10	33%	10	33%	10	33%	10
25	SJVN Rampur HPS	412	0%	1	0%	1	0%	1	0%	1	0%	1
26	SJVN Jhakri HPS	1500	0%	2	0%	2	0%	2	0%	2	0%	2
27	Tehri HPS	1000	0%	2	0%	2	0%	2	0%	2	0%	2
28	Koteshwar HPP	400	0%	1	0%	1	0%	1	0%	1	0%	1
29	NHPC Parbatii III	520	0%	1	0%	1	0%	1	0%	1	0%	1
30	NHPC Chamera II	300	0%	1	0%	1	0%	1	0%	1	0%	1
31	NHPC Chamera III	231	0%	1	0%	1	0%	1	0%	1	0%	1
32	NHPC Dulhasti	390	0%	1	0%	1	0%	1	0%	1	0%	1
33	NHPC Dhauliganga	280	0%	1	0%	1	0%	1	0%	1	0%	1

Sr. no.	Source	Plant Capacity (MW)	FY 2022-23		FY 2023-24		FY 2024-25		FY 2025-26		FY 2026-27	
			MP's Share in %	MP's Share in MW	MP's Share in %	MP's Share in MW	MP's Share in %	MP's Share in MW	MP's Share in %	MP's Share in MW	MP's Share in %	MP's Share in MW
34	NHPC Sewa II	120	0%	0	0%	0	0%	0	0%	0	0%	0
35	NHPC Uri II	240	0%	1	0%	1	0%	1	0%	1	0%	1
36	NHPC Kishanganga	330	0%	1	0%	1	0%	1	0%	1	0%	1
37	NTPC Koldam HPP I	800	0%	1	0%	1	0%	1	0%	1	0%	1
38	NTPC Singrauli Small HPP	8	0%	0	0%	0	0%	0	0%	0	0%	0
39	NHPC Lower Subansiri HEP Unit-1	250	5%	13	5%	13	5%	13	5%	13	5%	13
C	Total (JV Hydel & Other Hydel)	10082	24%	2427								
40	NTPC Korba	2100	23%	473	23%	473	23%	473	23%	473	23%	473
41	NTPC Korba III	500	14%	72	14%	72	14%	72	14%	72	14%	72
42	NTPC Vidyachal I	1260	35%	435	35%	435	35%	435	35%	435	35%	435
43	NTPC Vidyachal II	1000	31%	312	31%	312	31%	312	31%	312	31%	312
44	NTPC Vidyachal III	1000	24%	239	24%	239	24%	239	24%	239	24%	239
45	NTPC Vidyachal IV	1000	28%	275	28%	275	28%	275	28%	275	28%	275
46	NTPC Vidyachal V Unit 1	500	27%	137	27%	137	27%	137	27%	137	27%	137
47	NTPC Sipat I	1980	16%	320	16%	320	16%	320	16%	320	16%	320
48	NTPC Sipat II	1000	18%	181	18%	181	18%	181	18%	181	18%	181
49	NTPC Mouda I	1000	2%	19	2%	19	2%	19	2%	19	2%	19
50	NTPC Mouda II Unit 1	1320	2%	24	2%	24	2%	24	2%	24	2%	24
51	NTPC Solapur STPS	1320	24%	321	24%	321	24%	321	24%	321	24%	321
52	NTPC Gadarwara STPS, Unit-1	800	52%	415	52%	415	52%	415	52%	415	52%	415
53	NTPC Lara STPS, Raigarh, Unit I	800	11%	89	11%	89	10%	76	8%	64	8%	64

Sr. no.	Source	Plant Capacity (MW)	FY 2022-23		FY 2023-24		FY 2024-25		FY 2025-26		FY 2026-27	
			MP's Share in %	MP's Share in MW	MP's Share in %	MP's Share in MW	MP's Share in %	MP's Share in MW	MP's Share in %	MP's Share in MW	MP's Share in %	MP's Share in MW
54	NTPC Khargone STPS, Unit-I & II	1320	52%	685	52%	685	52%	685	52%	685	52%	685
55	NTPC Kawas GPP	656	21%	140	21%	140	21%	140	21%	140	21%	140
56	NTPC Gandhar GPP	657	18%	117	18%	117	18%	117	18%	117	18%	117
57	KAPP Kakrapar	440	25%	111	25%	111	25%	111	25%	111	25%	111
58	TAPP Tarapur	1080	21%	231	21%	231	21%	231	21%	231	21%	231
59	NTPC Gadarwara STPS, Unit-2	800	52%	415	52%	415	52%	415	52%	415	52%	415
60	NTPC Lara STPS, Raigarh, Unit II	800	11%	89	11%	89	10%	76	8%	64	8%	64
61	NTPC Lara STPS, Raigarh, Unit III	800	0%		0%	0	10%	76	8%	64	8%	64
62	NTPC Lara STPS, Raigarh, Unit IV	800	0%		0%	0	10%	76	8%	64	8%	64
63	NTPC Lara STPS, Raigarh, Unit V	800	0%		0%	0	0%		8%	64	8%	64
D	Total WR Region	23,733	21%	5,100.56	21%	5,100.51	22%	5,228.16	22%	5,242	22%	5,242.02
64	NTPC Kahalgaon I											
65	NTPC Kahalgaon II	1500	5%	74	5%	74	5%	74	5%	74	5%	74
66	NTPC Farakka											
67	NTPC Talcher											
68	NTPC Barh											
69	DVC (MTPS & CTPS)											
70	DVC (DTPS)											
E	Total ER Region	1500.00	5%	74.00								
71	NTPC Auraiya GPP	663	0%	2	0%	2	0%	2	0%	2	0%	2

Sr. no.	Source	Plant Capacity (MW)	FY 2022-23		FY 2023-24		FY 2024-25		FY 2025-26		FY 2026-27	
			MP's Share in %	MP's Share in MW	MP's Share in %	MP's Share in MW	MP's Share in %	MP's Share in MW	MP's Share in %	MP's Share in MW	MP's Share in %	MP's Share in MW
72	NTPC Dadri GPP	830	0%	2	0%	2	0%	2	0%	2	0%	2
73	NTPC Anta GPP	419	0%	1	0%	1	0%	1	0%	1	0%	1
74	NTPC Firoz Gandhi Unchahar I	420	0%	0	0%	0	0%	0	0%	0	0%	0
75	NTPC Firoz Gandhi Unchahar II	420	0%	1	0%	1	0%	1	0%	1	0%	1
76	NTPC Firoz Gandhi Unchahar III	210	0%	1	0%	1	0%	1	0%	1	0%	1
77	NTPC Firoz Gandhi Unchahar IV	500	0%	1	0%	1	0%	1	0%	1	0%	1
78	NTPC Rihand TPS-I	1000	0%	2	0%	2	0%	2	0%	2	0%	2
79	NTPC Rihand TPS-II	1000	0%	2	0%	2	0%	2	0%	2	0%	2
80	NTPC Rihand TPS-III	1000	0%	2	0%	2	0%	2	0%	2	0%	2
81	NTPC NCTP Dadri II	980	0%	2	0%	2	0%	2	0%	2	0%	2
82	NTPC Singrauli	2000	0%	4	0%	4	0%	4	0%	4	0%	4
83	NTPC IGPS I Jhajjar	1500	0%	2	0%	2	0%	2	0%	2	0%	2
84	MEJA Urja Nigam	660	0%	1	0%	1	0%	1	0%	1	0%	1
85	NTPC Tanda	660	0%	1	0%	1	0%	1	0%	1	0%	1
86	NTPC Badarpur	0	0%	0	0%	0	0%	0	0%	0	0%	0
87	Rajasthan(NPCIL)	440	0%	1	0%	1	0%	1	0%	1	0%	1
88	NARORA (NPCIL)	440	0%	1	0%	1	0%	1	0%	1	0%	1
F	Total NR Region	13142	0%	27								
89	Torrent Power	1148	4%	50	4%	50	4%	50	4%	50	4%	50
90	BLA Power, Unit-I & II	90	35%	32	35%	32	35%	32	35%	32	35%	32
91	Jaypee Bina Power	500	70%	350	70%	350	70%	350	70%	350	70%	350
92	Lanco Amarkantak TPS Unit 1	300	100%	300	100%	300	100%	300	100%	300	100%	300

Sr. no.	Source	Plant Capacity (MW)	FY 2022-23		FY 2023-24		FY 2024-25		FY 2025-26		FY 2026-27	
			MP's Share in %	MP's Share in MW	MP's Share in %	MP's Share in MW	MP's Share in %	MP's Share in MW	MP's Share in %	MP's Share in MW	MP's Share in %	MP's Share in MW
93	Reliance UMPP, Sasan	3960	38%	1485	38%	1485	38%	1485	38%	1485	38%	1485
94	Essar Power STPS	1200	5%	60	5%	60	5%	60	5%	60	5%	60
95	Jaiprakash Power STPS, Nigri	1320	38%	495	38%	495	38%	495	38%	495	38%	495
96	MB Power STPS, Unit-I	600	35%	210	35%	210	35%	210	35%	210	35%	210
97	MB Power STPS, Unit-II	600	35%	210	35%	210	35%	210	35%	210	35%	210
98	Jhabua Power STPS, Unit-1	600	35%	210	35%	210	35%	210	35%	210	35%	210
99	DB Power STPS Unit-1	660	38%	248	38%	248	38%	248	38%	248	38%	248
100	Pench Thermal Energy, Unit-1											660
G	Total (IPPs)	10978	33%	3649	33%	3649	33%	3649	33%	3649	39%	4309
101	Renewable Energy (Solar)	3438	100%	3438	100%	3578	100%	3578	100%	3578	100%	3578
102	Renewable Energy (other than Solar)	2542	100%	2542	100%	2548	100%	2548	100%	2548	100%	2541
H	Total Renewable Energy	5980	100%	5980	100%	6126	100%	6126	100%	6126	100%	6119
I	Grand Total	72,011	33%	23,575	33%	23,721	33%	23,848	33%	23,862	34%	24,515

5.6 As can be seen from the above table, some relevant information for FY 2022-23 are as follows:

- As submitted in the previous year's ARR Petitions, MPPMCL has already decided to foreclose the PPAs with DVC for 400 MW from DVC (MTPS & CTPS) and 100 MW (DTPS) w.e.f. 01st March 2018 & 15th May 2017 respectively. Hence no power is being scheduled from these stations after the said date. The Costs of such plants have not been considered while calculating the power purchase cost for FY 2022-23 to 2026-27. However, in case the PPAs with DVC remains in force in FY 2022-23 to 2026-27, MPPMCL will be obligated to pay fixed charges for these stations.
- During FY 2021-22, power from Essar, BLA & Sugen Torrent Generating Stations has been scheduled following MoD whereas in the Tariff Order for FY 2021-22, Hon'ble Commission had not considered availability and the cost thereon from these plants. It is humbly submitted that the power purchase expenditure incurred on these plants will be submitted before the Hon'ble Commission in the true up of FY 2021-22. It is further humbly submitted before the Hon'ble Commission that for FY 2022-23 to FY 2026-27, the availability from these plants has been considered as the PPAs with these plants remain in force.

5.7 Ex-Bus Availability

For the purpose of estimating the Ex-bus availability the Discoms have considered the provisional energy received in FY 2022-23 to FY 2026-27. The total Ex-Bus Availability from the existing allocated stations as well as the future capacity additions which are expected to become operational till end of MYT period i.e. FY 2026-27 as discussed in previous sections is as given below:

Table 164: Ex-Bus Availability (MUs) Plant Source Wise

Sl No	Source	FY 23	FY 24	FY 25	FY 26	FY 27
1	Amarkantak TPS Ph-III	1540	1544	1540	1540	1540
2	Satpura TPS Ph-II & III	0	0	0	0	0
3	Satpura TPS Ph-IV	3388	3397	3388	3388	3388
4	SGTPS Ph-I & II	4754	4768	4754	4754	4754
5	SGTPS Ph-III	3468	3477	3468	3468	3468
6	Shri Singaji STPS Phase-I	8421	8445	8421	8421	8421
7	Shri Singaji STPS Phase-II	9141	9166	9141	9141	9141
A	Total (MP Genco Thermal-MP Share)	30712	30797	30712	30712	30712

SI No	Source	FY 23	FY 24	FY 25	FY 26	FY 27
8	Rani Awanti Bai Sagar, Bargi HPS	380	380	380	380	380
9	Bansagar Ph I HPS (Tons)	898	898	898	898	898
10	Bansagar Ph-II HPS (Silpara)	92	92	92	92	92
11	Bansagar Ph-III HPS (Deolond)	107	107	107	107	107
12	Bansagar Ph-IV HPS (Jhinna)	76	76	76	76	76
13	Birsinghpur HPS	36	36	36	36	36
14	Madikheda HPS	110	110	110	110	110
15	Rajghat HPS	37	37	37	37	37
16	Gandhisagar HPS	125	167	167	167	167
17	Ranapratap Sagar HPS	201	201	201	201	201
18	Jawahar Sagar HPS	147	147	147	147	147
19	Pench HPS	199	199	199	199	199
B	Total (MP Genco Hydel)	2409	2450	2450	2450	2450
20	NHDC Indira Sagar HPS	2359	2359	2359	2359	2359
21	NHDC Omkareshwar HPS	1043	1043	1043	1043	1043
22	NVDA Sardar Sarovar HPS	1696	1696	1696	1696	1696
23	Rihand HPS	82	82	82	82	82
24	Matatila HPS	29	29	29	29	29
25	SJVN Rampur HPS	2	2	2	2	2
26	SJVN Jhakri HPS	9	9	9	9	9
27	Tehri HPS	6	6	6	6	6
28	Koteshwar HPP	3	3	3	3	3
29	NHPC Parbati III	5	5	5	5	5
30	NHPC Chamera II	3	3	3	3	3
31	NHPC Chamera III	2	2	2	2	2
32	NHPC Dulhastí	4	4	4	4	4

SI No	Source	FY 23	FY 24	FY 25	FY 26	FY 27
33	NHPC Dhauliganga	3	3	3	3	3
34	NHPC Sewa II	1	1	1	1	1
35	NHPC Uri II	0	0	0	0	0
36	NHPC Kishanganga	3	3	3	3	3
37	NTPC Koldam HPPI	4	4	4	4	4
38	NTPC Singrauli Small HPP	0	0	0	0	0
39	NHPC Lower Subansiri HEP Unit-1	0	73	267	387	387
C	Total (JV Hydel & Other Hydel)	5254	5327	5520	5641	5641
40	NTPC Korba	3286	3295	3286	3286	3286
41	NTPC Korba III	505	506	505	505	505
42	NTPC Vindyachal I	2947	2955	2947	2947	2947
43	NTPC Vindyachal II	2190	2196	2190	2190	2190
44	NTPC Vindyachal III	1677	1682	1677	1677	1677
45	NTPC Vindyachal IV	1931	1937	1931	1931	1931
46	NTPC Vindyachal V Unit 1	963	966	963	963	963
47	NTPC Sipat I	2247	2253	2247	2247	2247
48	NTPC Sipat II	1273	1276	1273	1273	1273
49	NTPC Mouda I	135	135	135	135	1162
50	NTPC Mouda II Unit 1	171	172	171	171	1620
51	NTPC Solapur STPS	2250	2257	2250	2250	2250
52	NTPC Gadarwara STPS, Unit-1	2913	2921	2913	2913	2913
53	NTPC Lara STPS, Raigarh, Unit I	622	624	361	440	518
54	NTPC Khargone STPS, Unit-I & II	4806	4819	4806	4806	4806
55	NTPC Kawas GPP	718	720	718	718	718
56	NTPC Gandhar GPP	601	602	601	601	601
57	KAPP Kakrapar	728	730	728	728	728

SI No	Source	FY 23	FY 24	FY 25	FY 26	FY 27
58	TAPP Tarapur	1513	1518	1513	1513	1513
59	NTPC Gadarwara STPS, Unit-2	2913	2921	2913	2913	2913
60	NTPC Lara STPS, Raigarh, Unit II	622	624	361	440	518
61	NTPC Lara STPS, Raigarh, Unit III	0	0	361	440	518
62	NTPC Lara STPS, Raigarh, Unit IV	0	0	361	440	518
63	NTPC Lara STPS, Raigarh, Unit V	0	0	0	440	518
D	Total WR Region	35011	35106	35211	35968	38830
64	NTPC Kahalgaon I	0	0	0	0	0
65	NTPC Kahalgaon II	519	521	519	519	519
66	NTPC Farakka	0	0	0	0	0
67	NTPC Talcher	0	0	0	0	0
68	NTPC Barh	0	0	0	0	0
69	DVC (MTPS & CTPS)	0	0	0	0	0
70	DVC (DTPS)	0	0	0	0	0
E	Total ER Region	519.32	520.74	519.32	519.32	519.32
71	NTPC Auraiya GPP	12	12	12	12	12
72	NTPC Dadri GPP	15	15	15	15	15
73	NTPC Anta GPP	7	7	7	7	7
74	NTPC Firoz Gandhi Unchahar I	2	2	2	2	2
75	NTPC Firoz Gandhi Unchahar II	7	7	7	7	7
76	NTPC Firoz Gandhi Unchahar III	4	4	4	4	4
77	NTPC Firoz Gandhi Unchahar IV	9	9	9	9	9
78	NTPC Rihand TPS-I	15	15	15	15	15
79	NTPC Rihand TPS-II	16	16	16	16	16
80	NTPC Rihand TPS-III	17	17	17	17	17

SI No	Source	FY 23	FY 24	FY 25	FY 26	FY 27
81	NTPC NCTP Dadri II	16	16	16	16	16
82	NTPC Singrauli	28	28	28	28	28
83	NTPC IGPS I Jhajjar	14	14	14	14	14
84	MEJA Urja Nigam	6	6	6	6	6
85	NTPC Tanda	8	8	8	8	8
86	NTPC Badarpur	0	0	0	0	0
87	Rajasthan (NPCIL)	8	8	8	8	8
88	NARORA (NPCIL)	7	7	7	7	7
F	Total NR Region	191	191	191	191	191
89	Torrent Power	256	257	256	256	256
90	BLA Power, Unit-I & II	188	189	188	188	188
91	Jaypee Bina Power	2372	2378	2372	2372	2372
92	Lanco Amarkantak TPS Unit 1	2033	2038	2033	2033	2033
93	Reliance UMPP, Sasan	10422	10450	10422	10422	10422
94	Essar Power STPS	421	422	421	421	421
95	Jaiprakash Power STPS, Nigri	3474	3483	3474	3474	3474
96	MB Power STPS, Unit-I	1474	1478	1474	1474	1474
97	MB Power STPS, Unit-II	1474	1478	1474	1474	1474
98	Jhabua Power STPS, Unit-1	1474	1478	1474	1474	1474
99	DB Power STPS Unit-1	616	1723	1718	1718	1718
100	Pench Thermal Energy, Unit-1	0	0	0	0	889
G	Total (IPPs)	24202	25374	25305	25305	26194
101	Renewable Energy (Solar)	7555	9764	10501	10501	10501
102	Renewable Energy (other than Solar)	4515	4534	4534	4534	4531
H	Total Renewable Energy	12070	14299	15035	15035	15032

SI No	Source	FY 23	FY 24	FY 25	FY 26	FY 27
I	Grand Total	110368	114066	114944	115821	119570

Table 165: Month Wise Power Availability for FY 2022-23

Sr.no.	Particulars	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
1	Amarkantak TPS Ph-III	129	134	129	101	134	129	134	129	134	134	121	134	1540
2	Satpura TPS Ph-II & III	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Satpura TPS Ph-IV	296	305	296	148	255	296	305	296	305	305	276	305	3388
4	SGTPS Ph-I & II	432	397	297	324	328	357	446	432	446	446	403	446	4754
5	SGTPS Ph-III	314	325	314	325	143	143	325	314	325	325	293	325	3468
6	Shri Singaji STPS Phase-I	756	782	756	391	391	756	782	756	782	782	706	782	8421
7	Shri Singaji STPS Phase-II	398	424	821	848	848	821	848	821	848	848	766	848	9141
A	Total (MP Genco Thermal-MP Share)	2325	2366	2613	2137	2098	2501	2840	2748	2840	2840	2565	2840	30712
8	Rani Awanti Bai Sagar, Bargi HPS	19	20	20	21	51	59	48	31	31	30	25	24	380
9	Bansagar Ph I HPS (Tons)	45	47	47	49	121	139	113	74	74	72	60	57	898
10	Bansagar Ph-II HPS (Silpara)	5	5	5	5	12	14	12	8	8	7	6	6	92
11	Bansagar Ph-III HPS (Deolond)	5	6	6	6	14	17	13	9	9	9	7	7	107
12	Bansagar Ph-IV HPS (Jhinna)	4	4	4	4	10	12	10	6	6	6	5	5	76
13	Birsinghpur HPS	2	2	2	2	5	6	5	3	3	3	2	2	36
14	Madikheda HPS	6	6	6	6	15	17	14	9	9	9	7	7	110
15	Rajghat HPS	2	2	2	2	5	6	5	3	3	3	2	2	37
16	Gandhisagar HPS	6	7	7	7	17	19	16	10	10	10	8	8	125
17	Ranapratap Sagar HPS	10	10	10	11	27	31	25	17	17	16	13	13	201
18	Jawahar Sagar HPS	7	8	8	8	20	23	19	12	12	12	10	9	147

Sr.no.	Particulars	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
19	Pench HPS	10	10	10	11	27	31	25	16	16	16	13	13	199
B	Total (MP Genco Hydel)	120	125	125	132	325	373	303	198	198	193	161	154	2409
20	NHDC Indira Sagar HPS	118	123	123	130	319	366	297	193	193	189	158	151	2359
21	NHDC Omkareshwar HPS	52	54	54	57	141	162	131	85	85	83	70	67	1043
22	NVDA Sardar Sarovar HPS	85	88	88	93	229	263	214	139	139	136	114	109	1696
23	Rihand HPS	4	4	4	5	11	13	10	7	7	7	6	5	82
24	Matatila HPS	1	2	2	2	4	4	4	2	2	2	2	2	29
25	SJVN Rampur HPS	0	0	0	0	0	0	0	0	0	0	0	0	2
26	SJVN Jhakri HPS	0	0	0	0	1	1	1	1	1	1	1	1	9
27	Tehri HPS	0	0	0	0	1	1	1	1	1	1	0	0	6
28	Koteshwar HPP	0	0	0	0	0	0	0	0	0	0	0	0	3
29	NHPC Parbatí III	0	0	0	0	1	1	1	0	0	0	0	0	5
30	NHPC Chamera II	0	0	0	0	0	1	0	0	0	0	0	0	3
31	NHPC Chamera III	0	0	0	0	0	0	0	0	0	0	0	0	2
32	NHPC Dulhasti	0	0	0	0	0	1	0	0	0	0	0	0	4
33	NHPC Dhauliganga	0	0	0	0	0	0	0	0	0	0	0	0	3
34	NHPC Sewa II	0	0	0	0	0	0	0	0	0	0	0	0	1
35	NHPC Uri II	0	0	0	0	0	0	0	0	0	0	0	0	0
36	NHPC Kishanganga	0	0	0	0	0	0	0	0	0	0	0	0	3
37	NTPC Koldam HPPI	0	0	0	0	0	1	0	0	0	0	0	0	4
38	NTPC Singrauli Small HPP	0	0	0	0	0	0	0	0	0	0	0	0	0
39	NHPC Lower Subansiri HEP Unit-1	0	0	0	0	0	0	0	0	0	0	0	0	0
C	Total (JV Hydel & Other Hydel)	263	273	273	289	709	814	662	431	431	420	352	336	5254
40	NTPC Korba	216	237	268	274	266	249	308	298	308	308	278	275	3286
41	NTPC Korba III	46	48	46	0	37	46	48	46	48	48	43	48	505

Sr.no.	Particulars	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
42	NTPC Vidyachal I	213	230	227	223	223	241	275	266	275	275	248	251	2947
43	NTPC Vidyachal II	201	207	127	155	134	148	207	201	207	207	187	207	2190
44	NTPC Vidyachal III	100	132	100	155	155	150	155	150	155	155	140	132	1677
45	NTPC Vidyachal IV	177	94	155	183	94	155	183	177	183	183	165	183	1931
46	NTPC Vidyachal V Unit 1	86	89	86	89	3	86	89	86	89	89	81	89	963
47	NTPC Sipat I	202	209	135	141	147	190	209	202	209	209	188	209	2247
48	NTPC Sipat II	71	115	111	115	115	111	115	111	115	115	104	75	1273
49	NTPC Mouda I	11	7	11	12	12	12	12	12	12	12	11	7	135
50	NTPC Mouda II Unit 1	15	16	15	16	8	8	16	15	16	16	14	16	171
51	NTPC Solapur STPS	202	208	202	6	208	202	208	202	208	208	188	208	2250
52	NTPC Gadarwara STPS, Unit-1	239	247	239	247	247	239	247	239	247	247	223	247	2913
53	NTPC Lara STPS, Raigarh, Unit I	28	58	56	58	58	28	58	56	58	58	52	58	622
54	NTPC Khargone STPS, Unit-I & II	395	408	395	408	408	395	408	395	408	408	369	408	4806
55	NTPC Kawas GPP	61	62	61	63	56	61	63	60	62	63	43	63	718
56	NTPC Gandhar GPP	51	53	51	53	45	51	53	51	51	53	32	53	601
57	KAPP Kakrapar	62	64	62	64	64	62	64	62	61	64	36	64	728
58	TAPP Tarapur	129	126	129	133	133	129	133	129	133	133	75	133	1513
59	NTPC Gadarwara STPS, Unit-2	239	247	239	247	247	239	247	239	247	247	223	247	2913
60	NTPC Lara STPS, Raigarh, Unit II	28	58	56	58	58	28	58	56	58	58	52	58	622
61	NTPC Lara STPS, Raigarh, Unit III	0	0	0	0	0	0	0	0	0	0	0	0	0
62	NTPC Lara STPS, Raigarh, Unit IV	0	0	0	0	0	0	0	0	0	0	0	0	0
63	NTPC Lara STPS, Raigarh, Unit V	0	0	0	0	0	0	0	0	0	0	0	0	0
D	Total WR Region	2773	2915	2772	2701	2718	2830	3156	3053	3150	3156	2755	3032	35011
64	NTPC Kahalgaon I	0	0	0	0	0	0	0	0	0	0	0	0	0
65	NTPC Kahalgaon II	43	43	42	45	43	43	45	43	45	45	40	45	519
66	NTPC Farakka	0	0	0	0	0	0	0	0	0	0	0	0	0

Sr.no.	Particulars	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
67	NTPC Talcher	0	0	0	0	0	0	0	0	0	0	0	0	0
68	NTPC Barh	0	0	0	0	0	0	0	0	0	0	0	0	0
69	DVC (MTPS & CTPS)	0	0	0	0	0	0	0	0	0	0	0	0	0
70	DVC (DTPS)	0	0	0	0	0	0	0	0	0	0	0	0	0
E	Total ER Region	43.07	42.95	41.52	44.50	42.95	43.07	44.50	43.07	44.50	44.50	40.20	44.50	519.32
71	NTPC Auraiya GPP	1	1	1	1	1	1	1	1	1	1	1	1	12
72	NTPC Dadri GPP	1	1	1	1	1	1	1	1	1	1	1	1	15
73	NTPC Anta GPP	1	1	1	1	1	1	1	1	1	1	1	1	7
74	NTPC Firoz Gandhi Unchahar I	0	0	0	0	0	0	0	0	0	0	0	0	2
75	NTPC Firoz Gandhi Unchahar II	1	1	1	1	1	1	1	1	1	1	1	1	7
76	NTPC Firoz Gandhi Unchahar III	0	0	0	0	0	0	0	0	0	0	0	0	4
77	NTPC Firoz Gandhi Unchahar IV	1	1	1	1	1	1	1	1	1	1	1	1	9
78	NTPC Rihand TPS-I	1	1	1	1	1	1	1	1	1	1	1	1	15
79	NTPC Rihand TPS-II	1	1	1	1	1	1	1	1	1	1	1	1	16
80	NTPC Rihand TPS-III	1	1	1	1	1	1	1	1	1	1	1	1	17
81	NTPC NCTP Dadri II	1	1	1	1	1	1	1	1	1	1	1	1	16
82	NTPC Singrauli	2	2	2	2	2	2	2	2	2	2	2	2	28
83	NTPC IGPS I Jhajjar	1	1	1	1	1	1	1	1	1	1	1	1	14
84	MEJA Urja Nigam	0	1	0	1	1	0	1	0	1	1	0	1	6
85	NTPC Tanda	1	1	1	1	1	1	1	1	1	1	1	1	8
86	NTPC Badarpur	0	0	0	0	0	0	0	0	0	0	0	0	0
87	Rajasthan(NPCIL)	1	1	1	1	1	1	1	1	1	1	1	1	8
88	NARORA(NPCIL)	1	1	1	1	1	1	1	1	1	1	1	1	7
F	Total NR Region	16	15	16	191									
89	Torrent Power	23	23	23	23	23	23	23	23	17	15	17	21	236

Sr.no.	Particulars	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
90	BLA Power, Unit-I & II	16	17	16	17	10	14	17	16	17	17	15	17	188
91	Jaypee Bina Power	211	218	148	145	190	180	218	211	218	218	197	218	2372
92	Lanco Amarkantak TPS Unit 1	178	184	178	184	56	178	184	178	184	184	166	184	2033
93	Reliance UMPP, Sasan	791	821	778	871	808	816	947	917	947	947	856	922	10422
94	Essar Power STPS	37	25	37	38	38	37	38	37	38	38	34	25	421
95	Jaiprakash Power STPS, Nigri	303	313	303	105	313	303	313	303	313	313	282	313	3474
96	MB Power STPS, Unit-I	134	138	134	138	61	97	138	134	138	138	125	101	1474
97	MB Power STPS, Unit-II	134	138	134	138	61	97	138	134	138	138	125	101	1474
98	Jhabua Power STPS, Unit-1	130	135	130	135	24	130	135	130	135	135	122	135	1474
99	DB Power STPS Unit-1	0	0	0	0	0	0	4	108	112	115	132	146	616
100	Pench Thermal Energy, Unit-1	0	0	0	0	0	0	0	0	0	0	0	0	0
G	Total (IPPs)	1955	2011	1879	1792	1583	1874	2154	2183	2254	2259	2074	2185	24202
101	Renewable Energy (Solar)	621	642	621	642	642	621	642	621	642	642	580	642	7555
102	Renewable Energy (other than Solar)	371	384	371	384	384	371	384	371	384	384	346	384	4515
H	Total Renewable Energy	992	1025	992	1025	1025	992	1025	992	1025	1025	926	1025	12070
I	Grand Total	8487	8775	8712	8137	8518	9443	10201	9663	9958	9954	8888	9633	110368

Table 166: Month Wise Power Availability for FY 2023-24

Sr.no.	Particulars	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
1	Amarkantak TPS Ph-III	129	134	129	101	134	129	134	129	134	134	125	134	1544
2	Satpura TPS Ph-II & III	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Satpura TPS Ph-IV	296	305	296	148	255	296	305	296	305	305	286	305	3397
4	SGTPS Ph-I & II	432	397	297	324	328	357	446	432	446	446	417	446	4768

Sr.no.	Particulars	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
5	SGTPS Ph-III	314	325	314	324	143	143	324	314	324	324	304	324	3477
6	Shri Singaji STPS Phase-I	756	782	756	391	391	756	781	756	781	781	731	781	8445
7	Shri Singaji STPS Phase-II	398	424	821	848	848	821	848	821	848	848	793	848	9166
A	Total (MP Genco Thermal-MP Share)	2325	2366	2612	2136	2097	2501	2839	2747	2839	2839	2656	2839	30797
8	Rani Awanti Bai Sagar, Bargi HPS	19	20	20	21	51	59	48	31	31	30	25	24	380
9	Bansagar Ph I HPS (Tons)	45	47	47	49	121	139	113	74	74	72	60	57	898
10	Bansagar Ph-II HPS (Silpara)	5	5	5	5	12	14	12	8	8	7	6	6	92
11	Bansagar Ph-III HPS (Deolond)	5	6	6	6	14	17	13	9	9	9	7	7	107
12	Bansagar Ph-IV HPS (Jhinna)	4	4	4	4	10	12	10	6	6	6	5	5	76
13	Birsinghpur HPS	2	2	2	2	5	6	5	3	3	3	2	2	36
14	Madikheda HPS	6	6	6	6	15	17	14	9	9	9	7	7	110
15	Rajghat HPS	2	2	2	2	5	6	5	3	3	3	2	2	37
16	Gandhisagar HPS	8	9	9	9	23	26	21	14	14	13	11	11	167
17	Ranapratap Sagar HPS	10	10	10	11	27	31	25	17	17	16	13	13	201
18	Jawahar Sagar HPS	7	8	8	8	20	23	19	12	12	12	10	9	147
19	Pench HPS	10	10	10	11	27	31	25	16	16	16	13	13	199
B	Total (MP Genco Hydel)	123	127	127	135	331	380	309	201	201	196	164	157	2450
20	NHDC Indira Sagar HPS	118	123	123	130	319	366	297	193	193	189	158	151	2359
21	NHDC Omkareshwar HPS	52	54	54	57	141	162	131	85	85	83	70	67	1043
22	NVDA Sardar Sarovar HPS	85	88	88	93	229	263	214	139	139	136	114	109	1696
23	Rihand HPS	4	4	4	5	11	13	10	7	7	7	6	5	82
24	Matatila HPS	1	2	2	2	4	4	4	2	2	2	2	2	29
25	SJVN Rampur HPS	0	0	0	0	0	0	0	0	0	0	0	0	2
26	SJVN Jhakri HPS	0	0	0	0	1	1	1	1	1	1	1	1	9
27	Tehri HPS	0	0	0	0	1	1	1	1	1	1	0	0	6

Sr.no.	Particulars	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
28	Koteshwar HPP	0	0	0	0	0	0	0	0	0	0	0	0	3
29	NHPC Parbati III	0	0	0	0	1	1	1	0	0	0	0	0	5
30	NHPC Chamera II	0	0	0	0	0	1	0	0	0	0	0	0	3
31	NHPC Chamera III	0	0	0	0	0	0	0	0	0	0	0	0	2
32	NHPC Dulhasti	0	0	0	0	0	1	0	0	0	0	0	0	4
33	NHPC Dhauliganga	0	0	0	0	0	0	0	0	0	0	0	0	3
34	NHPC Sewa II	0	0	0	0	0	0	0	0	0	0	0	0	1
35	NHPC Uri II	0	0	0	0	0	0	0	0	0	0	0	0	0
36	NHPC Kishanganga	0	0	0	0	0	0	0	0	0	0	0	0	3
37	NTPC Koldam HPPI	0	0	0	0	0	1	0	0	0	0	0	0	4
38	NTPC Singrauli Small HPP	0	0	0	0	0	0	0	0	0	0	0	0	0
39	NHPC Lower Subansiri HEP Unit-1	0	0	2	2	5	11	9	7	10	10	9	8	73
C	Total (JV Hydel & Other Hydel)	263	273	275	291	715	825	671	437	441	430	361	345	5327
40	NTPC Korba	216	237	268	274	266	248	308	298	308	308	288	275	3295
41	NTPC Korba III	46	48	46	0	37	46	48	46	48	48	45	48	506
42	NTPC Vidyachal I	212	230	227	223	223	241	275	266	275	275	257	251	2955
43	NTPC Vidyachal II	201	207	127	155	134	148	207	201	207	207	194	207	2196
44	NTPC Vidyachal III	100	155	150	155	155	150	155	150	155	132	95	132	1682
45	NTPC Vidyachal IV	177	94	155	183	94	155	183	177	183	183	171	183	1937
46	NTPC Vidyachal V Unit 1	86	89	86	89	3	86	89	86	89	89	83	89	966
47	NTPC Sipat I	202	208	135	141	147	190	208	202	208	208	195	208	2253
48	NTPC Sipat II	71	115	111	115	115	111	115	111	115	115	107	75	1276
49	NTPC Mouda I	11	7	11	12	12	12	12	12	12	12	12	7	135
50	NTPC Mouda II Unit 1	15	16	15	16	8	8	16	15	16	16	15	16	172
51	NTPC Solapur STPS	202	208	202	6	208	202	208	202	208	208	195	208	2257
52	NTPC Gadarwara STPS, Unit-1	239	247	239	247	247	239	247	239	247	247	231	247	2921

Sr.no.	Particulars	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
53	NTPC Lara STPS, Raigarh, Unit I	56	58	56	58	30	28	58	56	58	58	54	58	624
54	NTPC Khargone STPS, Unit-I & II	395	408	395	408	408	395	408	395	408	408	382	408	4819
55	NTPC Kawas GPP	61	62	61	63	56	61	63	60	62	63	45	63	720
56	NTPC Gandhar GPP	51	53	51	53	45	51	53	51	51	53	34	53	602
57	KAPP Kakrapar	62	64	62	64	64	62	64	62	61	64	38	64	730
58	TAPP Tarapur	129	133	129	133	133	129	133	129	126	133	79	133	1518
59	NTPC Gadarwara STPS, Unit-2	239	247	239	247	247	239	247	239	247	247	231	247	2921
60	NTPC Lara STPS, Raigarh, Unit II	56	58	56	58	30	28	58	56	58	58	54	58	624
61	NTPC Lara STPS, Raigarh, Unit III	0	0	0	0	0	0	0	0	0	0	0	0	0
62	NTPC Lara STPS, Raigarh, Unit IV	0	0	0	0	0	0	0	0	0	0	0	0	0
63	NTPC Lara STPS, Raigarh, Unit V	0	0	0	0	0	0	0	0	0	0	0	0	0
D	Total WR Region	2828	2944	2821	2700	2662	2829	3155	3052	3142	3133	2806	3032	35106
64	NTPC Kahalgaon I	0	0	0	0	0	0	0	0	0	0	0	0	0
65	NTPC Kahalgaon II	42	43	42	45	45	43	45	43	45	45	42	45	521
66	NTPC Farakka	0	0	0	0	0	0	0	0	0	0	0	0	0
67	NTPC Talcher	0	0	0	0	0	0	0	0	0	0	0	0	0
68	NTPC Barh	0	0	0	0	0	0	0	0	0	0	0	0	0
69	DVC (MTPS & CTPS)	0	0	0	0	0	0	0	0	0	0	0	0	0
70	DVC (DTPS)	0	0	0	0	0	0	0	0	0	0	0	0	0
E	Total ER Region	41.52	42.95	41.52	44.50	44.50	43.07	44.50	43.07	44.50	44.50	41.63	44.50	520.74
71	NTPC Auraiya GPP	1	1	1	1	1	1	1	1	1	1	1	1	12
72	NTPC Dadri GPP	1	1	1	1	1	1	1	1	1	1	1	1	15
73	NTPC Anta GPP	1	1	1	1	1	1	1	1	1	1	1	1	7
74	NTPC Firoz Gandhi Unchahar I	0	0	0	0	0	0	0	0	0	0	0	0	2
75	NTPC Firoz Gandhi Unchahar II	1	1	1	1	1	1	1	1	1	1	1	1	7

Sr.no.	Particulars	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
76	NTPC Firoz Gandhi Unchahar III	0	0	0	0	0	0	0	0	0	0	0	0	4
77	NTPC Firoz Gandhi Unchahar IV	1	1	1	1	1	1	1	1	1	1	1	1	9
78	NTPC Rihand TPS-I	1	1	1	1	1	1	1	1	1	1	1	1	15
79	NTPC Rihand TPS-II	1	1	1	1	1	1	1	1	1	1	1	1	16
80	NTPC Rihand TPS-III	1	1	1	1	1	1	1	1	1	1	1	1	17
81	NTPC NCTP Dadri II	1	1	1	1	1	1	1	1	1	1	1	1	16
82	NTPC Singrauli	2	2	2	2	2	2	2	2	2	2	2	2	28
83	NTPC IGPS I Jhajjar	1	1	1	1	1	1	1	1	1	1	1	1	14
84	MEJA Urja Nigam	0	1	0	1	1	0	1	0	1	1	0	1	6
85	NTPC Tanda	1	1	1	1	1	1	1	1	1	1	1	1	8
86	NTPC Badarpur	0	0	0	0	0	0	0	0	0	0	0	0	0
87	Rajasthan(NPCIL)	1	1	1	1	1	1	1	1	1	1	1	1	8
88	NARORA(NPCIL)	1	1	1	1	1	1	1	1	1	1	1	1	7
F	Total NR Region	16	15	16	191									
89	Torrent Power	23	23	17	20	20	15	23	23	23	23	22	23	257
90	BLA Power, Unit-I & II	16	17	16	17	10	14	17	16	17	17	16	17	189
91	Jaypee Bina Power	211	218	148	145	190	180	218	211	218	218	204	218	2378
92	Lanco Amarkantak TPS Unit 1	178	183	178	183	56	178	183	178	183	183	172	183	2038
93	Reliance UMP, Sasan	867	720	778	871	808	816	947	916	947	947	886	947	10450
94	Essar Power STPS	37	25	37	38	38	37	38	37	38	38	36	25	422
95	Jaiprakash Power STPS, Nigri	303	313	303	105	313	303	313	303	313	313	292	313	3483
96	MB Power STPS, Unit-I	95	101	133	138	99	97	138	133	138	138	129	138	1478
97	MB Power STPS, Unit-II	95	101	133	138	99	97	138	133	138	138	129	138	1478
98	Jhabua Power STPS, Unit-1	130	135	130	135	24	130	135	130	135	135	126	135	1478
99	DB Power STPS Unit-1	141	146	141	146	146	141	146	141	146	146	137	146	1723
100	Pench Thermal Energy, Unit-1	0	0	0	0	0	0	0	0	0	0	0	0	0

Sr.no.	Particulars	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
G	Total (IPPs)	2095	1982	2014	1935	1803	2007	2296	2222	2296	2296	2147	2282	25374
101	Renewable Energy (Solar)	803	829	803	829	829	803	829	803	829	829	749	829	9764
102	Renewable Energy (other than Solar)	373	385	373	385	385	373	385	373	385	385	348	385	4534
H	Total Renewable Energy	1175	1214	1175	1214	1214	1175	1214	1175	1214	1214	1097	1214	14299
I	Grand Total	8866	8966	9083	8473	8883	9776	10545	9894	10194	10169	9288	9930	114066

Table 167: Month Wise Power Availability for FY 2024-25

Sr.no.	Particulars	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
1	Amarkantak TPS Ph-III	129	134	129	101	134	129	134	129	134	134	121	134	1540
2	Satpura TPS Ph-II & III	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Satpura TPS Ph-IV	296	305	296	148	255	296	305	296	305	305	276	305	3388
4	SGTPS Ph-I & II	432	397	297	324	328	357	446	432	446	446	403	446	4754
5	SGTPS Ph-III	314	325	314	325	143	143	325	314	325	325	293	325	3468
6	Shri Singaji STPS Phase-I	756	782	756	391	391	756	782	756	782	782	706	782	8421
7	Shri Singaji STPS Phase-II	398	424	821	848	848	821	848	821	848	848	766	848	9141
A	Total (MP Genco Thermal-MP Share)	2325	2366	2613	2137	2098	2501	2840	2748	2840	2840	2565	2840	30712
8	Rani Awanti Bai Sagar, Bargi HPS	19	20	20	21	51	59	48	31	31	30	25	24	380
9	Bansagar Ph I HPS (Tons)	45	47	47	49	121	139	113	74	74	72	60	57	898
10	Bansagar Ph-II HPS (Silpara)	5	5	5	5	12	14	12	8	8	7	6	6	92
11	Bansagar Ph-III HPS (Deolond)	5	6	6	6	14	17	13	9	9	9	7	7	107
12	Bansagar Ph-IV HPS (Jhinna)	4	4	4	4	10	12	10	6	6	6	5	5	76
13	Birsinghpur HPS	2	2	2	2	5	6	5	3	3	3	2	2	36

Sr.no.	Particulars	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
14	Madikheda HPS	6	6	6	6	15	17	14	9	9	9	7	7	110
15	Rajghat HPS	2	2	2	2	5	6	5	3	3	3	2	2	37
16	Gandhisagar HPS	8	9	9	9	23	26	21	14	14	13	11	11	167
17	Ranapratap Sagar HPS	10	10	10	11	27	31	25	17	17	16	13	13	201
18	Jawahar Sagar HPS	7	8	8	8	20	23	19	12	12	12	10	9	147
19	Pench HPS	10	10	10	11	27	31	25	16	16	16	13	13	199
B	Total (MP Genco Hydel)	123	127	127	135	331	380	309	201	201	196	164	157	2450
20	NHDC Indira Sagar HPS	118	123	123	130	319	366	297	193	193	189	158	151	2359
21	NHDC Omkareshwar HPS	52	54	54	57	141	162	131	85	85	83	70	67	1043
22	NVDA Sardar Sarovar HPS	85	88	88	93	229	263	214	139	139	136	114	109	1696
23	Rihand HPS	4	4	4	5	11	13	10	7	7	7	6	5	82
24	Matatila HPS	1	2	2	2	4	4	4	2	2	2	2	2	29
25	SJVN Rampur HPS	0	0	0	0	0	0	0	0	0	0	0	0	2
26	SJVN Jhakri HPS	0	0	0	0	1	1	1	1	1	1	1	1	9
27	Tehri HPS	0	0	0	0	1	1	1	1	1	1	0	0	6
28	Koteshwar HPP	0	0	0	0	0	0	0	0	0	0	0	0	3
29	NHPC Parbatí III	0	0	0	0	1	1	1	0	0	0	0	0	5
30	NHPC Chamera II	0	0	0	0	0	1	0	0	0	0	0	0	3
31	NHPC Chamera III	0	0	0	0	0	0	0	0	0	0	0	0	2
32	NHPC Dulhasti	0	0	0	0	0	1	0	0	0	0	0	0	4
33	NHPC Dhauliganga	0	0	0	0	0	0	0	0	0	0	0	0	3
34	NHPC Sewa II	0	0	0	0	0	0	0	0	0	0	0	0	1
35	NHPC Uri II	0	0	0	0	0	0	0	0	0	0	0	0	0
36	NHPC Kishanganga	0	0	0	0	0	0	0	0	0	0	0	0	3
37	NTPC Koldam HPPI	0	0	0	0	0	1	0	0	0	0	0	0	4
38	NTPC Singrauli Small HPP	0	0	0	0	0	0	0	0	0	0	0	0	0

Sr.no.	Particulars	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
39	NHPC Lower Subansiri HEP Unit-1	10	10	12	13	31	41	34	22	26	25	22	21	267
C	Total (JV Hydel & Other Hydel)	272	283	286	302	741	855	696	453	456	445	374	357	5520
40	NTPC Korba	216	237	268	274	266	249	308	298	308	308	278	275	3286
41	NTPC Korba III	46	48	46	0	37	46	48	46	48	48	43	48	505
42	NTPC Vidyachal I	213	230	227	223	223	241	275	266	275	275	248	251	2947
43	NTPC Vidyachal II	201	134	201	155	134	148	207	201	207	207	187	207	2190
44	NTPC Vidyachal III	100	155	150	155	155	150	155	150	155	132	91	132	1677
45	NTPC Vidyachal IV	177	94	155	183	94	155	183	177	183	183	165	183	1931
46	NTPC Vidyachal V Unit 1	86	89	86	89	3	86	89	86	89	89	81	89	963
47	NTPC Sipat I	202	209	135	141	147	190	209	202	209	209	188	209	2247
48	NTPC Sipat II	71	115	111	115	115	111	115	111	115	115	104	75	1273
49	NTPC Mouda I	11	7	11	12	12	12	12	12	12	12	11	7	135
50	NTPC Mouda II Unit 1	15	16	15	16	8	8	16	15	16	16	14	16	171
51	NTPC Solapur STPS	202	208	202	6	208	202	208	202	208	208	188	208	2250
52	NTPC Gadarwara STPS, Unit-1	239	247	239	247	247	239	247	239	247	247	223	247	2913
53	NTPC Lara STPS, Raigarh, Unit I	24	25	32	33	33	24	33	32	33	33	30	33	361
54	NTPC Khargone STPS, Unit-I & II	395	408	395	408	408	395	408	395	408	408	369	408	4806
55	NTPC Kawas GPP	61	62	61	63	56	61	63	60	62	63	43	63	718
56	NTPC Gandhar GPP	51	53	51	53	45	51	53	51	51	53	32	53	601
57	KAPP Kakrapar	62	64	62	64	64	62	64	62	61	64	36	64	728
58	TAPP Tarapur	129	133	129	133	133	129	133	129	126	133	75	133	1513
59	NTPC Gadarwara STPS, Unit-2	239	247	239	247	247	239	247	239	247	247	223	247	2913
60	NTPC Lara STPS, Raigarh, Unit II	24	25	32	33	33	24	33	32	33	33	30	33	361
61	NTPC Lara STPS, Raigarh, Unit III	24	25	32	33	33	24	33	32	33	33	30	33	361
62	NTPC Lara STPS, Raigarh, Unit IV	24	25	32	33	33	24	33	32	33	33	30	33	361
63	NTPC Lara STPS, Raigarh, Unit V	0	0	0	0	0	0	0	0	0	0	0	0	0

Sr.no.	Particulars	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
D	Total WR Region	2811	2854	2911	2716	2734	2868	3172	3068	3159	3150	2720	3048	35211
64	NTPC Kahalgaon I	0	0	0	0	0	0	0	0	0	0	0	0	0
65	NTPC Kahalgaon II	42	43	42	45	45	43	45	43	45	45	40	45	519
66	NTPC Farakka	0	0	0	0	0	0	0	0	0	0	0	0	0
67	NTPC Talcher	0	0	0	0	0	0	0	0	0	0	0	0	0
68	NTPC Barh	0	0	0	0	0	0	0	0	0	0	0	0	0
69	DVC (MTPS & CTPS)	0	0	0	0	0	0	0	0	0	0	0	0	0
70	DVC (DTPS)	0	0	0	0	0	0	0	0	0	0	0	0	0
E	Total ER Region	41.52	42.95	41.52	44.50	44.50	43.07	44.50	43.07	44.50	44.50	40.20	44.50	519.32
71	NTPC Auraiya GPP	1	1	1	1	1	1	1	1	1	1	1	1	12
72	NTPC Dadri GPP	1	1	1	1	1	1	1	1	1	1	1	1	15
73	NTPC Anta GPP	1	1	1	1	1	1	1	1	1	1	1	1	7
74	NTPC Firoz Gandhi Unchahar I	0	0	0	0	0	0	0	0	0	0	0	0	2
75	NTPC Firoz Gandhi Unchahar II	1	1	1	1	1	1	1	1	1	1	1	1	7
76	NTPC Firoz Gandhi Unchahar III	0	0	0	0	0	0	0	0	0	0	0	0	4
77	NTPC Firoz Gandhi Unchahar IV	1	1	1	1	1	1	1	1	1	1	1	1	9
78	NTPC Rihand TPS-I	1	1	1	1	1	1	1	1	1	1	1	1	15
79	NTPC Rihand TPS-II	1	1	1	1	1	1	1	1	1	1	1	1	16
80	NTPC Rihand TPS-III	1	1	1	1	1	1	1	1	1	1	1	1	17
81	NTPC NCTP Dadri II	1	1	1	1	1	1	1	1	1	1	1	1	16
82	NTPC Singrauli	2	2	2	2	2	2	2	2	2	2	2	2	28
83	NTPC IGPS I Jhajjar	1	1	1	1	1	1	1	1	1	1	1	1	14
84	MEJA Urja Nigam	0	1	0	1	1	0	1	0	1	1	0	1	6
85	NTPC Tanda	1	1	1	1	1	1	1	1	1	1	1	1	8
86	NTPC Badarpur	0	0	0	0	0	0	0	0	0	0	0	0	0

Sr.no.	Particulars	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
87	Rajasthan (NPCIL)	1	1	1	1	1	1	1	1	1	1	1	1	8
88	NARORA (NPCIL)	1	1	1	1	1	1	1	1	1	1	1	1	7
F	Total NR Region	16	16	16	16	15	16	191						
89	Torrent Power	23	23	23	23	23	23	23	17	15	17	21	23	256
90	BLA Power, Unit-I & II	16	17	16	17	10	14	17	16	17	17	15	17	188
91	Jaypee Bina Power	211	218	148	145	190	180	218	211	218	218	197	218	2372
92	Lanco Amarkantak TPS Unit 1	178	184	178	184	56	178	184	178	184	184	166	184	2033
93	Reliance UMPP, Sasan	892	821	778	846	707	816	821	917	947	947	982	947	10422
94	Essar Power STPS	37	25	37	38	38	37	38	37	38	38	34	25	421
95	Jaiprakash Power STPS, Nigri	303	313	303	105	313	303	313	303	313	313	282	313	3474
96	MB Power STPS, Unit-I	133	138	95	138	99	97	138	133	138	138	125	101	1474
97	MB Power STPS, Unit-II	133	138	95	138	99	97	138	133	138	138	125	101	1474
98	Jhabua Power STPS, Unit-1	130	135	130	135	24	130	135	130	135	135	122	135	1474
99	DB Power STPS Unit-1	141	146	141	146	146	141	146	141	146	146	132	146	1718
100	Pench Thermal Energy, Unit-1	0	0	0	0	0	0	0	0	0	0	0	0	0
G	Total (IPPs)	2197	2157	1943	1913	1706	2015	2170	2216	2288	2290	2200	2210	25305
101	Renewable Energy (Solar)	863	892	863	892	892	863	892	863	892	892	806	892	10501
102	Renewable Energy (other than Solar)	373	385	373	385	385	373	385	373	385	385	348	385	4534
H	Total Renewable Energy	1236	1277	1236	1277	1277	1236	1277	1236	1277	1277	1153	1277	15035
I	Grand Total	9022	9123	9173	8541	8947	9914	10524	9981	10282	10258	9231	9949	114944

Table 168: Month Wise Power Availability for FY 2025-26

Sr.no.	Particulars	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
1	Amarkantak TPS Ph-III	129	134	129	101	134	129	134	129	134	134	121	134	1540
2	Satpura TPS Ph-II & III	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Satpura TPS Ph-IV	296	305	296	148	255	296	305	296	305	305	276	305	3388
4	SGTPS Ph-I & II	432	397	297	324	328	357	446	432	446	446	403	446	4754
5	SGTPS Ph-III	314	325	314	325	143	143	325	314	325	325	293	325	3468
6	Shri Singaji STPS Phase-I	756	782	756	391	391	756	782	756	782	782	706	782	8421
7	Shri Singaji STPS Phase-II	398	424	821	848	848	821	848	821	848	848	766	848	9141
A	Total (MP Genco Thermal-MP Share)	2325	2366	2613	2137	2098	2501	2840	2748	2840	2840	2565	2840	30712
8	Rani Awanti Bai Sagar, Bargi HPS	19	20	20	21	51	59	48	31	31	30	25	24	380
9	Bansagar Ph I HPS (Tons)	45	47	47	49	121	139	113	74	74	72	60	57	898
10	Bansagar Ph-II HPS (Silpara)	5	5	5	5	12	14	12	8	8	7	6	6	92
11	Bansagar Ph-III HPS (Deolond)	5	6	6	6	14	17	13	9	9	9	7	7	107
12	Bansagar Ph-IV HPS (Jhinna)	4	4	4	4	10	12	10	6	6	6	5	5	76
13	Birsinghpur HPS	2	2	2	2	5	6	5	3	3	3	2	2	36
14	Madikheda HPS	6	6	6	6	15	17	14	9	9	9	7	7	110
15	Rajghat HPS	2	2	2	2	5	6	5	3	3	3	2	2	37
16	Gandhisagar HPS	8	9	9	9	23	26	21	14	14	13	11	11	167
17	Ranapratap Sagar HPS	10	10	10	11	27	31	25	17	17	16	13	13	201
18	Jawahar Sagar HPS	7	8	8	8	20	23	19	12	12	12	10	9	147
19	Pench HPS	10	10	10	11	27	31	25	16	16	16	13	13	199
B	Total (MP Genco Hydel)	123	127	127	135	331	380	309	201	201	196	164	157	2450
20	NHDC Indira Sagar HPS	118	123	123	130	319	366	297	193	193	189	158	151	2359
21	NHDC Omkareshwar HPS	52	54	54	57	141	162	131	85	85	83	70	67	1043

Sr.no.	Particulars	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
22	NVDA Sardar Sarovar HPS	85	88	88	93	229	263	214	139	139	136	114	109	1696
23	Rihand HPS	4	4	4	5	11	13	10	7	7	7	6	5	82
24	Matatila HPS	1	2	2	2	4	4	4	2	2	2	2	2	29
25	SJVN Rampur HPS	0	0	0	0	0	0	0	0	0	0	0	0	2
26	SJVN Jhakri HPS	0	0	0	0	1	1	1	1	1	1	1	1	9
27	Tehri HPS	0	0	0	0	1	1	1	1	1	1	0	0	6
28	Koteshwar HPP	0	0	0	0	0	0	0	0	0	0	0	0	3
29	NHPC Parbati III	0	0	0	0	1	1	1	0	0	0	0	0	5
30	NHPC Chamera II	0	0	0	0	0	1	0	0	0	0	0	0	3
31	NHPC Chamera III	0	0	0	0	0	0	0	0	0	0	0	0	2
32	NHPC Dulhasti	0	0	0	0	0	1	0	0	0	0	0	0	4
33	NHPC Dhauliganga	0	0	0	0	0	0	0	0	0	0	0	0	3
34	NHPC Sewa II	0	0	0	0	0	0	0	0	0	0	0	0	1
35	NHPC Uri II	0	0	0	0	0	0	0	0	0	0	0	0	0
36	NHPC Kishanganga	0	0	0	0	0	0	0	0	0	0	0	0	3
37	NTPC Koldam HPP I	0	0	0	0	0	1	0	0	0	0	0	0	4
38	NTPC Singrauli Small HPP	0	0	0	0	0	0	0	0	0	0	0	0	0
39	NHPC Lower Subansiri HEP Unit-1	19	20	20	21	52	60	49	32	32	31	26	25	387
C	Total (JV Hydel & Other Hydel)	282	293	293	310	761	874	711	463	463	451	378	361	5641
40	NTPC Korba	216	237	268	274	266	249	308	298	308	308	278	275	3286
41	NTPC Korba III	46	48	46	0	37	46	48	46	48	48	43	48	505
42	NTPC Vidyachal I	213	230	227	223	223	241	275	266	275	275	248	251	2947
43	NTPC Vidyachal II	201	207	127	155	134	148	207	201	207	207	187	207	2190
44	NTPC Vidyachal III	100	132	100	155	155	150	155	150	155	155	140	132	1677
45	NTPC Vidyachal IV	177	94	155	183	94	155	183	177	183	183	165	183	1931
46	NTPC Vidyachal V Unit 1	86	89	86	89	3	86	89	86	89	89	81	89	963

Sr.no.	Particulars	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
47	NTPC Sipat I	202	209	135	141	147	190	209	202	209	209	188	209	2247
48	NTPC Sipat II	71	115	111	115	115	111	115	111	115	115	104	75	1273
49	NTPC Mouda I	7	12	11	12	12	12	12	12	12	12	11	7	135
50	NTPC Mouda II Unit 1	15	16	15	16	8	8	16	15	16	16	14	16	171
51	NTPC Solapur STPS	202	208	202	6	6	202	208	202	410	208	188	208	2250
52	NTPC Gadarwara STPS, Unit-1	239	247	239	247	247	239	247	239	247	247	223	247	2913
53	NTPC Lara STPS, Raigarh, Unit I	28	30	31	33	39	39	41	39	41	41	37	41	440
54	NTPC Khargone STPS, Unit-I & II	395	408	395	408	408	395	408	395	408	408	369	408	4806
55	NTPC Kawas GPP	61	62	61	63	56	61	63	60	62	63	43	63	718
56	NTPC Gandhar GPP	51	53	51	53	45	51	53	51	51	53	32	53	601
57	KAPP Kakrapar	62	64	62	64	64	62	64	62	61	64	36	64	728
58	TAPP Tarapur	129	133	129	133	133	129	133	129	126	133	75	133	1513
59	NTPC Gadarwara STPS, Unit-2	239	247	239	247	247	239	247	239	247	247	223	247	2913
60	NTPC Lara STPS, Raigarh, Unit II	28	30	31	33	39	39	41	39	41	41	37	41	440
61	NTPC Lara STPS, Raigarh, Unit III	28	30	31	33	39	39	41	39	41	41	37	41	440
62	NTPC Lara STPS, Raigarh, Unit IV	28	30	31	33	39	39	41	39	41	41	37	41	440
63	NTPC Lara STPS, Raigarh, Unit V	28	30	31	33	39	39	41	39	41	41	37	41	440
D	Total WR Region	2854	2960	2818	2750	2597	2971	3245	3139	3434	3245	2835	3121	35968
64	NTPC Kahalgaon I	0	0	0	0	0	0	0	0	0	0	0	0	0
65	NTPC Kahalgaon II	43	43	43	45	43	42	45	43	45	45	40	45	519
66	NTPC Farakka	0	0	0	0	0	0	0	0	0	0	0	0	0
67	NTPC Talcher	0	0	0	0	0	0	0	0	0	0	0	0	0
68	NTPC Barh	0	0	0	0	0	0	0	0	0	0	0	0	0
69	DVC (MTPS & CTPS)	0	0	0	0	0	0	0	0	0	0	0	0	0
70	DVC (DTPS)	0	0	0	0	0	0	0	0	0	0	0	0	0
E	Total ER Region	43.07	42.95	43.07	44.50	42.95	41.52	44.50	43.07	44.50	44.50	40.20	44.50	519.32

Sr.no.	Particulars	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
71	NTPC Auraiya GPP	1	1	1	1	1	1	1	1	1	1	1	1	12
72	NTPC Dadri GPP	1	1	1	1	1	1	1	1	1	1	1	1	15
73	NTPC Anta GPP	1	1	1	1	1	1	1	1	1	1	1	1	7
74	NTPC Firoz Gandhi Unchahar I	0	0	0	0	0	0	0	0	0	0	0	0	2
75	NTPC Firoz Gandhi Unchahar II	1	1	1	1	1	1	1	1	1	1	1	1	7
76	NTPC Firoz Gandhi Unchahar III	0	0	0	0	0	0	0	0	0	0	0	0	4
77	NTPC Firoz Gandhi Unchahar IV	1	1	1	1	1	1	1	1	1	1	1	1	9
78	NTPC Rihand TPS-I	1	1	1	1	1	1	1	1	1	1	1	1	15
79	NTPC Rihand TPS-II	1	1	1	1	1	1	1	1	1	1	1	1	16
80	NTPC Rihand TPS-III	1	1	1	1	1	1	1	1	1	1	1	1	17
81	NTPC NCTP Dadri II	1	1	1	1	1	1	1	1	1	1	1	1	16
82	NTPC Singrauli	2	2	2	2	2	2	2	2	2	2	2	2	28
83	NTPC IGPSI Jhajjar	1	1	1	1	1	1	1	1	1	1	1	1	14
84	MEJA Urja Nigam	0	1	0	1	1	0	1	0	1	1	0	1	6
85	NTPC Tanda	1	1	1	1	1	1	1	1	1	1	1	1	8
86	NTPC Badarpur	0	0	0	0	0	0	0	0	0	0	0	0	0
87	Rajasthan (NPCIL)	1	1	1	1	1	1	1	1	1	1	1	1	8
88	NARORA (NPCIL)	1	1	1	1	1	1	1	1	1	1	1	1	7
F	Total NR Region	16	15	16	191									
89	Torrent Power	23	23	23	23	23	23	23	17	15	17	21	23	256
90	BLA Power, Unit-I & II	16	17	16	17	10	14	17	16	17	17	15	17	188
91	Jaypee Bina Power	180	154	211	145	190	211	218	211	218	218	197	218	2372
92	Lanco Amarkantak TPS Unit 1	178	56	178	184	184	178	184	178	184	184	166	184	2033
93	Reliance UMPP, Sasan	707	821	778	846	707	816	707	917	1373	947	856	947	10422
94	Essar Power STPS	37	25	37	38	38	37	38	37	38	38	34	25	421

Sr.no.	Particulars	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
95	Jaiprakash Power STPS, Nigri	105	105	105	105	105	105	105	501	521	719	490	511	3474
96	MB Power STPS, Unit-I	97	97	97	99	99	97	97	134	138	138	279	101	1474
97	MB Power STPS, Unit-II	97	97	97	99	99	97	97	134	138	138	279	101	1474
98	Jhabua Power STPS, Unit-1	130	135	130	135	24	130	135	130	135	135	232	24	1474
99	DB Power STPS Unit-1	141	146	141	146	146	141	146	141	146	146	132	146	1718
100	Pench Thermal Energy, Unit-1	0	0	0	0	0	0	0	0	0	0	0	0	0
G	Total (IPPs)	1711	1676	1813	1836	1626	1848	1766	2414	2922	2696	2702	2297	25305
101	Renewable Energy (Solar)	863	892	863	892	892	863	892	863	892	892	806	892	10501
102	Renewable Energy (other than Solar)	373	385	373	385	385	373	385	373	385	385	348	385	4534
H	Total Renewable Energy	1236	1277	1236	1277	1277	1236	1277	1236	1277	1277	1153	1277	15035
I	Grand Total	8589	8758	8959	8506	8749	9868	10207	10259	11197	10765	9852	10113	115821

Table 169: Month Wise Power Availability for FY 2026-27

Sr.no.	Particulars	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
1	Amarkantak TPS Ph-III	129	134	129	101	134	129	134	129	134	134	121	134	1540
2	Satpura TPS Ph-II & III	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Satpura TPS Ph-IV	296	305	296	148	255	296	305	296	305	305	276	305	3388
4	SGTPS Ph-I & II	432	397	297	324	328	357	446	432	446	446	403	446	4754
5	SGTPS Ph-III	314	325	314	325	143	143	325	314	325	325	293	325	3468
6	Shri Singaji STPS Phase-I	756	782	756	391	391	756	782	756	782	782	706	782	8421
7	Shri Singaji STPS Phase-II	398	424	821	848	848	821	848	821	848	848	766	848	9141
A	Total (MP Genco Thermal-MP Share)	2325	2366	2613	2137	2098	2501	2840	2748	2840	2840	2565	2840	30712
8	Rani Awanti Bai Sagar, Bargi HPS	19	20	20	21	51	59	48	31	31	30	25	24	380
9	Bansagar Ph I HPS (Tons)	45	47	47	49	121	139	113	74	74	72	60	57	898
10	Bansagar Ph-II HPS (Silpara)	5	5	5	5	12	14	12	8	8	7	6	6	92

Sr.no.	Particulars	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
11	Bansagar Ph-III HPS (Deolond)	5	6	6	6	14	17	13	9	9	9	7	7	107
12	Bansagar Ph-IV HPS (Jhinna)	4	4	4	4	10	12	10	6	6	6	5	5	76
13	Birsinghpur HPS	2	2	2	2	5	6	5	3	3	3	2	2	36
14	Madikheda HPS	6	6	6	6	15	17	14	9	9	9	7	7	110
15	Rajghat HPS	2	2	2	2	5	2	5	3	3	3	6	2	37
16	Gandhisagar HPS	8	9	9	9	23	26	21	14	14	13	11	11	167
17	Ranapratap Sagar HPS	10	10	10	11	27	31	25	17	17	16	13	13	201
18	Jawahar Sagar HPS	7	8	8	8	20	23	19	12	12	12	10	9	147
19	Pench HPS	10	10	10	11	27	31	25	16	16	16	13	13	199
B	Total (MP Genco Hydel)	123	127	127	135	331	377	309	201	201	196	167	157	2450
20	NHDC Indira Sagar HPS	118	123	123	130	319	118	297	193	193	189	158	399	2359
21	NHDC Omkareshwar HPS	52	54	54	57	141	162	131	85	85	83	70	67	1043
22	NVDA Sardar Sarovar HPS	85	88	88	93	229	263	214	139	139	136	114	109	1696
23	Rihand HPS	4	4	4	5	11	13	10	7	7	7	6	5	82
24	Matatila HPS	1	2	2	2	4	4	4	2	2	2	2	2	29
25	SJVN Rampur HPS	0	0	0	0	0	0	0	0	0	0	0	0	2
26	SJVN Jhakri HPS	0	0	0	0	1	1	1	1	1	1	1	1	9
27	Tehri HPS	0	0	0	0	1	1	1	1	1	1	0	0	6
28	Koteshwar HPP	0	0	0	0	0	0	0	0	0	0	0	0	3
29	NHPC Parbat I III	0	0	0	0	1	1	1	0	0	0	0	0	5
30	NHPC Chamera II	0	0	0	0	0	1	0	0	0	0	0	0	3
31	NHPC Chamera III	0	0	0	0	0	0	0	0	0	0	0	0	2
32	NHPC Dulhaсти	0	0	0	0	0	1	0	0	0	0	0	0	4
33	NHPC Dhauliganga	0	0	0	0	0	0	0	0	0	0	0	0	3
34	NHPC Sewa II	0	0	0	0	0	0	0	0	0	0	0	0	1
35	NHPC Uri II	0	0	0	0	0	0	0	0	0	0	0	0	0
36	NHPC Kishanganga	0	0	0	0	0	0	0	0	0	0	0	0	3
37	NTPC Koldam HPPI	0	0	0	0	0	1	0	0	0	0	0	0	4
38	NTPC Singrauli Small HPP	0	0	0	0	0	0	0	0	0	0	0	0	0
39	NHPC Lower Subansiri HEP Unit-1	19	20	20	21	52	60	49	32	32	31	26	25	387
C	Total (JV Hydel & Other Hydel)	282	293	293	310	761	627	711	463	463	451	378	609	5641
40	NTPC Korba	216	237	268	274	266	249	308	298	308	308	278	275	3286
41	NTPC Korba III	46	48	46	0	37	46	48	46	48	48	43	48	505
42	NTPC Vidyachal I	213	230	227	223	223	241	275	266	275	275	248	251	2947

Sr.no.	Particulars	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
43	NTPC Vindhyachal II	201	207	127	155	134	148	207	201	207	207	187	207	2190
44	NTPC Vindhyachal III	100	132	100	155	155	150	155	150	155	155	140	132	1677
45	NTPC Vindhyachal IV	177	94	155	183	94	155	183	177	183	183	165	183	1931
46	NTPC Vindhyachal V Unit 1	86	89	86	89	3	86	89	86	89	89	81	89	963
47	NTPC Sipat I	202	209	135	141	147	190	209	202	209	209	188	209	2247
48	NTPC Sipat II	71	115	111	115	115	111	115	111	115	115	104	75	1273
49	NTPC Mouda I	104	107	104	63	100	104	107	104	107	107	90	63	1162
50	NTPC Mouda II Unit 1	145	150	145	150	77	73	150	145	150	150	135	150	1620
51	NTPC Solapur STPS	202	208	202	6	6	202	6	202	410	208	390	208	2250
52	NTPC Gadarwara STPS, Unit-1	239	247	239	247	247	239	247	239	247	247	223	247	2913
53	NTPC Lara STPS, Raigarh, Unit I	35	40	38	48	40	35	48	46	48	48	43	48	518
54	NTPC Khargone STPS, Unit-I & II	395	408	395	408	408	395	408	395	408	408	369	408	4806
55	NTPC Kawas GPP	61	62	61	63	56	61	63	60	62	63	43	63	718
56	NTPC Gandhar GPP	51	53	51	53	45	51	53	51	51	53	32	53	601
57	KAPP Kakrapar	62	64	62	64	64	62	64	62	61	64	36	64	728
58	TAPP Tarapur	129	133	129	133	133	129	133	129	126	133	75	133	1513
59	NTPC Gadarwara STPS, Unit-2	239	247	239	247	247	239	247	239	247	247	223	247	2913
60	NTPC Lara STPS, Raigarh, Unit II	35	40	38	48	40	35	48	46	48	48	43	48	518
61	NTPC Lara STPS, Raigarh, Unit III	35	40	38	48	40	35	48	46	48	48	43	48	518
62	NTPC Lara STPS, Raigarh, Unit IV	35	40	38	48	40	35	48	46	48	48	43	48	518
63	NTPC Lara STPS, Raigarh, Unit V	35	40	38	48	40	35	48	46	48	48	43	48	518
D	Total WR Region	3115	3240	3075	3010	2757	3107	3307	3395	3699	3509	3269	3347	38830
64	NTPC Kahalgaon I	0	0	0	0	0	0	0	0	0	0	0	0	0
65	NTPC Kahalgaon II	43	43	43	45	45	43	45	42	43	45	40	45	519
66	NTPC Farakka	0	0	0	0	0	0	0	0	0	0	0	0	0
67	NTPC Talcher	0	0	0	0	0	0	0	0	0	0	0	0	0
68	NTPC Barh	0	0	0	0	0	0	0	0	0	0	0	0	0
69	DVC (MTPS & CTPS)	0	0	0	0	0	0	0	0	0	0	0	0	0
70	DVC (DTPS)	0	0	0	0	0	0	0	0	0	0	0	0	0
E	Total ER Region	43.07	42.95	43.07	44.50	44.50	43.07	44.50	41.52	42.95	44.50	40.20	44.50	519.32
71	NTPC Auraiya GPP	1	1	1	1	1	1	1	1	1	1	1	1	12
72	NTPC Dadri GPP	1	1	1	1	1	1	1	1	1	1	1	1	15
73	NTPC Anta GPP	1	1	1	1	1	1	1	1	1	1	1	1	7
74	NTPC Firoz Gandhi Unchahar I	0	0	0	0	0	0	0	0	0	0	0	0	2

Sr.no.	Particulars	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
75	NTPC Firoz Gandhi Unchahar II	1	1	1	1	1	1	1	1	1	1	1	1	7
76	NTPC Firoz Gandhi Unchahar III	0	0	0	0	0	0	0	0	0	0	0	0	4
77	NTPC Firoz Gandhi Unchahar IV	1	1	1	1	1	1	1	1	1	1	1	1	9
78	NTPC Rihand TPS-I	1	1	1	1	1	1	1	1	1	1	1	1	15
79	NTPC Rihand TPS-II	1	1	1	1	1	1	1	1	1	1	1	1	16
80	NTPC Rihand TPS-III	1	1	1	1	1	1	1	1	1	1	1	1	17
81	NTPC NCTP Dadri II	1	1	1	1	1	1	1	1	1	1	1	1	16
82	NTPC Singrauli	2	2	2	2	2	2	2	2	2	2	2	2	28
83	NTPC IGPSI Jhajjar	1	1	1	1	1	1	1	1	1	1	1	1	14
84	MEJA Urja Nigam	0	1	0	1	1	0	1	0	1	1	0	1	6
85	NTPC Tanda	1	1	1	1	1	1	1	1	1	1	1	1	8
86	NTPC Badarpur	0	0	0	0	0	0	0	0	0	0	0	0	0
87	Rajasthan (NPCIL)	1	1	1	1	1	1	1	1	1	1	1	1	8
88	NARORA (NPCIL)	1	1	1	1	1	1	1	1	1	1	1	1	7
F	Total NR Region	16	16	16	16	16	16	16	16	16	16	15	16	191
89	Torrent Power	23	23	23	23	23	23	23	17	15	17	21	23	256
90	BLA Power, Unit-I & II	16	17	16	17	10	14	17	16	17	17	15	17	188
91	Jaypee Bina Power	180	154	211	145	190	211	145	211	291	218	270	145	2372
92	Lanco Amarkantak TPS Unit 1	178	56	178	56	56	178	56	305	311	311	294	56	2033
93	Reliance UMPP, Sasan	753	821	753	770	808	816	753	917	947	1474	856	753	10422
94	Essar Power STPS	37	25	37	38	38	37	38	37	38	38	34	25	421
95	Jaiprakash Power STPS, Nigri	303	105	303	105	105	303	105	511	521	521	490	105	3474
96	MB Power STPS, Unit-I	95	101	133	138	99	97	95	133	181	138	168	95	1474
97	MB Power STPS, Unit-II	95	101	133	138	99	97	95	133	181	138	168	95	1474
98	Jhabua Power STPS, Unit-1	130	135	130	135	24	130	24	130	245	135	232	24	1474
99	DB Power STPS Unit-1	141	146	141	146	146	141	146	141	146	146	132	146	1718
100	Pench Thermal Energy, Unit-1	79	81	79	81	15	79	81	79	81	81	73	81	889
G	Total (IPPs)	2030	1765	2137	1791	1613	2124	1578	2630	2975	3233	2753	1565	26194
101	Renewable Energy (Solar)	863	892	863	892	892	863	892	863	892	892	806	892	10501
102	Renewable Energy (other than Solar)	372	385	372	385	385	372	385	372	385	385	348	385	4531
H	Total Renewable Energy	1236	1277	1236	1277	1277	1236	1277	1236	1277	1277	1153	1277	15032
I	Grand Total	9169	9128	9540	8720	8898	10030	10082	10730	11512	11567	10340	9854	119570

5.8 Renewable Purchase Obligation

- 5.8.1 The Hon'ble Commission in its Tariff Regulations, 2021 had specified RPO obligation vide notification dated 3rd December, 2021. The Hon'ble Commission had considered procurement of power from renewable energy sources through PPA or short term market to ensure RPO compliance. In the said Regulation, while defining the RPO percentage in compliance from Solar and Other than Solar, the Hon'ble Commission while considering the Ex-Bus Requirement based on Merit Order Dispatch of MP State (Three Discom's) had included consumption met through hydro sources of power as well.
- 5.8.2 Meanwhile, the Hon'ble Commission had notified Sixth Amendment to the said Regulation and the amendment therein is as follows:

As per regulation 4.1 of notified MPERC (Co-generation and generation of electricity from Renewable sources of energy) (Revision-I) regulation, 2010 [ARG-33(I)(v) of 2015], the minimum quantum of electricity is, 4.00% for Solar and 8.00% for Non-Solar for FY 2019-20, 6.00% for Solar and 8.50% for Non-Solar for FY 2020-21 & 8.00% for Solar and 9.00% for Non-Solar for FY 2021-22 excluding consumption met through hydro sources of power during the FY.

- 5.8.3 As can be verified from the above Regulation, the Hon'ble Commission defined a percentage of RPO on Ex-Bus Requirement by excluding Hydel sources of power in the Tariff Regulations, 2021. The Petitioner, in view of the RPO targets as specified under Tariff Regulations, 2021 vide notification dated 03rd December 2021 & National Tariff Policy, 2016 had made an arrangement under various PPA for its compliance. As a result, there was a surplus situation of availability from Solar till FY 2024-25 & and Deficit situation of availability of Non-solar sources during the control period from FY 2022-23 to FY 2026-27 and there will be a deficit in solar during FY 2025-26 and FY 2026-27 also, for complying with RPO targets. Accordingly, the Petitioners have calculated the RPO requirement as shown in the following table:

Table 170: Renewable Purchase Obligation (MUs)

Sr.	Particulars	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26	FY 2026-27
A	RPO Obligations (%)	18.50%	20.00%	21.50%	23.00%	24.50%
1	Solar	9.00%	10.00%	11.00%	12.00%	13.00%
2	Other than Solar	9.50%	10.00%	10.50%	11.00%	11.50%
B	Ex-Bus RPO Requirement based on MoD (MUs) excluding Hydro	14,249.10	16,734.71	19,374.12	22,220.80	25,169.76
1	Solar	6,932.00	8,367.35	9,912.34	11,593.46	13,355.38
2	Other than Solar	7,317.11	8,367.35	9,461.78	10,627.34	11,814.38

Sr.	Particulars	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26	FY 2026-27
C	Energy Available from Existing Sources (MUs)	12,070.46	14,298.57	15,035.07	15,035.07	15,032.32
1	Solar	7,554.97	9,764.47	10,500.97	10,500.97	10,500.97
2	Other than Solar	4,515.49	4,534.10	4,534.10	4,534.10	4,531.35
D	Shortfall (MUs)	2,801.62	3,833.25	4,927.68	7,185.73	10,137.44
1	Solar	-	-	-	1,092.49	2,854.42
2	Other than Solar	2,801.62	3,833.25	4,927.68	6,093.23	7,283.02
E	Extra Power Available for Sale after meeting RPO obligations which needs to be sold (MUs)	622.97	1,397.11	588.63	-	-
1	Solar	622.97	1,397.11	588.63	-	-
2	Other than Solar	-	-	-	-	-
G	Renewable Energy Purchase Rate (Paisa/kWh)					
1	Solar	345.85	322.15	316.47	316.47	316.47
2	Other than Solar	549.83	549.91	549.65	549.37	549.29
H	Renewable Energy Purchase from Existing Source (Rs Crores)	5,095.67	5,638.96	5,815.37	5,814.11	5,812.24
1	Solar	2,612.89	3,145.63	3,323.21	3,323.21	3,323.21
2	Other than Solar	2,482.77	2,493.33	2,492.16	2,490.90	2,489.03
I	Renewable Energy Purchase for Shortage Power (Rs Crores)	1,540.43	2,107.93	2,708.48	3,693.18	4,903.83
1	Solar	-	-	-	345.74	903.33
2	Other than Solar	1,540.43	2,107.93	2,708.48	3,347.44	4,000.50
J	Total Renewable Energy Purchase to meet RPO (Rs Crores)	6,636.09	7,746.89	8,523.85	9,507.30	10,716.08
1	Solar	2,612.89	3,145.63	3,323.21	3,668.95	4,226.54
2	Other than Solar	4,023.20	4,601.26	5,200.64	5,838.35	6,489.54
K	Renewable Energy Sale Rate for Surplus Power (Paisa/kWh)					
1	Solar	345.27	345.27	345.27	345.27	345.27
2	Other than Solar	345.27	345.27	345.27	345.27	345.27
L	Revenue from sale of additional Renewable Energy (Rs Crores)	967.33	1,323.52	1,701.40	2,481.05	3,500.20
1	Solar	-	-	-	377.21	985.56
2	Other than Solar	967.33	1,323.52	1,701.40	2,103.84	2,514.64
M	Net additional cost to be borne due to shortage of RPO (Rs. Cr)	573.10	784.40	1,007.08	1,212.13	1,403.63
1	Solar	-	-	-	(31.47)	(82.23)

Sr.	Particulars	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26	FY 2026-27
2	Other than Solar	573.10	784.40	1,007.08	1,243.61	1,485.86

5.8.4 It may be observed from the above table that there is a surplus of the RPO from solar from FY 2022-23, FY 2023-24 and FY 2024-25 and shortfall of the RPO from Solar from FY 2025-26 & FY 2026-27 and Non-solar energy in FY 2022-23 to FY 2026-27 and the Petitioners would meet its Renewable Purchase Obligation requirement from procuring of the additional Renewable Energy with an objective to promote renewable energy.

5.9 Backing down of Power

- 5.9.1 After fully meeting the requirement of the State and selling power on the power exchange, the Petitioners still have to partially back-down plants so as to save on the variable costs being incurred. The Petitioners have applied month-wise merit order dispatch principle on the basis of variable costs for FY 2022-23 and thereafter, after considering all generating stations allocated to MPPMCL. The Petitioners have considered the actual data for FY 2020-21 & FY 2021-22 (till September 21) for calculating normative availability including backing down of power for FY 2022-23 to FY 2026-27.
- 5.9.2 The Petitioners have also considered partial backing down of units/stations which are higher up in the MoD by an average rate of energy sale at IEX during past 36 month, i.e. Rs. 3.45 per unit for FY 2022-23, during those periods when their running is not required to meet the demand in that period and the market rates do not justify their running either. This addresses demand fluctuations and ensures that power procured from cheaper sources is fully utilized and avoids procurement of power from costlier sources. The resultant benefit of reduced power procurement cost or sale at a higher rate, whichever the case maybe, is in turn being passed on to the consumers.
- 5.9.3 The following table shows the stations which are considered for partial/full back down for FY 2022-23 to FY 2026-27:

Table 171: Backing Down of Power (MUs) Plant Source Wise

SI No	Source	FY 2022-23			FY 2023-24			FY 2024-25		
		Energy Availability	Energy Scheduled	Backdown	Energy Availability	Energy Scheduled	Backdown	Energy Availability	Energy Scheduled	Backdown
1	Amarkantak TPS Ph-III	1540	1540	0	1544	1544	0	1540	1540	0
2	Satpura TPS Ph-II & III	0	0	0	0	0	0	0	0	0
3	Satpura TPS Ph-IV	3388	3388	0	3397	3397	0	3388	3388	0
4	SGTPS Ph-I & II	4754	4754	0	4768	4768	0	4754	4754	0
5	SGTPS Ph-III	3468	3468	0	3477	3477	0	3468	3468	0
6	Shri Singaji STPS Phase-I	8421	3026	5396	8445	4613	3832	8421	6127	2294
7	Shri Singaji STPS Phase-II	9141	0	9141	9166	0	9166	9141	1644	7497
A	Total (MP Genco Thermal-MP Share)	30712	16176	14536	30797	17800	12998	30712	20921	9791

Sl No	Source	FY 2022-23			FY 2023-24			FY 2024-25		
		Energy Availability	Energy Scheduled	Backdown	Energy Availability	Energy Scheduled	Backdown	Energy Availability	Energy Scheduled	Backdown
8	Rani Awanti Bai Sagar, Bargi HPS	380	380	0	380	380	0	380	380	0
9	Bansagar Ph I HPS (Tons)	898	898	0	898	898	0	898	898	0
10	Bansagar Ph-II HPS (Silpara)	92	92	0	92	92	0	92	92	0
11	Bansagar Ph-III HPS (Deolond)	107	107	0	107	107	0	107	107	0
12	Bansagar Ph-IV HPS (Jhinna)	76	76	0	76	76	0	76	76	0
13	Birsinghpur HPS	36	36	0	36	36	0	36	36	0
14	Madikheda HPS	110	110	0	110	110	0	110	110	0
15	Rajghat HPS	37	37	0	37	37	0	37	37	0
16	Gandhisagar HPS	125	125	0	167	167	0	167	167	0
17	Ranapratap Sagar HPS	201	201	0	201	201	0	201	201	0
18	Jawahar Sagar HPS	147	147	0	147	147	0	147	147	0
19	Pench HPS	199	199	0	199	199	0	199	199	0
B	Total (MP Genco Hydel)	2409	2409	0	2450	2450	0	2450	2450	0
20	NHDC Indira Sagar HPS	2359	2359	0	2359	2359	0	2359	2359	0
21	NHDC Omkareshwar HPS	1043	1043	0	1043	1043	0	1043	1043	0
22	NVDA Sardar Sarovar HPS	1696	1696	0	1696	1696	0	1696	1696	0
23	Rihand HPS	82	82	0	82	82	0	82	82	0
24	Matatila HPS	29	29	0	29	29	0	29	29	0
25	SJVN Rampur HPS	2	2	0	2	2	0	2	2	0
26	SJVN Jhakri HPS	9	9	0	9	9	0	9	9	0
27	Tehri HPS	6	6	0	6	6	0	6	6	0
28	Koteshwar HPP	3	3	0	3	3	0	3	3	0
29	NHPC Parbati III	5	5	0	5	5	0	5	5	0
30	NHPC Chamera II	3	3	0	3	3	0	3	3	0
31	NHPC Chamera III	2	2	0	2	2	0	2	2	0

Sl No	Source	FY 2022-23			FY 2023-24			FY 2024-25		
		Energy Availability	Energy Scheduled	Backdown	Energy Availability	Energy Scheduled	Backdown	Energy Availability	Energy Scheduled	Backdown
32	NHPC Dulhasti	4	0	4	4	0	4	4	1	3
33	NHPC Dhauliganga	3	3	0	3	3	0	3	3	0
34	NHPC Sewa II	1	0	1	1	0	1	1	0	1
35	NHPC Uri II	0	0	0	0	0	0	0	0	0
36	NHPC Kishanganga	3	3	0	3	3	0	3	3	0
37	NTPC Koldam HPP I	4	4	0	4	4	0	4	4	0
38	NTPC Singrauli Small HPP	0	0	0	0	0	0	0	0	0
39	NHPC Lower Subansiri HEP Unit-1	0	0	0	73	73	0	267	267	0
C	Total (JV Hydel & Other Hydel)	5254	5249	5	5327	5322	5	5520	5517	4
40	NTPC Korba	3286	3286	0	3295	3295	0	3286	3286	0
41	NTPC Korba III	505	505	0	506	506	0	505	505	0
42	NTPC Vindyachal I	2947	2947	0	2955	2955	0	2947	2947	0
43	NTPC Vindyachal II	2190	2190	0	2196	2196	0	2190	2190	0
44	NTPC Vindyachal III	1677	1677	0	1682	1682	0	1677	1677	0
45	NTPC Vindyachal IV	1931	1931	0	1937	1937	0	1931	1931	0
46	NTPC Vindyachal V Unit 1	963	963	0	966	966	0	963	963	0
47	NTPC Sipat I	2247	2247	0	2253	2253	0	2247	2247	0
48	NTPC Sipat II	1273	1273	0	1276	1276	0	1273	1273	0
49	NTPC Mouda I	135	90	44	135	98	37	135	110	25
50	NTPC Mouda II Unit 1	171	30	141	172	78	94	171	61	110
51	NTPC Solapur STPS	2250	396	1854	2257	813	1444	2250	806	1444
52	NTPC Gadarwara STPS, Unit-1	2913	2673	239	2921	2921	0	2913	2913	0
53	NTPC Lara STPS, Raigarh, Unit I	622	622	0	624	624	0	361	361	0
54	NTPC Khargone STPS, Unit-I & II	4806	3594	1211	4819	3608	1211	4806	4411	395
55	NTPC Kawas GPP	718	412	306	720	540	180	718	601	117

Sl No	Source	FY 2022-23			FY 2023-24			FY 2024-25		
		Energy Availability	Energy Scheduled	Backdown	Energy Availability	Energy Scheduled	Backdown	Energy Availability	Energy Scheduled	Backdown
56	NTPC Gandhar GPP	601	549	51	602	602	0	601	601	0
57	KAPP Kakrapar	728	728	0	730	730	0	728	728	0
58	TAPP Tarapur	1513	1513	0	1518	1518	0	1513	1513	0
59	NTPC Gadarwara STPS, Unit-2	2913	2178	734	2921	2434	487	2913	2673	239
60	NTPC Lara STPS, Raigarh, Unit II	622	622	0	624	624	0	361	361	0
61	NTPC Lara STPS, Raigarh, Unit III	0	0	0	0	0	0	361	361	0
62	NTPC Lara STPS, Raigarh, Unit IV	0	0	0	0	0	0	361	361	0
63	NTPC Lara STPS, Raigarh, Unit V	0	0	0	0	0	0	0	0	0
D	Total WR Region	35011	30429	4582	35106	31654	3453	35211	32882	2330
64	NTPC Kahalgaon I	0	0	0	0	0	0	0	0	0
65	NTPC Kahalgaon II	519	519	0	521	521	0	519	519	0
66	NTPC Farakka	0	0	0	0	0	0	0	0	0
67	NTPC Talcher	0	0	0	0	0	0	0	0	0
68	NTPC Barh	0	0	0	0	0	0	0	0	0
69	DVC (MTPS & CTPS)	0	0	0	0	0	0	0	0	0
70	DVC (DTPS)	0	0	0	0	0	0	0	0	0
E	Total ER Region	519	519	0	521	521	0	519	519	0
71	NTPC Auraiya GPP	12	11	1	12	12	0	12	12	0
72	NTPC Dadri GPP	15	15	0	15	15	0	15	15	0
73	NTPC Anta GPP	7	2	5	7	6	2	7	6	2
74	NTPC Firoz Gandhi Unchahar I	2	0	2	2	1	1	2	1	2
75	NTPC Firoz Gandhi Unchahar II	7	0	7	7	0	7	7	2	5
76	NTPC Firoz Gandhi Unchahar III	4	1	3	4	2	2	4	1	2

Sl No	Source	FY 2022-23			FY 2023-24			FY 2024-25		
		Energy Availability	Energy Scheduled	Backdown	Energy Availability	Energy Scheduled	Backdown	Energy Availability	Energy Scheduled	Backdown
77	NTPC Firoz Gandhi Unchahar IV	9	3	6	9	7	2	9	7	2
78	NTPC Rihand TPS-I	15	15	0	15	15	0	15	15	0
79	NTPC Rihand TPS-II	16	16	0	16	16	0	16	16	0
80	NTPC Rihand TPS-III	17	17	0	17	17	0	17	17	0
81	NTPC NCTP Dadri II	16	3	13	16	7	9	16	5	11
82	NTPC Singrauli	28	28	0	28	28	0	28	28	0
83	NTPC IGPS I Jhajjar	14	0	14	14	0	14	14	0	14
84	MEJA Urja Nigam	6	2	4	6	5	2	6	5	2
85	NTPC Tanda	8	5	3	8	6	2	8	7	1
86	NTPC Badarpur	0	0	0	0	0	0	0	0	0
87	Rajasthan (NPCIL)	8	8	0	8	8	0	8	8	0
88	NARORA (NPCIL)	7	7	0	7	7	0	7	7	0
F	Total NR Region	191	133	58	191	150	42	191	150	40
89	Torrent Power	256	0	256	257	0	257	256	0	256
90	BLA Power, Unit-I & II	188	32	156	189	82	106	188	65	123
91	Jaypee Bina Power	2372	0	2372	2378	640	1738	2372	844	1528
92	Lanco Amarkantak TPS Unit 1	2033	2033	0	2038	2038	0	2033	2033	0
93	Reliance UMPP, Sasan	10422	10422	0	10450	10450	0	10422	10422	0
94	Essar Power STPS	421	0	421	422	0	422	421	0	421
95	Jaiprakash Power STPS, Nigri	3474	3474	0	3483	3483	0	3474	3474	0
96	MB Power STPS, Unit-I	1474	1474	0	1478	1478	0	1474	1474	0
97	MB Power STPS, Unit-II	1474	1474	0	1478	1478	0	1474	1474	0
98	Jhabua Power STPS, Unit-1	1474	1474	0	1478	1478	0	1474	1474	0
99	DB Power STPS Unit-1	616	616	0	1723	1723	0	1718	1718	0
100	Pench Thermal Energy, Unit-1	0	0	0	0	0	0	0	0	0

Sl No	Source	FY 2022-23			FY 2023-24			FY 2024-25		
		Energy Availability	Energy Scheduled	Backdown	Energy Availability	Energy Scheduled	Backdown	Energy Availability	Energy Scheduled	Backdown
G	Total (IPPs)	24202	20997	3205	25374	22850	2524	25305	22977	2328
101	Renewable Energy (Solar)	7555	7555	0	9764	9764	0	10501	10501	0
102	Renewable Energy (other than Solar)	4515	4515	0	4534	4534	0	4534	4534	0
H	Total Renewable Energy	12070	12070	0	14299	14299	0	15035	15035	0
I	Total	110368	87982	22386	114066	95045	19021	114944	100451	14493

Sl No	Source	FY 2025-26			FY 2026-27		
		Energy Availability	Energy Scheduled	Backdown	Energy Availability	Energy Scheduled	Backdown
1	Amarkantak TPS Ph-III	1540	1540	0	1540	1540	0
2	Satpura TPS Ph-II & III	0	0	0	0	0	0
3	Satpura TPS Ph-IV	3388	3388	0	3388	3388	0
4	SGTPS Ph-I & II	4754	4754	0	4754	4754	0
5	SGTPS Ph-III	3468	3468	0	3468	3468	0
6	Shri Singaji STPS Phase-I	8421	8421	0	8421	8421	0
7	Shri Singaji STPS Phase-II	9141	1486	7655	9141	3263	5878
A	Total (MP Genco Thermal-MP Share)	30712	23057	7655	30712	24834	5878
8	Rani Awanti Bai Sagar, Bargi HPS	380	380	0	380	380	0
9	Bansagar Ph I HPS (Tons)	898	898	0	898	898	0
10	Bansagar Ph-II HPS (Silpara)	92	92	0	92	92	0
11	Bansagar Ph-III HPS (Deolond)	107	107	0	107	107	0
12	Bansagar Ph-IV HPS (Jhinna)	76	76	0	76	76	0
13	Birsinghpur HPS	36	36	0	36	36	0

Sl No	Source	FY 2025-26			FY 2026-27		
		Energy Availability	Energy Scheduled	Backdown	Energy Availability	Energy Scheduled	Backdown
14	Madikheda HPS	110	110	0	110	110	0
15	Rajghat HPS	37	37	0	37	37	0
16	Gandhisagar HPS	167	167	0	167	167	0
17	Ranapratap Sagar HPS	201	201	0	201	201	0
18	Jawahar Sagar HPS	147	147	0	147	147	0
19	Pench HPS	199	199	0	199	199	0
B	Total (MP Genco Hydel)	2450	2450	0	2450	2450	0
20	NHDC Indira Sagar HPS	2359	2359	0	2359	2359	0
21	NHDC Omkareshwar HPS	1043	1043	0	1043	1043	0
22	NVDA Sardar Sarovar HPS	1696	1696	0	1696	1696	0
23	Rihand HPS	82	82	0	82	82	0
24	Matatila HPS	29	29	0	29	29	0
25	SJVN Rampur HPS	2	2	0	2	2	0
26	SJVN Jhakri HPS	9	9	0	9	9	0
27	Tehri HPS	6	6	0	6	6	0
28	Koteshwar HPP	3	3	0	3	3	0
29	NHPC ParbatI III	5	5	0	5	5	0
30	NHPC Chamera II	3	3	0	3	3	0
31	NHPC Chamera III	2	2	0	2	2	0
32	NHPC Dulhasti	4	1	2	4	2	1
33	NHPC Dhauliganga	3	3	0	3	3	0
34	NHPC Sewa II	1	0	1	1	0	1
35	NHPC Uri II	0	0	0	0	0	0
36	NHPC Kishanganga	3	3	0	3	3	0
37	NTPC Koldam HPPI	4	4	0	4	4	0

Sl No	Source	FY 2025-26			FY 2026-27		
		Energy Availability	Energy Scheduled	Backdown	Energy Availability	Energy Scheduled	Backdown
38	NTPC Singrauli Small HPP	0	0	0	0	0	0
39	NHPC Lower Subansiri HEP Unit-1	387	387	0	387	387	0
C	Total (JV Hydel & Other Hydel)	5641	5637	3	5641	5638	3
40	NTPC Korba	3286	3286	0	3286	3286	0
41	NTPC Korba III	505	505	0	505	505	0
42	NTPC Vindyachal I	2947	2947	0	2947	2947	0
43	NTPC Vindyachal II	2190	2190	0	2190	2190	0
44	NTPC Vindyachal III	1677	1677	0	1677	1677	0
45	NTPC Vindyachal IV	1931	1931	0	1931	1931	0
46	NTPC Vindyachal V Unit 1	963	963	0	963	963	0
47	NTPC Sipat I	2247	2247	0	2247	2247	0
48	NTPC Sipat II	1273	1273	0	1273	1273	0
49	NTPC Mouda I	135	135	0	1162	1162	0
50	NTPC Mouda II Unit 1	171	171	0	1620	1257	363
51	NTPC Solapur STPS	2250	1639	611	2250	1639	611
52	NTPC Gadarwara STPS, Unit-1	2913	2913	0	2913	2913	0
53	NTPC Lara STPS, Raigarh, Unit I	440	440	0	518	518	0
54	NTPC Khargone STPS, Unit-I & II	4806	4806	0	4806	4806	0
55	NTPC Kawas GPP	718	718	0	718	718	0
56	NTPC Gandhar GPP	601	601	0	601	601	0
57	KAPP Kakrapar	728	728	0	728	728	0
58	TAPP Tarapur	1513	1513	0	1513	1513	0
59	NTPC Gadarwara STPS, Unit-2	2913	2913	0	2913	2913	0
60	NTPC Lara STPS, Raigarh, Unit II	440	440	0	518	518	0
61	NTPC Lara STPS, Raigarh, Unit III	440	440	0	518	518	0

Sl No	Source	FY 2025-26			FY 2026-27		
		Energy Availability	Energy Scheduled	Backdown	Energy Availability	Energy Scheduled	Backdown
62	NTPC Lara STPS, Raigarh, Unit IV	440	440	0	518	518	0
63	NTPC Lara STPS, Raigarh, Unit V	440	440	0	518	518	0
D	Total WR Region	35968	35357	611	38830	37856	974
64	NTPC Kahalgaon I	0	0	0	0	0	0
65	NTPC Kahalgaon II	519	519	0	519	519	0
66	NTPC Farakka	0	0	0	0	0	0
67	NTPC Talcher	0	0	0	0	0	0
68	NTPC Barh	0	0	0	0	0	0
69	DVC (MTPS & CTPS)	0	0	0	0	0	0
70	DVC (DTPS)	0	0	0	0	0	0
E	Total ER Region	519	519	0	519	519	0
71	NTPC Auraiya GPP	12	12	0	12	12	0
72	NTPC Dadri GPP	15	15	0	15	15	0
73	NTPC Anta GPP	7	7	0	7	7	0
74	NTPC Firoz Gandhi Unchahar I	2	2	1	2	2	1
75	NTPC Firoz Gandhi Unchahar II	7	3	4	7	5	2
76	NTPC Firoz Gandhi Unchahar III	4	2	1	4	2	1
77	NTPC Firoz Gandhi Unchahar IV	9	9	0	9	9	0
78	NTPC Rihand TPS-I	15	15	0	15	15	0
79	NTPC Rihand TPS-II	16	16	0	16	16	0
80	NTPC Rihand TPS-III	17	17	0	17	17	0
81	NTPC NCTP Dadri II	16	16	0	16	16	0
82	NTPC Singrauli	28	28	0	28	28	0
83	NTPC IGPSI Jhajjar	14	0	14	14	0	14

Sl No	Source	FY 2025-26			FY 2026-27		
		Energy Availability	Energy Scheduled	Backdown	Energy Availability	Energy Scheduled	Backdown
84	MEJA Urja Nigam	6	6	0	6	6	0
85	NTPC Tanda	8	8	0	8	8	0
86	NTPC Badarpur	0	0	0	0	0	0
87	Rajasthan (NPCIL)	8	8	0	8	8	0
88	NARORA (NPCIL)	7	7	0	7	7	0
F	Total NR Region	191	171	20	191	173	18
89	Torrent Power	256	0	256	256	0	256
90	BLA Power, Unit-I & II	188	188	0	188	188	0
91	Jaypee Bina Power	2372	1361	1011	2372	1579	792
92	Lanco Amarkantak TPS Unit 1	2033	2033	0	2033	2033	0
93	Reliance UMPP, Sasan	10422	10422	0	10422	10422	0
94	Essar Power STPS	421	0	421	421	0	421
95	Jaiprakash Power STPS, Nigri	3474	3474	0	3474	3474	0
96	MB Power STPS, Unit-I	1474	1474	0	1474	1474	0
97	MB Power STPS, Unit-II	1474	1474	0	1474	1474	0
98	Jhabua Power STPS, Unit-1	1474	1474	0	1474	1474	0
99	DB Power STPS Unit-1	1718	1718	0	1718	1718	0
100	Pench Thermal Energy, Unit-1	0	0	0	889	889	0
G	Total (IPPs)	25305	23617	1688	26194	24724	1470
101	Renewable Energy (Solar)	10501	10501	0	10501	10501	0
102	Renewable Energy (other than Solar)	4534	4534	0	4531	4531	0
H	Total Renewable Energy	15035	15035	0	15032	15032	0
	Total	115821	105844	9977	119570	111228	8342

5.10 Management of Surplus Energy

- 5.10.1 As per the power supply position, the state is expected to have surplus energy in most of the months in the ensuing year. Currently MPPMCL disposes the surplus power through power exchange (IEX) at the prevailing rates. MPPMCL tries to sell such surplus power at a cost which is determined by the market conditions prevailing at that time.
- 5.10.2 The IEX rate for the past 36 months (From June 2019 to May-2021) is observed to be at Paisa 345.27 per Unit. For the purpose of computation of revenue from surplus energy, the IEX rate is taken at Paisa 3.45 per Unit for FY 2022-23 to FY 2026-27.
- 5.10.3 The energy surplus of the Discom's vis-à-vis overall energy availability and energy requirement as well as the details of revenue from sale of energy are shown in the table below. This revenue has been subtracted from the variable power purchase costs of MPPMCL allocated stations, while computing the total power purchase costs of the Discom's. The Petitioner has also considered the net benefit on account of variable cost based on surplus energy.

Table 172: Management of Surplus Power (MUs)

Particulars	UNIT	FY 23	FY 24	FY 25	FY 26	FY 27
Ex-Bus Availability	MU	110,368	114,066	114,944	115,821	119,570
Ex-Bus Energy Required by Discom's	MU	84,679	91,373	97,813	104,313	110,435
Backdown of Power including Surplus Sale of Power	MU	25,689	22,693	17,132	11,508	9,134
Backdown	MU	22,386	19,021	14,493	9,977	8,342
Surplus Units available for Sale	MU	3,303	3,672	2,638	1,531	792
IEX Rate (Paisa/kWh)	Ps./Kwh	345	345	345	345	345
Revenue from Sale of Surplus Power	Rs. Cr	1,140	1,268	911	529	274
Purchase Cost of Surplus Power- Variable (Rs Crores)	Rs. Cr	967	1,124	841	470	268

Particulars	UNIT	FY 23	FY 24	FY 25	FY 26	FY 27
Total saving in variable cost of surplus energy from sale of surplus energy	Rs. Cr	174	144	70	59	6

5.10.4 The Petitioner hereby prays to the Hon'ble Commission to approve Assessment of Availability including treatment of surplus energy as indicated in above para.

A6: POWER PURCHASE COST

6.1 Details of Cost for Power Stations

The basis of considering the Fixed cost (Rs. Crores) and the variable charge (Paise/kWh) of different power stations has been indicated in the below table:

Table 173: Basis for consideration of Fixed & Variable Charges for FY 2022-23

SI No	Source	Fixed Charge (Rs. Cr)	Basis for Fixed Charges	Variable Charge (Rs. /kWh)	Basis for Energy Charges
1	Amarkantak TPS Ph-III	136	Fixed charges as per Weighted Avg of 12 months Bills (Sep-20 to Aug-21)	1.28	Energy Charge as per Weighted Avg of past 12 months Bills (Sep-20 to Aug-21)
2	Satpura TPS Ph-II & III	0	NIL due to decommissiong of plant	0.00	NIL due to decommissiong of plant
3	Satpura TPS Ph-IV	674	Fixed charges as per Weighted Avg of 12 months Bills (Sep-20 to Aug-21)	2.29	Energy Charge as per Weighted Avg of past 12 months Bills (Sep-20 to Aug-21)
4	SGTPS Ph-I & II	398	Fixed charges as per Weighted Avg of 12 months Bills (Sep-20 to Aug-21)	2.39	Energy Charge as per Weighted Avg of past 12 months Bills (Sep-20 to Aug-21)
5	SGTPS Ph-III	335	Fixed charges as per Weighted Avg of 12 months Bills (Sep-20 to Aug-21)	1.92	Energy Charge as per Weighted Avg of past 12 months Bills (Sep-20 to Aug-21)
6	Shri Singaji STPS Phase-I	1211	Fixed charges as per Weighted Avg of 12 months Bills (Sep-20 to Aug-21)	3.12	Energy Charge as per Weighted Avg of past 12 months Bills (Sep-20 to Aug-21)
7	Shri Singaji STPS Phase-II	361	Considered Same as that of Singaji STPS Phase-I	3.57	Energy Charge as per Weighted Avg of past 12 months Bills (Sep-20 to Aug-21)
A	Total (MP Genco Thermal-MP Share)	3116			
8	Rani Awanti Bai Sagar, Bargi HPS	8	Fixed charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)	1.02	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)
9	Bansagar Ph I HPS (Tons)	43	Fixed charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)	0.75	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)
10	Bansagar Ph-II HPS (Silpara)	6	Fixed charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)	0.60	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)

Sl No	Source	Fixed Charge (Rs. Cr)	Basis for Fixed Charges	Variable Charge (Rs. /kWh)	Basis for Energy Charges
11	Bansagar Ph-III HPS (Deolond)	12	Fixed charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)	0.95	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)
12	Bansagar Ph-IV HPS (Jhinna)	8	Fixed charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)	0.93	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)
13	Birsinghpur HPS	2	Fixed charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)	0.76	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)
14	Madikheda HPS	15	Fixed charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)	1.81	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)
15	Rajghat HPS	4	Fixed charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)	1.09	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)
16	Gandhisagar HPS	2	Fixed charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)	1.23	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)
17	Ranapratap Sagar HPS	0	Fixed charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)	1.51	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)
18	Jawahar Sagar HPS	0	Fixed charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)	1.51	Considered same as that of RP Sagar
19	Pench HPS	7	Fixed charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)	0.48	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)
B	Total (MP Genco Hydel)	105			
20	NHDC Indira Sagar HPS	274	Fixed charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)	1.71	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)
21	NHDC Omkareshwar HPS	189	Fixed charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)	2.00	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)
22	NVDA Sardar Sarovar HPS	178	Fixed charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)	0.82	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)
23	Rihand HPS	0	NIL	0.40	As per the Tariff Order for FY 2021-22
24	Matatila HPS	0	NIL	0.40	As per the Tariff Order for FY 2021-22
25	SJVN Rampur HPS	1	Energy Charge as per Last 12 months avg (Sept-15 to Aug-16) in absence of supply in previous months	2.50	Energy Charge as per Last 12 months avg (Sept-15 to Aug-16) in absence of supply in previous months

Sl No	Source	Fixed Charge (Rs. Cr)	Basis for Fixed Charges	Variable Charge (Rs. /kWh)	Basis for Energy Charges
26	SJVN Jhakri HPS	1	Energy Charge as per Last 12 months avg (Sept-15 to Aug-16) in absence of supply in previous months	1.14	Energy Charge as per Last 12 months avg (Sept-15 to Aug-16) in absence of supply in previous months
27	Tehri HPS	1	Fixed charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)	1.19	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)
28	Koteshwar HPP	0	Fixed charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)	1.47	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)
29	NHPC Parbati III	1	Fixed charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)	1.57	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)
30	NHPC Chamera II	0	Fixed charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)	1.17	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)
31	NHPC Chamera III	1	Fixed charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)	2.03	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)
32	NHPC Dulhasti	2	Fixed charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)	3.43	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)
33	NHPC Dhauliganga	0	Fixed charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)	1.85	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)
34	NHPC Sewa II	0	Fixed charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)	5.01	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)
35	NHPC Uri II	1	Fixed charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)	3.19	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)
36	NHPC Kishanganga	1	Fixed charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)	2.29	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)
37	NTPC Koldam HPPI	1	Fixed charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)	2.43	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)
38	NTPC Singrauli Small HPP	0	Fixed charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)	9.32	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)
39	NHPC Lower Subansiri HEP Unit-1	0	NIL	0.00	Variable Charges considered same as that of Singrauli Small HEP
C	Total (JV Hydel & Other Hydel)	651			

Sl No	Source	Fixed Charge (Rs. Cr)	Basis for Fixed Charges	Variable Charge (Rs. /kWh)	Basis for Energy Charges
40	NTPC Korba	238	Fixed charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)	1.56	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)
41	NTPC Korba III	74	Fixed charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)	1.47	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)
42	NTPC Vindya chal I	253	Fixed charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)	1.93	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)
43	NTPC Vindya chal II	146	Fixed charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)	1.78	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)
44	NTPC Vindya chal III	181	Fixed charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)	1.75	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)
45	NTPC Vindya chal IV	306	Fixed charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)	1.74	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)
46	NTPC Vindya chal V Unit 1	151	Fixed charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)	1.80	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)
47	NTPC Sipat I	303	Fixed charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)	1.54	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)
48	NTPC Sipat II	159	Fixed charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)	1.59	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)
49	NTPC Mouda I	25	Fixed charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21) and % of Allocation	2.90	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)
50	NTPC Mouda II Unit 1	26	Fixed charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21) and % of Allocation	3.20	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)
51	NTPC Solapur STPS	533	Fixed charges as per the Actaul for FY 2020-21	3.26	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)
52	NTPC Gadarwara STPS, Unit-1	570	As per the Tariff Order for FY 2021-22 and MW Allocation ratio	2.83	As per the Tariff Order for FY 2021-22
53	NTPC Lara STPS, Raigarh, Unit I	119		2.28	
54	NTPC Khargone STPS, Unit-I & II	853	As per the Approved fixed Cost in Tariff Order for FY 2021-22	2.89	As per the Approved fixed Cost in Tariff Order for FY 2021-22

Sl No	Source	Fixed Charge (Rs. Cr)	Basis for Fixed Charges	Variable Charge (Rs. /kWh)	Basis for Energy Charges
55	NTPC Kawas GPP	85	Fixed charges as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)	3.05	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)
56	NTPC Gandhar GPP	86	Fixed charges as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)	2.80	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)
57	KAPP Kakrapar	0	Fixed charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21) and % of Allocation	2.29	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)
58	TAPP Tarapur	0	Fixed charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21) and % of Allocation	3.38	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)
59	NTPC Gadarwara STPS, Unit-2	570	As per the Tariff Order for FY 2021-22 and MW Allocation ratio	2.83	As per the Tariff Order for FY 2021-22
60	NTPC Lara STPS, Raigarh, Unit II	119	As per the Tariff Order for FY 2021-22	2.28	As per the Tariff Order for FY 2021-22
61	NTPC Lara STPS, Raigarh, Unit III	0	As per the Tariff Order for FY 2021-22	0.00	As per the Tariff Order for FY 2021-22
62	NTPC Lara STPS, Raigarh, Unit IV	0	As per the Tariff Order for FY 2021-22	0.00	As per the Tariff Order for FY 2021-22
63	NTPC Lara STPS, Raigarh, Unit V	0	As per the Tariff Order for FY 2021-22	0.00	As per the Tariff Order for FY 2021-22
D	Total WR Region	4796			
64	NTPC Kahalgaon I	-	-	-	-
65	NTPC Kahalgaon II	51	Fixed charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21) and % of Allocation	2.20	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)
66	NTPC Farakka	-	-	-	-
67	NTPC Talcher	-	-	-	-
68	NTPC Barh	-	-	-	-

Sl No	Source	Fixed Charge (Rs. Cr)	Basis for Fixed Charges	Variable Charge (Rs. /kWh)	Basis for Energy Charges
69	DVC (MTPS & CTPS)	-	-	-	-
70	DVC (DTPS)	-	-	-	-
E	Total ER Region	51			
71	NTPC Auraiya GPP	1	Fixed charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21) and % of Allocation	2.77	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)
72	NTPC Dadri GPP	1	Fixed charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21) and % of Allocation	2.57	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)
73	NTPC Anta GPP	1	Fixed charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21) and % of Allocation	3.09	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)
74	NTPC Firoz Gandhi Unchahar I	1	Fixed charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21) and % of Allocation	3.25	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)
75	NTPC Firoz Gandhi Unchahar II	1	Fixed charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21) and % of Allocation	3.31	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)
76	NTPC Firoz Gandhi Unchahar III	1	Fixed charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21) and % of Allocation	3.23	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)
77	NTPC Firoz Gandhi Unchahar IV	2	Fixed charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21) and % of Allocation	3.11	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)
78	NTPC Rihand TPS-I	1	Fixed charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21) and % of Allocation	1.51	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)
79	NTPC Rihand TPS-II	2	Fixed charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21) and % of Allocation	1.52	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)

Sl No	Source	Fixed Charge (Rs. Cr)	Basis for Fixed Charges	Variable Charge (Rs. /kWh)	Basis for Energy Charges
80	NTPC Rihand TPS-III	3	Fixed charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21) and % of Allocation	1.58	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)
81	NTPC NCTP Dadri II	3	Fixed charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21) and % of Allocation	3.18	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)
82	NTPC Singrauli	2	Fixed charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21) and % of Allocation	1.59	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)
83	NTPC IGPS I Jhajjar	2	Fixed charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21) and % of Allocation	3.96	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)
84	MEJA Urja Nigam	2	Fixed charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21) and % of Allocation	3.08	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)
85	NTPC Tanda	2	Fixed charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21) and % of Allocation	3.02	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)
86	NTPC Badarpur	0	Fixed charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21) and % of Allocation	0.00	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)
87	Rajasthan (NPCIL)	0	Fixed charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21) and % of Allocation	3.97	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)
88	NARORA (NPCIL)	0	Fixed charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21) and % of Allocation	3.02	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)
F	Total NR Region	25			
89	Torrent Power	31	Fixed charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21) and % of Allocation	4.62	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)

Sl No	Source	Fixed Charge (Rs. Cr)	Basis for Fixed Charges	Variable Charge (Rs. /kWh)	Basis for Energy Charges
90	BLA Power, Unit-I & II	17	Fixed charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21) and % of Allocation	3.15	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)
91	Jaypee Bina Power	461	Fixed Charges as per MPERC Order in Petition No. 44/2020 dated 30.04.2021	3.29	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)
92	Lanco Amarkantak TPS Unit 1	224	Fixed charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21) and % of Allocation	1.91	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)
93	Reliance UMPP, Sasan	174	Fixed charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21) and % of Allocation	1.36	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)
94	Essar Power STPS	0	Fixed charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21) and % of Allocation	4.56	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)
95	Jaiprakash Power STPS, Nigri	633	Fixed charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21) and % of Allocation	0.70	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)
96	MB Power STPS, Unit-I	271	Fixed Charges as per MPERC Order in Petition No. 46/2020 dated 01.05.2021	2.43	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)
97	MB Power STPS, Unit-II	271	Fixed Charges as per MPERC Order in Petition No. 46/2020 dated 01.05.2021	2.59	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)
98	Jhabua Power STPS, Unit-1	280	Fixed Charges as per MPERC Order in Petition No. 47/2020 dated 08.05.2021	2.65	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)
99	DB Power STPS Unit-1	320	Since there is no tariff order available, therefore Considered in Fixed Charges in MW proportions wrt MB Power and variable Cost as per the MB Power	2.43	Since there is no tariff order available, therefore Considered in Fixed Charges in MW proportions wrt MB Power and variable Cost as per the MB Power
100	Pench Thermal Energy, Unit-I	0	Fixed cost of Rs. 2.898 per unit as per the MPERC Order in Petition No. 28 of 2020 dated 26th May 2020	0.00	Fuel cost of Rs. 1.982 per unit as per the MPERC Order in Petition No. 28 of 2020 dated 26th May 2020
G	Total (IPPs)	2683			

Sl No	Source	Fixed Charge (Rs. Cr)	Basis for Fixed Charges	Variable Charge (Rs. /kWh)	Basis for Energy Charges
101	Renewable Energy (Solar)			3.46	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)
102	Renewable Energy (other than Solar)			5.50	Energy charge as per Weighted Average of past 12 months Bills (Sep-20 to Aug-21)
H	Total Renewable Energy				
	Total	11427			

6.2 Merit Order Dispatch

6.2.1 As already explained above, all plants have been considered to be allocated to MPPMCL and a common MoD has been applied to all the plants after considering the backing down of selected stations as explained above. The MoD applied for FY 2022-23 is given in the following table:

Table 174: Merit Order Dispatch for FY 2022-23 to FY 2026-27

Sr.n o	Merit Order Dispatch	FY 2022-23		FY 2023-24		FY 2024-25		FY 2025-26		FY 2026-27	
		Particulars	Variable Charge (Paisa/k Wh)	Availability (MUs)	Variable Charge (Paisa/k Wh)						
1	KAPP Kakrapar	229	728	234	730	238	728	243	728	248	728
2	TAPP Tarapur	338	1,513	345	1,518	352	1,513	359	1,513	366	1,513
3	NTPC Lara STPS, Raigarh, Unit III	0	0	0	0	228	361	233	440	237	518
4	NTPC Lara STPS, Raigarh, Unit IV	0	0	0	0	228	361	233	440	237	518

Merit Order Dispatch		FY 2022-23		FY 2023-24		FY 2024-25		FY 2025-26		FY 2026-27	
Sr.n o	Particulars	Variable Charge (Paisa/k Wh)	Availabil ity (MUs)								
5	NTPC Lara STPS, Raigarh, Unit V	0	0	0	0	0	0	228	440	233	518
6	NTPC Kahalgaon I	0	0	0	0	0	0	0	0	0	0
7	NTPC Farakka	0	0	0	0	0	0	0	0	0	0
8	NTPC Talcher	0	0	0	0	0	0	0	0	0	0
9	NTPC Barh	0	0	0	0	0	0	0	0	0	0
10	DVC (MTPS & CTPS)	0	0	0	0	0	0	0	0	0	0
11	DVC (DTPS)	0	0	0	0	0	0	0	0	0	0
12	NTPC Badarpur	0	0	0	0	0	0	0	0	0	0
13	Rajasthan (NPCIL)	397	8	405	8	413	8	421	8	429	8
14	NARORA (NPCIL)	302	7	308	7	315	7	321	7	327	7
15	Satpura TPS Ph-II & III	0	0	0	0	0	0	0	0	0	0
16	NHPC Lower Subansiri HEP Unit-1	0	0	951	73	970	267	990	387	1,009	387
17	Pench Thermal Energy, Unit-1	0	0	0	0	0	0	0	0	189	889
18	Renewable Energy (Solar)	346	7,555	322	9,764	316	10,501	316	10,501	316	10,501
19	Renewable Energy (other than Solar)	550	4,515	550	4,534	550	4,534	549	4,534	549	4,531
20	Rihand HPS	40	82	41	82	42	82	42	82	43	82
21	Matatila HPS	40	29	41	29	42	29	42	29	43	29
22	Pench HPS	48	199	49	199	50	199	51	199	52	199
23	Bansagar Ph-II HPS (Silpara)	60	92	61	92	62	92	64	92	65	92
24	Jaiprakash Power STPS, Nigri	70	3,474	72	3,483	73	3,474	75	3,474	76	3,474
25	Bansagar Ph I HPS (Tons)	75	898	77	898	78	898	80	898	81	898
26	Birsinghpur HPS	76	36	77	36	79	36	80	36	82	36

Sr.n o	Merit Order Dispatch Particulars	FY 2022-23		FY 2023-24		FY 2024-25		FY 2025-26		FY 2026-27	
		Variable Charge (Paisa/k Wh)	Availabil ity (MUs)								
27	NVDA Sardar Sarovar HPS	82	1,696	84	1,696	85	1,696	87	1,696	89	1,696
28	Bansagar Ph-IV HPS (Jhinna)	93	76	95	76	97	76	99	76	101	76
29	Bansagar Ph-III HPS (Deolond)	95	107	97	107	99	107	101	107	103	107
30	Rani Awanti Bai Sagar, Bargi HPS	102	380	104	380	106	380	108	380	110	380
31	Rajghat HPS	109	37	111	37	113	37	115	37	118	37
32	SJVN Jhakri HPS	114	9	116	9	118	9	121	9	123	9
33	NHPC Chamera II	117	3	120	3	122	3	125	3	127	3
34	Tehri HPS	119	6	121	6	124	6	126	6	129	6
35	Gandhisagar HPS	123	125	125	167	128	167	130	167	133	167
36	Amarkantak TPS Ph-III	128	1,540	130	1,544	133	1,540	135	1,540	138	1,540
37	Reliance UMPP, Sasan	136	10,422	138	10,450	141	10,422	144	10,422	147	10,422
38	NTPC Korba III	147	505	150	506	153	505	156	505	159	505
39	Koteshwar HPP	147	3	150	3	153	3	156	3	159	3
40	Ranapratap Sagar HPS	151	201	154	201	157	201	160	201	163	201
41	Jawahar Sagar HPS	151	147	154	147	157	147	160	147	163	147
42	NTPC Rihand TPS-I	151	15	154	15	158	15	161	15	164	15
43	NTPC Rihand TPS-II	152	16	155	16	158	16	161	16	164	16
44	NTPC Sipat I	154	2,247	157	2,253	160	2,247	163	2,247	166	2,247
45	NTPC Korba	156	3,286	159	3,295	162	3,286	165	3,286	169	3,286
46	NHPC Parbat I	157	5	160	5	163	5	166	5	169	5
47	NTPC Rihand TPS-III	158	17	161	17	165	17	168	17	171	17
48	NTPC Sipat II	159	1,273	162	1,276	165	1,273	168	1,273	172	1,273
49	NTPC Singrauli	159	28	162	28	165	28	168	28	172	28

Sr.n o	Merit Order Dispatch Particulars	FY 2022-23		FY 2023-24		FY 2024-25		FY 2025-26		FY 2026-27	
		Variable Charge (Paisa/k Wh)	Availabil ity (MUs)								
50	NHDC Indira Sagar HPS	171	2,359	174	2,359	178	2,359	182	2,359	185	2,359
51	NTPC Vidyachal IV	174	1,931	178	1,937	181	1,931	185	1,931	188	1,931
52	NTPC Vidyachal III	175	1,677	178	1,682	182	1,677	186	1,677	189	1,677
53	NTPC Vidyachal II	178	2,190	182	2,196	186	2,190	189	2,190	193	2,190
54	NTPC Vidyachal V Unit 1	180	963	184	966	187	963	191	963	195	963
55	Madikheda HPS	181	110	184	110	188	110	192	110	196	110
56	NHPC Dhauliganga	185	3	188	3	192	3	196	3	200	3
57	Lanco Amarkantak TPS Unit 1	191	2,033	195	2,038	199	2,033	203	2,033	207	2,033
58	SGTPS Ph-III	192	3,468	196	3,477	199	3,468	203	3,468	207	3,468
59	NTPC Vidyachal I	193	2,947	196	2,955	200	2,947	204	2,947	208	2,947
60	NHDC Omkareshwar HPS	200	1,043	204	1,043	208	1,043	213	1,043	217	1,043
61	NHPC Chamera III	203	2	207	2	212	2	216	2	220	2
62	NTPC Kahalgao II	220	519	224	521	229	519	233	519	238	519
63	NTPC Lara STPS, Raigarh, Unit I	228	622	233	624	237	361	242	440	247	518
64	NTPC Lara STPS, Raigarh, Unit II	228	622	233	624	237	361	242	440	247	518
65	Satpura TPS Ph-IV	229	3,388	233	3,397	238	3,388	243	3,388	248	3,388
66	NHPC Kishanganga	229	3	233	3	238	3	243	3	248	3
67	SGTPS Ph-I & II	239	4,754	244	4,768	248	4,754	253	4,754	258	4,754
68	MB Power STPS, Unit-I	243	1,474	248	1,478	253	1,474	258	1,474	263	1,474
69	DB Power STPS Unit-1	243	616	248	1,723	253	1,718	258	1,718	263	1,718
70	NTPC Koldam HPPI	243	4	248	4	253	4	258	4	263	4
71	SJVN Rampur HPS	250	2	255	2	261	2	266	2	271	2
72	NTPC Dadri GPP	257	15	262	15	267	15	272	15	278	15

Sr.n o	Merit Order Dispatch Particulars	FY 2022-23		FY 2023-24		FY 2024-25		FY 2025-26		FY 2026-27	
		Variable Charge (Paisa/k Wh)	Availabil ity (MUs)								
73	MB Power STPS, Unit-II	259	1,474	265	1,478	270	1,474	275	1,474	281	1,474
74	Jhabua Power STPS, Unit-1	265	1,474	270	1,478	275	1,474	281	1,474	286	1,474
75	NTPC Auraiya GPP	277	12	282	12	288	12	294	12	299	12
76	NTPC Gandhar GPP	280	601	285	602	291	601	297	601	303	601
77	NTPC Gadarwara STPS, Unit-1	283	2,913	289	2,921	295	2,913	301	2,913	307	2,913
78	NTPC Gadarwara STPS, Unit-2	283	2,913	289	2,921	295	2,913	301	2,913	307	2,913
79	NTPC Khargone STPS, Unit-I & II	289	4,806	295	4,819	301	4,806	307	4,806	313	4,806
80	NTPC Mouda I	290	135	295	135	301	135	307	135	313	1,162
81	NTPC Tanda	302	8	308	8	314	8	321	8	327	8
82	NTPC Kawas GPP	305	718	311	720	318	718	324	718	331	718
83	MEJA Urja Nigam	308	6	314	6	320	6	327	6	333	6
84	NTPC Anta GPP	309	7	315	7	322	7	328	7	335	7
85	NTPC Firoz Gandhi Unchahar IV	311	9	318	9	324	9	331	9	337	9
86	Shri Singaji STPS Phase-I	312	8,421	318	8,445	325	8,421	331	8,421	338	8,421
87	BLA Power, Unit-I & II	315	188	321	189	328	188	334	188	341	188
88	NTPC NCTP Dadri II	318	16	325	16	331	16	338	16	344	16
89	NHPC Uri II	319	0	325	0	331	0	338	0	345	0
90	NTPC Mouda II Unit 1	320	171	326	172	333	171	339	171	346	1,620
91	NTPC Firoz Gandhi Unchahar III	323	4	329	4	336	4	343	4	350	4
92	NTPC Firoz Gandhi Unchahar I	325	2	331	2	338	2	345	2	352	2
93	NTPC Solapur STPS	326	2,250	333	2,257	340	2,250	346	2,250	353	2,250

Sr. No	Particulars	FY 2022-23		FY 2023-24		FY 2024-25		FY 2025-26		FY 2026-27	
		Variable Charge (Paisa/k Wh)	Availability (MUs)								
94	Jaypee Bina Power	329	2,372	336	2,378	343	2,372	350	2,372	357	2,372
95	NTPC Firoz Gandhi Unchahar II	331	7	337	7	344	7	351	7	358	7
96	NHPC Dulhasti	343	4	350	4	357	4	364	4	371	4
97	Shri Singaji STPS Phase-II	357	9,141	364	9,166	371	9,141	378	9,141	386	9,141
98	NTPC IGPS I Jhajjar	396	14	404	14	412	14	420	14	428	14
99	Essar Power STPS	456	421	465	422	474	421	484	421	494	421
100	Torrent Power	462	256	471	257	481	256	490	256	500	256
101	NHPC Sewa II	501	1	511	1	522	1	532	1	543	1
102	NTPC Singrauli Small HPP	932	0	951	0	970	0	990	0	1,009	0
Total		110,368		114,066		114,944		115,821		119,570	

6.3 Power Purchase Cost for MP

6.3.1 The following tables indicates the Total costs (fixed costs and variable costs) of Stations allocated to MP State and the three Discoms before consideration of MPPMCL Cost and treatment of surplus energy:

Table 175: Gross Power Purchase Cost for MP State

Sr. No	Particulars	FY 2022-23			FY 2023-24			FY 2024-25		
		Fixed Charge	Variable Charge	Total	Fixed Charge	Variable Charge	Total	Fixed Charge	Variable Charge	Total
1	Amarkantak TPS Ph-III	136	196	332	139	201	340	142	204	346
2	Satpura TPS Ph-II & III	0	0	0	0	0	0	0	0	0
3	Satpura TPS Ph-IV	674	775	1,449	688	792	1,480	702	806	1,508
4	SGTPS Ph-I & II	398	1,128	1,526	406	1,161	1,567	414	1,181	1,595
5	SGTPS Ph-III	335	665	1,000	342	680	1,022	349	691	1,040

Sr. No	Particulars	FY 2022-23			FY 2023-24			FY 2024-25		
		Fixed Charge	Variable Charge	Total	Fixed Charge	Variable Charge	Total	Fixed Charge	Variable Charge	Total
6	Shri Singaji STPS Phase-I	1,211	808	2,020	1,235	1,043	2,279	1,260	1,366	2,626
7	Shri Singaji STPS Phase-II	361	0	361	368	0	368	375	645	1,020
A	Total (MP Genco Thermal-MP Share)	3116	3573	6688	3178	3877	7055	3241	4894	8136
8	Rani Awanti Bai Sagar, Bargi HPS	8	39	46	8	39	47	8	40	48
9	Bansagar Ph-I HPS (Tons)	43	67	110	44	69	112	44	70	114
10	Bansagar Ph-II HPS (Silpara)	6	6	11	6	6	11	6	6	12
11	Bansagar Ph-III HPS (Deolond)	12	10	22	13	10	23	13	11	23
12	Bansagar Ph-IV HPS (Jhinna)	8	7	15	8	7	15	8	7	15
13	Birsinghpur HPS	2	3	5	2	3	5	2	3	5
14	Madikheda HPS	15	20	35	15	20	35	15	21	36
15	Rajghat HPS	4	4	8	4	4	8	4	4	8
16	Gandhisagar HPS	2	15	17	2	21	23	2	21	23
17	Ranapratap Sagar HPS	0	30	30	0	31	31	0	32	32
18	Jawahar Sagar HPS	0	22	22	0	23	23	0	23	23
19	Pench HPS	7	10	17	8	10	17	8	10	18
B	Total (MP Genco Hydel)	105	233	338	107	243	350	110	248	357
20	NHDC Indira Sagar HPS	274	404	677	279	412	691	285	420	705
21	NHDC Omkareshwar HPS	189	209	398	193	213	406	197	217	414
22	NVDA Sardar Sarovar HPS	178	139	317	181	142	323	185	145	330
23	Rihand HPS	0	3	3	0	3	3	0	3	3
24	Matatila HPS	0	1	1	0	1	1	0	1	1
25	SJVN Rampur HPS	1	0	1	1	1	1	1	1	1
26	SJVN Jhakri HPS	1	1	2	1	1	2	1	1	3
27	Tehri HPS	1	1	2	1	1	2	1	1	2
28	Koteshwar HPP	0	0	1	0	0	1	0	0	1
29	NHPC ParbatI III	1	1	2	1	1	2	1	1	2
30	NHPC Chamera II	0	0	1	0	0	1	0	0	1
31	NHPC Chamera III	1	0	1	1	0	1	1	0	1
32	NHPC Dulhasti	2	0	2	2	0	2	2	0	2
33	NHPC Dhauliganga	0	0	1	0	0	1	0	1	1
34	NHPC Sewa II	0	0	0	0	0	0	0	0	0
35	NHPC Uri II	1	0	1	1	0	1	1	0	1

Sr. No	Particulars	FY 2022-23			FY 2023-24			FY 2024-25		
		Fixed Charge	Variable Charge	Total	Fixed Charge	Variable Charge	Total	Fixed Charge	Variable Charge	Total
36	NHPC Kishanganga	1	1	1	1	1	1	1	1	1
37	NTPC Koldam HPPI	1	1	2	1	1	2	1	1	2
38	NTPC Singrauli Small HPP	0	0	0	0	0	0	0	0	0
39	NHPC Lower Subansiri HEP Unit-1	0	0	0	0	0	0	0	0	0
C	Total (JV Hydel & Other Hydel)	651	762	1413	664	778	1442	678	794	1471
40	NTPC Korba	238	512	750	243	524	766	248	532	780
41	NTPC Korba III	74	74	148	75	76	151	77	77	154
42	NTPC Vidyachal I	253	567	820	258	580	838	263	590	854
43	NTPC Vidyachal II	146	391	537	149	400	549	152	407	558
44	NTPC Vidyachal III	181	293	474	184	300	484	188	305	493
45	NTPC Vidyachal IV	306	336	642	312	344	656	318	350	668
46	NTPC Vidyachal V Unit 1	151	173	325	154	177	332	158	180	338
47	NTPC Sipat I	303	345	648	309	353	662	315	359	674
48	NTPC Sipat II	159	202	361	163	207	369	166	210	376
49	NTPC Mouda I	25	14	39	26	19	44	26	30	56
50	NTPC Mouda II Unit 1	26	5	30	26	20	46	27	20	47
51	NTPC Solapur STPS	533	20	552	543	206	749	554	274	828
52	NTPC Gadarwara STPS, Unit-1	570	686	1,255	581	760	1,341	593	820	1,412
53	NTPC Lara STPS, Raigarh, Unit I	119	142	261	122	145	267	124	86	210
54	NTPC Khargone STPS, Unit-I & II	853	617	1,471	870	762	1,632	888	1,228	2,116
55	NTPC Kawas GPP	85	70	155	87	111	197	88	167	255
56	NTPC Gandhar GPP	86	154	239	87	157	245	89	175	264
57	KAPP Kakrapar	0	167	167	0	171	171	0	174	174
58	TAPP Tarapur	0	512	512	0	524	524	0	533	533
59	NTPC Gadarwara STPS, Unit-2	570	560	1,130	581	674	1,255	593	788	1,381
60	NTPC Lara STPS, Raigarh, Unit II	119	142	261	122	145	267	124	86	210
61	NTPC Lara STPS, Raigarh, Unit III	0	0	0	0	0	0	86	82	168
62	NTPC Lara STPS, Raigarh, Unit IV	0	0	0	0	0	0	86	82	168
63	NTPC Lara STPS, Raigarh, Unit V	0	0	0	0	0	0	0	0	0
D	Total WR Region	4796	5981	10777	4892	6653	11545	5161	7556	12717
64	NTPC Kahalgaon I	0	0	0	0	0	0	0	0	0
65	NTPC Kahalgaon II	51	114	165	52	117	169	53	119	172

Sr. No	Particulars	FY 2022-23			FY 2023-24			FY 2024-25		
		Fixed Charge	Variable Charge	Total	Fixed Charge	Variable Charge	Total	Fixed Charge	Variable Charge	Total
66	NTPC Farakka	0	0	0	0	0	0	0	0	0
67	NTPC Talcher	0	0	0	0	0	0	0	0	0
68	NTPC Barh	0	0	0	0	0	0	0	0	0
69	DVC (MTPS & CTPS)	0	0	0	0	0	0	0	0	0
70	DVC (DTPS)	0	0	0	0	0	0	0	0	0
E	Total ER Region	51	114	165	52	117	169	53	119	172
71	NTPC Auraiya GPP	1	3	4	1	3	4	1	3	4
72	NTPC Dadri GPP	1	3	4	1	4	5	1	4	5
73	NTPC Anta GPP	1	1	1	1	1	2	1	2	2
74	NTPC Firoz Gandhi Unchahar I	1	0	1	1	0	1	1	0	2
75	NTPC Firoz Gandhi Unchahar II	1	0	1	2	0	2	2	1	2
76	NTPC Firoz Gandhi Unchahar III	1	0	1	1	0	1	1	0	1
77	NTPC Firoz Gandhi Unchahar IV	2	1	3	2	1	4	2	2	4
78	NTPC Rihand TPS-I	1	2	4	1	2	4	1	2	4
79	NTPC Rihand TPS-II	2	2	4	2	3	4	2	3	4
80	NTPC Rihand TPS-III	3	3	6	3	3	6	3	3	6
81	NTPC NCTP Dadri II	3	0	3	3	2	5	3	2	5
82	NTPC Singrauli	2	4	6	2	5	6	2	5	7
83	NTPC IGPS I Jhajjar	2	0	2	2	0	2	2	0	2
84	MEJA Urja Nigam	2	1	3	2	1	3	2	1	3
85	NTPC Tanda	2	1	2	2	1	3	2	2	4
86	NTPC Badarpur	0	0	0	0	0	0	0	0	0
87	Rajasthan (NPCIL)	0	3	3	0	3	3	0	3	3
88	NARORA (NPCIL)	0	2	2	0	2	2	0	2	2
F	Total NR Region	25	27	52	25	32	57	26	35	61
89	Torrent Power	31	0	31	31	0	31	32	0	32
90	BLA Power, Unit-I & II	17	5	22	18	21	39	18	21	39
91	Jaypee Bina Power	461	0	461	470	172	642	479	289	768
92	Lanco Amarkantak TPS Unit 1	224	389	612	228	397	626	233	404	637
93	Reliance UMPP, Sasan	174	1,412	1,587	178	1,445	1,623	181	1,469	1,651
94	Essar Power STPS	0	0	0	0	0	0	0	0	0
95	Jaiprakash Power STPS, Nigri	633	244	877	646	250	896	659	254	913

Sr. No	Particulars	FY 2022-23			FY 2023-24			FY 2024-25		
		Fixed Charge	Variable Charge	Total	Fixed Charge	Variable Charge	Total	Fixed Charge	Variable Charge	Total
96	MB Power STPS, Unit-I	271	334	605	277	366	643	282	372	654
97	MB Power STPS, Unit-II	271	357	628	277	371	647	282	398	680
98	Jhabua Power STPS, Unit-1	280	355	635	286	364	649	291	406	697
99	DB Power STPS Unit-1	320	149	470	327	427	753	333	434	767
100	Pench Thermal Energy, Unit-1	0	0	0	0	0	0	0	0	0
G	Total (IPPs)	2683	3246	5929	2737	3812	6549	2791	4048	6839
101	Renewable Energy (Solar)	0	2,613	2,613	0	3,146	3,146	0	3,323	3,323
102	Renewable Energy (other than Solar)	0	2,483	2,483	0	2,493	2,493	0	2,492	2,492
H	Total Renewable Energy	0	5096	5096	0	5639	5639	0	5815	5815
J	Total	11427	19032	30459	11656	21150	32806	12060	23508	35568

Sr. No	Particulars	FY 2025-26			FY 2026-27		
		Fixed Charge	Variable Charge	Total	Fixed Charge	Variable Charge	Total
1	Amarkantak TPS Ph-III	144	208	353	147	213	360
2	Satpura TPS Ph-II & III	0	0	0	0	0	0
3	Satpura TPS Ph-IV	716	822	1,538	730	839	1,569
4	SGTPS Ph-I & II	422	1,205	1,627	430	1,229	1,659
5	SGTPS Ph-III	356	705	1,061	363	719	1,083
6	Shri Singaji STPS Phase-I	1,285	2,448	3,733	1,311	2,615	3,926
7	Shri Singaji STPS Phase-II	383	807	1,190	391	1,375	1,765
A	Total (MP Genco Thermal-MP Share)	3306	6195	9501	3372	6989	10362
8	Rani Awanti Bai Sagar, Bargi HPS	8	41	49	8	42	50
9	Bansagar Ph I HPS (Tons)	45	71	117	46	73	119

Sr. No	Particulars	FY 2025-26			FY 2026-27		
		Fixed Charge	Variable Charge	Total	Fixed Charge	Variable Charge	Total
10	Bansagar Ph-II HPS (Silpara)	6	6	12	6	6	12
11	Bansagar Ph-III HPS (Deolond)	13	11	24	13	11	24
12	Bansagar Ph-IV HPS (Jhinna)	8	7	16	8	8	16
13	Birsinghpur HPS	2	3	5	2	3	5
14	Madikheda HPS	15	21	37	16	22	37
15	Rajghat HPS	4	4	8	4	4	8
16	Gandhisagar HPS	2	22	23	2	22	24
17	Ranapratap Sagar HPS	0	32	32	0	33	33
18	Jawahar Sagar HPS	0	24	24	0	24	24
19	Pench HPS	8	10	18	8	10	19
B	Total (MP Genco Hydel)	112	253	365	114	258	372
20	NHDC Indira Sagar HPS	291	428	719	296	437	733
21	NHDC Omkareshwar HPS	201	222	423	205	226	431
22	NVDA Sardar Sarovar HPS	189	148	336	193	151	343
23	Rihand HPS	0	3	3	0	4	4
24	Matatila HPS	0	1	1	0	1	1
25	SJVN Rampur HPS	1	1	1	1	1	2
26	SJVN Jhakri HPS	2	1	3	2	1	3
27	Tehri HPS	1	1	2	1	1	2
28	Koteshwar HPP	0	0	1	0	0	1
29	NHPC Parbati III	1	1	2	1	1	2
30	NHPC Chamera II	0	0	1	0	0	1
31	NHPC Chamera III	1	0	1	1	0	1

Sr. No	Particulars	FY 2025-26			FY 2026-27		
		Fixed Charge	Variable Charge	Total	Fixed Charge	Variable Charge	Total
32	NHPC Dulhasti	2	0	2	2	1	3
33	NHPC Dhauliganga	0	1	1	0	1	1
34	NHPC Sewa II	0	0	0	0	0	0
35	NHPC Uri II	1	0	1	1	0	1
36	NHPC Kishanganga	1	1	2	1	1	2
37	NTPC Koldam HPPI	1	1	2	1	1	2
38	NTPC Singrauli Small HPP	0	0	0	0	0	0
39	NHPC Lower Subansiri HEP Unit-1	0	0	0	0	0	0
C	Total (JV Hydel & Other Hydel)	691	809	1501	705	826	1531
40	NTPC Korba	253	543	796	258	554	812
41	NTPC Korba III	78	79	157	80	80	160
42	NTPC Vidyachal I	269	602	871	274	614	888
43	NTPC Vidyachal II	155	415	569	158	423	581
44	NTPC Vidyachal III	192	311	503	196	318	513
45	NTPC Vidyachal IV	325	357	681	331	364	695
46	NTPC Vidyachal V Unit 1	161	184	345	164	188	352
47	NTPC Sipat I	321	366	687	327	374	701
48	NTPC Sipat II	169	214	383	173	219	391
49	NTPC Mouda I	27	38	64	27	364	391
50	NTPC Mouda II Unit 1	27	45	72	28	435	463
51	NTPC Solapur STPS	565	522	1,087	577	579	1,156
52	NTPC Gadarwara STPS, Unit-1	605	876	1,480	617	893	1,510
53	NTPC Lara STPS, Raigarh, Unit I	127	107	233	129	128	257

Sr. No	Particulars	FY 2025-26			FY 2026-27		
		Fixed Charge	Variable Charge	Total	Fixed Charge	Variable Charge	Total
54	NTPC Khargone STPS, Unit-I & II	906	1,415	2,321	924	1,505	2,428
55	NTPC Kawas GPP	90	213	303	92	237	329
56	NTPC Gandhar GPP	91	178	269	93	182	275
57	KAPP Kakrapar	0	177	177	0	181	181
58	TAPP Tarapur	0	544	544	0	554	554
59	NTPC Gadarwara STPS, Unit-2	605	876	1,480	617	893	1,510
60	NTPC Lara STPS, Raigarh, Unit II	127	107	233	129	128	257
61	NTPC Lara STPS, Raigarh, Unit III	86	102	188	86	123	209
62	NTPC Lara STPS, Raigarh, Unit IV	86	102	188	86	123	209
63	NTPC Lara STPS, Raigarh, Unit V	86	100	186	86	120	206
D	Total WR Region	5347	8473	13820	5449	9578	15027
64	NTPC Kahalgaon I	0	0	0	0	0	0
65	NTPC Kahalgaon II	54	121	175	55	124	179
66	NTPC Farakka	0	0	0	0	0	0
67	NTPC Talcher	0	0	0	0	0	0
68	NTPC Barh	0	0	0	0	0	0
69	DVC (MTPS & CTPS)	0	0	0	0	0	0
70	DVC (DTPS)	0	0	0	0	0	0
E	Total ER Region	54	121	175	55	124	179
71	NTPC Auraiya GPP	1	3	4	1	3	4
72	NTPC Dadri GPP	1	4	5	1	4	5
73	NTPC Anta GPP	1	2	3	1	2	3

Sr. No	Particulars	FY 2025-26			FY 2026-27		
		Fixed Charge	Variable Charge	Total	Fixed Charge	Variable Charge	Total
74	NTPC Firoz Gandhi Unchahar I	1	1	2	1	1	2
75	NTPC Firoz Gandhi Unchahar II	2	1	3	2	2	3
76	NTPC Firoz Gandhi Unchahar III	1	1	2	1	1	2
77	NTPC Firoz Gandhi Unchahar IV	2	3	5	2	3	5
78	NTPC Rihand TPS-I	2	2	4	2	2	4
79	NTPC Rihand TPS-II	2	3	4	2	3	4
80	NTPC Rihand TPS-III	3	3	6	3	3	6
81	NTPC NCTP Dadri II	3	4	7	3	5	8
82	NTPC Singrauli	2	5	7	2	5	7
83	NTPC IGPS I Jhajjar	2	0	2	3	0	3
84	MEJA Urja Nigam	2	2	4	2	2	4
85	NTPC Tanda	2	2	4	2	3	4
86	NTPC Badarpur	0	0	0	0	0	0
87	Rajasthan(NPCIL)	0	3	3	0	3	3
88	NARORA(NPCIL)	0	2	2	0	2	2
F	Total NR Region	26	41	68	27	44	71
89	Torrent Power	33	0	33	33	0	33
90	BLA Power, Unit-I & II	19	50	68	19	55	74
91	Jaypee Bina Power	489	379	867	498	563	1,061
92	Lanco Amarkantak TPS Unit 1	238	412	650	242	421	663
93	Reliance UMPP, Sasan	185	1,499	1,684	189	1,529	1,718
94	Essar Power STPS	0	0	0	0	0	0
95	Jaiprakash Power STPS, Nigri	672	259	931	686	264	950
96	MB Power STPS, Unit-I	288	380	667	294	387	681

Sr. No	Particulars	FY 2025-26			FY 2026-27		
		Fixed Charge	Variable Charge	Total	Fixed Charge	Variable Charge	Total
97	MB Power STPS, Unit-II	288	406	693	294	414	707
98	Jhabua Power STPS, Unit-1	297	414	711	303	422	725
99	DB Power STPS Unit-1	340	443	783	347	451	798
100	Pench Thermal Energy, Unit-1	0	0	0	258	168	426
G	Total (IPPs)	2847	4240	7087	3162	4675	7836
101	Renewable Energy (Solar)	0	3,323	3,323	0	3,323	3,323
102	Renewable Energy (other than Solar)	0	2,491	2,491	0	2,489	2,489
H	Total Renewable Energy	0	5814	5814	0	5812	5812
0	Total	12384	25946	38330	12884	28305	41190

Table 176: Total Power Purchase Cost for MP State

Sr. No	Particulars	FY 2022-23			FY 2023-24			FY 2024-25		
		Fixed Charge	Variable Charge	Total	Fixed Charge	Variable Charge	Total	Fixed Charge	Variable Charge	Total
1	Gross Power Purchase Cost	11,427	19,032	30,459	11,656	21,150	32,806	12,060	23,508	35,568
2	Less: Saving in variable cost of surplus energy from sale of surplus energy		174	174		144	144		70	70
3	Gross Power Purchase Cost after Saving in Variable Cost	11,427	18,858	30,285	11,656	21,006	32,662	12,060	23,438	35,498
4	Add: MPPMCLCost	274		274	291		291	309		309
5	Add: Cost due to RPO		573	573		784	784		1,007	1,007
6	Net Power Purchase Cost	11,701	19,432	31,132	11,946	21,790	33,737	12,369	24,445	36,814
7	Inter-state Transmission Charges	2,627		2,627	2,732		2,732	2,842		2,842
8	MPPTCL Charges including SLDC Charges	4,256		4,256	4,339		4,339	4,512		4,512
9	Total Power Purchase Cost	18,584	19,432	38,016	19,017	21,790	40,808	19,723	24,445	44,168

Sr. No	Particulars	FY 2025-26			FY 2026-27		
		Fixed Charge	Variable Charge	Total	Fixed Charge	Variable Charge	Total
1	Gross Power Purchase Cost	12,384	25,946	38,330	12,884	28,305	41,190
2	Less: Saving in variable cost of surplus energy from sale of surplus energy		59	59		6	6
3	Gross Power Purchase Cost after Saving in Variable Cost	12,384	25,887	38,271	12,884	28,300	41,184
4	Add: MPPMCL Cost	329		329	351		351
5	Add: Cost due to RPO		1,212	1,212		1,404	1,404
6	Net Power Purchase Cost	12,713	27,099	39,812	13,235	29,703	42,938
7	Inter-state Transmission Charges	2,955		2,955	3,074		3,074
8	MPPTCL Charges including SLDC Charges	4,693		4,693	4,880		4,880
9	Total Power Purchase Cost	20,361	27,099	47,461	21,189	29,703	50,892

The Total Power Purchase cost excluding MPPTCL Charges is again distributed among the three Discoms according to the DBST Methodology for individual Discoms as shown below:

6.4 Distribution Bulk Supply Tariff methodology for Allocation of Power Purchase Cost to Discoms

- 6.4.1 The Government of MP vide gazette notification dated 21st March 2016 had allocated all the stations to MPPMCL and in order to maintain equitable allocation of the power purchased cost among all the three Discom's, MPPMCL have allocated the costs to the three Discom's as per Distribution Bulk Supply Tariff (DBST) methodology.
- 6.4.2 With the Implementation of Distribution Bulk Supply Tariff (DBST) with effect from January 2020, the overall Power Purchase Cost of all the three Discoms is being distributed on the basis of Revenue available with Discoms for power purchase and in-proportion of their energy requirement.
- 6.4.3 The Power Purchase cost allocated to Discoms based on DBST methodology for FY 2022-23 as provided in the table below:

FY 2022-23						
S.no	Particulars	Unit	MP	EZ	CZ	WZ
A	Revenue from Existing Tariff	Rs. Cr	44,957	13,066	14,026	17,866
B	Other costs of Discoms (Expenditure other than power purchase cost)	Rs. Cr	10,828	4,341	4,327	2,160
1	R&M Expense	Rs. Cr	1,359	506	494	359
2	Employee Expenses	Rs. Cr	3,753	1,323	1,205	1,225
3	A&G Expense	Rs. Cr	385	126	120	139
4	Depreciation and Related debits	Rs. Cr	1,921	715	708	498
5	Interest & Finance Charges	Rs. Cr	1,299	417	501	381
6	Other Debits, Write-offs (Prior period and bad debts)	Rs. Cr	450	131	140	179
7	RoE	Rs. Cr	455	90	275	90
8	Less: Other income	Rs. Cr	826	228	370	228
9	True up for FY 2019-20	Rs. Cr	2,031	1,260	1,253	(482)
C	Intra-state transmission Charges including SLDC Charges	Rs. Cr	4,256	1,262	1,487	1,507
D	Aggregated Amount available with Discoms for Power purchase (A-B-C)	Rs. Cr	29,874	7,462	8,213	14,198
E	Total Power Purchase Cost	Rs. Cr	33,760			
F	Surplus/Gap (E-D)	Rs. Cr	3,886			
G	Ex-Bus Energy Requirement	MU	84,679	24,746	26,435	33,498
H	Ex-Bus Energy Requirement	%	100%	29%	31%	40%
I	Allocation of surplus/Gap as per the Energy Requirement	Rs. Cr	3,886	1,136	1,213	1,537
J	Power Purchase Cost for Discom (D+I)	Rs. Cr	33,760	8,598	9,426	15,735
K	Bulk Supply Tariff	Rs./kWh	3.99	3.47	3.57	4.70

6.5 Estimation of Other Costs associated to Power Purchase.

6.5.1 Inter State Transmission Charges

- 6.5.1.1 The Inter-State transmission charges to be paid by MP consist of charges to be paid for Western, Eastern & Northern Regions transmission systems. The Petitioners have considered Inter-Transmission Charges for FY 2020-21 as per Actual figures from power purchase statement and 4% increment in each year considered for FY 2022-23 to FY 2026-27 as shown below:

Table 177: Inter State Transmission Charges (Rs Crores)

Sr. no	Particulars	FY 23	FY 24	FY 25	FY 26	FY 27
1	East Discom	821.70	854.56	888.75	924.30	961.27
2	Central Discom	834.97	868.36	903.10	939.22	976.79
3	West Discom	970.69	1,009.52	1,049.90	1,091.90	1,135.58
4	MP State	2,627.36	2,732.45	2,841.75	2,955.42	3,073.64

- 6.5.2 These Inter-state transmission charges have been allocated to Discoms based on energy allocation from Central Generating Stations and as per Ex-bus Energy requirement.

6.5.3 Intra-State Transmission Charges including SLDC Charges and Cash Outflow for Terminal Benefits

6.5.3.1 These Inter-state transmission charges have been allocated to Discoms based on energy allocation from Central Generating Stations and as per Ex-bus Energy requirement.

6.5.4 Intra-State Transmission Charges including SLDC Charges and Cash Outflow for Terminal Benefits

6.5.4.1 The Petitioners have considered SLDC Charges for FY 2022-23 to FY 2026-27 based on 4% increment in each year from actuals incurred for FY 2020-21.

6.5.4.2 The Petitioners have considered Intra-Transmission Charges for FY 2022-23 and FY 2023-24 as per MPPTCL Transmission Tariff Order for control period from FY 2019-20 to FY 2023-24, dated 19th May 2021. Further, from FY 2024-25 to FY 2026-27 with 4% increment in each year considered for as shown below:

Table 178: Intra State Transmission Charges including SLDC (Rs Crores)

Sr.no	Transmission Charges	FY 23	FY 24	FY 25	FY 26	FY 27
1	East Discom	1,258.16	1,286.14	1,337.59	1,391.09	1,446.73
2	Central Discom	1,482.02	1,499.32	1,559.29	1,621.66	1,686.53
3	West Discom	1,502.08	1,538.56	1,600.10	1,664.11	1,730.67
4	MP State	4,242.26	4,324.02	4,496.98	4,676.86	4,863.93
Sr.no	SLDC Charges	FY 23	FY 24	FY 25	FY 26	FY 27
1	East Discom	4.23	4.40	4.57	4.76	4.95
2	Central Discom	4.50	4.68	4.87	5.06	5.27
3	West Discom	5.42	5.63	5.86	6.09	6.34
4	MP State	14.15	14.71	15.30	15.91	16.55
Sr.no	Transmission Charges including SLDC Chgs	FY 23	FY 24	FY 25	FY 26	FY 27
1	East Discom	1,262.39	1,290.54	1,342.16	1,395.85	1,451.68
2	Central Discom	1,486.52	1,504.00	1,564.16	1,626.73	1,691.80
3	West Discom	1,507.50	1,544.19	1,605.96	1,670.20	1,737.01
4	MP State	4,256.41	4,338.73	4,512.28	4,692.77	4,880.49

6.5.4.3 The Intra-State Transmission charges have been allocated to Discoms based on Ex-bus energy requirement.

6.6 MPPMCL Cost

6.6.1 The MPPMCL Cost for the FY 2022-23 to FY 2026-27 is as follows:

Table 179: MPPMCL Cost Details

Sr.No.	Particulars	MYT 2022-23 to 2026-27				
		FY 23	FY 24	FY 25	FY 26	FY 27
I.	Revenue from operations (including Revenue Subsidy)	-	-	-	-	-
II.	Other income	187.74	206.52	227.17	249.88	274.87
III.	Income from other business allocated to Licensed business					
IV	Total Revenue (I + II + III)	187.74	206.52	227.17	249.88	274.87
V	Expenses:					
	Purchase of Power from MP Genco					
	Purchase of Power from Other Sources	36.60	35.26	33.78	32.16	30.38
	Inter-State Transmission charges	47.37	52.11	57.32	63.05	69.36
	Intra-State Transmission (MP Transco) Charges					
	SLDC Charges					
	Depreciation and amortization expenses	7.57	7.77	7.97	8.17	8.37
	Interest & Finance Charges	262.95	289.24	318.17	349.99	384.98
	Repairs and Maintenance	3.56	3.91	4.30	4.73	5.21
	Employee costs	70.31	72.41	74.59	76.82	79.13
	Administration and General expenses	28.25	31.07	34.18	37.60	41.36
	Net prior period credit charges					
	Other Debits, Write-offs	4.78	5.26	5.78	6.36	7.00
	Lease Rental					
	Total Expenses	461.38	497.04	536.10	578.89	625.79
VI	Profit before exceptional and extra ordinary items and tax (IV - V)	(273.64)	(290.53)	(308.94)	(329.01)	(350.92)
VII	Exceptional items	-	-	-	-	-
VIII	Profit before extraordinary items and tax (VI - VII)	(273.64)	(290.53)	(308.94)	(329.01)	(350.92)

6.7 Total Power Purchase Cost

- 6.7.1 Based on the various cost components discussed above, the total power purchase cost for MP state and for each of the Discoms is indicated in the below table:

Table 180: Total Power Purchase Cost for FY 2022-23

Sr. No	Particulars	UoM	Power Purchase Cost			
			FY 2022-23			
			MP State	East Discom	Central Discom	West Discom
A	Ex- Bus Net Power Purchase Cost Excluding Transmission Charges (Inter, Intra & SLDC) etc.					
i	Quantum	MUs	84,679	24,746	26,435	33,498
ii	Fixed Cost	Rs Crores	11,427	3,339	3,567	4,520
iii	Variable Cost	Rs Crores	19,432	5,678	6,066	7,687
iv	MPPMCL Cost	Rs Crores	274	80	85	108
v	Total Cost	Rs Crores	31,132	9,098	9,719	12,316
vi	Average Cost	Paisa/kWh	368	368	368	368
B	Inter State Transmission					
i	Losses	MUs	1,525	447	475	603
ii	Charges- Fixed	Rs Crores	2,627	768	820	1,039
C	Power Purchase Cost at State Boundary					
i	Quantum	MUs	83,154	24,299	25,959	32,896
ii	Fixed Cost	Rs Crores	14,054	4,107	4,387	5,560
iii	Variable Cost	Rs Crores	19,432	5,678	6,066	7,687
iv	MPPMCL Cost	Rs Crores	274	80	85	108
v	Total Cost	Rs Crores	33,760	9,866	10,539	13,355

Sr. No	Particulars	UoM	Power Purchase Cost			
			FY 2022-23			
			MP State	East Discom	Central Discom	West Discom
vi	Average Cost	Paisa/kWh	406	406	406	406
D	Intra State Transmission including SLDC					
i	Losses	MUs	2,154	629	672	852
ii	Charges- Fixed	Rs Crores	4,256	1,262	1,487	1,507
E	Power Purchase Cost at Discom Boundary					
i	Quantum	MUs	81,000	23,669	25,287	32,044
ii	Fixed Cost including Transmission Charges	Rs Crores	18,311	5,370	5,874	7,067
iii	Variable Cost	Rs Crores	19,432	5,678	6,066	7,687
iv	MPPMCL Cost	Rs Crores	274	80	85	108
v	Total Cost	Rs Crores	38,016	11,128	12,025	14,863
vi	Average Cost	Paisa/kWh	469	470	476	464

6.7.2 The Petitioners hereby prays to the Hon'ble Commission to approve power purchase cost as shown above.

6.8 Reason for Increase in Power Purchase Cost

- 6.8.1 Power Purchase Costs contribute more than 80% of total ARR of the MP State. Any increase in power purchase cost directly gets reflected in the consumer tariff.
- 6.8.2 With new generating stations being added up in near future, power purchase costs is likely to be increase further. The Average Power Purchase Cost has increased by 56% over last eight years from Paisa 260 per kWh in FY 2011-12 to 405 paise per kWh in FY 2020-21. The year wise average power purchase cost is given as per the table below:

Table 181: Power Purchase Cost Trend in last few FYs

Power Purchase Cost Trend				
Sr. No.	Particulars	Quantum (MUs)	Total Cost (Rs Crores)	Avg. Cost (Paisa/kWh)
1	FY 2011-12	44,030	11,442	260
2	FY 2012-13	49,037	14,693	300
3	FY 2013-14	53,714	18,500	344
4	FY 2014-15	57,977	19,365	334
5	FY 2015-16	64,932	23,510	362
6	FY 2016-17	64,052	27,555	430
7	FY 2017-18	69,099	26,752	387
8	FY 2018-19	77,500	30,771	397
9	FY 2019-20	75,617	30,837	407
10	FY 2020-21	82,325	33,368	405

- 6.8.3 The reasons for the increase in average power purchase cost are given in brief below:

- Growth in demand as expected is not commensurate with energy generation added.
- Most of the PPAs are cost plus basis, the rise in cost of fuel/transportation, taxation etc. is pass through to the buyer;

- Due to high surplus, scheduling of costlier power plants for less no. of days, whereas their fixed cost had to be paid for the entire entitlement;
- Addition of renewable energy to meet RPO targets;

6.8.4 The hurdles in reduction of power purchase cost are shown in brief below:

6.8.5 Some of the uncontrollable reasons which have been restricting MPPMCL from reduction of power purchase costs are as listed below:

- **Payment of Fixed Cost in case of Back down of Surplus Capacity:** It needs to be highlighted that the payment of fixed charges is required to be made for such generators in accordance with the PPAs even if the capacity is backed down.
- The scheduling of generators considered in the MOD is theoretical, whereas during actual operating conditions the demand incident is an uncontrollable parameter and varies abruptly during the peak of Rabi seasons. Under such circumstances most of the surplus capacity that has been considered to be back down is scheduled to meet the demand. Hence, there is a rational for having surplus capacities tied up.
- **Increase in Renewable Capacity:** Renewable Capacity has doubled in the current year compared to the previous year. The per unit cost of Renewable Energy is Paisa 517 per kWh in FY 2020-21 which is much higher than the APPC, thus contributing towards high Power Purchase Cost.

A7: INCOME/EXPENSES OF MPPMCL

- 7.1 As per item No.8 (ii) of State Govt. Notification No.2260-F-3-24-2009-XIII dt. 19/03/2013, to meet its own expenses, M.P. Power Management Company Limited has been supplying power to the Discoms at the tariff determined/approved by MPERC and its own expenses on actual basis in proportion to the energy drawl by respective Discoms.
- 7.2 MPPMCL has been operating on “No Profit and No Loss” basis. Therefore, till now at the end of each financial year, all the credits received by MPPMCL which formed the part of income of MPPMCL (shown as “other income” in Form S-1) were being passed on to the Discoms in proportion to the energy drawl by respective Discoms as a part of their Power Purchase Costs. The major components of Annual Revenue Requirement of MPPMCL are detailed in this section.
- 7.3 The details of these expenses are given in the table below:

Table 182: Projections of MPPMCL Cost from FY 2022-23 to FY 2026-27 (Rs Crores)

Sl No.	Particulars	Old Year	PY	CY	MYT 2022-23 to 2026-27					
		FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	
I.	Revenue from operations (including Revenue Subsidy)	20.95	(20.05)	-	-	-	-	-	-	
II.	Other income	316.55	155.16	170.67	187.74	206.52	227.17	249.88	274.87	
III.	Income from other business allocated to Licensed business									
IV	Total Revenue (I + II+III)	337.50	135.10	170.67	187.74	206.52	227.17	249.88	274.87	
V	Expenses:									
	Purchase of Power from MP Genco	-	-	-	-	-	-	-	-	
	Purchase of Power from Other Sources	320.52	160.40	37.82	36.60	35.26	33.78	32.16	30.38	
	Inter-State Transmission charges	135.12	39.15	43.07	47.37	52.11	57.32	63.05	69.36	
	Intra-State Transmission (MP Transco) Charges	-	-	-	-	-	-	-	-	
	SLDC Charges	-	-	-	-	-	-	-	-	
	Depreciation and amortization expenses	7.48	3.89	7.37	7.57	7.77	7.97	8.17	8.37	
	Interest & Finance Charges	158.43	217.31	239.04	262.95	289.24	318.17	349.99	384.98	
	Repairs and Maintenance	2.39	2.94	3.23	3.56	3.91	4.30	4.73	5.21	
	Employee costs	67.81	66.27	68.26	70.31	72.41	74.59	76.82	79.13	
	Administration and General expenses	18.36	23.35	25.68	28.25	31.07	34.18	37.60	41.36	
	Net prior period credit charges	-	-	-	-	-	-	-	-	
	Other Debits, Write-offs	5.20	3.95	4.35	4.78	5.26	5.78	6.36	7.00	
	Lease Rental	-	-	-	-	-	-	-	-	
	Total Expenses	715.31	517.26	428.82	461.38	497.04	536.10	578.89	625.79	
VI	Profit before exceptional and extraordinary items and tax (IV-V)	(377.81)	(382.15)	(258.14)	(273.6)	(290.5)	(308.9)	(329.0)	(350.9)	
VII	Exceptional items	2.10	(266.70)	-	-	-	-	-	-	

Sl No.	Particulars	Old Year	PY	CY	MYT 2022-23 to 2026-27					
		FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	
VII I	Profit before extraordinary items and tax (VI – VII)	(379.91)	(115.45)	(258.14)	(273.6)	(290.5)	(308.9)	(329.0)	(350.9)	

7.4 Income of MPPMCL

7.4.1 Revenue from operations (including Revenue Subsidy)

The revenue from sale of electricity is taken by Discoms in their ARR therefore it is not taken in the ARR of M.P. Power Management Company Ltd. However, sale of power to others of Rs -20.05 crs has been taken in FY 2020-21 as the credit for the same could not be passed to the Discoms in the monthly bills. However, from FY 2021-22 it is assumed that the same would be passed to the discoms in the regular monthly bills and thus revenue from operations is NIL from FY 2021-22 onwards.

7.4.2 Other Income

For FY 2020-21 other income is Rs 155.16 Crore of MPPMCL. The major components which form part of other income are mainly the rebate received from the long-term power suppliers against timely payment made and interest received. The details of other income of MPPMCL received in FY 20-21 are as follows:

Table 183: Other Income (Rs Crores)

Particulars	Amount (in Crores)
i) rebate received on a/c of timely/prompt payments	71.99
ii) Generation based incentive	15.25
ii) Interest received (Includes interest on commitment advances)	19.68
iv) Income from RRAS	16.19
v) Other Income	32.05
TOTAL	155.16

- 7.4.3 From FY 2021-22 onwards the other income is taken by increasing the income of FY 2020-21 by 10% .

7.5 Expenses of MPPMCL

- 7.5.1 In the Discom-wise ARR, the Discoms have considered power purchase cost station-wise and their own O&M Expenses, Depreciation, Interest Charges etc. as per the provisions of MPERC Regulations. However, there are certain costs pertaining to power purchase (as detailed below) which could not be considered by the Discoms being not in their control/action. Such costs are therefore included in the power purchase costs of Discoms as MPPMCL specific costs and are taken into consideration in the ARR of MPPMCL, the details of which are given hereunder:-

7.5.2 Energy Purchase

For FY 2020-21 it includes:

- Bills of power purchase & Transmission charges of Rs. 116.19 Crores.
- Liability for banking of energy of - Rs 23.83 Crores.

7.5.2.1 Bills of Power Purchase:

For, FY 2020-21 it includes bills of generators and transmission utilities, which could not be passed to Discoms through monthly bills. From FY 2021-22 onwards the bills of power purchase will be passed through the monthly bills to the Discoms, hence will be considered in ARR of Discoms.

However, historically it is seen that some bills are left to be passed in the monthly discom bill and hence an estimated amount of Rs 50 Crore is taken as power purchase bills which could not be passed through monthly bills to Discoms from FY 2021-22 onwards.

7.5.2.2 Liability for banking:

Beginning from the year 2007-08, MPPMCL has started the practice of exchange/banking of energy with third parties outside the State of Madhya Pradesh whereby during availability of surplus power in the state, energy is supplied to the parties facing shortage of power and in case of power deficit in the state the banked energy is taken by the Company. The Banking and Exchange transactions do not involve any payment or receipts in terms of money for the power transacted except the charges related to open access and trading margin payable to the party through which such transaction is facilitated.

7.5.2.3 Liability for Banking of energy of Rs. (-) 23.82 Crores:

The Company has to receive back 146 MU of banked energy, banked during 2020-21, which translates into a financial asset of about Rs 57.95 Crore considering cost per unit of Rs. 3.97, i.e., the average power purchase rate for 2020-21 calculated on the basis of total power purchase cost except Banking for FY 2020-21.

During FY 2020-21, the Company had returned 198.03 MU of banked power received in 2019-20. This was translated into a financial Asset of Rs.81.78 Crore @ Rs 4.13 per unit which was the average cost of power purchase for the year 2019-20. Therefore, a net banking liability of Rs. 23.83 Crore is booked in FY 2020-21. For FY 2021-22, the liability for banking of energy is calculated as follows:

Table 184: Other Income

Particulars	Rs Crores
MUs to be received at the end of FY 2020-21	146.00
MUs to be received at the end of FY 2021-22 (increasing the units of FY 2020-21 by 10%)	160.60

Particulars	Rs Crores
Average purchase cost for FY 2020-21	3.97
Average purchase cost for FY 21-22 (Increasing the rate of FY 2020-21 by 10%)	4.37
Total amount of Banking Asset for FY 2021-22	70.13
Debit for 146 Mus billed to Discoms in 2020-21 @ 3.97 Rs/unit	57.95
Net liability to be passed to Discoms for FY 21-22	(12.18)
For FY 22-23 (Increasing cost for FY 21-22 by 10%)	(13.40)
For FY 23-24 (Increasing cost for FY 22-23 by 10%)	(14.74)
For FY 24-25 (Increasing cost for FY 23-24 by 10%)	(16.22)
For FY 25-26 (Increasing cost for FY 24-25 by 10%)	(17.84)
For FY 26-27 (Increasing cost for FY 25-26 by 10%)	(19.62)

7.5.2.4 Other Power Purchase Cost

The other power purchase costs for FY 2021-22 and onwards is taken by increasing the expenses of FY 2020-21 by 10% p.a.

7.5.3 Power procurement cost:

Apart from the direct bill of power purchase as per REA/SEA and other heads under energy purchase, some other expenses like open access charges etc. on banking and short-term power purchase & sale have been included under this head.

The demand supply gap on day to day basis is managed through short term power procurement and in case of surplus energy, the same is disposed of. Therefore, short term sale of power and short-term purchase of power are important activities undertaken to meet the power demand of the State. Similarly, MPPMCL makes arrangements for energy banking with various utilities throughout the year to meet the uneven demand of power in the State during monsoon season and Rabi period. Energy banking is a barter system, wherein units of energy are exchanged without any financial transaction between the partners in banking arrangement, although some operational expenses like trading margin, open access charges, RLDC/SLDC permission charges etc. are incurred. The charges towards "banking of energy" reflect the notional cost of the net liability of energy to be returned in the subsequent year and it is based on average power purchase cost of the financial year concerned.

For all such short time arrangements for arranging power and disposing off power, the cost of "open access charges" has also to be paid up to the delivery point.

All the above mentioned costs are included in the item 5 under the head "purchase of power from other sources and Inter State Transmission charges" in Form S-1 submitted herewith in respect of MPPMCL which contains relevant explanatory notes in respect of all the items shown therein.

7.5.4 Depreciation:

Depreciation is calculated as under:

Table 185: Depreciation

Fixed assets	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27
(i) Tangible assets								
Gross Block	99.50	102.43	104.43	106.43	108.43	110.43	112.43	114.43
Depreciation*	6.08	2.59	2.79	2.99	3.19	3.39	3.59	3.79
(ii) Intangible assets								
Gross Block	30.56	30.58	30.58	30.58	30.58	30.58	30.58	30.58
Depreciation**	1.40	1.30	4.59	4.59	4.59	4.59	4.59	4.59
Total Depreciation (i+ ii)	7.48	3.89	7.37	7.57	7.77	7.97	8.17	8.37

*In case of tangible assets, there is assumed to be an addition of Rs. 2 Crores depreciable @ 10% approximately from FY 2021-22 and onwards.

**In case of intangible assets, no addition is assumed from FY 2021-22 and onwards.

7.5.5 Interest and Finance charges for power procurement:

As per the existing power purchase agreements, facility of Letter of Credit is to be provided to power suppliers. The cost towards extending this facility of LC and other bank charges are covered under item "Interest & finance charges" in Form S-1.

Further, interest & Finance charges also include the financing cost towards instalment facility in case of power purchase bills, interest on loans and cash credit facility, Bank charges, Guarantee Charges, commitment charges, Stamp duty, processing charges etc.

The interest and finance charges for FY 2020-21 is Rs. 217.31 Crore. For FY 2021-22 onwards the interest and finance charges are taken by increasing the expenses of FY 2020-21 by 10% p.a.

7.5.6 Repairs and Maintenance:

These expenses for FY 2021-22 and onwards is taken by increasing the expenses of FY 2020-21 by 10% p.a.

7.5.7 Employee expenses:

The employee costs for FY 2020-21 is Rs. 66.27 Crore. For FY 2021-22 onwards the employee expense is taken by increasing the expense of FY 2020-21 by 3%.

7.5.8 Administration and General Expenses:

For FY 2020-21, Administration & General Expenses consists of consultancy fees, legal charges, bank charges, Rates and Taxes, printing & stationary, etc.

The total Administration and General Expenses for FY 2020-21 amounts to Rs 22.35 Crore. The Administration and General Expenses for FY 2021-22 and onwards is taken by increasing the expenses of FY 2020-21 by 10% p.a.

7.5.9 Exceptional Items

In FY 2020-21, Exceptional items consists of credit balance of MP Power Generating Co. Ltd. Written off. This is a one-time settlement and thus not expected to occur again. Therefore, the exceptional items are taken as NIL from FY 2020-21 onwards.

7.6 The Petitioner hereby prays to the Hon'ble Commission to approve MPPMCL cost as shown above.

A8: O&M EXPENSES - DISCOMS

The O&M expenses comprises of Employee expenses, Administrative and General Expenses (A&G), and Repairs and Maintenance (R&M) expenses. Regulation 36 of the MPERC (Terms and Conditions for Determination of Tariff for Supply and Wheeling of Electricity and Methods and Principles for Fixation of Charges) Regulations, 2021 provides stipulation for calculation of O&M expenses for control period. The relevant extract of the said Regulations is as reproduced below:

36.2. The Employee expenses and Administrative and General expenses shall be derived on the basis of the average of the actual expenses for the period from FY 2018-19 to FY 2020-21, excluding abnormal expenses, if any, subject to prudence check by the Commission:

Provided that the average of such expenses shall be considered as expenses for the Year ended 31 March, 2020, and shall be escalated at the respective escalation rate for FY 2020-21 and FY 2021-22, to arrive at the expenses for the base year ending 31 March, 2022.

Provided further that the escalation rate for FY 2020-21 and FY 2021-22 shall be computed by considering 30% weightage to the average yearly inflation derived based on the monthly Wholesale Price Index of the respective past five financial years as per the Office of Economic Advisor of Government of India and 70% weightage to the average yearly inflation derived based on the monthly Consumer Price Index for Industrial Workers (all-India) of the respective past five financial years as per the Labour Bureau, Government of India.

36.3. The Employee expenses and Administrative and General expenses for each subsequent year shall be determined by escalating these Base Year expenses of FY 2021-22 by an inflation factor with 30% weightage to the average yearly inflation derived based on the monthly Wholesale Price Index of the respective past five financial years as per the Office of Economic Advisor of Government of India and 70% weightage to the average yearly inflation derived based on the monthly Consumer Price Index for Industrial Workers (all-India) of the past five financial years as per the Labour Bureau, Government of India, to arrive at the permissible expenses for each year of the Control Period.

36.4. The R&M Expenses shall be allowed on the opening GFA of the financial year @ 2.3% for East Discom, @ 2.3% for West Discom, @ 2.3% for Central Discom, and @ 5% for SEZ Pithampur.

Petitioners have calculated O&M expenses in accordance with aforesaid Regulations as detailed in paras below:

8.1 Base Year

8.1.1 The year ending 31st March, 2022 has been considered as the base year for projecting the Employee expenses and A&G expenses for ensuing years of the control period. The normative Employee expenses and A&G expenses for the base year has been arrived based on the audited expenses of past three financial years, i.e., from FY 2018-19 to FY 2020-21 excluding abnormal expenses, if any. The average of past three years' audited expenses has been calculated, which is considered as normative Employee expenses and A&G expenses for the year ended on 31st March, 2020. Further, the average of such expenses is then escalated twice to arrive at the normative expenses for the base year ending 31st March, 2022. The base year expenses so calculated are then escalated to arrive at normative Employee expenses and A&G expenses for subsequent years of the control period.

8.2 Escalation Rate

- 8.2.1 Petitioners wish to submit that the escalation rate for projections has been considered in line with the methodology specified by the Hon'ble Commission in the Regulations. Petitioners have considered WPI series (Base Year: 2011-12) for the relevant period as released by the Office of the Economic Adviser of Government of India. The CPI for Industrial Workers (all-India) for the relevant period has been considered as per the Labour Bureau, Government of India. Petitioners further wishes to submit that Labour Bureau, Government of India has recently revised the CPI-IW series from base year 2001=100 to 2016=100. In the new CPI-IW series base 2016=100, the number of centres covered has been increased from 78 to 88. The number of markets has also been enhanced from 289 to 317. The coverage of workers has also been increased from 41040 to 48384. The new CPI-IW series data is available from September 2020 onwards and the old series has been discontinued, hence, no data is available for old series from September 2020 onwards. Due to aforesaid changes, the new CPI-IW index numbers are not comparable with previous CPI-IW series base 2001=100. Therefore, considering the new series data for part of the year, particularly for FY 2020-21 shall not reflect the actual inflation during the year.
- 8.2.2 Since, the Regulations stipulate to consider average yearly inflation of past 5 years, it is necessary to derive the old series CPI-IW data for the remaining period of FY 2020-21, i.e., from September, 2020 to March, 2021. For doing so, the Petitioners have considered a multiplication factor of 2.88, which has been provided by the Labour Bureau, Government of India in its report on "*New Series of Consumer Price Index for Industrial Workers (CPI-IW) (Base 2016=100)*" dated 21 October, 2020. Hence, based on above in order to calculate the yearly inflation of FY 2020-21, the Petitioners have considered CPI-IW series base 2001=100 data up to August 2020, thereafter, Petitioners have derived the CPI-IW index data by multiplying the respective months' new series CPI-IW index numbers by 2.88.

8.2.3 Further, the escalation rate to be considered for calculating the normative expenses of FY 2020-21 has been derived based on the average yearly inflation of past five years, i.e., from FY 2015-16 to FY 2019-20 with 30% and 70% weightage to WPI and CPI, respectively. However, Petitioners find that yearly WPI inflation mainly for FY 2015-16 comes out to be negative (3.65%) which is abnormal. Hence, the Petitioners have excluded the same in its calculation and accordingly have arrived at escalation rate of 4.41% for FY 2020-21. Similarly, the escalation rate for FY 2021-22 has been worked out as 4.24% as shown in the flowing Table:

Table 186: Escalation Rate for Control Period (%)

Year	Yearly WPI	WPI Inflation	Yearly CPI	CPI Inflation
FY 2015-16	109.72	-3.65%	265.00	5.65%
FY 2016-17	111.62	1.73%	275.92	4.12%
FY 2017-18	114.88	2.92%	284.42	3.08%
FY 2018-19	119.79	4.28%	299.92	5.45%
FY 2019-20	121.80	1.68%	322.50	7.53%
FY 2020-21	123.38	1.29%	338.69	5.02%
Average from FY16 to FY20		2.65%*		0.0517
Average from FY17 to FY21		2.38%		5.04%
Weightage		30%		70%
Escalation rate for FY 2020-21 (2.65%*30%+5.17%*70%)				4.41%
Escalation rate for FY 2021-22 (2.38%*30%+5.04%*70%)				4.24%

8.3 Employee Cost

8.3.1 Petitioners' wishes to submit that various head under Employee cost have been escalated based on the aforementioned escalation rate except for Dearness Allowances (D.A.). Further, it is to be noted that Petitioners have not considered any provisions made towards Terminal Benefit during the past three years in their normative Employee expenses calculations for ensuing years. As regard to D.A., which is linked to basic salary of Employees, Petitioners have considered latest available actual rate for FY 2021-22 in line with the order and circular issued by the Finance Department, Government of Madhya Pradesh. From FY 2022-23 onwards, Petitioners have considered marginal quarterly addition of 3% over previous quarters' D.A. rate as shown in the Table below:

Table 187: Dearness Allowance Considered (%)

Particulars (As per 7th Pay)	FY '22	FY '23	FY '24	FY '25	FY '26	FY '27
DA as percentage of Basic for first quarter - Apr to June	12%	31%	37%	43%	49%	55%
DA as percentage of Basic for 2 nd and 3 rd quarter - July to Dec	20%	34%	40%	46%	52%	58%
DA as percentage of Basic for 4 th quarter - Jan to March	31%	37%	43%	49%	55%	61%

- 8.3.2 Petitioners further wishes to submit that during past three financial years, i.e., from FY 2018-19 to FY 2020-21, they have paid actual 7th pay arrears to their employees which is not reflected in the respective years' audited account since, the payment were made out of the provision accounted in FY 2017-18. Therefore, in order to reflect the impact of 7th pay revision in normative expenses of ensuing years, the Petitioners have considered the actual payment made against the 7th pay in its calculations.
- 8.3.3 Based on the above, the Employee and A&G expense for the ensuing years of the Control Period is as shown in the Table below:

Table 188: Employee Expenses for West Discom from FY 2022-23 to FY 2026-27 (Rs. Crores)

Employee Expenses of East Discom for FY 23 to FY 27						
Sr.no.	Particular	FY 23	FY 24	FY 25	FY 26	FY 27
1	Employee Expenses					
1	Basic Salaries	840.20	875.85	913.00	951.73	992.11
2	DA	285.67	350.34	419.98	494.90	575.42
3	Leave Encashment					
4	Other Allowance including outsourcing expenses and Pay	247.68	258.18	269.14	280.55	292.46
5	Expenses Capitalized	50.30	28.57	28.57	28.57	28.57
6	Total Employee Expenses	1323.25	1455.80	1573.55	1698.62	1831.42

Table 189: Employee Expenses for Central Discom from FY 2022-23 to FY 2026-27 (Rs. Crores)

Employee Expenses of Central Discom for FY 23 to FY 27						
Sr.no.	Particular	FY 23	FY 24	FY 25	FY 26	FY 27
1	Employee Expenses					
1	Basic Salaries	687.81	716.99	747.40	779.11	812.16
2	DA	233.86	286.80	343.81	405.14	471.05
3	Leave Encashment	37.83	39.44	41.11	42.85	44.67
4	Other Allowance including outsourcing expenses and Pay	270.55	282.03	293.99	306.46	319.47
5	Expenses Capitalized	25.18	25.18	25.18	25.18	25.18
6	Total Employee Expenses	1204.87	1300.07	1401.13	1508.39	1622.17

Table 190: Employee Expenses for West Discom from FY 2022-23 to FY 2026-27 (Rs. Crores)

Employee Expenses of West Discom for FY 23 to FY 27						
Sr.no.	Particular	FY 23	FY 24	FY 25	FY 26	FY 27
1	Employee Expenses					
1	Basic Salaries	887.24	924.88	964.12	1005.01	1047.65
2	DA	301.66	369.95	443.49	522.61	607.64
3	Leave Encashment	27.52	30.08	32.85	35.86	39.13
4	Other Allowance including outsourcing expenses and Pay	35.75	37.27	38.85	40.49	42.21
5	Expenses Capitalized	27.19	27.19	27.19	27.19	27.19
6	Total Employee Expenses	1224.98	1334.98	1452.11	1576.78	1709.43

Table 191: Employee Expenses for Discoms at MP State Level from FY 2022-23 to FY 2026-27 (Rs. Crores)

Employee Expenses at MP State Level for FY 23 to FY 27						
Sr.no.	Particular	FY 23	FY 24	FY 25	FY 26	FY 27
1	Employee Expenses					
1	Basic Salaries	2415.26	2517.72	2624.52	2735.86	2851.92
2	DA	821.19	1007.09	1207.28	1422.65	1654.11
3	Leave Encashment					
4	Other Allowance including outsourcing expenses and Pay	619.33	646.99	675.94	706.23	737.93
5	Expenses Capitalized	102.67	80.94	80.94	80.94	80.94
6	Total Employee Expenses	3753.10	4090.85	4426.79	4783.79	5163.02

8.3.4 Petitioners hereby submit that the any variation against the normative Employee expenses as worked out above and actual expenses for the respective period shall be claimed at the time of final True-up of respective year.

8.4 Administrative & General Expenses

8.4.1 Petitioners wishes to submit that they have projected A&G expenses in line with the MPERC (Terms and Conditions for Determination of Tariff for Supply and Wheeling of Electricity and Methods and Principles for Fixation of Charges) Regulations, 2021. Further, for MPERC fees under A&G expenses, the Petitioners have projected the same considering Rs. 200 for each one Million Units of energy input into the distribution system in line with the “Madhya Pradesh Electricity Regulatory Commission (Fees, Fines and Charges) (Revision-I) (First Amendment) Regulations, 2010” dated 31 May, 2016. The Discom-wise summary of A&G expenses for next control period is as shown in the Table below:

Table 192: A&G Expenses for East Discom from FY 2022-23 to FY 2026-27 (Rs. Crores)

A&G of East Discom for FY 23 to FY 27						
Sr.no.	Particular	FY 23	FY 24	FY 25	FY 26	FY 27
1	A&G Expenses					
1	A&G Expenses	125.67	131.01	136.56	142.36	148.39
2	MPERC Fee	0.49	0.53	0.57	0.61	0.65
3	Total A&G Expenses	126.17	131.54	137.13	142.97	149.04

Table 193: A&G Expenses for Central Discom from FY 2022-23 to FY 2026-27 (Rs. Crores)

A&G of Central Discom for FY 23 to FY 27						
Sr.no.	Particular	FY 23	FY 24	FY 25	FY 26	FY 27
1	A&G Expenses					
1	A&G Expenses	119.61	124.68	129.97	135.48	141.23
2	MPERC Fee	0.53	0.57	0.61	0.65	0.69
3	Total A&G Expenses	120.14	125.25	130.58	136.13	141.92

Table 194: A&G Expenses for West Discom from FY 2022-23 to FY 2026-27 (Rs. Crores)

A&G of West Discoms for FY 23 to FY 27						
Sr.no.	Particular	FY 23	FY 24	FY 25	FY 26	FY 27
1	A&G Expenses					
1	A&G Expenses	138.20	144.06	150.17	156.54	163.19
2	MPERC Fee	0.67	0.72	0.77	0.83	0.87
3	Total A&G Expenses	138.87	144.79	150.95	157.37	164.06

Table 195: A&G Expenses of Discoms at MP State Level from FY 2022-23 to FY 2026-27 (Rs. Crores)

A&G of Discoms at MP State Level for FY 23 to FY 27						
Sr.no.	Particular	FY 23	FY 24	FY 25	FY 26	FY 27
1	A&G Expenses					
1	A&G Expenses	383.48	399.75	416.71	434.38	452.81
2	MPERC Fee	1.69	1.83	1.96	2.09	2.21
3	Total A&G Expenses	385.17	401.58	418.66	436.47	455.02

8.5 Repair and Maintenance Expenses

8.5.1 As regards to R&M expenses, Petitioners have projected the same by applying the rate of 2.30% of the opening Gross Block Assets (GFA) of the respective year of control period. Further, the Regulation 36.4 of MPERC (Terms and Conditions for Determination of Tariff for Supply and Wheeling of Electricity and Methods and Principles for Fixation of Charges) Regulations, 2021 stipulates that Petitioners are eligible for additional R&M expenses of 1% if they achieve specified targets as defined in the applicable Regulations. The relevant extract of the said Regulation is reproduced below:

36.4. The R&M Expenses shall be allowed on the opening GFA of the financial year @ 2.3% for East Discom, @ 2.3% for West Discom, @ 2.3% for Central Discom, and @ 5% for SEZ Pithampur. Further, the DISCOMs shall be eligible for additional R&M Expenses of 0.50%, if the Licensee is able to achieve the performance standards targets specified by the Commission in MPERC (Distribution Performance Standards) (Revision-II) Regulations, 2012 and its amendment thereof. Further, the DISCOMs shall also be eligible for additional R&M Expenses of 0.50%, if the Licensee is able to achieve Distribution Loss target specified in Regulation 26.1 of these Regulations or is also to achieve at least 3% reduction in losses as compared to previous year.

8.5.2 In this regards, it is pertinent to note that the Petitioners have projected all the components of ARR based on the performance targets specified by the Hon'ble Commission in its Regulations. Hence, the Petitioners are entitled to claim this additional R&M expenses of 1% in their ARR. Accordingly, the same has been considered by the Petitioners in their total R&M projections as shown in the Table

below:

Table 196: R&M Expenses for East Discom from FY 2022-23 to FY 2026-27 (Rs. Crores)

R&M Expenses of East Discoms for FY 23 to FY 27						
Sr.no.	Particular	FY 23	FY 24	FY 25	FY 26	FY 27
1	R&M Expenses					
1	Opening Gross Block	13818.42	15404.81	17692.11	20232.25	22166.05
2	Applicable Rate	2.30%	2.30%	2.30%	2.30%	2.30%
3	Additional Rate	1.00%	1.00%	1.00%	1.00%	1.00%
4	Base R&M	317.82	354.31	406.92	465.34	509.82
5	Additional R&M	138.18	154.05	176.92	202.32	221.66
6	Total R&M	456.01	508.36	583.84	667.66	731.48

Table 197: R&M Expenses for Central Discom from FY 2022-23 to FY 2026-27 (Rs. Crores)

R&M Expenses of Central Discoms for FY 23 to FY 27						
Sr.no.	Particular	FY 23	FY 24	FY 25	FY 26	FY 27
1	R&M Expenses					
1	Opening Gross Block	14070.31	15151.96	17147.88	19595.88	21550.76
2	Applicable Rate	2.30%	2.30%	2.30%	2.30%	2.30%
3	Additional Rate	1.00%	1.00%	1.00%	1.00%	1.00%
4	Base R&M	323.62	348.50	394.40	450.71	495.67
5	Additional R&M	140.70	151.52	171.48	195.96	215.51
6	Total R&M	464.32	500.01	565.88	646.66	711.18

Table 198: R&M Expenses for West Discom from FY 2022-23 to FY 2026-27 (Rs. Crores)

R&M Expenses of West Discoms for FY 23 to FY 27						
Sr.no.	Particular	FY 23	FY 24	FY 25	FY 26	FY 27
1	R&M Expenses					
1	Opening Gross Block	9969.38	11274.96	13170.22	15469.67	17283.54
2	Applicable Rate	2.30%	2.30%	2.30%	2.30%	2.30%
3	Additional Rate	1.00%	1.00%	1.00%	1.00%	1.00%
4	Base R&M	229.30	259.32	302.92	355.80	397.52
5	Additional R&M	99.69	112.75	131.70	154.70	172.84
6	Total R&M	328.99	372.07	434.62	510.50	570.36

Table 199: R&M Expenses of Discoms at MP State Level from FY 2022-23 to FY 2026-27 (Rs. Crores)

R&M Expenses of Discoms at State level for FY 23 to FY 27						
Sr.no.	Particular	FY 23	FY 24	FY 25	FY 26	FY 27
1	R&M Expenses					
1	Opening Gross Block	37858.10	41831.74	48010.21	55297.80	61000.34
2	Applicable Rate	2.30%	2.30%	2.30%	2.30%	2.30%
3	Additional Rate	1.00%	1.00%	1.00%	1.00%	1.00%
4	Base R&M	870.74	962.13	1104.23	1271.85	1403.01
5	Additional R&M	378.58	418.32	480.10	552.98	610.00
6	Total R&M	1249.32	1380.45	1584.34	1824.83	2013.01

8.6 Additional Operational Expenditure (OPEX) Cost:

- 8.6.1 As mentioned in Capital Expenditure (CAPEX) section of this Petition, the Discoms are taking part in Central Government's Revamped Distribution Sector Scheme: A Reforms-Based and Results-Linked Scheme. The objective of the scheme is to improve the quality and reliability of power supply to consumers through a financially sustainable and operationally efficient distribution sector by providing financial assistance to DISCOMs for strengthening of supply infrastructure based on meeting pre-qualifying criteria and achieving basic minimum benchmarks in reforms. The scheme aims to reduce the AT&C losses to pan-India levels of 12-15% and ACS-ARR gap to zero by 2024-25. The scope of the scheme covers (A) Financial support for upgradation of the Distribution Infrastructure and Prepaid Smart Metering & System metering; and (B) Training & Capacity Building and other enabling & supporting activities.
- 8.6.2 Under part A of this scheme, Prepaid Smart metering for consumers, and System metering at Feeder and Distribution Transformer level with communicating feature along with associated Advanced Metering Infrastructure (AMI) will be done in TOTEX mode (CAPEX + OPEX) through PPP, to facilitate reduction of Distribution losses and enable automatic measurement of energy flows and energy accounting as well as auditing. For prepaid smart metering under the scheme, 15% of the total cost will be provided by the Government of India and an additional incentive of 7.5% will be provided for prepaid smart metering within the target time frame of the first phase i.e. December 2023. The expenditure on billing module, data management, data analysis and other works will be funded 100% by the Government of India.
- 8.6.3 As per the guidelines issued by Ministry of Power, Government of India for Revamped Schemes, the funding shall be available to Discoms if the scheme is being implemented in TOTEX mode. The relevant extract from the said guidelines is as reproduced below:

2.3.2 Funding under this Part will be available only if the DISCOM agrees to the operation of smart meters in prepayment mode for consumers, and in accordance with the uniform approach indicated by the Central Government, with implementation in TOTEX mode. Under this mode, a single agency will be contracted for supplying, maintaining and operating the metering infrastructure for the purpose of meter related data and services to the DISCOM. It will make both capital and operational expenditure under DBFOOT (Design Build Fund Own Operate & Transfer) or similar modes and will be paid for a portion of its capital expenditure initially and the remaining payment over the O&M period.”

.....

“4.4.1 Metering: These projects shall be implemented in TOTEX mode (Total expenditure includes both capital and operational expenditure) with the following options:

- (i) *Installation and commissioning of meters and cost recoveries in equated monthly instalments by PPP or implementation partner (or service provider) with no upfront payment by DISCOM*
- (ii) *Some initial payment shall be made to the service provider upon installation and commissioning of the meters, with the rest of the payments made on equated monthly / quarterly instalments over the operational period.”*

- 8.6.4 Accordingly, Discoms have planned to implement the smart meterization through PPP in TOTEX mode. Under this, only partial capex will be paid upfront by Discoms and balance shall be paid through annuity during next 10 years period of operations under Opex. Payment of Opex will be funded by the enhanced revenue as a result of improvement in billing and collection. Discoms have estimated the TOTEX requirement for meterization part of the scheme. Out of the total outlay as estimated by the Petitioners for the said scheme, the CAPEX portion have been considered under Discom's CAPEX plan as detailed in the subsequent section of this Petition. The remaining portion, i.e., OPEX portion of the total outlay for meterization is hence, claimed under O&M expenses on equated yearly instalment over the operation period of 10 years. Further, it is to be noted that the expenses on these schemes needs to be allowed under OPEX Scheme which would be over and above normative O&M expense.
- 8.6.5 The estimation of the TOTEX and hence, OPEX cost claimed by Petitioner is based on the estimation and selection of vendor, award of contract and other factors. Such expense being specific in nature shall be subjected to true-up for respective years. Accordingly, the additional OPEX cost towards Part A Revamped scheme has been calculated as shown in the Table below:

Table 200: Addl. OPEX cost for Discoms at State Level from FY 2022-23 to FY 2026-27 (Rs. Crores)

Additional O&M Expenses of Discoms at State Level for FY 23 to FY 27						
Sr.no.	Particular	FY 23	FY 24	FY 25	FY 26	FY 27
1	OPEX Cost					
1	OPEX Cost	109.76	245.09	650.75	650.75	650.75

8.7 Gist of Total O&M Expenses

- 8.7.1 Based on the above, Discom-wise and MP State level total O&M expenses for the Control Period starting from FY 2022-23 to FY 2026-27 is as shown in the Table below:

Table 201: O&M Expenses for East Discom from FY 2022-23 to FY 2026-27 (Rs. Crores)

O&M Expenses of East Discom for FY 23 to FY 27						
Sr.no.	Particular	FY 23	FY 24	FY 25	FY 26	FY 27
1	O&M Expenses					
1	Employee Expenses	1323.25	1455.80	1573.55	1698.62	1831.42

O&M Expenses of East Discom for FY 23 to FY 27						
Sr.no.	Particular	FY 23	FY 24	FY 25	FY 26	FY 27
2	A&G Expenses	126.17	131.54	137.13	142.97	149.04
3	R&M Expenses	456.01	508.36	583.84	667.66	731.48
4	Additional OPEX Expenses	49.81	85.68	253.78	253.78	253.78
5	Total O&M Expenses	1955.23	2181.38	2548.30	2763.02	2965.71

Table 202: O&M Expenses for Central Discom from FY 2022-23 to FY 2026-27 (Rs. Crores)

O&M Expenses of Central Discom for FY 23 to FY 27						
Sr.no.	Particular	FY 23	FY 24	FY 25	FY 26	FY 27
1	O&M Expenses					
1	Employee Expenses	1204.87	1300.07	1401.13	1508.39	1622.17
2	A&G Expenses	120.14	125.25	130.58	136.13	141.92
3	R&M Expenses	464.32	500.01	565.88	646.66	711.18
4	Additional OPEX Expenses	29.98	79.70	198.49	198.49	198.49
5	Total O&M Expenses	1819.30	2005.04	2296.08	2489.67	2673.76

Table 203: O&M Expenses for West Discom from FY 2022-23 to FY 2026-27 (Rs. Crores)

O&M Expenses of West Discoms for FY 23 to FY 27						
Sr.no.	Particular	FY 23	FY 24	FY 25	FY 26	FY 27
1	O&M Expenses					
1	Employee Expenses	1224.98	1334.98	1452.11	1576.78	1709.43
2	A&G Expenses	138.87	144.79	150.95	157.37	164.06
3	R&M Expenses	328.99	372.07	434.62	510.50	570.36
4	Additional OPEX Expenses	29.98	79.70	198.49	198.49	198.49
5	Total O&M Expenses	1722.82	1931.54	2236.16	2443.14	2642.34

Table 204: O&M Expenses for Discoms at State Level from FY 2022-23 to FY 2026-27 (Rs. Crores)

O&M Expenses of Discoms at State Level for FY 23 to FY 27						
Sr.no.	Particular	FY 23	FY 24	FY 25	FY 26	FY 27
1	O&M Expenses					
1	Employee Expenses	3753.10	4090.85	4426.79	4783.79	5163.02
2	A&G Expenses	385.17	401.58	418.66	436.47	455.02
3	R&M Expenses	1249.32	1380.45	1584.34	1824.83	2013.01
4	Additional OPEX Expenses	109.76	245.09	650.75	650.75	650.75
5	Total O&M Expenses	5497.35	6117.96	7080.55	7695.84	8281.81

8.7.1 The Petitioner hereby requests the Hon'ble Commission to approve O&M expenses as shown above. Any variation shall be claimed at the time of final True-up of respective years.

A9: INVESTMENT PLAN – DISCOMS

9.1 Capital Investment Plan

- 9.1.1 For strengthening of the system and reduction of Distribution losses, all the three Discom's of the State are undertaking various projects in the forthcoming years. The focus is on creation of new 33/11 kV S/s, bifurcation of overloaded 33 kV feeders, feeder bifurcation of agricultural feeder at 11 kV level, Addl. / Aug of PTRs, Installation of DTRs, conversion of bare LT line into AB Cables and replacement of service lines etc.
- 9.1.2 The overall distribution loss of the system is a mix of Technical and Commercial losses. Technical losses are mainly due comparatively inadequate infrastructure as per the system demand which needs strengthening, renovation and up-gradation of the capacity of lines, Sub-stations and associated infrastructures. Whereas the commercial losses are mainly due to commercial parameters like theft & pilferage of energy, presence of prominent nos. of stop & defective meters in the system, inadequate meter reading system etc. which can also be reduced to a large extent by re-engineering of the system which requires capital investment and directed efforts. Discoms are working on both the issues regularly, which have resulted in reduction in Distribution losses considerably over the past years, but these reductions are not up to the normative loss levels which are more stringent at this level.
- 9.1.3 Further, with the aim to provide 24x7 uninterrupted, quality, reliable and affordable power supply, Government of India has launched the Office Memorandum pertaining to Revamped Distribution Sector Scheme, on 20th July 2021 for supporting DISCOMs to undertake reforms and improve performance in a time bound manner. Subsequently, the operational guidelines pertaining to Revamped Distribution Sector Scheme were issued by the Ministry of Power, Govt. of India on 27th July 2021. Thereafter, the operational guidelines were amended on 18th November 2021 based on the feedback from various Stakeholders. The total outlay of the scheme has been estimated as Rs. 3,03,758 Crore and a Gross Budgetary Support of Rs. 97,631 Crore from the Centre over a period of five years from FY 2021-22 to FY 2025-26.
- 9.1.4 The Revamped Reforms-based and Results-linked, Distribution Sector Scheme seeks to improve the operational efficiencies and financial sustainability, by providing financial assistance to DISCOMs for strengthening of supply infrastructure. The assistance is conditional on the reforms being carried out. Ministry of Power. As per the guidelines issued, the Revamped Distribution Sector Scheme has the following parts:

Part A – Metering & Distribution Infrastructure Works:

- Facilitating in installing prepaid smart meters for all consumers along with associated AMI, communicable meters for DTs & Feeders, ICT including

Artificial Intelligence (AI), Machine Learning (ML), etc. based solutions for power Sector and a unified billing and collection system;

- Distribution infrastructure works as required for strengthening and modernizing the system as well as measures for loss reduction. The infrastructure strengthening works will include separation of Agriculture feeders to enable implementation of the KUSUM scheme, Aerial Bunch cables and HVDS for loss reduction, replacement of HT/LT lines as required, construction of new/ upgradation of substations, SCADA and DMS system etc. Each DISCOM/ State will draw up the scheme according to its requirement with the end objective of reducing losses and ensuring 24 x 7 supply.

Part B - Training & Capacity Building and other Enabling & Supporting Activities:

- Supporting and enabling components, such as Nodal Agency fee, enabling components of MoP (communication plan, publicity, consumer awareness, consumer survey and other associated measures such as third-party evaluation etc.), up-gradation of Smart Grid Knowledge Centre, training and capacity building, awards and recognitions etc.

9.1.5 For prepaid smart metering under the scheme, 15% of the total cost will be provided by the Government of India and an additional incentive of 7.5% will be provided for prepaid smart metering within the target time frame of the first phase i.e. December 2023. The expenditure on billing module, data management, data analysis and other works will be funded 100% by the Government of India. In view of the reduction in distribution losses, 60% grant will be provided by the government for the proposed works and for the construction / development of basic infrastructure related to the strengthening and modernization of the distribution system. The balance amount will have to be arranged by the distribution companies themselves.

9.1.6 As per the guidelines of the scheme, the DISCOMs are required to submit the Action Plan and DPRs in consultation with the Nodal Agency / Ministry of Power. The Action Plan and DPRs shall be scrutinized by the Nodal Agency and approved by the Monitoring Committee (constituted by Ministry of power, GoI vide Office Memorandum No. 10/03/2021-UR&SI-II (E-258311) dated 20th July 2021) with such modifications, as may be necessary to achieve the objectives of the Scheme. The Action Plans have been prepared and submitted by the DISCOMs to the Nodal Agency on the recommendation of the Distribution Reforms Committee and with the approval of the State Cabinet within the timeline of 31st December 2021. The Monitoring Committee meeting is scheduled to take place in February 2022 after which the final submission of proposals will be done after duly incorporating the modifications as suggested by the Monitoring Committee and with the approval of State Government. As the MP State Discoms are taking part in the aforesaid scheme and hence, would

incur capital expenditure in the future years. Therefore, it is very important to consider the capex against the aforesaid scheme in order to have true impact on ARR and Tariff for the control period.

- 9.1.7 Petitioners understand that the Discoms need to obtain appropriate approval for their capital expenditure in accordance with the guidelines for capital expenditure by licensees under the provisions of Regulation 10.3 of MPERC (The Conditions of Distribution License for Distribution Licensee (including Deemed Licensee)), Regulations 2004. Discoms are required to submit a detailed capital investment plan, financing plan and physical targets indicating physical and financial achievement against various schemes. While the existing Capex has been approved by the Hon'ble Commission, the Discoms are in advance stage of proposal submission. In compliance with the guidelines issued by the Ministry of Power, Government of India, an inter-departmental Distribution Reforms Committee was constituted by the General Administration Department, GoMP, to review the progress of works under the scheme and to present the proposed action plan and detailed project report by the distribution companies before the state cabinet. The consolidated proposals were presented on 08.11.2021 before the Distribution Reforms Committee for approval at the state level, on which the committee has given its consent to further present the proposals before the State Cabinet. However, after issuance of revised operational guidelines for the scheme on 18th November 2021, Petitioners were left with very limited time to revise the action plan as well as take prior approval from the Commission, as the Petitioners need to file the ARR by 30th November 2021. Thus, it is impracticable for Discoms to take prior approval under these circumstances. Therefore, it is to bring to your kind notice that the Capital investment and Capitalization as projected in this Petition by the DISCOMs before Hon'ble Commission for the upcoming Control period for the projects that are proposed to be undertaken by the DISCOMs under the scheme and which are yet to be submitted to and approved by the Ministry of Power, GoI.
- 9.1.8 Further, the Hon'ble Commission would appreciate the fact that purpose of introducing the Multi Year Tariff Regulatory Framework is to bring certainty and predictability amongst the stakeholders. The basic premise is that tariffs should not fluctuate beyond a certain bandwidth unless there are force majeure conditions. Under the MYT framework, the consumers would have an advance notice about the Tariff for future years and the Discoms would also be able to plan its business having known the likely retail tariff for the control period. Therefore, non-consideration of such a capital expenditure which is bound to incur in near future would result in substantial variation in ARR and Tariff for ensuing years. Thus, the very purpose of introducing the MYT framework would get defeated. Hence, the Discoms request the Hon'ble Commission to consider the capital expenditure against this scheme as proposed by the Discoms. The Petitioners shall submit the additional information regarding the said scheme and may apply for post facto approval during the proceeding of this Petition in case the Hon'ble Commission directs to do so. The DISCOMs may further be allowed to submit their Capital investment and Capitalization plan after the

approval of their DPRs by the Govt. of India and make subsequent changes in the submitted ARR based on the approved and sanctioned funds under the Revamped Distribution Sector Scheme.

- 9.1.9 Further, Petitioners have provisionally estimated total outlay of Rs. 28,119 Crore to be incurred under Revamped Distribution Sector Scheme. Out of this, Rs. 14,886 Crore has been estimated towards Smart Meterization and Rs. 13,233 Crore towards Loss Reduction and SSTD & Modernization works. Circle wise/district wise surveys were conducted by the Discoms to identify the root causes of losses and to assess the need for infrastructure construction/development works related to distribution system strengthening and modernization. Works have been proposed to ensure the quality of power supply in those areas where the level of losses is low, and priority has been given to the works related to loss reduction in those areas where the level of losses is high. With a view to ensure uniformity in assessment by all the Discoms and the concerned circles, detailed guidelines were issued by the Energy Department, GoMP to the distribution companies on 19.08.2021 (Form-X). Accordingly, proposals were sent by every circle to the respective Discom, which were consolidated at the Discom level. The consolidated proposals were presented to the Distribution Reforms Committee (constituted by GoMP vide order dated 18.08.2021) on 10.12.2021. Subsequent to the consent of the Committee to present the Action Plans before the State Cabinet, State Government's gave its approval on 28.12.2021 to submit the Action Plans to Nodal Agency. Accordingly, the Action Plans were submitted by Discoms to Nodal Agency. The Monitoring Committee meeting is scheduled to take place in February 2022 after which the final submission of proposals will be done after duly incorporating the modifications as suggested by the Monitoring Committee and with the approval of State Government.
- 9.1.10 The summary of total CAPEX towards the Revamped scheme is as outlined in the Table below:

Table 205: Total CAPEX estimation for Smart Meterization (Rs. Crores)

A	Works	Unit	East Discom		Central Discom		West Discom		Total	
			Proposed Quantity	Total Outlay (Rs. Cr)						
Smart Meterization	Consumer Metering	Number	5,144,451	5465.9	3955918	4318.4	3879733	4256	12980102	14040
	DT Metering	Number	130,721	271.0	173746	360.5	102036	205	406503	836
	Feeder Metering	Number	-	-		7.0	2284	3.0	2284	10
	Total - Meterization		5,275,172	5,737	4,129,664	4,686	3,984,053	4,463	13,388,889	14,886

Table 206: Total CAPEX estimation for Loss Reduction (Rs. Crores)

B	Works	Unit	East Discom		Central Discom		West Discom		Total	
			Proposed Quantity	Total Outlay (Rs. Cr)						
Loss Reduction	Separation of 11kV Existing Mixed Feeders	Number	689	860.7	267	507.0	185	416	1141	1783
	Consumer Metering	Number	5,144,451	5465.9	3955918	4318.4	3879733	4256	12980102	14040
	DT Metering	Number	130,721	271.0	173746	360.5	102036	205	406503	836
	LT AB Cabling	Ckm	40502	679.0	7083	312.8	17069	424	64654	1416
	Armoured service cable for Smart Meter	Ckm	36802	131.4	23736	94.8	23278	91	83816	317
	IT/OT enablement works for loss reduction			162.2		114.5		146		422
	LT Underground cabling in high loss areas	Ckm	250	99.2	447	173.1	44	12	741	285
	Associated Augmentation of DTR	Number	375	18.7	524	28.3			899	47
	33 kV Line Bifurcation for Overloaded Feeder	Ckm	562.7	53.5	905	174.5	1115	71	2583	299
	11 kV Line Bifurcation for Overloaded Feeder	Ckm	2089	160.6	2888	254.2	4310	160	9287	575
	33 kV Line Interconnection for Overloaded Feeder	Ckm	770	91.0	379	128.9	362	51	1511	271
	11 kV Line Interconnection for Overloaded Feeder	Ckm	500	43.6	762	89.8	229	17	1491	151
	Capacitor bank installation	Number	553	69.6	452	94.7	741	114	1746	278
	Pole Numbering Painting (33 kV +11 kV+ LT Line) for fast fault detection	Lakh Nos.	58.72	23.49	52.39	20.01	59.85	24	170.96	67
	HT Line Conductor Conversion/Augmentation	Ckm	1,761	28.5	5,927	138.3	8,789	116	16477	282
	Sub-station Related Works for Loss	Number	1,057	68.8	728	129.2	977	56	2762	254

B	Works	Unit	East Discom		Central Discom		West Discom		Total	
			Proposed Quantity	Total Outlay (Rs. Cr)						
	Reduction Activity									
	Civil works for substation related works			21.1		60.2		96		177
	Line crossing DP with Covered conductor between Non-AG Feeder and AG Feeder	Number			6,076		3,506		9582	0
	AI/ML (for all 3 Discoms)			60					0	60
	OFC connectivity till DC level	Number	476	8	354	6	458	7	1288	21
	Total (Loss Reduction)			2579		2326		1800		6706

Table 207: Total CAPEX estimation for SSTD and Modernization (Rs. Crores)

C	Works	Unit	East Discom		Central Discom		West Discom		Total	
			Proposed Quantity	Total Outlay (Rs. Cr)						
SSTD & Modernization	New Sub-station	Number	91	386.6	98	592.5	95	275	284	1254
	Augmentation of PTR at Sub-stations	Number	156	78.8	219	126.7	269	100	644	305
	Additional PTR at Sub-station (3.15/5 MVA)	Number	176	158.4	188	308.3	186	140	550	607
	HT Underground Cabling	Ckm	-	-	-	0.0	4	3	4	3
	Related works to make existing SCADA fully functional	Number	52	195.0	160	20.1	140	70	352	285
	DT Capacity Enhancement	Number	38058	532.9	6163	163.2	19158	302	63379	998
	Additional DTR with associated lines	Number	13520	803.5	3746	503.1	14234	649	31500	1956
	Smart Meter Testing Lab (UPGRADATION / New)	Number	6	16.5	3	9.3	9	8	18	34
	33 kV Ring main System on Mono pole	Ckm	320.00	428.8	200	310.0	122	122	642	861

ARR for FY 2022-23 to FY 2026-27 and Tariff Proposal for FY 2022-23

C	Works	Unit	East Discom		Central Discom		West Discom		Total	
			Proposed Quantity	Total Outlay (Rs. Cr)						
	Other works for improving reliability and quality of supply	Number/ Ckm		109.1		0.7		115		225
	Total (SSTD & Modernisation)			2710		2034		1784		6527

Table 208: Total CAPEX estimation for Revamped Scheme (Rs. Crores)

I	Particular	East Discom	Central Discom	West Discom	Total Outlay
Revamped Scheme	Smart Metering	5,737	4,686	4,463	14,886
	Loss Reduction	2579	2326	1800	6,706
	SSTD & Modernization	2710	2034	1784	6,527
	Total - Outlay	11,026	9,046	8,047	28,119

- 9.1.11 Further, the funding pattern against the aforementioned CAPEX for the Revamped scheme has been considered in line with the revised operational guidelines issued by the Ministry of Power, Government of India as reproduced below:

Sr No.	Items Descriptions	GBS % (Max)
A-1	<i>Prepaid Smart metering solution including at consumer, DT, and feeder level including integration of existing infrastructure</i>	<i>15% / 22.5% as the case may be (limited up to Rs.900 or Rs.1350 respectively per meter for Consumer metering)[#]</i>
A-2	<i>Other costs including encumbrance free standardized billing modules for all states, data management, data analytics, and support to implementation etc.</i>	<i>100%</i>
A-3 to A-6	<i>Distribution Infrastructure works including SCADA, DMS, AB cables, feeder segregation etc.</i>	<i>60% or 90% as the case may be</i>
B1-B4	<i>Part-B</i>	<i>100%</i>

#A provision for additional incentive over and above this has been made, for Prepaid Smart Meters installed within targeted timelines of first phase mission i.e. December 2023 (as detailed in Para 5.1.3 of revised OP)

- 9.1.12 Petitioners wishes to submit that they will strive hard towards improvement in quality and reliability of power supply as well as improvement in their operational efficiency and financial viability. Also, with the implementation of Prepaid Smart Meterization, the billing efficiency and collection efficiency will improve. With this aim, Discoms are positive that they will achieve the performance target, and hence, they will be eligible to avail grant of 60% under the said scheme. Hence, Discoms have considered 60% of total estimated CAPEX under loss reduction and SSTD & Modernisation to be funded through grants and thus passing the benefits to consumers through ARR. The remaining portion, i.e., 40% of CAPEX for loss reduction and system strengthening & modernisation related infrastructure works shall be funded through loan. As regard to Part A-Metering of the Revamped scheme, which is to be implemented in TOTEX mode, Discoms have considered CAPEX portion amounting to Rs. 8,448.47 Crore in their present capital expenditure plan. The remaining portion, i.e., OPEX portion has been claimed under O&M section over and above normative O&M expenses on yearly equated instalments.

- 9.1.13 Discom further wishes to submit that the capex phasing as submitted under Revamped Scheme are on provisional basis as per best judgement of Discoms. Petitioners again request the Hon'ble Commission that they should be given liberty to submit additional data after the approval of their DPRs by the Govt. of India and make subsequent changes in the submitted ARR based on the approved and sanctioned funds under the

Revamped Distribution Sector Scheme. Any variation against the proposal may be adjusted at the time of final True-up of respective years.

- 9.1.14 The scheme wise summary of capital expenditure of the three Discoms are as detailed below:

Table 209: Capital expenditure Plan (Rs. Crores)

EAST DISCOM - CAPEX					
Name of Scheme	FY 23	FY 24	FY 25	FY 26	FY 27
Government schemes (ST(N), TSP, SCSP)	302	315	334	0	0
Scada enablement and smart metering project	35	0	0	0	0
Replacement of stop/defective meters	40	40	35	0	0
Smart Meterization	633	447	2216	0	0
Loss Reduction	948	1009	1101	0	0
SSTD & Modernization	535	580	558	558	0
Total	2493	2391	4244	558	0

CENTRAL DISCOM - CAPEX					
Name of Scheme	FY 23	FY 24	FY 25	FY 26	FY 27
GoMP					
i-ST(N)/SSTD	112	138	127	122	125
ii-ND	15	18	17	16	17
iii-TSP/SCSP	22	28	25	24	25
Feeder Bifurcation	214	214	0	0	0
Supervision	78	78	78	78	78
Capital store and spares	22	22	22	22	22
Procurement of Distribution Transformer against failure	32	32	31	31	0
Smart Meterization	405	669	1585	0	0
RRRDS (Loss reduction plus modernization)	247	771	1030	702	195
Total	1148	1969	2916	996	462

WEST DISCOM - CAPEX					
Name of Scheme	FY 23	FY 24	FY 25	FY 26	FY 27
SSTD	239	250	263	250	250
Transformer failure reduction Scheme	50	52	54	0	0
Smart Meters	126	126	126	0	0
Installation of meter at agriculture pre-dominant DTR	107	105	0	0	0
Smart Meterization	326	935	1233	0	0
Loss Reduction	389	389	389	389	313
SSTD & Modernization	343	343	343	343	343
DTR Renovation	0	0	0	30	30
Total	1579	2200	2409	1012	935

9.2 Scheme Wise Capitalization

9.2.1 Discoms have projected CAPEX during each year of the control Period as outlined in the paras above. Out of the scheme wise yearly CAPEX proposed during the year, 50% of the CAPEX have been estimated to be capitalized during the same year. The remaining portion has been estimated to be capitalized from the opening CWIP balance of the respective year. Further, Discoms wishes to submit that there are certain schemes such as Saubhagya, DDUGJY, IPDS etc., which have already been completed, however, certain amount of CWIP is outstanding against such schemes that have been spill over into FY 2022-23. Discoms have estimated full capitalization of outstanding CWIP under such schemes in FY 2022-23. Based on the above, the summary of scheme wise Capitalization Plan of Discoms is as shown in the Table below:

Table 210: Scheme Wise Capitalization (Rs. Crores)

EAST DISCOM - CAPITALIZATION					
Name of Scheme	FY 23	FY 24	FY 25	FY 26	FY 27
Government schemes (ST(N), TSP, SCSP)	247.49	281.25	307.62	153.81	76.91
CM Permanent pump connection scheme	22.63	0.00	0.00	0.00	0.00
DDUGJY	37.86	0.00	0.00	0.00	0.00
IPDS	11.90	0.00	0.00	0.00	0.00
RAPDRP-Part A & B	0.00	0.00	0.00	0.00	0.00
RGGVY	66.32	0.00	0.00	0.00	0.00
ADB-3	14.75	0.00	0.00	0.00	0.00
FS-REC	47.68	0.00	0.00	0.00	0.00
FS-ADB	33.77	0.00	0.00	0.00	0.00
Saubhagya Scheme	152.09	0.00	0.00	0.00	0.00
Deposit Works	21.54	21.54	0.00	0.00	0.00
Others	119.43	83.60	39.01	31.21	24.97
Scheme for reduction in Distribution Transformer failure	38.25	38.25	0.00	0.00	0.00
Scada enablement and smart metering project	79.00	39.50	0.00	0.00	0.00
Replacement of stop/defective meters	28.75	34.38	17.50	0.00	0.00
DTR metering in predominant AG. DTR	30.00	30.00	0.00	0.00	0.00
Smart Meterization	189.91	444.98	1107.98	776.48	388.24
Loss Reduction	284.41	836.41	550.47	693.44	346.72
SSTD & Modernisation	160.62	477.40	517.55	278.85	398.20
Total	1586.39	2287.30	2540.14	1933.79	1235.04

CENTRAL DISCOM - CAPITALIZATION					
Name of Scheme	FY 23	FY 24	FY 25	FY 26	FY 27
GoMP					
i-ST(N)/SSTD	56.14	69.18	63.33	61.20	62.73
ii-ND	7.49	9.23	8.45	8.16	8.37
iii-TSP/SCSP	11.23	13.84	12.67	12.24	12.55
Feeder Bifurcation	122.53	290.71	152.96	0.00	0.00

CENTRAL DISCOM - CAPITALIZATION					
Name of Scheme	FY 23	FY 24	FY 25	FY 26	FY 27
IPDS	31.29	0.00	0.00	0.00	0.00
Supervision	78.04	78.04	78.04	78.04	78.04
Capital store and spares	21.97	21.97	21.97	21.97	21.97
Procurement of Distribution Transformer against failure	24.50	28.15	29.65	30.25	30.25
Procurement of smart meter	121.44	617.65	1126.87	792.59	0.00
RRRDS	74.00	471.60	751.02	726.28	460.61
From Other Opening CWIP	533.02	395.57	203.05	224.16	188.52
Total	1081.65	1995.92	2448.00	1954.88	863.03

WEST DISCOM - CAPITALIZATION					
Name of Scheme	FY 23	FY 24	FY 25	FY 26	FY 27
SSTD	149.82	230.64	246.80	248.40	249.20
Transformer failure reduction Scheme	25.00	38.50	46.25	23.13	11.56
DTR Renovation	0.00	0.00	0.00	15.00	15.00
Smart Meters	94.50	110.25	118.13	118.13	0.00
Installation of meter at agriculture predominant DTR	53.33	79.10	39.55	39.55	0.00
Smart Meterization	97.73	581.46	907.46	453.73	453.73
Loss Reduction	116.83	331.02	360.23	374.83	343.67
SSTD & Modernisation	102.82	291.34	317.04	329.90	336.32
From Opening CWIP	665.56	232.95	264.01	211.21	168.96
Total	1305.59	1895.25	2299.46	1813.86	1578.44

9.3 Capital Work in Progress

9.3.1 Based on the proposed capital expenditure and capitalization, Petitioners have projected the opening and closing balance of CWIP of the three Discoms as shown in the Table below:

Table 211: Discom Wise Capital Work in Progress (Rs. Crores)

EAST DISCOM - CWIP						
SL. No.	Particulars	FY 23	FY 24	FY 25	FY 26	FY 27
1	Opening Balance of CWIP	1685.16	2592.22	2695.97	4399.44	3023.35
2	Fresh Investment during the year	2493.45	2391.06	4243.60	557.71	0.00
3	Total Capitalisation during the year	1586.39	2287.30	2540.14	1933.79	1235.04
4	Closing Balance of CWIP	2592.22	2695.97	4399.44	3023.35	1788.31
CENTRAL DISCOM - CWIP						
SL. No.	Particulars	FY 23	FY 24	FY 25	FY 26	FY 27
1	Opening Balance of CWIP	1962.60	2028.68	2002.21	2469.88	1510.59
2	Fresh Investment during the year	1147.74	1969.45	2915.67	995.59	462.23
3	Total Capitalisation during the year	1081.65	1995.92	2448.00	1954.88	863.03
4	Closing Balance of CWIP	2028.68	2002.21	2469.88	1510.59	1109.79

WEST DISCOM - CWIP						
SL. No.	Particulars	FY 23	FY 24	FY 25	FY 26	FY 27
1	Opening Balance of CWIP	2403.81	2677.31	2982.34	3091.48	2289.80
2	Fresh Investment during the year	1579.09	2200.28	2408.59	1012.19	935.25
3	Total Capitalisation during the year	1305.59	1895.25	2299.46	1813.86	1578.44
4	Closing Balance of CWIP	2677.31	2982.34	3091.48	2289.80	1646.61

9.4 Fixed Assets Addition

9.4.1 Based on the capitalization as proposed in the section above, Petitioners have projected the Gross Fixed Assets addition for the next control period as shown in the Table below:

Table 212: Fixed Assets Addition (Rs. Crores)

EAST DISCOM - GFA ADDITION					
Particular	FY 23	FY 24	FY 25	FY 26	FY 27
Land & land rights	0.00	0.00	0.00	0.00	0.00
Buildings	4.81	6.94	7.70	5.86	3.74
Hydraulic works	0.00	0.00	0.00	0.00	0.00
Other civil works	24.16	34.84	38.69	29.45	18.81
Plant & machinery	452.32	283.60	92.15	0.00	0.00
Lines, cables, networks	657.89	200.00	222.11	147.05	77.62
Vehicles	0.00	0.00	0.00	0.00	0.00
Furniture & fixtures	0.00	0.00	0.00	0.00	0.00
Office equipment's	1.98	2.86	3.17	2.41	1.54
RGGVY	0.00	0.00	0.00	0.00	0.00
Intangible Assets	0.20	0.29	0.32	0.24	0.16
Supervision assets	0.00	0.00	0.00	0.00	0.00
Capital Stores & Spares	0.00	0.00	0.00	0.00	0.00
RRRDS	445.03	1758.79	2176.00	1748.77	1133.16
Total	1586.39	2287.30	2540.14	1933.79	1235.04

CENTRAL DISCOM - GFA ADDITION					
Particular	FY 23	FY 24	FY 25	FY 26	FY 27
Land & land rights	0.08	0.15	0.18	0.15	0.06
Buildings	43.76	80.74	99.03	79.08	34.91
Hydraulic works	0.00	0.00	0.00	0.00	0.00
Other civil works	0.00	0.00	0.00	0.00	0.00
Plant & machinery	42.75	78.88	96.74	77.25	34.11
Lines, cables, networks	636.74	605.67	228.45	136.46	197.42
Vehicles	0.00	0.00	0.00	0.00	0.00
Furniture & fixtures	0.31	0.56	0.69	0.55	0.24
Office equipment's	6.78	12.51	15.35	12.26	5.41
Capital Stores & Spares	21.97	21.97	21.97	21.97	21.97

CENTRAL DISCOM - GFA ADDITION					
Particular	FY 23	FY 24	FY 25	FY 26	FY 27
IPDS	31.29	0.00	0.00	0.00	0.00
Supervision assets	78.04	78.04	78.04	78.04	78.04
Intangible Assets	0.00	0.00	0.00	0.00	0.00
RRRDS	219.94	1117.39	1907.54	1549.12	490.87
Total	1081.65	1995.92	2448.00	1954.88	863.03

WEST DISCOM - GFA ADDITION					
Particular	FY 23	FY 24	FY 25	FY 26	FY 27
Land & land rights	0.00	0.00	0.00	0.00	0.00
Buildings	10.36	15.04	18.24	14.39	12.52
Hydraulic works	0.00	0.00	0.00	0.00	0.00
Other civil works	0.00	0.00	0.00	0.00	0.00
Plant & machinery	250.75	363.99	441.62	348.36	303.15
Lines, cables, networks	638.85	184.30	99.43	170.04	22.36
Vehicles	3.35	4.87	5.91	4.66	4.06
Furniture & fixtures	0.35	0.50	0.61	0.48	0.42
Office equipment's	34.57	50.19	60.89	48.03	41.80
Capital Stores & Spares	49.97	72.54	88.01	69.42	60.41
Intangible Assets	0.00	0.01	0.01	0.01	0.01
RRRDS	317.38	1203.82	1584.73	1158.46	1133.72
Total	1305.59	1895.25	2299.46	1813.86	1578.44

9.5 The Petitioner hereby requests the Hon'ble Commission to approve Capital Expenditure and Fixed Assets Addition as shown above.

A10: OTHER COSTS / INCOME - DISCOMS

10.1 Depreciation

- 10.1.1 Regulation 33 of the MPERC (Terms and Conditions for Determination of Tariff for Supply and Wheeling of Electricity and Methods and Principles for Fixation of Charges) Regulations, 2021, provides stipulation for calculation of depreciation. As per the said Regulations, Depreciation needs to be calculated on value base of the capital cost as admitted by the Commission. The salvage value of the assets needs to be considered as 10% of Capital Cost and Depreciation shall be allowed up to maximum of 90% of the Capital Cost of the Asset.
- 10.1.2 The rate of depreciation has been considered in accordance with rate specified by the Hon'ble Commission in its Regulations. In case of existing projects/schemes Petitioners have verified if the accumulated depreciation has reached 70%. For the existing projects/schemes where the accumulated depreciation has reached 70% of asset value, the remaining depreciable value has been spread over the remaining life of the asset such that the maximum depreciation does not exceed 90%.
- 10.1.3 Petitioners have claimed depreciation on the Gross Block of Assets including consumer contribution and grants, since the Petitioners have also considered income booked towards the depreciation for assets created through consumer contribution and grants under their Non-Tariff Income. Hence, in order to avoid double accounting, Petitioners request the Hon'ble Commission to allow depreciation on the Gross Block of Assets. If the Hon'ble Commission decides to allow depreciation on the Net-Block of Assets, then in such case the claim of Discoms towards Non-Tariff Income/Other Income is to be reduced by equivalent amount of depreciation applicable over the assets created through consumer contribution and grants during the respective period.
- 10.1.4 Accordingly, the Discom-wise depreciation for the ensuing years of the Control Period is as shown in the Table below:

Table 213: Depreciation for East Discom - As per Regulation (Rs. Crores)

Particulars	East Discom				
	FY '23	FY '24	FY '25	FY '26	FY '27
Building	2.02	2.21	2.44	2.66	2.81
Hydraulic Works	0.00	0.00	0.00	0.00	0.00
Other Civil Works	2.99	3.81	4.83	5.77	6.44
Plant & Machinery	252.00	269.73	278.78	281.00	281.00
Line Cable Networks etc.	411.19	431.51	441.52	450.26	455.59
Vehicles	0.00	0.00	0.00	0.00	
Furniture & fixtures	0.00	0.00	0.00	0.00	0.00
Office Equipment	23.85	7.10	7.22	7.28	7.31
Asset not belonging to Company (RGGVY, IPDS, Soubhagya, DDUGJY, RRRDS)	11.75	69.93	173.81	277.42	353.51

Particulars	East Discom				
	FY '23	FY '24	FY '25	FY '26	FY '27
Amortization of Intangible Assets	11.62	1.35	1.36	1.36	1.36
Supervision assets	0.00	0.00	0.00	0.00	0.00
Capital Stores & Spares	0.00	0.00	0.00	0.00	0.00
Total	715.41	785.65	909.95	1025.76	1108.02

Table 214: Depreciation for Central Discom - As per Regulation (Rs. Crores)

Particulars	Central Discom				
	FY '23	FY '24	FY '25	FY '26	FY '27
Building	9.85	11.92	14.92	17.88	19.78
Hydraulic Works	0.58	0.58	0.58	0.58	0.58
Other Civil Works	0.22	0.22	0.22	0.22	0.22
Plant & Machinery	158.47	161.23	165.23	169.18	171.72
Line Cable Networks etc.	276.45	303.71	322.01	330.02	337.34
Vehicles	0.00	0.00	0.00	0.00	0.00
Furniture & fixtures	0.17	0.18	0.20	0.23	0.24
Office Equipment	16.45	17.40	18.79	20.16	7.24
Asset not belonging to Company (RGGVY, IPDS, Soubhagya, DDUGJY)	176.38	212.50	292.36	383.62	437.47
Amortization of Intangible Assets	0.29	0.29	0.29	0.29	0.29
Supervision assets	41.43	45.57	49.71	53.85	57.98
Capital Stores & Spares	27.67	29.91	32.16	34.40	5.87
Total	707.95	783.52	896.45	1010.41	1038.73

Table 215: Depreciation for West Discom - As per Regulation (Rs. Crores)

Particulars	West Discom				
	FY '23	FY '24	FY '25	FY '26	FY '27
Building	5.72	6.12	6.65	7.16	7.59
Hydraulic Works	0.00	0.00	0.00	0.00	0.00
Other Civil Works	0.87	0.87	0.87	0.87	0.87
Plant & Machinery	145.54	160.08	179.14	197.82	213.23
Line Cable Networks etc.	295.30	316.78	324.19	331.22	336.24
Vehicles	0.00	0.00	0.00	0.00	0.00
Furniture & fixtures	0.29	0.30	0.32	0.34	0.36
Office Equipment	16.70	21.50	27.80	33.97	39.06
Asset not belonging to Company (RGGVY, IPDS, Soubhagya, DDUGJY)	8.38	48.54	122.16	194.58	255.09
Amortization of Intangible Assets	0.63	0.63	0.64	0.64	0.64
Supervision assets			0.00	0.00	0.00
Capital Stores & Spares	24.24	30.99	39.84	48.51	55.67
Total	497.67	585.83	701.59	815.12	908.75

Table 216: Depreciation for Discoms at State Level - As per Regulation (Rs. Crores)

Particulars	MP State				
	FY '23	FY '24	FY '25	FY '26	FY '27
Building	17.60	20.26	24.00	27.70	30.17
Hydraulic Works	0.58	0.58	0.58	0.58	0.58
Other Civil Works	4.07	4.89	5.91	6.86	7.53
Plant & Machinery	556.01	591.05	623.15	648.01	665.95
Line Cable Networks etc.	982.94	1052.01	1087.72	1111.50	1129.17
Vehicles	0.00	0.00	0.00	0.00	0.00
Furniture & fixtures	0.45	0.48	0.53	0.57	0.60
Office Equipment	56.99	46.01	53.80	61.41	53.62
Asset not belonging to Company (RGGVY, IPDS, Soubhagya, DDUGJY)	196.51	330.97	588.32	855.61	1046.07
Amortization of Intangible Assets	12.54	2.28	2.28	2.28	2.28
Supervision assets	41.43	45.57	49.71	53.85	57.98
Capital Stores & Spares	51.91	60.91	71.99	82.91	61.54
Total	1921.03	2154.99	2508.00	2851.28	3055.49

10.2 Interest and Finance Charges

10.2.1 Interest on Project Loans

Regulation 32 of the MPERC (Terms and Conditions for Determination of Tariff for Supply and Wheeling of Electricity and Methods and Principles for Fixation of Charges) Regulations, 2021 provides stipulation for calculation of interest and finance charges on loan capital.

Petitioners have calculated interest and finance charges on loan capital in line with the methodology adopted by the Hon'ble Commission in its previous Tariff/True-up Orders. The opening debt associated with GFA has been considered in line with the closing debt as approved by the Hon'ble Commission in its True-up Order of FY 2019-20. The assets addition to GFA, consumer deposit & grant and actual equity contribution has been considered in line with the capitalization as proposed in this Petition. The repayment of loan for each FY has been considered equal to depreciation as projected for the respective FY. The closing debt has been arrived by adding the net GFA considered as funded through debt and subtracting debt repayment of the respective year. The interest on loan for each year of the control period has been calculated on the normative average loan of the respective year by applying the weighted average rate of interest. Further, the weighted average rate of interest for each Discom has been calculated based on the actual loan portfolio of Discoms in line with the Regulations.

Petitioners have also considered other finance charges such as Bank Charges, Commitment Charges, Guarantee/LC Charges etc. based on the actual expenditure incurred over the previous FY as per audited accounts. The Discom-wise summary of interest and finance charges is as detailed in the Table below:

Table 217: East Discom Interest on Project Loan - As per Regulation (Rs. Crores)

Sr. No	Particulars	East Discom				
		FY 23	FY 24	FY 25	FY 26	FY 27
1	Opening Debt associated with GFA (as per True-up Order)	3582.47	3780.93	4204.28	4784.79	4843.97
2	GFA Addition during the year	1586.39	2287.30	2540.14	1933.79	1235.04
3	Consumer Deposit and Grants utilized during the year	517.55	930.16	940.44	793.36	551.94
4	Net GFA Addition during the year	1068.85	1357.14	1599.70	1140.44	683.09
5	Addition of Equity	154.98	148.14	109.24	55.51	30.56
6	Net GFA considered as funded through debt	913.87	1209.00	1490.46	1084.93	652.53
7	Debt repayment during the year	715.41	785.65	909.95	1025.76	1108.02
8	Closing debt associated with GFA	3780.93	4204.28	4784.79	4843.97	4388.48
9	Average debt associated with Loan	3681.70	3992.61	4494.54	4814.38	4616.22
10	Weighted average rate of interest (%) on all loans	7.72%	7.98%	8.12%	8.17%	8.17%
11	Interest on Project Loans	284.26	318.77	364.85	393.53	376.95
12	Other Finance cost	14.10	13.04	13.57	13.30	13.43
13	<i>Bank Charges</i>	0.11	0.12	0.11	0.11	0.11
14	<i>Commitment Charges</i>	3.31	2.97	3.14	3.05	3.09
15	<i>Guarantee/Lc Charges</i>	10.68	9.96	10.32	10.14	10.23
16	Interest Cost Claimed in Petition	298.35	331.81	378.42	406.83	390.39

Table 218: Central Discom Interest on Project Loan - As per Regulation (Rs. Crores)

Sr. No	Particulars	Central Discom				
		FY 23	FY 24	FY 25	FY 26	FY 27
1	Opening Debt associated with GFA (as per True-up Order)	4816.79	4793.56	5308.63	5921.71	5440.38
2	GFA Addition during the year	1081.65	1995.92	2448.00	1954.88	863.03
3	Consumer Deposit and Grants utilized during the year	240.66	562.11	844.65	1328.81	373.26
4	Net GFA Addition during the year	840.99	1433.81	1603.35	626.07	489.77
5	Addition of Equity	156.27	135.21	93.82	96.99	90.62
6	Net GFA considered as funded through debt	684.72	1298.60	1509.53	529.08	399.15
7	Debt repayment during the year	707.95	783.52	896.45	1010.41	1038.73
8	Closing debt associated with GFA	4793.56	5308.63	5921.71	5440.38	4800.81
9	Average debt associated with Loan	4805.17	5051.09	5615.17	5681.04	5120.59
10	Weighted average rate of interest (%) on all loans	7.14%	7.13%	7.09%	7.01%	6.89%
11	Interest on Project Loans	342.99	360.34	397.94	398.11	352.93
12	Other Finance cost	33.33	33.37	33.35	33.36	33.35
13	<i>Bank Charges</i>	1.03	1.06	1.04	1.05	1.05
14	<i>Commitment Charges</i>	0.10	0.11	0.10	0.11	0.11
15	<i>Guarantee/Lc Charges</i>	32.20	32.20	32.20	32.20	32.20
16	Interest Cost Claimed in Petition	376.31	393.70	431.29	431.47	386.28

Table 219: West Discom Interest on Project Loan - As per Regulation (Rs. Crores)

Sr. No	Particulars	West Discom				
		FY 23	FY 24	FY 25	FY 26	FY 27
1	Opening Debt associated with GFA (as per True-up Order)	3313.72	3700.26	4340.41	5134.38	5106.01
2	GFA Addition during the year	1305.59	1895.25	2299.46	1813.86	1578.44
3	Consumer Deposit and Grants utilized during the year	347.90	590.11	718.54	943.55	915.31
4	Net GFA Addition during the year	957.69	1305.15	1580.92	870.31	663.14
5	Addition of Equity	73.47	79.18	85.35	83.57	82.00
6	Net GFA considered as funded through debt	884.22	1225.97	1495.57	786.74	581.14
7	Debt repayment during the year	497.67	585.83	701.59	815.12	908.75
8	Closing debt associated with GFA	3700.26	4340.41	5134.38	5106.01	4778.40
9	Average debt associated with Loan	3506.99	4020.34	4737.40	5120.20	4942.20
10	Weighted average rate of interest (%) on all loans	7.50%	7.61%	7.68%	7.70%	7.69%
11	Interest on Project Loans	262.95	305.91	363.85	394.49	380.11
12	Other Finance cost	11.20	11.06	11.13	11.09	11.11
13	<i>Bank Charges</i>	0.20	0.26	0.23	0.24	0.23
14	<i>Commitment Charges</i>	11.00	10.80	10.90	10.85	10.88
15	<i>Guarantee/Lc Charges</i>	0.00	0.00	0.00	0.00	0.00
16	Interest Cost Claimed in Petition	274.15	316.97	374.98	405.58	391.22

Table 220: MP State Interest on Project Loan - As per Regulation (Rs. Crores)

Sr. No	Particulars	MP State				
		FY 23	FY 24	FY 25	FY 26	FY 27
1	Opening Debt associated with GFA (as per True-up Order)	11712.97	12274.75	13853.32	15840.88	15390.36
2	GFA Addition during the year	3973.63	6178.47	7287.59	5702.54	3676.51
3	Consumer Deposit and Grants utilized during the year	1106.11	2082.38	2503.62	3065.72	1840.51
4	Net GFA Addition during the year	2867.52	4096.09	4783.97	2636.82	1836.00
5	Addition of Equity	384.71	362.53	288.41	236.07	203.18
6	Net GFA considered as funded through debt	2482.81	3733.57	4495.55	2400.75	1632.82
7	Debt repayment during the year	1921.03	2154.99	2508.00	2851.28	3055.49
8	Closing debt associated with GFA	12274.75	13853.32	15840.88	15390.36	13967.68
9	Average debt associated with Loan	11993.86	13064.04	14847.10	15615.62	14679.02
10	Weighted average rate of interest (%) on all loans	NA	NA	NA	NA	NA
11	Interest on Project Loans	890.20	985.02	1126.65	1186.13	1110.00
12	Other Finance cost	58.62	57.46	58.04	57.75	57.90
13	<i>Bank Charges</i>	1.33	1.43	1.38	1.41	1.39
14	<i>Commitment Charges</i>	14.41	13.88	14.14	14.01	14.08
15	<i>Guarantee/Lc Charges</i>	42.88	42.16	42.52	42.34	42.43
16	Interest Cost Claimed in Petition	948.82	1042.48	1184.69	1243.88	1167.89

Petitioners request the Hon'ble Commission to approve the interest and finance charges on Project loan as summarized in the Table above. Any variation shall be claimed at the time of final True-up of the respective years.

10.2.2 Interest on Working Capital

Regulation 23 of the MPERC (Terms and Conditions for Determination of Tariff for Supply and Wheeling of Electricity and Methods and Principles for Fixation of Charges) Regulations, 2021 provides the method of calculation of interest on working capital, wherein the total Working Capital shall consist of expenses towards working capital for the supply activity and wheeling activity. The said Regulation also stipulates the parameters to be considered for computation of working capital for wheeling and supply activity.

As per the Regulation 38, the Rate of interest on working capital shall be equal to the Base Rate as on 01st April of the relevant year plus 350 basis points. Further, the base rate shall be one-year Marginal Cost of Funds-based Lending Rate (MCLR) as declared by State Bank of India from time to time. The SBI MCLR as on 1st April, 2020 is 7%. Accordingly, the Petitioners have considered the interest rate on working capital as 10.50% (SBI-MCLR 7% plus 350 bps).

The summary of Discom wise Interest on Working Capital is as detailed in the Table below:

Table 221: East Discom Interest on Working Capital- As per Regulation (Rs. Crores)

Sr. no.	Particulars	East Discom				
		FY 23	FY 24	FY 25	FY 26	FY 27
I	Wheeling					
A)	1/6th of annual requirement of inventory for 1% GFA of previous year	18.42	20.54	23.59	26.98	29.55
B)	O&M expenses					
	R&M expenses	456.01	508.36	583.84	667.66	731.48
	A&G expense	126.17	131.54	137.13	142.97	149.04
	Employee expenses	1323.25	1455.80	1573.55	1698.62	1831.42
B) i)	Total of O&M expenses	1905.43	2095.70	2294.52	2509.25	2711.94
B) ii)	1/12th of total	158.79	174.64	191.21	209.10	225.99
C)	Receivables	0.00	0.00	0.00	0.00	0.00
C) i)	Annual Revenue from wheeling charges	0.00	0.00	0.00	0.00	0.00
C) ii)	Receivables equivalent to 2 months average billing of wheeling charges	0.00	0.00	0.00	0.00	0.00
D)	Total Working capital [A) + B) ii) - C) ii)]	177.21	195.18	214.80	236.08	255.55
E)	Rate of Interest	11%	11%	11%	11%	11%
F)	Interest on Working capital (Wheeling)	18.61	20.49	22.55	24.79	26.83
II	Retail Supply					
A)	1/6th of annual requirement of inventory for previous year	4.61	5.13	5.90	6.74	7.39
B)	Receivables					

Sr. no.	Particulars	East Discom				
		FY 23	FY 24	FY 25	FY 26	FY 27
B) i)	Annual Revenue from Tariff and charges	13065.70	14120.25	15241.71	16128.41	17219.30
B) ii)	Receivables equivalent to 2 months average billing	2177.62	2353.38	2540.28	2688.07	2869.88
C)	Power Purchase expenses	8598.09	10657.53	11409.18	12167.36	12881.85
C) i)	1/12th of power purchase expenses	716.51	888.13	950.77	1013.95	1073.49
D	Consumer Security Deposit	987.71	1040.35	1096.57	1156.62	1220.79
E)	Total Working capital (A+B ii) - C i) - D)	478.01	430.03	498.85	524.25	582.99
F)	Rate of Interest	10.50%	10.50%	10.50%	10.50%	10.50%
G)	Interest on Working capital (Retail Supply)	50.19	45.15	52.38	55.05	61.21
	Total Interest on Working Capital (Wheeling + Retail Supply)	68.80	65.65	74.93	79.83	88.05

Table 222: Central Discom Interest on Working Capital- As per Regulation (Rs. Crores)

Sr. no.	Particulars	Central Discom				
		FY 23	FY 24	FY 25	FY 26	FY 27
I	Wheeling					
A)	1/6th of annual requirement of inventory for 1% GFA of previous year	18.76	20.20	22.86	26.13	28.73
B)	O&M expenses					
	R&M expenses	464.32	500.01	565.88	646.66	711.18
	A&G expense	120.14	125.25	130.58	136.13	141.92
	Employee expenses	1204.87	1300.07	1401.13	1508.39	1622.17
B) i)	Total of O&M expenses	1789.33	1925.34	2097.59	2291.19	2475.27
B) ii)	1/12th of total	149.11	160.44	174.80	190.93	206.27
C)	Receivables					
C) i)	Annual Revenue from wheeling charges					
C) ii)	Receivables equivalent to 2 months average billing of wheeling charges					
D)	Total Working capital [A) + B) ii) - C) ii)]	167.87	180.65	197.66	217.06	235.01
E)	Rate of Interest	10.50%	10.50%	10.50%	10.50%	10.50%
F)	Interest on Working capital (Wheeling)	17.63	18.97	20.75	22.79	24.68
II	Retail Supply					
A)	1/6th of annual requirement of inventory for previous year	4.69	5.05	5.72	6.53	7.18
B)	Receivables					
B) i)	Annual Revenue from Tariff and charges	14026.09	15230.18	16455.99	17657.77	18782.13
B) ii)	Receivables equivalent to 2 months average billing	2337.68	2538.36	2742.67	2942.96	3130.35
C)	Power Purchase expenses	9426.17	11384.47	12186.86	12996.51	13759.08

Sr. no.	Particulars	Central Discom				
		FY 23	FY 24	FY 25	FY 26	FY 27
C) i)	1/12th of power purchase expenses	785.51	948.71	1015.57	1083.04	1146.59
D	Consumer Security Deposit	1215.69	1320.22	1429.19	1542.79	1661.20
E)	Total Working capital (A+B ii) - C i) - D)	341.17	274.49	303.62	323.67	329.75
F)	Rate of Interest	10.50%	10.50%	10.50%	10.50%	10.50%
G)	Interest on Working capital (Retail Supply)	35.82	28.82	31.88	33.98	34.62
	Total Interest on Working Capital (Wheeling + Retail Supply)	53.45	47.79	52.63	56.78	59.30

Table 223: West Discom Interest on Working Capital- As per Regulation (Rs. Crores)

Sr. no.	Particulars	West Discom				
		FY 23	FY 24	FY 25	FY 26	FY 27
I	Wheeling					
A)	1/6th of annual requirement of inventory for 1% GFA of previous year	13.29	15.03	17.56	20.63	23.04
B)	O&M expenses					
	R&M expenses	328.99	372.07	434.62	510.50	570.36
	A&G expense	138.87	144.79	150.95	157.37	164.06
	Employee expenses	1224.98	1334.98	1452.11	1576.78	1709.43
B) i)	Total of O&M expenses	1692.84	1851.84	2037.68	2244.65	2443.85
B) ii)	1/12th of total	141.07	154.32	169.81	187.05	203.65
C)	Receivables					
C) i)	Annual Revenue from wheeling charges	6.45	6.87	6.66	6.77	6.71
C) ii)	Receivables equivalent to 2 months average billing of wheeling charges	1.07	1.15	1.11	1.13	1.12
D)	Total Working capital [A) + B) ii) - C) ii)]	155.44	170.50	188.48	208.81	227.82
E)	Rate of Interest	10.50%	10.50%	10.50%	10.50%	10.50%
F)	Interest on Working capital (Wheeling)	16.32	17.90	19.79	21.92	23.92
II	Retail Supply					
A)	1/6th of annual requirement of inventory for previous year	3.32	3.76	4.39	5.16	5.76
B)	Receivables					
B) i)	Annual Revenue from Tariff and charges	17865.65	19455.80	20915.95	22373.65	23682.65
B) ii)	Receivables equivalent to 2 months average billing	2977.61	3242.63	3485.99	3728.94	3947.11
C)	Power Purchase expenses	15735.32	14426.97	15443.10	16469.61	17436.16
C) i)	1/12th of power purchase expenses	1311.28	1202.25	1286.92	1372.47	1453.01
D	Consumer Security Deposit	1950.24	2198.28	2456.85	2726.39	3007.36
E)	Total Working capital (A+B ii) - C i) - D)	(280.58)	(154.14)	(253.40)	(364.76)	(507.51)

Sr. no.	Particulars	West Discom				
		FY 23	FY 24	FY 25	FY 26	FY 27
F)	Rate of Interest	10.50%	10.50%	10.50%	10.50%	10.50%
G)	Interest on Working capital (Retail Supply)	0.00	0.00	0.00	0.00	0.00
	Total Interest on Working Capital (Wheeling + Retail Supply)	16.32	17.90	19.79	21.92	23.92

Petitioners request the Hon'ble Commission to approve the interest on working capital as projected in the Table above. Any variation shall be claimed at the time of final True-up of the respective years.

10.2.3 Interest on Consumer Security Deposit

Interest on Consumer Security Deposit has to be paid to the consumers in accordance with MPERC (Terms and Conditions for Determination of Tariff for Supply and Wheeling of Electricity and Methods and Principles for Fixation of Charges) Regulations, 2021 and MPERC Security Deposit Regulations, 2009 and its amendment thereof. The Petitioner have provisionally considered rate on Consumer Security Deposit rate in line with the actual rate arrived based on the audited accounts. The Discom-wise summary of interest on Consumer Security Deposit is as provided in the Table below:

Table 224: East Discom Interest on Consumer Security Deposit- As per Regulation (Rs. Crores)

Sr. no.	Particulars	East Discom				
		FY 23	FY 24	FY 25	FY 26	FY 27
1	Interest on Consumer Security Deposit	50.14	52.79	55.63	58.65	61.89

Table 225: Central Discom Interest on Consumer Security Deposit - As per Regulation (Rs. Crores)

Sr. no.	Particulars	Central Discom				
		FY 23	FY 24	FY 25	FY 26	FY 27
1	Interest on Consumer Security Deposit	71.45	77.60	84.00	90.68	97.64

Table 226: Central Discom Interest on Consumer Security Deposit - As per Regulation (Rs. Crores)

Sr. no.	Particulars	West Discom				
		FY 23	FY 24	FY 25	FY 26	FY 27
1	Interest on Consumer Security Deposit	90.06	102.01	114.47	127.45	140.99

10.2.4 Gist of Interest & Finance Charge

Gist of the Interest & Finance Charges for FY 2022-23 to FY 2026-27 is summarized as below:

Table 227: East Discom Total Interest & Finance Charges - As per Regulation (Rs. Crores)

Sr. no.	Particulars	East Discom				
		FY 23	FY 24	FY 25	FY 26	FY 27
1	Interest on Project Loans	298.35	331.81	378.42	406.83	390.39
2	Total Interest on working Capital	68.80	65.65	74.93	79.83	88.05
3	Interest on Consumer Security Deposit	50.14	52.79	55.63	58.65	61.89
4	Total Interest & Finance Charges	417.29	450.25	508.98	545.32	540.32

Table 228: Central Discom Total Interest & Finance Charges - As per Regulation (Rs. Crores)

Sr. no.	Particulars	Central Discom				
		FY 23	FY 24	FY 25	FY 26	FY 27
1	Interest on Project Loans	376.31	393.70	431.29	431.47	386.28
2	Total Interest on working Capital	53.45	47.79	52.63	56.78	59.30
3	Interest on Consumer Security Deposit	71.45	77.60	84.00	90.68	97.64
4	Total Interest & Finance Charges	501.22	519.09	567.92	578.92	543.22

Table 229: West Discom Total Interest & Finance Charges - As per Regulation (Rs. Crores)

Sr. no.	Particulars	West Discom				
		FY 23	FY 24	FY 25	FY 26	FY 27
1	Interest on Project Loans	274.15	316.97	374.98	405.58	391.22
2	Total Interest on working Capital	16.32	17.90	19.79	21.92	23.92
3	Interest on Consumer Security Deposit	90.06	102.01	114.47	127.45	140.99
4	Total Interest & Finance Charges	380.53	436.88	509.24	554.96	556.13

Table 230: Total Interest & Finance Charges at MP State Level - As per Regulation (Rs. Crores)

Sr. no.	Particulars	MP State				
		FY 23	FY 24	FY 25	FY 26	FY 27
1	Interest on Project Loans	948.82	1042.48	1184.69	1243.88	1167.89
2	Total Interest on working Capital	138.57	131.34	147.36	158.54	171.27
3	Interest on Consumer Security Deposit	211.65	232.40	254.09	276.78	300.51
4	Total Interest & Finance Charges	1299.03	1406.22	1586.14	1679.20	1639.67

10.3 Return on Equity

- 10.3.1 The Commission in its Tariff Regulations, 2021 has proposed to allow Return on Equity in two parts, i.e., Base Return on Equity and Additional Return on Equity linked to actual performance. The rate for base Return on Equity has been kept at 14% and additional Return of 2% which is linked to performance has proposed to be allowed at the time of True-up:
- 10.3.2 Petitioners understand that the purpose of bifurcating Return on Equity in two parts and allowing additional RoE is to encourage the Discoms for better performance. However, Petitioners wishes to submit that the base rate should be continued as 16% in line with previous Tariff Regulations. The Hon'ble Commission may allow additional rate of 2% over and above the proposed base rate of 16%. This will encourage the State Discoms for better performance. Reducing the base rate which is already lower as compared to other States and the RoE allowed for Central Utility will further impact the deteriorating condition of MP State Discoms. The Hon'ble Commission would appreciate the fact that the Discoms business is retail business involving sales to different categories of consumers with different paying capacity. Hence, Distribution business is the riskier business in terms of collections and losses and thus, higher return is required. Therefore, Petitioners request the Hon'ble Commission to allow base RoE at 16%. Although, in this Petition the Petitioners have considered base RoE at 14% in line with the Tariff Regulations, 2021.
- 10.3.3 The opening balance of Equity for FY 2022-23 has been considered in line with the closing balance of equity as approved by the Hon'ble Commission in its True-up Order. The addition to equity has been considered as per the capitalization proposed in this Petition for each year of the Control Period. The closing balance of equity has been arrived by adding the equity infusion to the opening balance of equity of respective year. Accordingly, the Return on Equity has been calculated on the average equity balance of the respective year as summarised in the Table below:

Table 231: Return on Equity for East Discom - As per Regulation (Rs. Crores)

Sl.N o.	Particulars	East Discom				
		FY 23	FY 24	FY 25	FY 26	FY 27
A	Gross Fixed Assets at the beginning of year (net of consumer contributions)	9,250.88	10,319.73	11,676.87	13,276.57	14,417.01
A1	Opening balance of GFA identified as funded through equity	1,999.15	2,154.12	2,302.27	2,411.51	2,467.01
B	Proposed capitalisation of assets as per the investment plan (net of consumer contribution and grant)	1,068.85	1,357.14	1,599.70	1,140.44	683.09
B1	Proportion of capitalised assets funded out of equity, internal reserves	154.98	148.14	109.24	55.51	30.56
B2	Balance Proportion of capitalised assets funded out of project loans (B - B1)	913.87	1,209.00	1,490.46	1,084.93	652.53

Sl.N o.	Particulars	East Discom				
		FY 23	FY 24	FY 25	FY 26	FY 27
C1	Normative additional equity (30% of B)	320.65	407.14	479.91	342.13	204.93
C2	Normative additional debt (70% of B)	748.19	950.00	1,119.79	798.31	478.17
D1	Excess / shortfall of additional equity over normative (B1-C1)	(165.68)	(259.00)	(370.67)	(286.63)	(174.37)
D2	Excess / shortfall of additional debt over normative (B2-C2)	165.68	259.00	370.67	286.63	174.37
E	Equity eligible for Return (A1+(C1/2)) OR (A1+(B1/2)), whichever is lower	2,076.64	2,228.19	2,356.89	2,439.26	2,482.29
F	Rate of Return in Equity	14.00%	14.00%	14.00%	14.00%	14.00%
G	Return on Equity (14% on E)	290.73	311.95	329.96	341.50	347.52

Table 232: Return on Equity for Central Discom - As per Regulation (Rs. Crores)

Sl.N o.	Particulars	Central Discom				
		FY 23	FY 24	FY 25	FY 26	FY 27
A	Gross Fixed Assets at the beginning of year (net of consumer contributions)	10,184.43	11,025.41	12,459.22	14,062.57	14,688.64
A1	Opening balance of GFA identified as funded through equity	1,884.03	2,040.30	2,175.51	2,269.33	2,366.32
B	Proposed capitalisation of assets as per the investment plan (net of consumer contribution and grant)	840.99	1,433.81	1,603.35	626.07	489.77
B1	Proportion of capitalised assets funded out of equity, internal reserves	156.27	135.21	93.82	96.99	90.62
B2	Balance Proportion of capitalised assets funded out of project loans (B - B1)	684.72	1,298.60	1,509.53	529.08	399.15
C1	Normative additional equity (30% of B)	252.30	430.14	481.00	187.82	146.93
C2	Normative additional debt (70% of B)	588.69	1,003.66	1,122.34	438.25	342.84
D1	Excess / shortfall of additional equity over normative (B1-C1)	(96.03)	(294.93)	(387.18)	(90.83)	(56.31)
D2	Excess / shortfall of additional debt over normative (B2-C2)	96.03	294.93	387.18	90.83	56.31
E	Equity eligible for Return (A1+(C1/2)) OR (A1+(B1/2)), whichever is lower	1,962.16	2,107.90	2,222.42	2,317.82	2,411.63
F	Rate of Return in Equity	14.00%	14.00%	14.00%	14.00%	14.00%
G	Return on Equity (14% on E)	274.70	295.11	311.14	324.50	337.63

Table 233: Return on Equity for West Discom - As per Regulation (Rs. Crores)

Sl.N o.	Particulars	Central Discom				
		FY 23	FY 24	FY 25	FY 26	FY 27
A	Gross Fixed Assets at the beginning of year (net of consumer contributions)	9,224.32	10,182.01	11,487.16	13,068.08	13,938.39
A1	Opening balance of GFA identified as funded through equity	1,593.10	1,666.57	1,745.74	1,831.10	1,914.67
B	Proposed capitalisation of assets as per the investment plan (net of consumer contribution and grant)	957.69	1,305.15	1,580.92	870.31	663.14
B1	Proportion of capitalised assets funded out of equity, internal reserves	73.47	79.18	85.35	83.57	82.00
B2	Balance Proportion of capitalised assets funded out of project loans (B - B1)	884.22	1,225.97	1,495.57	786.74	581.14
C1	Normative additional equity (30% of B)	287.31	391.54	474.28	261.09	198.94
C2	Normative additional debt (70% of B)	670.38	913.60	1,106.64	609.22	464.20
D1	Excess / shortfall of additional equity over normative (B1-C1)	(213.84)	(312.37)	(388.92)	(177.52)	(116.94)
D2	Excess / shortfall of additional debt over normative (B2-C2)	213.84	312.37	388.92	177.52	116.94
E	Equity eligible for Return (A1+(C1/2)) OR (A1+(B1/2)), whichever is lower	1,629.83	1,706.15	1,788.42	1,872.88	1,955.67
F	Rate of Return in Equity	14.00%	14.00%	14.00%	14.00%	14.00%
G	Return on Equity (14% on E)	228.18	238.86	250.38	262.20	273.79

10.3.4 Petitioners request the Hon'ble Commission to approve the RoE as proposed in the Table above. Any variation shall be claimed at the time of final True-up of the respective years.

10.4 Provision for Bad & Doubtful Debts

10.4.1 Regulation 37 of Tariff Regulations, 2021 provides the methodology for computation of Provision for Bad & Doubtful Debts, wherein it is stated that Bad & Doubtful Debts shall be allowed to the maximum of 1% of the yearly revenue. Accordingly, the Petitioners have claimed the expenses against bad and doubtful debts as shown in the Table below:

Table 234: East Discom Provision for Bad & Doubtful Debts- As per Regulation (Rs. Crores)

Sl.No.	Particulars	East Discom				
		FY 23	FY 24	FY 25	FY 26	FY 27
A	Bad and Doubtful Debt	130.66	141.20	152.42	161.28	172.19

Table 235: Central Discom Provision for Bad & Doubtful Debts- As per Regulation (Rs. Crores)

Sl.No.	Particulars	Central Discom				
		FY 23	FY 24	FY 25	FY 26	FY 27
A	Bad and Doubtful Debt	140.26	152.30	164.56	176.58	187.82

Table 236: West Discom Provision for Bad & Doubtful Debts- As per Regulation (Rs. Crores)

Sl.No.	Particulars	West Discom				
		FY 23	FY 24	FY 25	FY 26	FY 27
A	Bad and Doubtful Debt	179.41	195.21	209.70	224.20	237.21

10.5 Other Income & Non-Tariff Income

10.5.1 The main components of Non-Tariff Income are wheeling charges, supervision charges, sale of scrap, income from trading and miscellaneous charges from consumers as per Tariff Regulations, 2021 and as per the schedule of Miscellaneous and General Charges under MPPERC (Details to be furnished and fee payable by licensee or generating company for determination of tariff and manner of making application) Regulations, 2004 and amendments issued thereof. The Petitioner have projected their Other Income & Non-Tariff Income for FY 2022-23 to FY 2026-26 based on averaging method over various components of other income.

10.5.2 Petitioners further wishes to submit that they have considered deferred income, i.e., income booked towards the depreciation for assets created through consumer contribution and grants under their claim of Other Income since, the Petitioners have claimed depreciation on gross block of assets. Further, in line with the methodology adopted by the Hon'ble Commission in its previous True-up Order of FY 2019-20, Petitioners have not considered the waived off amount by MPPCL towards liability of wheeling charges on DISCOMs in other income.

10.5.3 Accordingly, the Other Income & Non-Tariff Income is shown below:

Table 237: East Discom Other Income & Non-Tariff Income (Rs. Crores)

Particulars	East Discom				
	FY 23	FY 24	FY 25	FY 26	FY 27
Income from Investment, Fixed & Call Deposits	8.01	7.53	7.77	7.65	7.71
Interest on loans and Advances to staff	0.00	0.00	0.00	0.00	0.00
Other Income from Trading/Sale of scrap	11.69	11.70	11.70	11.70	11.70
Interest on Advances to Suppliers / Contractors	0.00	0.00	0.00	0.00	0.00
Income/Fee/Collection against staff welfare activities	0.00	0.00	0.00	0.00	0.00
Miscellaneous receipts	84.88	81.34	83.11	82.23	82.67
Wheeling charges	0.84	0.81	0.83	0.82	0.82
Supervision charges	17.03	17.41	17.22	17.32	17.27
Recovery from theft	4.43	4.51	4.47	4.49	4.48
Meter Rent	39.81	40.78	40.30	40.54	40.42
Other Charges from Consumers	30.24	34.69	32.47	33.58	33.02
Deferred Income	226.36	233.44	280.77	325.24	360.03
Total	423.29	432.22	478.62	523.56	558.11

Table 238: Central Discom Other Income & Non-Tariff Income (Rs. Crores)

Particulars	Central Discom				
	FY 23	FY 24	FY 25	FY 26	FY 27
Miscellaneous receipts	40.74	41.57	41.16	41.36	41.26
Wheeling charges	0.54	0.76	0.65	0.70	0.67
Supervision charges	18.55	18.28	18.42	18.35	18.38
Recovery from theft	0.00	0.00	0.00	0.00	0.00
Meter Rent	36.43	37.52	36.98	37.25	37.11
Other Charges from Consumers	0.00	0.00	0.00	0.00	0.00
Utility Charges	0.62	0.89	0.75	0.82	0.79
Net gain/(loss) on disposal of stores item	8.36	8.43	8.40	8.42	8.41
Income from renting	0.00	0.00	0.00	0.00	0.00
Other miscellaneous income	5.81	5.91	5.86	5.88	5.87
Deferred Income	258.57	285.95	334.53	401.25	405.93
Total	369.61	399.31	446.73	514.03	518.42

Table 239: West Discom Other Income & Non-Tariff Income (Rs. Crores)

Particulars	West Discom				
	FY 23	FY 24	FY 25	FY 26	FY 27
Income from Investment, Fixed & Call Deposits	33.92	36.47	35.19	35.83	35.51
Interest on loans and Advances to staff	0.10	0.11	0.11	0.11	0.11
Other Income from Trading/Sale of scrap	0.00	0.00	0.00	0.00	0.00
Interest on Advances to Suppliers / Contractors	0.23	0.33	0.28	0.31	0.29
Income/Fee/Collection against staff welfare activities	0.00	0.00	0.00	0.00	0.00
Miscellaneous receipts	53.20	51.34	52.27	51.81	52.04
Wheeling charges	6.45	6.87	6.66	6.77	6.71
Supervision charges	19.37	19.95	19.66	19.80	19.73

Particulars	West Discom				
	FY 23	FY 24	FY 25	FY 26	FY 27
Recovery from theft	0.00	0.00	0.00	0.00	0.00
Meter Rent	1.77	1.87	1.82	1.84	1.83
Net gain/(loss) on disposal of stores item	6.85	6.99	6.92	6.95	6.94
Income from renting	0.00	0.00	0.00	0.00	0.00
Other miscellaneous income	59.45	61.44	60.44	60.94	60.69
Deferred Income	160.38	209.21	274.81	345.73	412.71
Total	341.72	394.57	458.16	530.09	596.57

A11: AGGREGATE REVENUE REQUIREMENT

11.1 Aggregate Revenue Requirement of MPPMCL

The table below details the Aggregate Revenue Requirement of MPPMCL. The net expenses are included as a part of Power Purchase Costs of Discom's

Table 240: Summary of ARR for MPPMCL (Rs. Crore)

Sl No.	Particulars	MYT 2022-23 to 2026-27				
		FY 23	FY 24	FY 25	FY 26	FY 27
I.	Revenue from operations (including Revenue Subsidy)	-	-	-	-	-
II.	Other income	187.74	206.52	227.17	249.88	274.87
III.	Income from other business allocated to Licensed business					
IV	Total Revenue (I + II+III)	187.74	206.52	227.17	249.88	274.87
V	Expenses:					
	Purchase of Power from MP Genco	-	-	-	-	-
	Purchase of Power from Other Sources	36.60	35.26	33.78	32.16	30.38
	Inter-State Transmission charges	47.37	52.11	57.32	63.05	69.36
	Intra-State Transmission (MP Transco) Charges	-	-	-	-	-
	SLDC Charges	-	-	-	-	-
	Depreciation and amortization expenses	7.57	7.77	7.97	8.17	8.37
	Interest & Finance Charges	262.95	289.24	318.17	349.99	384.98
	Repairs and Maintenance	3.56	3.91	4.30	4.73	5.21
	Employee costs	70.31	72.41	74.59	76.82	79.13
	Administration and General expenses	28.25	31.07	34.18	37.60	41.36
	Net prior period credit charges	-	-	-	-	-
	Other Debits, Write-offs	4.78	5.26	5.78	6.36	7.00
	Lease Rental	-	-	-	-	-
	Total Expenses	461.38	497.04	536.10	578.89	625.79
VI	Profit before exceptional and extraordinary items and tax (IV-V)	(273.6)	(290.5)	(308.9)	(329.0)	(350.9)
VII	Exceptional items	-	-	-	-	-
VII I	Profit before extraordinary items and tax (VI – VII)	(273.6)	(290.5)	(308.9)	(329.0)	(350.9)

11.2 Aggregate Revenue Requirement of Discoms

The summary of the Aggregate Revenue Requirement, Revenue from Sale of Power & Revenue (Gap)/Surplus of the DISCOM's calculated on the basis of provisions of the regulation is detailed in the table below:

Table 241: Summary of ARR of Discoms for FY 2021-22 and FY 2022-23 (Rs. Crore)

Sr. No	Particular	Unit	FY 2021-22 (RE)				FY 2022-23 (Projected)			
			MP State	East	Central	West	MP State	East	Central	West
A	Revenue									
1	Revenue from sale of power at current Tariffs	Rs Cr	41478	11927	13049	16503	44957	13066	14026	17866
B	Expenditure									
1	Purchase of Power	Rs Cr	32426	8853	9842	13732	33760	8598	9426	15735
2	MPPMCL Cost	Rs Cr								
3	Inter-State Transmission charges	Rs Cr								
4	Intra-State Transmission (MP Transco) Charges and SLDC Charges	Rs Cr	4086	1205	1435	1446	4256	1262	1487	1507
5	R&M Expense	Rs Cr	1104	406	410	288	1359	506	494	359
6	Employee Expenses	Rs Cr	4220	1396	1286	1539	3753	1323	1205	1225
7	A&G Expense	Rs Cr	368	121	115	133	385	126	120	139
8	Depreciation and Related debits	Rs Cr	1710	641	641	428	1921	715	708	498
9	Interest & Finance Charges	Rs Cr	1226	417	458	351	1299	417	501	381
10	Other Debits, Write-offs (Prior period and bad debts)	Rs Cr	416	119	130	166	450	131	140	179
11	Total Expenses	Rs Cr	45557	13157	14318	18082	47184	13079	14081	20023
12	RoE	Rs Cr	843	305	289	249	794	291	275	228
13	Total Expenses Including RoE	Rs Cr	46400	13463	14606	18331	47977	13370	14356	20251
14	Other income	Rs Cr	1073	410	349	313	1135	423	370	342
C	Total ARR	Rs Cr	45327	13052	14257	18017	46843	12947	13987	19910
D	Revenue Gap	Rs Cr	3849	1125	1209	1515	1885	-119	-40	2044
	Impact of True Up Discoms	Rs Cr					2031	1260	1253	-482
E	Total Revenue Gap (including true up if any)	Rs Cr	3849	1125	1209	1515	3916	1141	1213	1562
F	Total ARR including true up	Rs Cr	45327	13052	14257	18017	48874	14207	15239	19428
G	Average Cost of Supply Excluding True Up	Rs./kWh	7.14	6.99	7.26	7.15	7.19	7.12	7.25	7.20

Table 242: Summary of ARR of Discoms for FY 2023-24 and FY 2024-25 (Rs. Crore)

Sr. No	Particular	Unit	FY 2023-24				FY 2024-25			
			MP State	East	Central	West	MP State	East	Central	West
	Expenditure									
1	Purchase of Power	Rs Cr								
2	MPPMCL Cost	Rs Cr	36469	10658	11384	14427	39039	11409	12187	15443
3	Inter-State Transmission charges	Rs Cr								
4	Intra-State Transmission (MP Transco) Charges and SLDC Charges	Rs Cr	4339	1291	1504	1544	4512	1342	1564	1606
5	R&M Expense	Rs Cr	1626	594	580	452	2235	838	764	633
6	Employee Expenses	Rs Cr	4091	1456	1300	1335	4427	1574	1401	1452
7	A&G Expense	Rs Cr	402	132	125	145	419	137	131	151
8	Depreciation and Related debits	Rs Cr	2155	786	784	586	2508	910	896	702
9	Interest & Finance Charges	Rs Cr	1406	450	519	437	1586	509	568	509
10	Other Debits, Write-offs (Prior period and bad debts)	Rs Cr	489	141	152	195	527	152	165	210
11	Total Expenses	Rs Cr	50976	15507	16348	19121	55253	16871	17676	20706
12	RoE	Rs Cr	846	312	295	239	891	330	311	250
13	Total Expenses Including RoE	Rs Cr	51821	15818	16644	19359	56144	17201	17987	20956
14	Other income	Rs Cr	1226	432	399	395	1384	479	447	458
	Total ARR	Rs Cr	50595	15386	16244	18965	54761	16722	17540	20498

Table 243: Summary of ARR of Discoms for FY 2025-26 and FY 2026-27 (Rs. Crore)

Sr. No	Particular	Unit	FY 2025-26				FY 2026-27			
			MP State	East	Central	West	MP State	East	Central	West
	Expenditure									
1	Purchase of Power	Rs Cr								
2	MPPMCL Cost	Rs Cr	41633	12167	12997	16470	44077	12882	13759	17436
3	Inter-State Transmission charges	Rs Cr								
4	Intra-State Transmission (MP Transco) Charges and SLDC Charges	Rs Cr		4693	1396	1627	1670	4880	1452	1692
5	R&M Expense	Rs Cr		2476	921	845	709	2664	985	910
6	Employee Expenses	Rs Cr		4784	1699	1508	1577	5163	1831	1622
7	A&G Expense	Rs Cr		436	143	136	157	455	149	142
8	Depreciation and Related debits	Rs Cr		2851	1026	1010	815	3055	1108	1039
9	Interest & Finance Charges	Rs Cr		1679	545	579	555	1640	540	543
10	Other Debits, Write-offs (Prior period and bad debts)	Rs Cr		562	161	177	224	597	172	188
11	Total Expenses	Rs Cr	59115	18059	18879	22177	62532	19120	19894	23518
12	RoE	Rs Cr	928	341	324	262	959	348	338	
13	Total Expenses Including RoE	Rs Cr	60043	18400	19203	22439	63491	19467	20232	23791
14	Other income	Rs Cr	1568	524	514	530	1673	558	518	
	Total ARR	Rs Cr	58475	17877	18689	21909	61818	18909	19714	23195

A12: TARIFF PROPOSAL FOR FY 2022-23

12.1 Revenue at Current & Proposed Tariffs

- 12.1.1 It is submitted that there has not been any substantial tariff hike for the years FY 2014-15 and FY 2015-16 in the state of Madhya Pradesh which has severely affected the financial health of the Discom's. For FY 2016-17 to FY 2018-19, the Hon'ble Commission had approved an average tariff hike of 8.40%, 9.48% and 0% respectively. In FY 2019-20 & FY 2020-21, there was 7% & 2% hike respectively, whereas in FY 2021-22 there was a marginal tariff hike of 0.63% only. The Discom's are finding it extremely difficult to sustain its operations at the present tariff levels because of intrinsic rise in expenditure due to inflationary pressures, and consistent rise in power and energy demands, an ambitious normative loss reduction trajectory and benchmarks set by the Hon'ble Commission, and obligations to be met under the policy objectives of the State and Central governments.
- 12.1.2 The state of MP has a total installed capacity of approx. 23,315 MW as on 31st March 2021. With a vision of 24x7 electricity supply for all the consumers in the state, and keeping in view the expected increase in demand, the state has planned capacity additions in advance. However, the demand has not kept pace due to various reasons like Open Access, Railways exercising it right under a deemed distribution licensee status, slow industrial growth due to reasons well known, etc. over the past few years, resulting in a situation where most of the states (particularly in Western Region) including M.P. are saddled with surplus capacity which is not getting utilized.
- 12.1.3 Due to this situation, it is essential to highlight that as per the current capacity available to state, the thermal plants from almost 80% of the scheduling. Further, MPPMCL follows the Merit Order Dispatch principle as prescribed by Hon'ble Commission. It is important to mention that Renewable, Nuclear and major part of Hydel have a must-run status and therefore all the backing down is to be considered from thermal power stations. The surplus situation has led to back down of the available capacity as the prices in the exchange also are not attractive and also due to capacity constraint for inter-regional power transfer. However, the payment of fixed charges is required to be made for such generators in accordance with the PPAs. In order to respect the power purchase agreements with such generators substantial quantum of power was backed down in previous years also and the petitioner have to pay the fixed cost to the generators against power which was not availed.
- 12.1.4 With the current realization from short-term sale being lesser than the average power purchase cost, there is a need for comprehensive strategy for dealing with surplus power. As a first step to manage the surplus power, the MPPMCL has already foreclosed the PPA with DVC for 400 MW from DVC (MTPS & CTPS) and 100 MW (DTPS) w.e.f. 01st March 2018 & 15th May 2017 respectively.
- 12.1.5 Moreover, in order to increase its sales base and bring in new consumers under its ambit, several rounds of discussions have been held with Captive and Open Access consumers. The price of electricity, both in absolute and in relative terms, is an important factor in the competitiveness of industry. All Captive and Open Access Consumers have mentioned that to

retain the competitiveness the power is sourced from options other than Discom's. If the Discom can provide competitive power, they will be willing to shift their demand to Discom's. With the increase in availability of power in the State, it is necessary to increase the sale also. Hence, the licensee in their previous years petition have introduced several rebates to encourage Captive and Open Access Consumers to shift their demand to Discoms and the same have been admitted in the Tariff order of the Commission. With the existence of these rebates many Captive and OA consumers have inclined to shift their demand to Discoms. It is important to mention that increase in the consumer base would have a ripple effect on the entire consumer base of the Discom as the costs get spread over and the revenue of Discom's increases.

- 12.1.6 Furthermore, discussions have been held with Railways to bring them back to the Discom. Accordingly, rebates have been proposed for Railways in the previous Petition.
- 12.1.7 In order to bridge the revenue gap, it is necessary for the licensee to seek an appropriate hike in the tariff, up to the level as proposed and detailed in this petition. It is submitted to the Hon'ble Commission that the Petitioners have proposed sale of surplus energy at the prevailing IEX rates. The current rates are reflective of the ongoing demand-supply scenario in the country, however, in case these rates improve during the ensuing years, the Petitioners would leverage the opportunity to increase their revenue from sale of surplus power by better rates and increased sale. The petitioners have always tried to reduce the costs incurred by them to serve the consumers in its license area. The costs as mentioned in this tariff proposal petition for the year FY 2021-22 are already on the lower side and are based on the normative loss levels as specified by the Hon'ble Commission. The Petitioners submit that the actual costs run higher based on the actual loss levels experienced in its distribution network and the external network.
- 12.1.8 In view of the above submission, the Petitioners are proposing a hike of 8.71%. It would just not be possible for the Discom's to maintain its operational viability at the least, without an appropriate hike in the retail tariff sought through this petition.
- 12.1.9 A summary of the proposed tariff hike and resultant additional revenue is given in the table below:

Table 244: Summary of proposed tariff for FY 2022-23 (Rs. Crores)

Particular	Unit	MP State	East	Central	West
Total ARR	Rs Crs.	48,873	14,207	15,239	19,427
Revenue at Current Tariffs	Rs Crs.	44,957	13,066	14,026	17,866
Total Revenue Gap (incl. True-Up)	Rs Crs.	3,915	1,141	1,213	1,562
Sales	MU	67,964	19,966	21,024	26,973
Average Cost of Supply (incl. True-up)	Rs./Unit	7.19	7.12	7.25	7.20

- 12.1.10 In view of above the licensees pray to the Hon'ble Commission to consider and approve the said tariff proposal for FY 2022-23 to recover the costs for the ensuing year for the State as a whole.

12.1.11 The detailed category-wise tariff proposal is being submitted in the tariff schedules as part of the current petition. The impact on category-wise revenue due to the proposed tariff is given below:

Table 245: Category-wise proposed revenue for FY 2022-23 (Rs. Crores)

Tariff Category/ Sub-category	MP State		East Discom		Central Discom		West Discom	
	Rev. at Current Tariffs	Rev. at Proposed tariffs						
LV-1 Domestic	12659	13921	4116	4529	4000	4398	4543	4995
LV-2 Non-Domestic	3421	3573	1218	1272	962	1005	1241	1297
LV-3 Public Waterworks & Street Light	968	1066	270	297	290	320	408	449
LV-4 LT Industry	1413	1485	444	467	294	310	675	708
LV-5 Agriculture	16133	17844	4025	4448	5484	6067	6624	7329
LV-6 EV Charging	2	2	0	0	1	1	1	1
TOTAL – LT	34596	37891	10073	11013	11031	12101	13492	14778
HV-1 Railway Traction	80	80	41	41	39	39	0	0
HV-2 HV 2: Coal Mines	482	507	455	479	27	29	0	0
HV-3.1 Industrial Use	5342	5385	1443	1478	1472	1470	2427	2437
HV-3.2 Non-Industrial	780	844	78	118	318	328	385	398
HV-3.3 Shopping Mall	111	115	27	28	39	41	44	46
HV-3.4 Power Intensive Industries	2179	2471	656	731	763	868	760	872
HV-4 Seasonal & Non Seasonal	20	21	8	9	2	2	10	10
HV-5 PWW Works & Other Agri.	1034	1195	102	110	223	239	708	846
HV-6 Bulk Residential Users	306	335	180	198	105	115	20	22
HV-7 RECs/Synchro of power for Generator connected to Grid	24	25	1	1	6	6	18	18
HV-8 EV Charging	4	4	1	1	2	2	1	1
TOTAL - HT	10362	10982	2993	3194	2996	3138	4373	4649
TOTAL (LT+HT)	44957	48873	13066	14207	14026	15239	17866	19427

12.2 Salient Features of the Tariff Proposal

In order to meet out the Revenue gap, the licensees have proposed nominal hike in tariff rates along with certain changes in general terms and conditions of LT and HT tariff. The proposed schedule of the Retail Tariff for FY 2022-23 is enclosed with this petition.

The salient features of the proposed changes are as elaborated below:

- In LV-1 Domestic Category Tariff for Supply through DTR meter as specified in schedule LV1.2 has been proposed to be abolished.***

Reasons for proposed changes:

As there are no beneficiaries under this category thus there is no rational to continue with this tariff sub-category.

2. *In LV-4.2 Seasonal Tariff Category the maximum period of season mentioned as 180 days continuously is proposed to “6 continuous Billing months”*

Reasons for proposed changes:

Since billing is being done based on billing months hence such period should be in terms of month instead of days.

3. *Modification in applicability clauses of LV-5.1 and LV-5.2 Tariff Sub-categories by merging the applicability of connections for farms growing flowers/plants/fruits/sapling in LV-5.1 and deleting it from LV-5.2*

Reasons for proposed changes

Practically it is very difficult to restrict the use of power for specific purposes of agricultural irrigation. Agriculture consumers are often cultivating flowers along with the regular crop on the same farm and it is not feasible to install separate connections for separate crops.

4. *In General Terms and Conditions of LT Tariff clause 6(i) is proposed to be modified by introducing additional Energy Charges for excess Connected Load or Excess Demand beyond 120% of CD at the rate 1.3 times the Normal Energy Charges.*

Reasons for proposed changes

For consumption corresponding to the excess demand in excess to the CD of consumers the licensee has to procure costlier power from generators hence some portion of such burden is to be shared by those Consumers who exceeds the maximum demand over and above 120% of CD as provided in the Tariff order.

5. *Amendment in clause 7(e) of General Terms & Conditions of LT Tariff.*

Reasons for proposed changes

In view of above and in order to have clarity in providing the Power factor incentive to the actually eligible consumers in line with the provisions of Supply Code 2013, the petitioners are submitting to amend the existing clause 7 (e) of the General terms and Conditions for LT Tariff.

6. *Continuation of Rebate of Rs 1/- per unit on incremental consumption of existing Consumers of HV-3 Category.*

Reasons for proposed changes

Since, the Petitioners have estimated energy surplus scenario for FY 2022-23 and also considering the adverse impact of Covid-19 lockdown on Industrial consumers, it is proposed to continue the incremental rebate of Rs 1 per unit on Energy charges for incremental energy as compared to the corresponding month in FY 2015-16.

7. *Continuation of Rebate of Rs 2/- per unit on incremental consumption of Captive power plants consumers of HV-3 Category.*

Reasons for proposed changes

Since, the Petitioners have estimated energy surplus scenario for FY 2022-23 and also considering the adverse impact of Covid-19 lockdown on Industrial consumers, it is proposed to continue the incremental rebate of Rs 2 per unit on Energy charges till FY 2022-23, on incremental energy of HV-3 category consumers having captive power plants subject to reduction in captive generation.

- 8. Continuation of Rebate of Rs 1/- per unit on incremental consumption of Open Access consumers of HV-3 Category.**

Reasons for proposed changes

Since, the Petitioners have estimated energy surplus scenario for FY 2022-23 and also considering the adverse impact of Covid-19 lockdown on Industrial consumers, it is proposed to continue the incremental rebate of Rs 1 per unit on Energy charges on incremental energy of HV-3 category consumers subject to corresponding reduction from Open Access.

- 9. Continuation of Rebate of Rs 1/- per unit or 20% whichever would be less, for new service connection under HV-3 Category.**

Reasons for proposed changes

Since, the Petitioners have estimated energy surplus scenario for FY 2022-23 and also considering the adverse impact of Covid-19 lockdown on Industrial consumers, it is proposed to continue the rebate of Rs 1 per unit or 20% whichever would be less applicable in energy charges for new connection for the consumption recorded.

- 10. Rebate for supply through feeders feeding supply to predominantly rural area to be abolished**

Reasons for proposed changes:

It is stated that HT consumers are receiving supply through Industrial feeders which are having supply 24x7 and as of now no framework exists for classification of feeders as Urban or Rural. This leads to avoidable disputes with consumers regarding applicability of above-mentioned rebate. In fact, many consumers have approached forum for adjudication of such disputes. It is further stated that other rebates to promote consumption from Discom are provided to consumers.

- 11. Amendment in applicability clause for HV-3.4 Tariff Sub-category for Power Intensive Industries.**

Reasons for proposed changes:

In view of ambiguity arisen in case of consumers under this categories using coal furnaces for heating and metal of Iron and Steel, the applicability clause of Power intensive

consumers has been proposed to be amended for “Melting and heating of Iron and Steel” using **Electric furnaces** only.

- 12. For supply at 33/11 kV Contract Demand up to 100kVA:** the existing TMM of 600 units per KVA of CD under Clause (a) Specific Terms and Conditions of HV-3 Category, is proposed to be billed at 1.5 times for that particular month, when the recorded MD of such connection exceeds CD during two billing months in a financial year.

Reasons for proposed changes:

The relaxed Tariff Minimum consumption of 600 units per kVA of CD is meant for Consumers up to 100kVA only. Hence for connections where MD is exceeding the CD frequently i.e. during two billing month in a financial year are proposed to be billed a Tariff minimum consumption of 1.5 times the existing TMM for that particular month.

- 13.** The existing rebate of Rs. 1 per unit in Energy Charge for conversion of existing LT Industrial/Non-Domestic Connection to corresponding HT connection is proposed to be continued for this tariff period.

- 14.** *In General Terms and Conditions of HT Tariff clause 1.15 is proposed to be modified by introducing additional Energy Charges for excess Connected Load or Excess Demand beyond 120% of CD at the rate 1.3 times the Normal Energy Charges.*

Reasons for proposed changes

For consumption corresponding to the excess demand in excess to the CD of consumers the licensee has to procure costlier power from generators hence some portion of such burden is to be shared by those Consumers who exceeds the maximum demand over and above 120% of CD as provided in the Tariff order.

- 15.** *The Discoms proposes to change sub-clause (f) of Clause 1.19 meant for Temporary supply at HT in General Terms and Conditions of HT Tariff by introducing Deemed Contract Demand Concept for existing HT Consumers requesting Temporary supply within the premises of existing HT connection.*

Reasons for proposed changes

In the present Tariff as there is no methodology of separation of billing for CD of permanent connection and sanctioned demand for temporary connection. Therefore, some disputes are arising in billing of temporary connection given through existing permanent existing connection. In view of the above, aforesaid method of assessment is being proposed for FY 2022-23.

Framework for Prepaid Metering:

In the absence of framework for implementation of prepaid metering, the Petitioners have proposed rebate of Rs. 0.25/kWh for opting prepaid tariff in LV 1 and LV 2 categories instead of proposing separate prepaid tariff.

With regard to above, it is requested to the Hon’ble Commission, suitable enabling provision for implementation of prepaid metering may please be issued.

A13: VOLTAGE WISE COST OF SUPPLY

Commissions Directives

- 13..1 The Hon'ble MPERC has directed the Discom's of MP to determine the voltage wise cost of supply in its previous Tariff Order's. The Hon'ble Commission referred to the judgment passed by Appellate Tribunal for Electricity (APTEL) in Appeal No. 103 of 2010 & IA Nos. 137 & 138 of 2010 regarding determination of voltage level wise Cost of Supply.
- 13..2 Until 100% DTR Meterization is complete, the computation of losses for 11kV and LT system separately is a very cumbersome task. However, it is submitted that for determination of Voltage wise cost of supply, the judgment passed by Appellate Tribunal for Electricity (APTEL) in Appeal No. 103 of 2010 & IA Nos. 137 & 138 of 2010 may please be perused.
- 13..3 The extract of APTEL's order is elaborated as below.

Extract of APTEL's order

"32. Ideally, the network costs can be split into the partial costs of the different voltage level and the cost of supply at a voltage level is the cost at that voltage level and upstream network. However, in the absence of segregated network costs, it would be prudent to work out the voltage-wise cost of supply taking into account the distribution losses at different voltage levels as a first major step in the right direction. As power purchase cost is a major component of the tariff, apportioning the power purchase cost at different voltage levels taking into account the distribution losses at the relevant voltage level and the upstream system will facilitate determination of voltage wise cost of supply, though not very accurate, but a simple and practical method to reflect the actual cost of supply.

33. The technical distribution system losses in the distribution network can be assessed by carrying out system studies based on the available load data. Some difficulty might be faced in reflecting the entire distribution system at 11 KV and 0.4 KV due to vastness of data. This could be simplified by carrying out field studies with representative feeders of the various consumer mix prevailing in the distribution system. However, the actual distribution losses allowed in the ARR which include the commercial losses will be more than the technical losses determined by the system studies. Therefore, the difference between the losses allowed in the ARR and that determined by the system studies may have to be apportioned to different voltage levels in proportion to the annual gross energy consumption at the respective voltage level. The annual gross energy consumption at a voltage level will be the sum of energy consumption of all consumer categories connected at that voltage plus the technical distribution losses corresponding to that voltage level as worked out by system studies. In this manner, the total losses allowed in the ARR can be apportioned to different voltage levels including the EHT consumers directly connected to the transmission system of GRIDCO.

The cost of supply of the appellant's category who are connected to the 220/132 KV voltage may have zero technical losses but will have a component of apportioned distribution losses due to difference between the loss level allowed in ARR (which includes commercial losses)

and the technical losses determined by the system studies, which they have to bear as consumers of the distribution licensee.

34. Thus Power Purchase Cost which is the major component of tariff can be segregated for different voltage levels taking into account the transmission and distribution losses, both commercial and technical, for the relevant voltage level and upstream system. As segregated network costs are not available, all the other costs such as Return on Equity, Interest on Loan, depreciation, interest on working capital and O&M costs can be pooled and apportioned equitably, on pro-rata basis, to all the voltage levels including the appellant's category to determine the cost of supply. Segregating Power Purchase cost taking into account voltage-wise transmission and distribution losses will be a major step in the right direction for determining the actual cost of supply to various consumer categories. All consumer categories connected to the same voltage will have the same cost of supply. Further, refinements in formulation for cost of supply can be done gradually when more data is available."

13.4 It is most humbly submitted, that the above mentioned order of APTEL has been challenged in the Hon'ble Supreme Court of India by the Respondents in the case and the matter is under consideration before the Apex Court. However, as per the directives of the Hon'ble Commission the Discom's submit the details of calculation of the voltage wise cost of supply as per the methodology provided by the APTEL.

13.5 Voltage-wise Losses

13.5.1 It is submitted that the MPERC Tariff Regulations do not provide segregation of normative losses for the Distribution Licensees into voltage wise normative losses in respect of technical and commercial losses. Therefore, the Petitioners face difficulty in segregation of normative losses in voltage level wise technical and commercial losses.

13.5.2 Determination of voltage-wise losses would require detailed technical studies of the Distribution network of the three Discoms. For the purposes of illustrative computation of voltage-wise Cost of Supply, the petitioners have assumed voltage-wise losses; the data therein is not verified and so should not be relied upon.

13.6 Methodology

13.6.1 The Discoms have proposed the methodology for Voltage-wise Cost of Supply computation for three categories, namely:

- ✓ EHT System (400 kV, 220 kV and 132 kV)
- ✓ 33 KV System
- ✓ 11 KV + LT System

13.6.2 For determination of Voltage-wise Cost of Supply, the proposed methodology involved the following steps:

- ✓ Determine the voltage-wise Sales for three voltage levels.

- ✓ Projection of voltage-wise loss levels based on historical numbers. It is pertinent to mention here that the loss levels so determined are on assumption basis and it would require a detailed technical study of the Distribution Network for the technical verification of the same. The Inter-state PGCIL and Intra-state MPPTCL losses are allocated to the EHT System (400 kV, 220 kV and 132 kV).
- ✓ It may also be noted that the percentage of EHT losses allocated to the three Discom's are different due to the fact that different generating stations are assigned to the different Distribution company and each draws its power from different 132 kV substation.
- ✓ Determine the voltage-wise energy input based on sales and the losses. The sales numbers have been escalated by the T&D loss% of the current voltage level as well as the next higher voltage level.
- ✓ Since the breakup of technical and commercial losses at 11 kV +LT system is not available, 50% of the total loss at this voltage level has been assumed as purely technical loss and remaining 50% loss has been assumed as commercial loss which has been loaded to various voltage levels in the proportion of their sales.
- ✓ The total Power Purchase Costs of each Discom is allocated to the three voltage levels based on the voltage-wise input energy. All other costs of the Discom are allocated based on the sales to each voltage-level.
- ✓ Non-tariff income has been assumed to be part of the revenue from 11 kV + LT, 33kV and EHT voltage levels.
- ✓ Sum of total costs (less non-tariff income) divided by net energy input gives the voltage wise cost of supply for the respective voltage level.

13.7 Computation of VCoS for MP State and Discom

The calculation for Voltage wise Cost of Supply for MP State and Discom's is as shown below:

Table 246: Cost of Supply Calculation for MP State for FY23

Sr. No	Particulars	UoM	Formulae	EHT System (400 kV, 220 kV & 132 kV)	33 KV System	11 KV + LT System	Total
A	MP State						
1	Sales	MUs		5,578	7,974	54,411	67,964
2	Loss %	%		4.46%	3.98%	8.92%	14.68%
3	Energy Input	MUs		5,839	8,692	65,123	79,654
4	Energy Lost (Technical up to 33 kV voltage & 11 kV +LT technical and Commercial)	MUs	4=3-1	260	718	10,712	
5	Commercial Loss assumed as 50% of 11 kV and LT overall losses	MUs				5,356	
6	Balance 50% Commercial loss for all voltage in proportion to Sales	MUs		440	628	4,288	
7	Net Energy Input	MUs	7=1+4+6	6,278	9,320	64,055	79,653
8	Power Purchase Costs - allocated based on voltage-wise losses	Rs Cr		2,996	4,448	30,571	38,016

Sr. No	Particulars	UoM	Formulae	EHT System (400 kV, 220 kV & 132 kV)	33 KV System	11 KV + LT System	Total
9	Other costs - allocated based on voltage-wise sales	Rs Cr		818	1,169	7,974	9,960
10	Less: Other income - allocated based on voltage-wise sales	Rs Cr		93	133	908	1,135
11	Total Costs (ARR requirement)	Rs Cr	11=8+9-10	3,721	5,484	37,637	46,842
12	Average Cost of Supply	Rs/kWh	12=11/1*10	6.67	6.88	6.92	6.89

Table 247: Cost of Supply Calculation for East Discom for FY23

Sr. No	Particulars	UoM	Formulae	EHT System (400 kV, 220 kV & 132 kV)	33 KV System	11 KV + LT System	Total
A	East Discom						
1	Sales	MUs		1,939	1,804	16,223	19,966
2	Loss %	%		4.50%	2.75%	15.20%	17.69%
3	Energy Input	MUs		2,031	1,942	20,284	24,257
4	Energy Lost (Technical upto 33 kV voltage & 11 kV + LT technical and Commercial)	MUs	4=3-1	91	138	4,060	
5	Commercial Loss assumed as 50% of 11 kV and LT overall losses	MUs				2,030	
6	Balance 50% Commercial loss for all voltage in proportion to Sales	MUs		197	183	1,650	
7	Net Energy Input	MUs	7=1+4+6	2,228	2,126	19,903	24,257
8	Power Purchase Costs - allocated based on voltage-wise losses	Rs Cr		906	864	8,091	9,861
9	Other costs including true up adjustment - allocated based on voltage-wise sales	Rs Cr		341	317	2,851	3,509
10	Less: Other income - allocated based on voltage-wise sales	Rs Cr		41	38	344	423
11	Total Costs (ARR requirement)	Rs Cr	11=8+9-10	1,205	1,143	10,598	12,946
12	Average Cost of Supply	Rs/kWh	12=11/1*10	6.22	6.34	6.53	6.48

Table 248: Cost of Supply Calculation for Central Discom for FY23

Sr. No	Particulars	UoM	Formulae	EHT System (400 kV, 220 kV & 132 kV)	33 KV System	11 KV + LT System	Total
A	Central Discom						
1	Sales	MUs		1,645	2,189	17,190	21,024
2	Loss %	%		4.38%	2.22%	29.74%	18.01%
3	Energy Input	MUs		1,720	2,341	21,580	25,641
4	Energy Lost (Technical upto 33 kV voltage & 11 kV +LT technical and Commercial)	MUs	4=3-1	75	152	4,390	
5	Commercial Loss assumed as 50% of 11 kV and LT overall losses	MUs				2,195	
6	Balance 50% Commercial loss for all voltage in proportion to Sales	MUs		172	229	1,795	
7	Net Energy Input	MUs	7=1+4+6	1,892	2,569	21,179	25,641
8	Power Purchase Costs - allocated based on voltage-wise losses	Rs Cr		805	1,093	9,013	10,912
9	Other costs - allocated based on voltage-wise sales	Rs Cr		269	359	2,816	3,444
10	Less: Other income - allocated based on voltage-wise sales	Rs Cr		29	38	302	370
11	Total Costs (ARR requirement)	Rs Cr	11=8+9-10	1,046	1,414	11,527	13,986
12	Average Cost of Supply	Rs/kW h	12=11/1*10	6.36	6.46	6.71	6.65

Table 249: Cost of Supply Calculation for West Discom for FY23

Sr. No	Particulars	UoM	Formulae	EHT System (400 kV, 220 kV & 132 kV)	33 KV System	11 KV + LT System	Total
A	West Discom						
1	Sales	MUs		1,994	3,981	20,998	26,973
2	Loss %	%		4.48%	5.47%	28.01%	9.35%
3	Energy Input	MUs		2,088	4,409	23,259	29,756
4	Energy Lost (Technical upto 33 kV voltage & 11 kV +LT technical and Commercial)	MUs	4=3-1	94	428	2,261	
5	Commercial Loss assumed as 50% of 11 kV and LT overall losses	MUs				1,131	
6	Balance 50% Commercial loss for all voltage in proportion to Sales	MUs		84	167	880	

Sr. No	Particulars	UoM	Formulae	EHT System (400 kV, 220 kV & 132 kV)	33 KV System	11 KV + LT System	Total
7	Net Energy Input	MUs	7=1+4+6	2,171	4,576	23,009	29,756
8	Power Purchase Costs - allocated based on voltage-wise losses	Rs Cr		1,258	2,652	13,333	17,243
9	Other costs - allocated based on voltage-wise sales	Rs Cr		222	444	2,342	3,008
10	Less: Other income - allocated based on voltage-wise sales	Rs Cr		25	50	266	342
11	Total Costs (ARR requirement)	Rs Cr	11=8+9-10	1,455	3,045	15,409	19,909
12	Average Cost of Supply	Rs/kWh	12=11/1*10	7.30	7.65	7.34	7.38

A14: CROSS SUBSIDY SURCHARGE AND ADDITIONAL SURCHARGE

14.1 Cross Subsidy Surcharge

- 14.1.1 The Tariff Policy provides for the determination of cross-subsidy surcharge for various categories of consumers. It is pertinent to mention here that Discoms have employed Merit-order dispatch while scheduling power from various stations so as to procure the cheapest power available. Also the Petitioners have also considered backing down of units/stations where variable cost is more than Rs 3.45 per unit as decided by MPPMCL to ensure that power procured from cheaper sources is fully utilized and to avoid procurement of power from costlier sources. The resultant benefit of reduced power procurement cost is in turn being passed on to the consumers, along with back down of few stations.
- 14.1.2 Hence, in light of above, the petitioners submit that the basis for determination of the aforementioned cross-subsidy surcharge to be taken as per provisions of National Tariff Policy 2016.
- 14.1.3 The Hon'ble Commission has determined the average tariff based on the power purchase cost as per previous year's available data. Any variation on account of such change in fuel cost is also passed on to the consumer through FCA, which will result in an increase in average tariff by FCA amount. Therefore, it will be appropriate to increase the cross subsidy surcharge to the extent of FCA charges payable for a particular period.

14.2 Additional Surcharge

- 14.2.1 The Licensees submit that the National Tariff Policy 2016 also provides for the determination of additional surcharge to be levied from consumers who are permitted open access.
- 14.2.2 The Petitioners would like to submit that financial position of the Discoms are getting constrained due to eligible consumers opting for open access. There has been an increase in quantum and number of consumers opting for open access over the last few years. With this shift of consumers to open access, the power remains stranded and the Discom's have to bear the additional burden of capacity charges of stranded power to comply with its Universal Supply Obligation.
- 14.2.3 The Petitioner would further like to submit that in other states also, separate orders for levy of additional surcharges have been passed by respective Commission after considering the impact of shift by open access consumers and based on other data with due prudence check.
- 14.2.4 In light of the provisions specified in the clause 5.8.3 of the National Electricity Policy, Section 42(4) of the Electricity Act 2003 besides relevant clause 13.1 of MPERC (Term & conditions for Open Access in MP) Regulations, 2005 and determined additional surcharge on a yearly basis for Open Access consumers of the State in addition to levy of Cross subsidy surcharge specified in Tariff policy 2016 on the basis of latest data for previous 12 months commencing from September 2020 to August 2021.

14.2.5 The Petitioner has computed the additional surcharge by considering the weighted average monthly fixed rate of surrendered power, which is based on daily weighted fixed rate of the generating station in the surrendered power. The Petitioner worked-out additional surcharge is shown in the table below:

Table 250: Additional Surcharge for FY 2022-23

Sl no	Months	Energy entitlement (MU)	Energy Scheduled (MU)	Energy Surrendered (MU)	Effective Fixed Cost Applied (Rs/Unit)	OA Units (MU)	Cost of Back Energy Surrendered due to Open Access (Rs. Cr.)
1	2	3	4	5=3-4	6	7	8=(7*6)
1	Sep-20	5,736.50	4,624.32	1,112.19	1.31	44.53	5.81
2	Oct-20	6,366.91	5,552.34	814.57	1.41	46.57	6.56
3	Nov-20	6,851.43	5,948.10	903.32	1.72	45.32	7.78
4	Dec-20	6,986.84	5,936.68	1,050.17	1.58	66.54	10.36
5	Jan-21	7,377.39	6,269.30	1,108.09	1.81	47.98	8.67
6	Feb-21	6,027.31	5,501.57	525.74	1.66	33.49	5.57
7	Mar-21	7,085.87	6,418.67	667.21	1.52	43.26	6.58
8	Apr-21	6,818.41	6,147.33	671.08	1.64	34.03	5.56
9	May-21	6,025.22	4,982.92	1,042.30	1.23	32.74	4.03
10	Jun-21	5,216.93	4,497.27	719.66	1.38	40.37	5.58
11	Jul-21	5,952.45	5,420.50	531.95	1.61	41.52	6.68
12	Aug-21	5,364.43	4,991.98	372.44	1.54	38.06	5.84
Total		75,809	66,290	9,518.72		514.40	79.04
Additional Surcharge on OA Consumers (Rs./Unit)=(8/7)							1.54

14.2.6 The Petitioner has thus determined the additional surcharge of Rs 1.54 per unit on the power drawn by the Open Access consumers from the date of issuance or applicability of this Retail Supply Tariff Order by the Hon'ble Commission. The detailed calculation of additional surcharge along with the other details is being submitted in softcopy along with this Petition.

A15: MANNER OF BILLING OF DOMESTIC NET METERED CONSUMERS

- 15.1 As per MPERC (Grid Connected Net Metering) Regulations 2015 notified on 14th October 2015 and amendments issued therein, net metering facility has to be made available to Consumers. To incorporate the provisions of Net Metering Regulations for giving credit of energy through billing software, procedure for same is required to be incorporated in the Tariff Order, so that the same can be uniformly applied in all the three Discoms of MP.

The following process needs to be followed:

- i. Manner of billing of fixed charges to the net metered domestic Consumer.
- ii. Applicable slab / Tariff for billing of net import units to the net metered consumer.
- iii. Applicability of subsidy.

The detailed explanations of some of the key points are explained below:

15.2 Manner of billing of fixed charges to the net metered domestic Consumer:

As per the Tariff Order for FY 2021-22, the authorized load of Domestic consumer is required to be calculated based on the units consumed i.e. 15 units treated as 0.1 kW of authorized load. Therefore, for levy of fixed charges, connected load should be calculated based on the total energy imported from grid by net metering consumer. An illustration clarifying above is given below: -

Table 251: Computation of Authorized load for a net metered domestic Consumer

Sr. no.	Month	Import	Export	Net Read (+Import/-Export)	Authorized Load (in kW)
A	B	C	D	E	F
1	April	95	100	-5	0.70
2	May	215	200	15	1.50
3	June	315	300	15	2.10
4	July	395	400	-5	2.70
5	August	530	100	430	3.60
6	September	650	200	450	4.40
7	October	725	300	425	4.90
8	November	400	400	0	2.70
9	December	100	500	-400	0.70
10	January	1045	1500	-455	7.00
11	February	1132	200	935	7.60
12	March	400	800	-400	2.70

In the above table, authorized load should only be calculated based on total drawl of power from the grid without any netting of injected units.

15.3 Applicable slab/Tariff for billing of net import:

In the tariff order, for the purpose of billing, different slabs are provided based on the consumption pattern of consumer. For example, in case LV-1.2 category following slabs are prescribed in the tariff order of FY 2021-22:

Table 252: Domestic Tariff as per Tariff order FY-22

Monthly Consumption Slab(units)	Energy Charge with telescopic benefit (paisa per unit)	Monthly Fixed Charge (Rs)	
		Urban areas	Rural areas
Up to 50 units	413	64 per connection	50 per connection
51 to 150 units	505	109 per connection	90 per connection
151 to 300 units	645	24 for each 0.1 kW of authorized load	21 for each 0.1 kW of authorized load
Above 300 units	665	25 for each 0.1 kW of authorized	24 for each 0.1 kW of authorized

In the scenario of net metering, only net units (net of import & export units) are required to be billed to the consumer. Therefore, in view of different slabs with telescopic benefit, it is decided that netting of import & export units shall also be done slab wise and remaining units shall be billed in the respective higher slab. An illustration clarifying above is given below: -

Sr. no.	Month	Import	Export	Net Read (3-4)	Billed units	Up to 50 Units	51-150 Units	151-300 Units	Above 300 Units
1	2	3	4	5	6	7	8	9	10
1	April	95	100	-5	0	0	0	0	0
2	May	215	200	15	10			10	
3	June	315	300	15	15				15
4	July	395	400	-5	0	0	0	0	0
5	August	530	100	430	425			200	225
6	September	650	200	450	450			100	350
7	October	725	300	425	425				425
8	November	400	400	0	0	0	0	0	0
9	December	100	500	-400	0	0	0	0	0
10	January	1045	1500	-455	0	0	0	0	0
11	February	1132	200	932	77 (932-855)				77
12	March	400	800	-400	(-) 400*APPC	0	0	0	0

APPC → Average Power Purchase Cost

A16: POWER PURCHASE COST ADJUSTMENT (PPCA)

- 16.1 The existing Fuel Cost Adjustment (FCA) recovery mechanism is a quarterly based mechanism wherein MPPMCL works out the FCA charges on quarterly basis and submits the detailed calculation before the Hon'ble Commission for its approval. The Hon'ble Commission subsequently approves the FCA charges which is then allowed to levy on the retail consumers of the Licensees. The Petitioner wishes to submit that the existing FCA recovery mechanism involving prior approval of the Hon'ble Commission is delaying the recovery of legitimate costs incurred towards purchase of power which results in substantial higher working capital requirements by the DISCOMs.
- 16.2 Further, for the ensuing years of next Control Period, the recovery of FCA charges is governed by Regulation 9 of the Madhya Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Supply and Wheeling of Electricity and Methods and Principles for Fixation of Charges) Regulations, 2021 notified on 3 December 2021. The provisions of the said Regulation are similar to existing FCA recovery mechanism, the relevant extract of which is as reproduced below:

9.1. The Fuel Cost Adjustment (FCA) formula has been specified as provided in Section 62(4) of the Act, for recovery/adjustment of increase or decrease in power purchase cost on quarterly basis. The formula for deriving FCA for recovery/adjustment of uncontrollable costs due to increase or decrease in the cost of fuel in case of coal, oil, and gas based generating plants is as under:

FCA for billing quarter (in paise per unit) = {IVC (in Rs. Crore) x 1000} ÷ Normative Sale (in MU)

Where:

IVC = sum of – (a) difference in per unit variable cost actually billed by each long-term coal or gas-based power generator and variable cost as allowed in the Tariff Order, multiplied by (b) units availed from each such generating station in the Preceding Quarter. Variable costs of Hydel Generating Stations shall not be considered for the purpose of working out the increase in variable Cost of Power Purchase;

Preceding Quarter = the period of preceding three months excluding the period of two months immediately preceding to the Billing Quarter;

Billing Quarter = the period of three months for which FCA is to be billed and shall be a period commencing on first day to last day of quarter for the quarter commencing from 1st April ending 30th June and so on;

Normative Sale = the sale grossed down from the total actual ex-bus drawal from all sources (Generators + Other sources) during Preceding Quarter by the actual transmission (inter-State and intra-State) losses and normative distribution losses as approved by the Commission.

Illustration: If the “billing quarter” is say “July to Sept”, then the “preceding quarter” shall mean the period “Feb to April” and the period of May and June months is allowed to collect the data/details and finalization of FCA charge.

9.2. FCA shall have to be computed on the basis of the normative parameters as per Tariff Orders of respective generating stations, as issued by the appropriate Commissions. Further variation, if any, shall need prior approval of the Commission.

.....

.....

9.5. M.P. Power Management Company Limited shall compute change in variable cost of power purchase during the Preceding Quarter based on the bills received by them from the long-term coal, oil and gas-based Generators. The information shall be prepared in the following manner for every month of the Preceding Quarter and summated thereafter for the quarter:

.....

.....

9.7. FCA charge shall be computed by the M.P. Power Management Company Limited and details shall be submitted to the Commission for verification at least 15 days before the commencement of the Billing Quarter mandatorily. After approval of the Commission, FCA charge shall be leviable in the Billing Quarter.

9.8. The Distribution Licensees shall commence billing of FCA charge from the first day of the Billing Quarter. {Emphasis Added}

16.3 From the above, it can be seen that as per the existing as well as ensuing mechanism, the FCA charges of say 'n' month is allowed to get levied on 'n+4' month.

Following illustration is given for the purpose of understanding:

Let 'February' be the 'n' month for which the power has been procured. The generator or transmission company will raise the bills on immediate next month, i.e., in 'March' and the Discoms are obligated to pay to generators within stipulated time. Further, as the present mechanism is quarterly based, therefore the FCA is calculated after completion of quarter. As per the existing provision the billing quarter shall be 'July to September' and the period of 'May and June' is allowed to collect the data/details and finalization of FCA charges. Thus, FCA of February month say 'n' is get levied in the billing month of 'July' which is 'n+4'.

16.4 Petitioner wishes to submit that the generating companies have been raising bills on monthly basis and as per the governing provision of respective PPAs, DISCOMs are obligated to pay the generators or transmission companies within stipulated time. However, the recovery of the same from retail consumers of DISCOMs happened generally after 4 to 5 months. As against this DISCOMs were allowed only 2 months of normative working capital requirements in its Aggregate Revenue Requirement (ARR). This results in additional interest cost on account of additional working capital requirements due to delay in recovery of the same beyond the normative time period which is ultimately resulting in increased power purchase cost for end consumers.

16.5 Further, the formula specified for computation of the FCA does not capture the total power purchase cost. It covers only variable charge component of the total power purchase costs. The

DISCOMs therefore deprived the opportunity to recover the variation in total power purchase cost through the levy of a FCA every quarter and they have been accumulating the variations on account of power purchase costs till the end of the respective year, till the accounts are finalized, audited and certified which is causing a financial burden to the DISCOMs. Further, at the time of True-up of respective cost, DISCOMs were also not allowed to claim carrying cost against this unrecovered cost since there is no provision of carrying cost provided in the existing Tariff Regulations.

- 16.6 In addition, the prevailing FCA formula does not cover the recovery of incremental power purchase cost wherein power purchase has been made due to factors beyond their control. This includes shortage in supply from the identified power supply sources in the Tariff Order requiring them to purchase power at a higher price from the power market or other sources to meet the demand. DISCOMs in their Tariff Petition have been regularly requesting the Hon'ble Commission to address the aforesaid issues by providing suitable amendments to FCA formula. The relevant extract from the Tariff Order for FY 2021-22 is as reproduced below:

A4: FUEL COST ADJUSTMENT CHARGE

Petitioners' submission

.....

4.2 They have further submitted that quantum of power purchase may not be restricted on the basis of normative loss levels, as the Petitioners have to meet the power demand of the consumers according to obligation to supply mandated under the Electricity Act, 2003. It is also submitted that in the given operating conditions of the power system, the quantum of energy and the power demand are more or less uncontrollable variables. It is submitted that for the purpose of tariff determination, the average power purchase cost per unit based on the prudent cost may be considered. The Petitioners have also submitted the interpretation that the cost based on the average power purchase cost per unit on the quantum of power based on normative loss should be passed on to the consumer and any cost in excess of that should be borne by the Petitioners. It is also averred that the methodology of passing on full fixed cost element of the power purchase cost to consumers as a legitimate cost shall maintain proper balance between the interests of consumers and the Petitioners, since it is based on overall averaging method and impact of all the factors over an annual cycle are covered and distributed equitably.

4.3 The Petitioners have submitted that in view of the aforementioned facts and as per the Regulations, it will be more appropriate to design single formula for recovery of FCA charge simultaneously with incremental power purchase cost. The Petitioner submitted that average power purchase cost should be considered instead of the variable costs only, and proposed the following formula:

$$\text{PPCA for billing quarter (p/u)} = \text{APPC (Rs. Crore)} \times 100 / \text{Normative Sale (MU)}$$

- 16.7 The Hon'ble Commission in its ruling in Tariff Order for FY 2021-22 has also acknowledged that the regulations do have provisions for allowing incremental power purchase costs in addition to the levy of FCA. However, the Hon'ble Commission has decided not to pass through any additional burden giving rationale that a substantial portion on account of increase/decrease in power purchase costs is taken care of by levy of FCA as allowed by the Hon'ble Commission.

The relevant extract from the said Order is as reproduced below:

Commission's analysis

4.11 The Commission has considered the submissions made by the Petitioners. The relevant Regulations have provision for allowing incremental power purchase costs in addition to the levy of FCA. However, at this juncture, the Commission is of the opinion that only FCA can be allowed to be recovered / adjusted and any further additional burden on the consumers during the Tariff period may not be warranted. Any additional costs on this account would be considered after due prudence check at the time of true up. Moreover, a substantial portion on account of increase/decrease in power purchase costs is taken care of by levy of FCA. The Commission therefore decides to continue with levy of FCA charge to be mandatorily filed by the Petitioners on quarterly basis. {Emphasis Added}

4.12 In view of Regulation 9 of the MYT Regulations, 2015 and its amendments thereof as amended from time to time, the Commission hereby decides to continue with the FCA formula along with its associated mechanism/modalities as detailed in the following paragraphs.

- 16.8 Since, the existing mechanism is not an automatic pass through and there remains need for approval of the Hon'ble Commission, MOP has issued a recommendation letter No. 23/23/2021-R&R dated 9th November 2021 wherein; it has requested the respective State Commission to formulate a mechanism for automatic pass through of the fuel and power purchase cost in tariff for ensuring the viability of the power sector. The relevant extract from the said letter is as reproduced below:

.....

7. Some of the states already have formula for fuel surcharge adjustment which is being used for this purpose. A state wise list of the status of fuel surcharge formula prescribed by the State Commission is enclosed. This is as per the information submitted by the SERCs to Forum of Regulators in compliance of the APTEL order. However, this is not an automatic pass through and there remains need for approval of the State Commission. The present mechanism leads to delays. It may be changed to provide for automatic pass through in tariff change in costs on account of change in law/ power purchase costs in accordance with a formula laid down by the State Regulatory Commissions. The Discoms will pass through the change in costs according to the said formula whenever the change in costs due to change in law/power purchase costs occur. Till a suitable formula is prescribed by the State Commissions the formula given in the Electricity (Timely Recovery of Costs due to Change in Law) Rules, 2021 may be adopted. After giving effect to the pass through the Discoms will send the relevant papers/ calculation sheets to the commissions which shall verify and confirm the Pass through within 60 days. This will result in less working capital requirements by the Discoms, leading to less costs of power for the consumers.

.....

9. The State Commissions are requested to place the above mechanism in operation with immediate effect. {Emphasis Added}

- 16.9 In the backdrop of above, Petitioners wishes to submit that they will be filing a separate petition proposing the desired changes to be done in the existing FCA recovery mechanism. Further, till the time the desired changes are proposed and finalized, Petitioners request the Hon'ble Commission that the Petitioners shall be allowed to recover FCA charges as per the prevailing Regulations.

A17: COMPLIANCE OF DIRECTIVES

The response of Discoms on the directives issued by Hon'ble Commission in the Retail Supply Tariff Order for FY 2021-22 is given below:

17.1 Meterization of Unmetered Connections

Commission's Directive:

The Commission has noted the submission of DISCOMs and has obtained the latest reports from them. The Commission has observed that the progress of the DISCOMs regarding DTR meterisation is not satisfactory. The Commission further directs the DISCOMs to expedite DTR meterisation. The Commission has observed that simply providing meters is not the total solution but the DISCOMs need to have a complete energy auditing solution in order to monitor the energy pilferage. The DISCOMs shall continue submitting the quarterly progress reports on DTR meterisation along with the energy Audit. The DISCOMs are directed to submit an action plan by 30th June, 2021.

Petitioners Compliance to Directive:

Response of East Discom:

The Petitioner here by submits that the availability of fund is major constrained in this exercise. At present 11849 no. meters are installed out of 105489 no. on Ag. DTRs of the Discom area. The Quarterly reports of Ag. DTR meterisation regularly being submitted before Hon'ble Commission.

Response of Central Discom:

The Petitioner submits that DTRs and associated consumers of urban area having loss level above 40% are planned to cover in RRRDS Scheme for smart meter installation and Energy Audit thereof. DTR meterisation progress up to June '21 has been submitted vide L.no1607 dated 29.10.2021

Response of West Discom:

The Petitioner submits that meterization of predominately agriculture DTRs has already been incorporated in the capex plan of the Discom for the FY 2020-21 to FY 2024-25. The said work for DTR meterization shall be executed depending upon the availability of the funds.

17.2 Accounting of Rebates/Incentives/Surcharges

Commission Directive:

The Commission has noted the submissions of DISCOMs and directs DISCOMs to expedite the process of development of a report and submit the same on quarterly basis.

Petitioner Compliance to Directive:

Response of East Discom:

The quarter wise report on rebate on incentive & surcharge is enclosed as Annexure-1

Response of Central Discom:

The Petitioner hereby submits the quarter wise rebate on incentive & surcharge as below,

Particular/Year	2019-20				2020-21		
	April-19 to June-19	July-19 to Sept-19	Oct-19 to Dec-19	Jan-20 to March-20	April-20 to June-20	July-20 to Sept-20	Oct-20 to Dec-20
Additional charge/surcharge recovered from HT Consumer (Rs. Cr.)	Power Factor Surcharge	3.47	3.56	3.97	3.96	3.82	3.48
	Late Payment Surcharge	4.00	4.95	6.13	7.39	8.57	9.22
	Total Additional charge/surcharge Recovered						
Rebate/Incentive provided to HT consumer (Rs.Cr.)	Power Factor Incentive	(33.04)	(32.61)	(33.67)	(32.37)	(21.05)	(31.90)
	Time of Day Incentive	(39.73)	(38.95)	(40.79)	(40.96)	(26.57)	(38.77)
	Prompt Payment Incentive	(0.25)	(0.00)	(0.00)	(0.48)	(0.21)	(0.30)
	Captive Incentive	(2.21)	(7.51)	(10.80)	(9.24)	(7.14)	(5.03)
	Open Access Rebate	-	-	-	-	-	-
	Green Field/NSC Rebate	(0.73)	(1.00)	(1.77)	(2.76)	(1.95)	(3.55)
	Advance Payment Incentive	(0.03)	(0.01)	(0.02)	(0.01)	(0.06)	(0.06)
	Incremental Rebate	(16.07)	(14.00)	(16.47)	(16.61)	(8.63)	(18.90)
	Online Payment Rebate	(0.10)	(0.17)	(0.40)	(0.43)	(0.33)	(0.38)
	Total Rebate	(92.15)	(94.25)	(103.91)	(102.87)	(65.94)	(98.89)

Response of West Discom:

The Summary of incentive/surcharge for HT consumers given during the FY 2020-21 and FY 2021-22 up to (Aug'21) is as under:-

	Particular / Year	2020-21	2021-22 (up to Aug.-21)
Additional charge/surcharge recovered from HT consumer (Rs. Crore)	Power Factor Surcharge	20.27	7.91
	Late Payment Surcharge	51.15	25.62
	Total Additional charge/surcharge Recovered	71.42	33.54
Rebate/Incentive provided to HT consumer (Rs. Crore)	Power Factor Incentive	-157.90	-72.16
	Time of Day Incentive	-207.54	-79.49
	Prompt Payment Incentive	-1.63	-0.79
	Captive Incentive	-40.85	0.00

Particular / Year	2020-21	2021-22 (up to Aug.-21)
Open Access Rebate	0.00	0.00
Green Field/NSC Rebate	-96.85	-46.14
Advance Payment Incentive	-0.09	-0.07
Incremental Rebate	-77.89	-38.40
Online Payment Rebate	-2.43	-0.99
Total Rebate	-585.17	-238.04
Net Impact (Rs. Crore)	-513.75	-205.51

Further as directed by the Hon'ble Commission IT section of Discom developed monthly detailed R-15 report comprising Tariff category wise details of various incentive/surcharges. The copy of the said R-15 report for the month of Sept'21 having tariff category wise details of incentive/ surcharge is being separately submitted in soft copy to Hon'ble Commission.

17.3 Technical studies of the Distribution network to ascertain voltage-wise cost of supply

Commission Directive:

The Commission has observed that the sample size and the sample selected by the DISCOMs is not the representative sample of the State or the respective DISCOMs. The Commission therefore directs that a comprehensive study with large representative sample covering all consumer categories, climate zone, water level status, crop patterns be conducted through an outsource independent agency of repute to arrive at a meaningful conclusion. The outcome be shared with the Commission within six months of issue of this Tariff Order.

Petitioner Compliance to Directive:

Response of East Discom:

The Petitioner carried out a technical analysis through CYMDIST software for segregation of technical and Commercial losses and submitted a report to the Hon'ble Commission in which average technical losses calculated for the EZ network were 18.7%. The same has been noted by the Commission in the Tariff order for FY2019-20. Hon'ble Commission has directed to submit the study report with wide sample data.

In view of above the report on technical losses study is under progress and the study will be submitted before the Hon'ble Commission in short period.

Response of Central Discom:

The Petitioner submits that desired study shall be carried out with increased sample size and considering the various other factors i.e. climate zone, water level status, crop patterns, etc. The outcome of the said study shall be shared with the Commission as per the timeline given by the Commission

Response of West Discom:

The petitioner submits that consulting agency PWC has been directed to conduct a study on segregation of Technical and Commercial losses to ascertain voltage wise cost of supply. Report will be submitted to Hon'ble Commission soon.

17.4 Transfer of Funds to Pension & Terminal Benefit Trust Fund

Commission Directive:

The Commission has noted the submission of the Petitioners. As separate proceeding is under progress, the matter would be appropriately dealt through the Petition. However, the Commission directs the Petitioners to deposit the amount against the Terminal Benefit Trust Fund allocated in this Tariff Order on monthly basis.

Petitioner Compliance to Directive:

Response of East Discom:

On compliance of order passed by Hon'ble Commission the amount is being deposited into TBT trust on monthly basis.

Response of Central Discom:

The Petitioner submits that Petitioners has transferred following amounts to contribution to TBT by MPCZ.

Year	Contribution to TBT by MPCZ
2019-20	Rs. 5 crs
2020-21	Rs. 20 crs
2021-22	Rs. 76 crs
till Aug2021	Total: Rs. 101 crs

Recently, on monthly basis, since Jun 2021, MPPMCL is providing Rs. 22 Crs for contribution to Terminal Benefit Trust fund and the same is transferred to Terminal Benefit trust on immediate basis by MPMKVVCL.

Response of West Discom:

The Company is transferring funds to Pension & Terminal Benefits trust Fund on regular basis. Whenever the company received fund from MP Power Management Company to deposit in Pension & Terminal Benefit Trust Fund as per Cash Flow Management of Company, the same shall be deposited. The Company has deposited an amount of Rs. 57 Cr. From 12.07.2019 to 24.06.2021 in Pension & Terminal Benefit Trust Fund. In future also whenever the Company has received fund from MP Power Management Company to deposit in Pension & Terminal Benefit Trust Fund, the same shall be deposited in time. The date on which Amount has been transferred to Pension & Terminal Benefit Trust Fund are given below:-

Sr. No.	Date of Amount Transfer	Transferred Amount (In Cr.)
1.	12/07/2019	5.00

2.	24/12/2020	5.00
3.	20/01/2021	5.00
4.	06/02/2021	5.00
5.	06/03/2021	5.00
6.	26/03/2021	5.00
7.	11/05/2021	5.00
8.	24/06/2021	22.00
Total		57.00

17.5 Replacement of Stopped and Defective Meters

Commission Directive:

The Commission has noted the submission of the Petitioner. It is observed that the Petitioners have been submitting the quarterly progress report to the Commission. However, the Petitioners have failed to submit the comprehensive plan to replace all the stopped and defective meters. Accordingly, in view of the higher distribution loss of the DISCOMs, the Commission directs the Petitioners to submit the comprehensive replacement plan of the defective/ stopped meters by 30th September, 2021.

Petitioner Compliance to Directive:

Response of East Discom:

The Petitioner has given its presentation in the meeting held by Hon'ble Commission on dated 29.09.2021 for replacement stopped defective meters and meterization of balance consumers.

Plan of 100% meterization in MPPKVVCL, Jabalpur

Total Stop-Defective + Unmetered Connections	Plan of Meterization subject to availability of fund					
	FY 2021-22		FY 2022-23			
	Q3	Q4	Q1	Q2	Q3	Q4
1025895	100000	100000	200000	100000	300000	225895

- 9.71 lakh smart meters tender is in progress, which is funded by KFW.
- Balance urban consumers will be meterized with smart meters under RDSS scheme phase-2.

- Installation of 15,000 smart meters is in progress, 3200 nos. meters installed for LT high value consumers.
- Smart meter installation in rural area is commercially not viable, need to be discussed.

Response of Central Discom:

The petitioner humbly submits before the honourable Commission that the replacement of stopped/defective meters is a continuous process. The status of defectives meters are shown as per Annexure –III.

In RRRDS Scheme, smart meter will be installed in phase manner as below:

- 918429 meters in KFW funded scheme-Dec'23
- Balance 912756 Urban Area consumers -Up to Dec'24
- 2096028 Rural Area consumers -Up to Dec'25

Response of West Discom:

The petitioners submit the comprehensive replacement plans of the defective/ stopped meters, the summary of replacement plan of stopped /defective meters in West Discom area is as follows:-

Status of Defective Meters FY 2020-21		Replacement Plan					
Nos. of Consumer at end of Year (nos.)	Nos. of Consumers with defective meters at the end of the Year (nos.)	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26	FY 2026- 27
5644160	1902495	211450	442636	416136	416136	416136	0

Further detailed comprehensive plan for replacement of stop/defective meters is being submitted to Hon'ble Commission separately in prescribed MYT ARR petition FY 2022-23 format P-2.

17.6 Alignment of R-15 strictly with the categories, subcategories and slabs of the Tariff Schedule as per the new Tariff Structure

Commission Directive:

The Commission has been repeatedly directing the Petitioners to submit the R-15 reports as per the tariff schedule approved by the Commission, which is necessary to project sales accurately. However, the Petitioners have been following lackadaisical approach and not complying with the direction of the Commission. This approach of the Petitioner is not acceptable. The Commission directs the Petitioner to submit the R-15 reports aligned with the tariff schedule approved by the Commission with the tariff Petition for next financial year failing which the Commission may take an appropriate view considering the non-compliance of the Commission's direction.

Petitioner Compliance to Directive:

Response of East Discom:

The Petitioner submits that tariff wise R-15 is available on R-15 portal/website of the Discom. The reconciliation with conventional R-15 along with fine tuning of reports is in progress.

Response of Central Discom:

The Petitioner submits that East Discom is acting as nodal company for modification of R-15 statement on behalf of all the three DISCOMs.

Response of West Discom:

The Petitioner submits that R-15 report from the month of Sept'21 onward has been aligned with the Tariff order. The Copy of R-15 for the Month of Sept'21 is being separately submitted in soft copy to Hon'ble Commission for kind perusal.

17.7 Capital Expenditure and Capitalisation details

Commission Directive:

The Commission expresses its displeasure over casual approach of the DISCOMs in complying the directives provided by this Commission. In order to reprimand the Petitioners, the Commission is not allowing the depreciation as per the rates prescribed in the MPERC MYT Regulations, 2015 and its amendments thereof, which is subject to submission of Fixed Asset Registers along with the true up petition of FY 2021-22. Further, the Commission directs the Petitioner to submit the Fixed Asset Register upto FY 2020-21 along with the Tariff Petition for FY 2022-23 in the format prescribed by the Commission.

Petitioner Compliance to Directive:

Response of East Discom:

The Petitioner submits that Assets Register generated from ERP System of the Company containing full details of class wise Assets duly tallied with Audited Account has been submitted to the Commission at the time of submission of ARR & True up petitions. The Hon'ble Commission vide email dated 09.11.2021 has emailed prescribed format for Asset

register. The format prescribed by Hon'ble Commission is under Analysis for preparation of data.

Response of Central Discom:

The Petitioner submits that Fixed Asset register as per the formats given by Hon'ble Commission via E-mail dt. 09.11.21 is under process and will be submitted soon as the format prescribed is under analysis and it requires some more time to compile.

Response of West Discom:

The Petitioner submits that company is generating Asset Register via ERP System, which is also showing full details of the Assets as per Asset class wise which matched with the audited accounts of the Company. Further as per the directives of the Hon'ble MPERC to submit the Fixed Asset Register up to FY 2020-21 along with the ARR-Tariff Petition FY 2022-23. The Company is in a process to made Asset Register in a format prescribed by the Hon'ble Commission and made efforts to follow the directive of Hon'ble Commission.

17.8 Submission of report to ascertain the consumption of irrigational pumps

Commission Directive:

It is observed that the Petitioners have submitted details of consumption of sample agricultural feeder. However, the Petitioners have not submitted the detailed report detailing the methodology adopted for selection of sample feeders, energy audit report of the selected feeders etc. as per the direction of the Commission. Therefore, the Commission once again directs the Petitioners to submit report to ascertain the consumption of irrigation pumps based on detailed report for the representative sample agriculture feeders along with sample energy audit on predominantly agricultural DTRs in all the three DISCOMs justifying their claim in the next tariff filing/true-up to the satisfaction of the Commission..

Response of East Discom:

The Petitioner submit that M/s RECPDCL has been awarded the work of analysis of Agriculture consumption in Narsinghpur circle of East Discom. The report of M/S RECPDCL has been submitted before the Hon'ble Commission vide letter no.EZ/ CGM/Comml/1716 dtd. 12.11.2021.

Response of Central Discom:

The Petitioner submits that a study on 4 feeders of Hoshangabad Circle has been done where 3 crops are cultivated. Report is placed as followed from which it may be seen that input units are higher in comparison to sold units allowed by MPERC.

Study Report to Ascertain the consumption of Irrigation Pumps

M.P.M.K.V.V.C.L,O&M CIRCLE HOSHANGABAD

Month- Mar.20 to June.20

Name of 11kV Feeder	Energy Input (LU)	No. of Pump Connection	Load in HP	Per Month/Pump	Per Month/HP
11KV BUDHANI (N.BUDHANI)	11.17	255	1275	1095.29	219.06
11KV DANGIWADA (NAS'BAD)	12.09	221	1552	1367.72	194.76
Banwari	9.11	180	908	1265.78	250.93
DHONDAY	7.85	203	1015	967.03	193.41
Pachhua	7.8	340	764	573.53	255.24
Month- Jul.20 to Sept.20					
Name of 11kV Feeder	Energy Input (LU)	No. of Pump Connection	Load in HP	Per Month/Pump	Per Month/HP
11KV BUDHANI (N.BUDHANI)	9.02	248	1254	1212.37	239.77
11KV DANGIWADA (NAS'BAD)	8.32	218	1537	1272.17	180.44
Banwari	6.59	172	884	1277.13	248.49
DHONDAY	5.64	195	995	964.1	188.94
Pachhua	5.02	312	666	536.32	251.25
Month- Oct.20 to Feb.21					
Name of 11kV Feeder	Energy Input (LU)	No. of Pump Connection	Load in HP	Per Month/Pump	Per Month/HP
11KV BUDHANI (N.BUDHANI)	13.34	251	1263	1062.95	211.24
11KV DANGIWADA (NAS'BAD)	14.61	220	1547	1328.18	188.88
Banwari	10.64	177	899	1202.26	236.71
DHONDAY	10.07	199	1005	1012.06	200.4
Pachhua	9.7	328	722	591.46	268.7

Response of West Discom:

The Petitioner submits that consulting agency M/s. PWC of Discom has been directed to conduct a study with increased sample size to ascertain the consumption of irrigation pump connections as desired by the Hon'ble Commission. Report will be submitted to Hon'ble Commission soon.

17.9 Action plan for Line Loss reduction

Commission Directive:

The Commission appreciates the efforts made by the West DISCOM, however, it has been observed that the distribution losses submitted by other two DISCOMs are above loss level specified by the Commission. East and Central DISCOMs progress is far from satisfactory. There is a huge gap

between the targeted losses and actual losses. These DISCOMs are losing huge amounts against these losses as the Commission has been allowing only the normative losses to be passed on to the consumers. The Commission opines that it is very necessary and expedient to go into the details of suboptimal performance of the DISCOMs. The Commission directs DISCOMs to arrange a separate exercise to perform Circle wise Energy Audits through an independent agency and submit an action plan to reduce the losses based on this Energy Audit Report to the Commission. The Commission also directs the DISCOMs to submit quarterly progress reports in this matter.

Petitioner Compliance to Directive:

Response of East Discom:

An accredited energy auditor M/s A-Z Energy Engineers, New Delhi has been awarded by MPPKVVCL to conduct the PAT Monitoring and Verification (M&V) Audit and under the Perform Achieve & Trade (PAT) Scheme for target year i.e. FY 2018-19, in accordance with the Bureau of Energy Efficiency (manner and intervals of time for conduct of Energy Audit) Regulation 2010.

Following Energy Conservation Measures (ECMs) is adopted for line loss reduction.

1. Installation of Smart Meters.
2. Installation of Automatic Power Factor Controller (Capacitor banks).
3. System improvement and automation.
4. Improvement in metering system.
5. Replacing of conventional/Non star transformers with energy efficient/star rated transformers.
6. Replacement of all conventional mechanical energy meters with static digital electronic meters having less power consumption and more accuracy.
7. Laying of AB cable in theft prone area where loss are on higher side.
8. HVD System to reduce low tension line losses.
9. Replacing worn out /under sized conductors.
10. Increase in HT/LT ratio.
11. Preventive and Periodic maintenance of line and transformer.
12. Load Balancing of distribution transformers.
13. MIS based periodic reporting of unit wise business parameters.
14. Installation of solar generation plants & solar pumps.
15. Strengthening of Energy accounting infrastructure -100% consumer metering.

Response of Central Discom:

The Petitioner submits that line loss is reducing from last year and efforts are being made to reduce it to 23 % by the end of FY 21-22. line loss (%) in last 5 years is shown as below:

FY	Line Loss (%)
FY 16-17	36.15
FY 17-18	37.51
FY 18-19	36.67
FY-19-20	27.59
FY-20-21	28.69
FY 20-21 up to Aug'20	29.99
FY 21-22 up to Aug'21	27.24

Circle wise Energy Audit is being done by Discom.

Action plan to reduce losses is attached as Annexure-V.

Particulars	Old Years Units	MYT 2022-23 To 2026-27							
		FY-20	FY-21	FY-22	FY-23	FY-24	FY-25	FY-26	FY-27
Energy input received by the Discom at all voltage levels	MU	24008	26876	28220	28344	29386	30825	32875	33155
Energy sold by the Discom for all categories of consumers	MU	17384	19165	20405	21308	23286	24863	27544	27932
Actual Distribution losses in %	%	27.59	28.69	27.69	24.82	20.76	19.34	16.22	15.75

Response of West Discom:

It is submitted that West DISCOM has achieved the distribution loss level of 12.71% in the FY 2020-21 against the normative distribution loss of 15.00% prescribed in Tariff Regulation. DISCOM is making continuous efforts to reduce the losses.

17.10 Meterization of unmetered agricultural and domestic consumers

Commission Directive:

The Commission has taken note of the submission of the DISCOMs. It has been observed that West DISCOM has achieved meterisation of Domestic consumers but not DTR metering. Progress of East and Central DISCOMs is unsatisfactory. The DISCOMs are directed to complete this work within 1st July, 2021 and report compliance to the Commission by 31st July, 2021.

Petitioner Compliance to Directive:

Response of East Discom:

- In East Discom meters have been provided on all unmetered domestic connections of urban area.
- For meterization of irrigation urban pumps East Discom has submitted the Action plan vide letter no. CGM/Comml./ EZ/TRAC/Jbp/794 dtd. 14.06.2021.

Response of West Discom:

With regard to domestic consumers, it is submitted that in West Discom area out of the total 2298654 nos. rural domestic consumers, meters are installed on 2261764 nos. of consumers and 36890 nos. of consumers are unmetered. The plan for meterization of 36890 nos. rural unmetered domestic connections is as below:-

Status of Meterization up to Aug'21	Action Plan for 100% Meterization
-------------------------------------	-----------------------------------

Nos. of Rural Domestic Consumers	Nos. of Rural Domestic Metered Consumers	Nos. of Rural Unmetered Consumers	Sept.21	Oct.21	Nov.21	Dec.21	Jan22	Feb22	March22
2298654	2261764	36890	5270	5270	5270	5270	5270	5270	5270

With regard to agriculture consumers necessary instructions regarding identification and meterisation of urban flat rate agriculture consumers has already been issued to the field offices. The Commission is requested to extend the time line to next tariff period.

Response of Central Discom:

PROGRESS OF METERISATION FOR DOMESTIC CATEGORY OF CONSUMERS FOR THE QUARTER ENDING JUNE '21 - CENTRAL DISCOM														
Name of Discom	Total no. of domestic connections (at the end of previous qtr.)		Total No. of unmetered connections at the end of previous qtr.		New connections served during the quarter without meter		Total No. of unmetered connections (including unmetered new connections served during the quarter)		Total no. of meters provided to unmetered connections		Balance unmetered connections at the end of quarter		% Unmetered connections	
	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
2	3	4	5	6	7 (=9-5)	8 (=10-6)	9	10	11	12	13 (=9-11)	14 (=10-12)	15 (=13/3 x 100)	16 (=14/(4+6) x 100)
Bhopal	886030	1025586	0	103423	0	0	0	103423	0	1312	0	102111	0.00	9.96
Gwalior	608482	1030894	0	219201	0	2071	0	221272	0	7905	0	213367	0.00	20.70
Central Discom	1494512	2056480	0	322624	0	2071	0	324695	0	9217	0	315478	0.00	15.34

17.11 Consumer category wise study of hourly consumption pattern

The Commission reiterates its directions given to the Petitioners to undertake a detailed study of hourly consumption patterns of various consumer categories, based on ABT metering data, to identify which category is contributing how much to the peak consumption, which category can shift its consumption to off-peak hours, seasonal variation in the peak and off-peak consumption levels. Based on this study, the Petitioners should submit a comprehensive proposal to modify/upgrade the ToD tariff dispensation, along with its next Tariff Petition.

Further, the Petitioners are required to provide details with regards to existing ToD tariff in the formats appended to this order as Annexure-2.

Petitioner Compliance to Directive:

Response of East Discom:

The Petitioner submit that Hon'ble Commission has directed to study the consumption pattern of ToD based consumers through ABT metering data for FY 2018-19, FY 2019-20 & 2020-21. Since almost 90-95% consumers fall under ToD rebate. Consumer wise study of Load pattern for an older period data is tedious task. However, East Discom from the month of October, 2020 has developed a Meter Data Management System (MDM) for all the meter data being collected by the MBC (Metering Billing & Collection systems) and other AMR systems and the Smart Metering Systems.

The information of average hourly demand (KVA) for tariff category HV-2, HV 3.1, HV 3.3, HV-3.4, HV-4 & HV-5 is enclosed as Annexure-2. The Consumption pattern data of ToD consumers for the period of FY 2018-19 & 2019-20 is enclosed as Annexure-3.

Response of Central Discom:

The Petitioner submit that consumption pattern of 2 feeders is attached as **Annexure VI**. Analysis on consumption pattern is as below:

Name of feeder	Name	No. of Consumers
DL Feeder	Bhopal (Town)	4306
NDL Feeder	Jyoti Complex	901
Period	Per Consumer Consumption Per Month	
	DL	NDL
6 AM to 10 AM	37.39	35.46
11 AM to 5 PM	58.18	171.47
6 PM to 10 PM	37.86	107.13
11 PM to 5 AM	53.67	51.96

Feeder	Month	Highest recorded at Hr	Lowest recorded at Hr
DL	July'21	12 AM to 1 AM	5 PM to 6 PM

	Aug'21	3 PM to 4 PM	5 AM to 6 AM
NDL	July'21	4 PM to 5 PM	3 AM to 4 AM
	Aug'21	4 PM to 5 PM	3 AM to 4 AM

Response of West Discom:

It is submitted that information desired in the Table-A Table-B is available for current Financial Year. The desired information is being submitted separately in soft copy to Hon'ble Commission

17.12 Mini, Micro, Small Hydel plants billed under HV-4 (Seasonal Industries) category

The Commission directs the Petitioner to submit the Number of consumers, actual sales, connected load of Mini, Micro, Small Hydro plants in previous three financial years during Seasonal and Non-Seasonal period separately.

Petitioner Compliance to Directive:

Response of East Discom:

The Petitioner submit that at present there is no Mini/Micro small Hydel plant in East Discom under HV-4 tariff category.

Response of Central Discom:

The Petitioner submit that there is only One Consumers with connected at 33kV in HV. 4 Seasonal Industries category

Response of West Discom:

The Petitioner submits that that there is no Mini/Micro, and Small Hydro plants are connected to Discom Network.

A18: GREEN ENERGY TARIFF

- 18.1 There is a growing demand from consumers for a rapid transition to a zero-carbon economy. Over 175 of the world's most influential companies have already made this commitment through the global corporate leadership initiative, RE100. This is driving up demand for renewable electricity and creating a shift in demand patterns away from fossil fuels across the global power system. Google & Autodesk are just a few of the companies that have already achieved their goal and are now powered by 100% renewable energy. They are demonstrating to their stakeholders including investors, customers and policymakers — that they see a future in which businesses are powered by renewables.
- 18.2 Government of India is also promoting renewable energy in a big way and has kept an aggressive target of 175 GW of renewable energy by 2022. Indian corporates are also playing key role in achieving the aggressive target of the Government as corporate citizens and other resultant advantage of being zero carbon companies.
- 18.3 The corporate consumers have already initiated the process by opting to receive RE under Open Access mechanism as approved by the Commission. However, many corporates do not wish to go through this process of sourcing Renewable Energy because either they are not eligible to avail open access under the current Regulatory framework or they do not have the resources, expertise and the bandwidth required for carrying out this activity.
- 18.4 Considering the above practices available in other state like Maharashtra and Karnataka. The petitioners is submitting a proposal for the approval of the Hon'ble Commission to enable supply of 100% Green Power to consumers opting for meeting its 100% power requirement through Green Power should also be introduced in state of Madhya Pradesh.
- 18.5 As the Hon'ble Commission is aware, Petitioners, in order to meet the energy demand of its consumers, has tied up power on long term as well as short term basis with various generators which include conventional fuel-based generators, hydro generators and renewable sources like solar and wind. Considering the current tie ups for FY 2020-21 around 9% of power procured by Petitioners is through Renewable generating sources (Excluding Hydro).
- 18.6 Hence, to meet the requirement of the consumers seeking 100% green energy, Petitioner proposes the following:
 - a. Permission to supply renewable power to meet the demand of consumers subject to availability of Renewable Energy with the Petitioner.

- b.** The 100% renewable energy under Green Tariff Category will be provided to consumers on first cum first service basis subject to of Renewable Energy with Petitioner.
- c.** Petitioners will issue a monthly certificate to the consumer stating that 100% of their power requirement has been met through green energy, this can't be treated for fulfillment of RPO target.
- d.** The above proposal would be voluntary in nature and will provide a choice to the consumer to opt for green energy.
- e.** For the efforts required to enable this requirement of 100% green energy, Petitioner proposes levy of "Green Energy Tariff" from such consumers in addition to the Tariff applicability of concerned category.
- f.** The additional revenue on account of Green Energy Tariff shall be accounted as Tariff Income of Supply Business and thereby be fully accounted for reduction in ARR of supply business.

18.7 Further it is stated that 'Green Power Tariff will have the following advantages:

- i.** Green Power Tariff being totally voluntary in nature, will give choice to the Consumers to opt for green energy.
- ii.** This will lead to growth in power generation from renewable sources.

18.8 In this regard, it is noted that Section 61(h) of The Electricity Act, 2003 has specified the promotion of generation of renewable energy as follows:

"Section 61. (Tariff regulations):

The Appropriate Commission shall, subject to the provisions of this Act, specify the terms and conditions for the determination of tariff, and in doing so, shall be guided by the following, namely: -

.....

.....

(h) the promotion of co-generation and generation of electricity from renewable sources of energy;

.....

18.9 Further, Section 86(e) of the Electricity Act, 2003 specifies the function of state commission, which includes promotion of generation of electricity from renewable

sources of energy by providing suitable measures for connectivity with the grid and sale of electricity to any person as follows:

"Section 86. (Functions of State Commission): --- (1) The State Commission shall discharge the following functions, namely: -

“

....

(e) promote co-generation and generation of electricity from renewable sources of energy by providing suitable measures for connectivity with the grid and sale of electricity to any person, and also specify, for purchase of electricity from such sources, a percentage of the total consumption of electricity in the area of a distribution licensee;

.....”

- 18.10 Further, it is also pertinent to state that provision of such type of service provided by a distribution licensee is already in place in the state of Karnataka, where Karnataka Electricity Regulatory Commission ["KERC"] has already approved Green Power Tariff for the distribution licensee (BESCOM) since FY 2011-12 in the respective tariff orders. Relevant extract of BESCOM tariff order for FY 2011-12 for approval of green power tariff is as follows:

1) Tariff for Green Power:

BESCOM's Proposal:

The Global temperature is rising due to increase in CO₂ emissions. Hence, to encourage purchase of renewable sources of energy by consumers, BESCOM has made a proposal for green power tariff. BESCOM has stated that, there is group of customers who want to purchase power from green sources and would not mind paying more for such power. Further it is stated that 'Green Tariff' will have the following advantages:

- *Tariff being totally voluntary in nature, will give choice to the Consumers to opt for green energy.*
- *The extra burden being taken by the specific Consumer would not increase the cost to be borne by other Consumers in the same category.*
- *This will reduce hesitation of the Utilities in going for high cost of power purchase from renewable sources as it will not impact on general tariff, leading to growth in power production from renewable sources.*

BESCOM has calculated the tariff, which may be paid by the EHT & HT Consumers for Green energy and has submitted the proposal on the following lines:

- *The scheme is limited to EHT & HT Consumers in the industrial category.*
- *It is open for the Consumers whose contract demand is 1 MVA and above.*

Highlights of the Scheme as proposed by BESCOM.

- *The Scheme is optional only.*
- *The amount collected under the scheme will be separately maintained and the details will be furnished to the Hon'ble Commission.*
- *The cost of power purchase incurred under the Scheme will not be transferred to other category of consumers.*
- *The amount collected under the Scheme will be utilized to procure green power only.*
- *Availability of green power over the years gets enhanced.*
- *The quantum of green power requirement will be consolidated, and demand will be met separately.*

BESCOM has computed the Green Power Tariff based on projected FY-11 figures as indicated below:

EHT: Rs.5.62 per unit

HT: Rs.6.27 per unit

Commission's Analysis & Decision:

The Commission welcomes the new initiative of BESCOM to promote Green Energy and hence, decides to introduce Green Tariff for HT industries & HT Commercial Consumers with Contract Demand of 1 MVA & above in all the ESCOMs. The above Tariff is optional.

The Commission is of the view that, the Consumers who opt for Green Energy should bear the additional power purchase cost of Renewable Energy sources over and above the normal tariff.

Based on the power purchase cost approved for FY-11, the additional average cost for RE source in the State as a whole is worked out as under:

TABLE – 6.2***State Green Tariff – FY11***

	MU	Rs. Crs	Paise/unit
<i>Total Power Purchase</i>	45,634.35	12,732.24	279.01
<i>Power Purchase excluding NCE sources</i>	40,378.84	10,847.58	268.65
<i>NCE sources</i>	5,255.51	1,884.66	358.61
<i>Average additional cost of NCE</i>			89.96
<i>Transmission loss</i>			4%
<i>Marginal cost of NCE after accounting Transmission loss</i>			93.71
<i>HT Distribution loss</i>			5.05%
<i>Average additional cost of NCE after accounting Distribution loss</i>			98.7

As per the existing Tariff schedule, there is no separate category for EHT & HT supply. As such the HT distribution loss has been considered in addition to transmission loss. Accordingly, the Commission determines Green Tariff at Re.1.00 per unit as the additional tariff over and above the normal tariff to be paid by HT-consumers, who opt for Green Tariff.”

Below are the relevant provisions of the BESOM's MYT Order 2011-13 - Chapter 6: Determination of Tariff for FY 11. The Relevant extract of BESCOM last tariff order for FY 2020 for approval of green power tariff is as follows:

6.9 Other Issues**i) Tariff for Green Power:**

In order to encourage generation and use of green power in the State, the Commission decides to continue the existing Green Tariff of 50 paise per unit as the additional tariff over and above the normal tariff to be paid by HT-consumers, who opt for supply of green power from out of the renewable energy procured by distribution utilities over and above their Renewable Purchase Obligation (RPO). ”

- 18.11 In view of the above, Tata Power Company Limited (Distribution) has filed a petition before Maharashtra Electricity Regulatory Commission (MERC) seeking approval for levying “Green Power Tariff” to supply Renewable Energy to consumers opting for 100% green energy for meeting their entire demand. In the petition, MERC has issued an order in Case No. 134 of 2020 dated 22nd March 2021 and has determined Green Power Tariff of Rs 0.66/kWh which is over and above the normal tariff of the respective

category as per Tariff Orders, be levied to the consumers opting for meeting their demand by 100% green energy.

17.8 Accordingly, computation of green power tariff is tabulated below:

Total	RE power Procurement for MYT Period			Non-RE power procurement (only variable) for MYT Period			Diff Bet RE & Non-RE power
	MU	Rs Cr	Rs/kWh	MU	Rs Cr	Rs/kWh	Rs/kWh
MSEDCL	141772	57440	4.05	586029	146412	2.5	1.55
AEMPL-D	13295	4691	3.53	38206	15367	4.02	-0.49
BEST Undertaking	2949	940	3.19	22534	7938	3.58	-0.39
TPC-D	3927	1491	3.8	22377	8069	3.61	0.19
MBPPL	58	17	2.88	348	161	4.19	-1.31
GEPL	41	12	2.88	248	101	4.08	-1.2
KRC	35	10	2.89	190	76	4.02	-1.13
Total	162077	64601	3.99	669932	178124	2.659	1.33

17.9 Thus, as per methodology explained above Rs. 1.33/kWh could be Green Power Tariff. However, as this concept is being introduced for the first time and also considering the fact that Distribution Licensee would be able to use such power consumed by consumers towards fulfilment of its RPO target, certain benefit of the same needs to be passed on to concerned consumers. Hence, the Commission decides to levy only 50% of charge determined above i.e. 0.66/kWh as Green Power Tariff to the consumer opting for meeting its 100% of power requirement through RE sources. Such Green Power Tariff would be in addition to regular tariff approved in MYT Order.

Following order passed by MERC:

- a. *Green Power Tariff of Rs 0.66/ kWh, which is over and above the normal tariff of the respective category as per Tariff Orders, be levied to the consumers opting for meeting their demand by 100% green energy.*
- b. *Revenue earned through Green Power Tariff shall be treated as non-tariff income of Supply Business and thereby be fully accounted for reduction in ARR of supply business.*

- c. *All consumers (Extra High Voltage, High Voltage and Low Voltage) shall be eligible for opting 100% RE power on payment of Green Power Tariff.*
- d. **The Commission may take overview of the scheme at the time of MTR Proceedings.**

18.12 In the view of the above, proposal for approval of levy of Green Power Tariff as a separate tariff for the period from FY 2022-23 is submitted in this petition.

18.13 Basis the computation methodology finalized by Hon'ble MERC in their order dated 22nd March 2021, Petitioners has computed the Green Power Tariff to be paid by such consumers based on the basis of projected power purchase cost for FY 2021-22 as indicated below:

RE Power Procurement for the Period FY 2022-23			Non-RE Power Procurement (Only Variable) for the Period FY 2022-23			Difference between RE & Non-RE Power
MU	Rs. Cr	Rs/Unit	MU	Rs. Cr	Rs/Unit	Rs/Unit
A	B	C	D	E	F	G = (C - F)
12,070	5,096	4.22	72,608	13,936	1.92	2.30

18.14 The Green Power Tariff recovered from these consumers for supply of 100% renewable energy in addition to Tariff applicability of consumers, will increase the tariff income of the distribution business and thereby be fully accounted for reduction in ARR. Further, these initiatives will also promote the Government of India pledge towards green energy, clean environment and sustainable development Goals.

18.15 In the above backdrop and in furtherance of above, the Petitioners has approached this Hon'ble Commission in its jurisdiction under Section 86 (1) (k) of the Act read with Regulation 45(1) and 45(3) of Madhya Pradesh Electricity Regulatory Commission (Conduct of Business) (Revision -I) Regulations, 2016 and all the enabling powers including the inherent powers and expansive regulatory authority vested unto the Hon'ble Commission seeking in-principle approval for Green Power Tariff to the consumers opting for 100% RE power.

TARIFF SCHEDULES

TARIFF SCHEDULES FOR LOW TENSION CONSUMERS

Tariff Categories		Page No
LV-1	Domestic	269
LV-2	Non-Domestic	273
LV-3	Public Water Works and Street Lights	276
LV-4	LT Industrial	278
LV-5	Agricultural and allied Activities	281
LV-6	e- Vehicle / e-Rickshaws charging stations	286
	General Terms and Conditions	287

Tariff Schedule - LV-1

DOMESTIC:

Applicability:

This tariff is applicable for light, fan and power for residential use. Dharamshalas, Gaushalas, old age homes, day care centres for senior citizens, rescue houses, orphanages, Affordable Rental Housing Complex established under Pradhan Mantri Awas Yojana, Registered home stays under following schemes of State Government. (a) MP Homestay Establishment (Registration and Regulation) Scheme, 2010, amended 2018, (b) MP Bed and Breakfast Establishment (Registration and Regulation) Scheme 2019, (c) MP Farm Stay Establishment (Registration and Regulation) Scheme 2019, (d) MP Gram Stay Establishment (Registration and Regulation) Scheme 2019, places of worship and religious institutions will also be covered under this category.

Tariff:

LV 1.1 (Consumers having sanctioned load not more than 100 watts (0.1 kW) and consumption not more than 30 units per month)

(a) Energy Charge and Fixed Charge – For metered connection

Monthly Consumption (units)	Existing		Proposed	
	Energy Charge (paisa per unit)	Monthly Fixed Charge	Energy Charge (paisa per unit)	Monthly Fixed Charge
	Urban and Rural			
Up to 30 units	325	NIL	359	NIL

(b) Minimum Charges: Rs. 45 per connection per month as minimum charges is applicable to this category of consumers.

LV 1.2

(i)(a) Energy Charge and Fixed Charge – For metered connection

Monthly Consumption Slab Urban/ Rural areas (units)	Existing			Proposed		
	Energy Charge with telescopic benefit (paisa per unit) Urban / Rural areas	Monthly Fixed Charge (Rs)		Energy Charge with telescopic benefit (paisa per unit) Urban / Rural areas	Monthly Fixed Charge (Rs)	
		Urban areas	Rural areas		Urban areas	Rural areas
Up to 50 units	413	64 per connection	50 per connection	456	70 per connection	55 per connection
51 to 150 units	505	109 per connection	90 per connection	558	120 per connection	100 per connection
151 to 300 units	645	24 for each 0.1 kW of authorized load	21 for each 0.1 kW of authorized load	714	26 for each 0.1 KW of authorized load	23 for each 0.1 KW of authorized load

Above 300 units	665	25 for each 0.1 kW of authorized load	24 for each 0.1 kW of authorized load	736	27 for each 0.1 KW of authorized load	26 for each 0.1 KW of authorized load
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Minimum Charges: Rs. 70 per connection per month as minimum charges towards energy charges are applicable for above categories.

Notes:

1. The fixed charges shall be levied considering every 15 units of consumption per month or part thereof equal to 0.1 kW of load. **Example:** If consumption during the month is 125 units, then the fixed charges shall be levied for 0.9 kW. In case the consumption is 350 units then the fixed charges shall be levied for 2.4 kW.
2. In cases where the readings are recorded for the duration other than the respective days of the month, the consumption shall be prorated for the month so as to arrive at the proportionate units eligible for different slabs in a particular billing month.

Illustration

Previous Meter Reading: 4th June 2021

Next Meter Reading: 10th July 2021

Consumption period: 36 days

Consumption: 450 units

Slab-wise consumption to be considered for billing:

Slab	Computation of Consumption on Pro-rata basis	Units to be considered for billing (kWh)
0-50	50 units/30 days*36 days	60
51-150	100 units/30 days *36 days	120
151-300	150 units /30 days *36 days	180
Above 300	Balance Units	90
Total		450

Billing of fixed charges shall be done after pro-rating the consumption for 30 days (i.e. billing period) in the above manner.

(i) (b) Energy Charge and Fixed Charge – For temporary connection

Monthly Consumption Slab Urban/ Rural areas (units)	Existing			Proposed		
	Energy Charge with telescopic benefit (paisa per unit) Urban/Rural areas	Monthly Fixed Charge (Rs)		Energy Charge with telescopic benefit (paisa per unit) Urban/Rural areas	Monthly Fixed Charge (Rs)	
		Urban areas	Rural areas		Urban areas	Rural areas
Temporary connection for construction of own house	1.25 times the tariff applicable as per schedule LV 1.2 (i)			1.25 times the tariff applicable as per schedule LV 1.2 (i)		

Monthly Consumption Slab Urban/ Rural areas (units)	Existing			Proposed		
	Energy Charge with telescopic benefit (paisa per unit) Urban/Rural areas	Monthly Fixed Charge (Rs)		Energy Charge with telescopic benefit (paisa per unit) Urban/Rural areas	Monthly Fixed Charge (Rs)	
		Urban areas	Rural areas		Urban areas	Rural areas
(max. up to Three year)*						
Temporary connection for social/ marriage purposes and religious functions.	830	70 for each one kW of sanctioned or connected or recorded load, whichever is highest, for each 24 hours duration or part thereof.	55 for each one kW of sanctioned or connected or recorded load, whichever is highest, for each 24 hours duration or part thereof.	905	80 for each one kW of sanctioned or connected or recorded load, whichever is highest, for each 24 hours duration or part thereof.	60 for each one kW of sanctioned or connected or recorded load, whichever is highest, for each 24 hours duration or part thereof.

Minimum Charges: Rs. 1000/- per connection per month is applicable towards energy charges for temporary connection.

* Note: For the consumers in this category, the Distribution Licensee shall provide trivector/bivector Meter capable of recording demand in kVA/kW, kWh, kVAH

(ii) Energy Charge and Fixed Charge for un-metered rural domestic connections having connected load upto 500 watts:

Particulars	Existing		Proposed	
	Units and Energy Charge to be billed per month for unmetered connections (Paise per Unit)	Monthly Fixed Charge (Rs)	Units and Energy Charge to be billed per month for unmetered connections (Paise per Unit)	Monthly Fixed Charge (Rs)
Un-metered connection in rural areas having connected load up to 500 watts	75 units @ 510 per unit	98 per connection	75 units @ 551 per unit	110 per connection

Note: 1. Minimum charges: No minimum charges are applicable to this category of consumers.

Specific Terms and Conditions for LV-1 category:

- a) In case Energy Charges for actual consumption are less than minimum charges, minimum charges shall be billed towards energy charges. All other charges, as applicable, shall also be billed.
- b) In case of prepaid consumers, a rebate of 25 paise per unit is applicable on the basic energy charges. All other charges should be calculated on the Tariff applicable after rebate. A consumer opting for prepaid meter shall not be required to make any security deposit.
- c) Additional charge for Excess connected load or Excess demand: No extra charges are applicable on the energy/fixed charges due to the excess demand or excess connected load.
- d) In case of temporary requirement for renovation/upgradation of premises, additional load is allowed to be used from existing metered connection on the same tariff applicable for permanent connection. Provided that the total load is being used in the premises at a time should not exceed 130% of its sanctioned load.
- e) Other terms and conditions shall be as specified under General Terms and Conditions for Low Tension Tariff.

Tariff Schedule – LV-2

NON-DOMESTIC:

LV 2.1

Applicability:

This tariff is applicable for light, fan and power to Schools / Educational Institutions including workshops and laboratories of Engineering Colleges / Polytechnics/ITIs (which are registered with /affiliated/ recognized by the relevant Govt. body or university), Hostels for students or working women or sports persons.

Tariff:

Tariff shall be as given in the following table:

Sub category	Existing			Proposed		
	Energy Charge (paise/unit)	Monthly Fixed Charge (Rs.)		Energy Charge (paise/unit)	Monthly Fixed Charge (Rs.)	
		Urban areas	Rural areas		Urban areas	Rural areas
Sanctioned load-based tariff (only for connected load up to 10 kW)	640	153 per kW	122 per kW	659	160 per kW	125 per kW
Demandbased tariff Mandatory for Connected load above 10 kW	640	275 per kW or 220 per kVA of billing demand	235 per kW or 188 per kVA of billing demand	659	284 per kW or 222 per kVA of billing demand	242 per kW or 190 per kVA of billing demand

LV 2.2

Applicability:

This tariff is applicable for light, fan and power to Railways (for purposes other than traction and supply to Railway Colonies/water supply), Shops/showrooms, Parlors, All Offices, Hospitals and medical care facilities including Primary Health Centers, clinics, nursing homes belonging to either Govt. or public or private organisations, public buildings, guest houses, Circuit Houses, Government Rest Houses, X-ray plant, recognized Small Scale Service Institutions, clubs, restaurants, eating establishments, meeting halls, places of public entertainment, circus shows, hotels, cinemas, professional's chambers (like Advocates, Chartered Accountants, Consultants, Doctors etc.), bottling plants, marriage gardens, marriage houses, advertisement services, advertisement boards/ hoardings, training or coaching institutes, petrol pumps and service stations, tailoring shops, laundries, gymnasiums, health clubs, telecom towers for mobile communication and any other establishment which is not covered in other LV categories.

Tariff:

Tariff shall be as given in the following table:

Sub category	Existing			Proposed		
	Energy Charge (paise/unit) Urban/ Rural areas	Monthly Fixed Charge (Rs.)		Energy Charge (paise/unit) Urban/ Rural areas	Monthly Fixed Charge (Rs.)	
		Urban areas	Rural areas		Urban areas	Rural areas
Sanctioned load-based tariff (only for connected load up to 10 kW) On all units if monthly consumption is up to 50 units	630	82 per kW	67 per kW	658	85 per kW	70 per kW
Sanctioned load based tariff (only for connected load up to 10 kW) On all units in case monthly consumption exceeds 50 units	780	138 per kW	117 per kW	815	144 per kW	120 per kW
Demand based tariff (Mandatory for Connected load above 10 kW)	690	296 per kW or 237 per kVA of billing demand	214 per kW or 171 per kVA of billing demand	721	306 per kW or 245 per kVA of billing demand	222 per kW or 178 per kVA of billing demand
Temporary connection including Multi point temporary connections at LT for Mela*	870	224 per kW or part thereof of sanctioned or connected or recorded load, whichever is the highest	195 per kW or part thereof of sanctioned or connected or recorded load, whichever is the highest	914	234 per kW or part thereof of sanctioned or connected or recorded load, whichever is the highest	204 per kW or part thereof of sanctioned or connected or recorded load whichever is the highest
Temporary connection for marriage purposes at marriage gardens or marriage halls or any other premises covered under LV 2.1 and 2.2 categories	870 (Minimum consumption charges shall be billed @ 6 Units per kW or part thereof of sanctioned or connected or recorded load, whichever is the highest for each 24 hours duration or part thereof to a minimum of Rs.500/-)	87 for each kW or part thereof of sanctioned or connected or recorded load, whichever is the highest for each 24 hours duration or part thereof.	67 for each kW or part thereof of sanctioned or connected or recorded load, whichever is the highest for each 24 hours duration or part thereof.	900 (Minimum consumption charges shall be billed @ 6 Units per kW or part thereof of sanctioned or connected or recorded load, whichever is the highest for each 24 hours duration or part thereof subject to a minimum of Rs.500/-)	94 for each kW or part thereof of sanctioned or connected or recorded load, whichever is the highest for each 24 hours duration or part thereof.	72 for each kW or part thereof of sanctioned or connected or recorded load, whichever is the highest for each 24 hours duration or part thereof.

* In case permission for organizing Mela is granted by Competent Authorities of the Government of Madhya Pradesh.

Specific Terms and Conditions for LV-2 category:

- a) **Minimum consumption:** The consumer shall guarantee a minimum annual consumption of 240 units per kW or part thereof in urban areas and 180 units per kW or part thereof in rural areas of sanctioned load or contract demand (in case of demand based charges). However, the load of X-Ray unit shall be excluded while considering the load of the consumer for calculation of minimum consumption. The method of billing minimum consumption shall be as given in General Terms and Conditions of Low Tension tariff.
- b) **Additional Charge for Excess demand:** Shall be billed as given in General Terms and Conditions of Low Tension tariff.
- c) **For LV-2.1 and LV-2.2:** For the consumers having connected load in excess of 10 kW, demand based tariff is mandatory. The Distribution Licensee shall provide Trivector /Bivector Meter capable of recording Demand in kVA/kW, kWh, kVAh.
- d) In case of prepaid consumers, a rebate of 25 paise per unit is applicable on the basic energy charges, all other charges should be calculated on the Tariff applicable after rebate. A consumer opting for prepaid meter shall not be required to make any security deposit.
- e) Other terms and conditions shall be as specified under General Terms and Conditions of Low Tension Tariff.

Tariff Schedule – LV-3

PUBLIC WATER WORKS AND STREET LIGHTS

Applicability:

The tariff LV-3 is applicable for Public Utility Water Supply Schemes, Sewage Treatment Plants, Sewage Pumping Installations run by P.H.E. Department or Local Bodies or Gram Panchayats or any other organization authorised by the Government to supply/ maintain public water works / sewerage installations, traffic signals and lighting of public streets or public places including parks, town halls, monuments and its institutions, museums, public toilets, public libraries, reading rooms run by the Government or Local Bodies, and Sulabh Shochalaya and shall also be applicable to electric crematorium maintained by local bodies/trusts.

Note: Private water supply scheme, water supply schemes run by institutions for their own use/ employees/ townships etc. shall not fall in this category. These shall be billed under the appropriate tariff category to which such institution belongs. In case water supply is being used for two or more different purposes then entire consumption shall be billed for purpose for which the tariff is higher.

Tariff:

Category of consumers/area of applicability	Existing			Proposed		
	Energy Charge (Paise per unit)	Monthly Fixed Charge (Rs per KW)	Minimum charges (Rs)	Energy Charge (Paise per unit)	Monthly Fixed Charge (Rs per KW)	Minimum charges (Rs)
Municipal Corporation/ Cantonment board /Municipality / Nagar Panchayat	563	316	No Minimum Charges	619	350	No Minimum Charges
Gram Panchayat	532	144		585	160	
Temporary supply	1.25 times the applicable tariff			1.25 times the applicable tariff		

Specific Terms and Conditions for LV-3 category:

a) Incentives for adopting Demand Side Management:

An incentive equal to 5 % of Energy Charges shall be given on installation and use of energy saving devices (such as ISI energy efficient motors for pump sets and programmable on-off/dimmer switch with automation for street lights). Incentive will be admissible only if full bill is paid within due dates failing which all consumed units will be charged at normal rates. Such incentive will be admissible from the month following the month in which energy saving devices are put to use and are verified by a person authorized by the Distribution Licensee. This incentive will continue to be

allowed till such time these energy saving devices remain in service. The Distribution Licensee is required to arrange wide publicity of above incentive.

- b)** Other terms and conditions shall be as specified under General Terms and Condition of Low Tension Tariff.

Tariff Schedule – LV-4

LT INDUSTRIAL

Applicability:

Tariff LV-4 is applicable to light, fan and power for operating equipment used by printing press and any other industrial establishments and workshops (where any processing or manufacturing takes place including tyre re-treading). These tariffs are also applicable to cold storage, gur (jaggery) making machines, flour mills, Masala Chakkies, hullers, khandsari units, ginning and pressing units, sugar cane crushers (including sugar cane juicing machine), power looms, dal mills, besan mills, and ice factories and any other manufacturing or processing units (excluding bottling plant) producing/processing food items or processing agriculture produce for preservation/increasing its shelf life and Dairy units (where milk is processed to produce other end products of milk other than chilling, pasteurization etc.)

Tariff:

Sr. no.	Category of consumers/area of applicability	Existing			Proposed		
		Monthly Fixed Charge (Rs per KW)		Energy Charge (Paise per unit)	Monthly Fixed Charge (Rs per KW)		Energy Charge (Paise per unit)
		Urban Areas	Rural Areas		Urban Areas	Rural Areas	
4.1	Non seasonal consumers						
4.1 a	Demand based tariff*(Contract demand upto 150 HP/112kW)	320 per kW or 256 per kVA of billing demand	205 per kW or 164 per kVA of billing demand	660	355 per kW or 284 per kVA of billing demand	230 per kW or 184 per kVA of billing demand	670
4.1 b	Temporary connection	1.25 times of the applicable tariff					

* In case of consumers having contract demand up to 20 HP/15 kW, the energy charges and fixed charges shall be billed at a rate 30% less than the charges shown in above table for tariff category 4.1a.

Provided that consumers whose recorded maximum demand during a month is more than 20 HP/15 kW, rebate of 30% shall not be applicable for that particular month.

4.2	Seasonal Consumers (period of season shall not exceed 6 Months continuously). If the declared season or off-season spreads over two tariff periods, then the tariff for the respective period shall be applicable.						
4.2 a	During Season	Normal tariff as for Non seasonal consumers	Normal tariff as for Non seasonal consumers	Normal tariff as for Non seasonal consumers	Normal tariff as for Non seasonal consumers	Normal tariff as for Non seasonal consumers	Normal tariff as for Non seasonal consumers
4.2 b	During Off season	Normal tariff as for Non-seasonal consumers on 10 % of contract demand or actual	Normal tariff as for Non-seasonal consumers on 10 % of contract demand or actual	120 % of normal tariff as for Non-seasonal consumers	Normal tariff as for Non-seasonal consumers on 10 % of contract demand or actual	Normal tariff as for Non-seasonal consumers on 10 % of contract demand or actual	120 % of normal tariff as for Non-seasonal consumers

		recorded demand, whichever is more	recorded demand, whichever is more		recorded demand, whichever is more	recorded demand, whichever is more	
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Specific Terms and Conditions for LV-4 category:

- (a) The maximum demand of the consumer in each month shall be reckoned as four times the largest amount of kilovolt ampere hours delivered at the point of supply of the consumer during any continuous fifteen minutes in that month.
- (b) Demand based tariff is mandatory for all the LT industrial consumers and the licensee shall provide Tri vector/ Bi vector Meter capable of recording Demand in kVA/ kW, kWh, kVAh and Time of Use consumption.
- (c) **Minimum Consumption:** Shall be as per following:
 - i. **For LT Industries in rural areas:** The consumer shall guarantee a minimum annual consumption (kWh) based on 120 units per HP or part thereof of contract demand irrespective of whether any energy is consumed or not during the year.
 - ii. **For LT Industries in urban areas:** The consumer shall guarantee a minimum annual consumption (kWh) based on 240 units per HP or part thereof of contract demand irrespective of whether any energy is consumed or not during the year.
 - iii. The consumer shall be billed monthly minimum 10 units per HP per month in rural area and 20 units per HP per month in urban area in case the actual consumption is less than above specified units.
 - iv. Method of billing of minimum consumption shall be as given in the General Terms and Conditions of Low Tension tariff.
- (d) **Additional Charge for Excess Demand:** Shall be billed as given in the General Terms and Conditions of Low Tension Tariff.
- (e) **Other Terms and conditions for seasonal consumers:**
 - i. The consumer has to declare months of season and off season within 60 days of issue of this tariff order and inform the same to the Distribution Licensee. If the consumer has already declared the period of season and off-season during this financial year prior to issue of this order, same shall be taken into cognizance for the purpose and accepted by the Distribution Licensee.
 - ii. The seasonal period once declared by the consumer cannot be changed during the financial year.
 - iii. This tariff is not applicable to composite units having seasonal and other category of loads.

- iv. The consumer will be required to restrict his monthly off season consumption to 15% of the highest of average monthly consumption during the preceding three seasons. In case this limit is exceeded in any off season month, the consumer will be billed under Non seasonal tariff for the whole of current financial year as per the tariff in force.
 - v. The consumer will be required to restrict his maximum demand during off season up to 30 % of the contract demand. In case the maximum demand recorded in any month of the declared off season exceeds 36% of CD (120% of 30% of CD), the consumer will be billed under Non seasonal tariff for the whole of current financial year as per the tariff in force.
- (f) Other terms and conditions shall be as specified under General Terms and Conditions of Low Tension Tariff.

Tariff Schedule – LV-5

AGRICULTURE AND ALLIED ACTIVITIES

Applicability:

The tariff **LV-5.1** shall apply to connections for agricultural pump, chaff cutters, threshers, winnowing machines, seeding machines, irrigation pumps of lift irrigation schemes including water drawn by agriculture pumps for use by cattle and pump connections for the purpose of fodder farming associated to Gaushalas, farms growing flowers/ plants / fruits / saplings and grasslands.

The tariff LV-5.2 shall apply to connections for nurseries and farm growing mushrooms.”

The tariff **LV-5.3** shall apply to connections for fisheries ponds, aquaculture, sericulture, hatcheries, poultry farms, cattle breeding farms and those dairy units only where extraction of milk and its processing such as chilling, pasteurization etc. is done

The tariff **LV- 5.4** shall apply to connections for permanent agricultural pump, chaff cutters, threshers, winnowing machines, seeding machines, irrigation pumps of lift irrigation schemes including water drawn by agriculture pumps for use by cattle to whom flat rate tariff is applicable and pump connections for the purpose of fodder farming associated to Gaushalas.

Tariff:

Sr. no.	Sub-Category	Existing		Proposed	
		Monthly Fixed charges (Rs.)	Energy charges (Paise per unit)	Monthly Fixed charges (Rs.)	Energy charges (Paise per unit)
LV-5.1					
a)(i)	First 300 units per month	53	469	60	518
(ii)	Above 300 units up to 750 units in the month	64	572	70	632
(iii)	Rest of the units in the month	70	600	80	663
b)	Temporary connections	70	600	75	660
c)	DTR metered group consumers	Nil	459	Nil	514
LV-5.2					
a)(i)	First 300 units per month	53	469	60	518
(ii)	Above 300 units up to 750 units in the month	64	572	70	632
(iii)	Rest of the units in the month	70	600	80	663
b)	Temporary connections	70	600	75	660
LV-5.3					
a)	Up to 25 HP in Urban areas	105 per HP	530	115 per HP	583
b)	Up to 25 HP in Rural areas	82 per HP	510	95 per HP	561

Sr. no.	Sub-Category	Existing		Proposed	
		Monthly Fixed charges (Rs.)	Energy charges (Paise per unit)	Monthly Fixed charges (Rs.)	Energy charges (Paise per unit)
c)	Demand based tariff (Contract demand up to 150 HP) (Mandatory above 25 HP) in Urban areas	255 per kW or 204 per kVA of billing demand	600	275 per kW or 220 per kVA of billing demand	660
d)	Demand based tariff (Contract demand up to 150 HP) (Mandatory above 25 HP) in Rural areas	133 per kW or 106 per kVA of billing demand	600	145 per kW or 116 per kVA of billing demand	660

LV-5.4

Sr. no.	Agriculture flat rate tariff exclusive of subsidy*.	Charges payable by the consumer in Rs. per HP (for period of 6 months) from April to September	Charges payable by the consumer in Rs. per HP (for period of 6 months) from October to March	Charges payable by the consumer in Rs. per HP (for period of 6 months) from April to September	Charges payable by the consumer in Rs. per HP (for period of 6 months) from October to March
For Agriculture flat rate consumers having load upto 10 HP					
a)	Three phase- urban	375	375	375	375
b)	Three phase- rural	375	375	375	375
c)	Single phase urban	375	375	375	375
d)	Single phase rural	375	375	375	375
For Agriculture flat rate consumers having load more than 10 HP					
a)	Three phase- urban	750	750	750	750
b)	Three phase- rural	750	750	750	750
c)	Single phase urban	750	750	750	750
d)	Single phase rural	750	750	750	750

*see para 1.2 of terms and conditions

Note: The agriculture consumers in urban area connected to a feeder other than separated agriculture feeder will be billed as per consumption recorded in the meter. Existing unmetered consumers may be billed as per flat rate till meters are installed. Discoms must ensure that meters on all such connections are installed by the end of the current financial year.

Specific Terms and Conditions for LV-5 category:

1.1 Billing of consumers under tariff schedule LV 5.1: Billing to the consumers covered under tariff schedule LV 5.1 shall be done on a monthly basis based on the consumption recorded in the meter. Unmetered temporary connection under this schedule shall be billed on the basis of assessment of consumption provided under condition 1.3 (iii) of this schedule.

1.2 Billing of consumers under tariff schedule LV 5.4:

Rates payable by the consumer under tariff schedule LV 5.4 are exclusive of subsidy. The bill for the consumer covered under the tariff schedule LV 5.4 shall be calculated at the rates specified under the tariff schedule LV 5.1 based on norms for assessment of units per HP specified under condition 1.3 of this schedule. Energy Department GoMP vide letter No. 4773/F-3-10/2020/13 dated 21st June, 2021 has conveyed that the flat rate agriculture consumers having load upto 10 HP will pay Rs 750/- per HP per annum and flat rate agriculture consumers having load more than 10 HP will pay Rs 1500/- per HP per annum in two six monthly equal instalments. The State Government would pay subsidy to the DISCOMs for the difference of applicable tariff for this category and bill payable by the flat rate consumers.

1.3 Basis of energy audit and accounting for categories LV 5.1 and LV 5.4:

- i) For energy audit and accounting purposes, actual billed consumption of metered consumers covered under tariff schedule LV-5.1 and LV-5.4 shall be considered.
- ii) For unmetered agriculture consumers under LV-5.4 category, assessed consumption shall be as per following norms:

Particulars	No. of units per HP of sanctioned load per month	
	Urban/Rural Area	
Type of Pump/Motor	April to Sept	Oct to March
Three Phase	95	170
Single Phase	95	180

- iii) For unmetered temporary agriculture consumers under LV 5.1 category, assessed consumption shall be as per following norms:

Particulars	No. of units per HP of sanctioned load per month	
	Urban Area	Rural Area
Type of Pump Motor		
Three Phase	220	195
Single Phase	230	205

- 1.4 Agricultural consumers opting for temporary supply shall have to pay the charges in advance for three months including those who request to avail connection for one month only subject to replenishment from time to time for extended period and adjustment as per final bill after disconnection. Regarding temporary connection for the purpose of threshing the crops, temporary connection for a period of one month can be served at the end of Rabi and Kharif seasons only with payment of one month's charges in advance.
- 1.5 Following **incentive*** shall be given to the metered agricultural consumers on installation of energy saving devices –

Sr.no.	Particulars of Energy Saving Devices	Rate of rebate
1.	ISI / BEE star labelled motors for pump sets	15 paise per unit

2.	ISI / BEE star labelled motors for pump sets and use of frictionless PVC pipes and foot valve	30 paise per unit
3.	ISI / BEE star labelled motors for pump sets and use of frictionless PVC pipes and foot valves along with installation of shunt capacitor of appropriate rating	45 paise per unit

* Incentive shall be allowed on the consumer's contribution part of the normal tariff (full tariff minus amount of Govt. subsidy per unit, if any) for installation of energy saving devices under demand side management. This incentive will be admissible only if full bill is paid within due dates failing which all consumed units will be charged at normal rates. Incentive will be admissible from the month following the month in which Energy Saving Devices are put to use and its verification by a person authorized by the Distribution Licensee. The Distribution Licensee is required to arrange wide publicity to above incentive in rural areas. The licensee is required to place quarterly information regarding incentives provided on its website.

1.6 Minimum consumption

- (i) **For Metered agricultural consumers (LV-5.1 and LV-5.2):** The consumer shall guarantee a minimum consumption of 30 units per HP or part thereof of connected load per month for the months from April to September and 90 units per HP or part thereof of connected load per month for the months from October to March irrespective of whether any energy is consumed or not during the month.
- (ii) **For other than agricultural use (LV-5.3) :**
 - a) The consumer will guarantee a minimum annual consumption (kWh) based on 180 units/HP or part thereof of contract demand in **notified rural areas** and 360 units/HP or part thereof of contract demand in **urban areas** irrespective of whether any energy is consumed or not during the year.
 - b) The consumer shall be billed monthly minimum 15 units per HP per month in **rural area** and 30 units per HP per month in **urban area** in case the actual consumption is less than monthly minimum consumption (kWh).
 - c) **Method of billing of minimum consumption** shall be as given in the General Terms and Conditions of Low Tension Tariff.
- 1.7 **Additional Charge for Excess Demand:** Shall be billed as given in the General Terms and Conditions of Low Tension Tariff.
- 1.8 **Delayed payment surcharge** in case of agriculture consumers on LV - 5.4 flat rate tariff shall be levied @ of Rs 1 every month for each block or part thereof of arrears of Rs.100/-. For other sub categories of this Tariff Schedule, the delayed payment surcharge shall be billed as specified under General Terms and Conditions of Low Tension Tariff.
- 1.9 One CFL/LED lamp up to 20W is permitted at or near the pump in the power circuit.

- 1.10** The use of three phase agriculture pump by installing external device during the period when the supply is available on single phase, shall be treated as illegal extraction of energy and action as per prevailing rules and Regulations shall be taken against the defaulting consumer.
- 1.11** Other terms and conditions shall be as specified under General Terms and Conditions of Low Tension Tariff.

Tariff Schedule - LV-6

E- VEHICLE / E-RICKSHAWS CHARGING STATIONS

Applicability:

The tariff is applicable exclusively for Electric Vehicle / Electric Rickshaws charging and battery swapping stations. However, tariff for other consumers who use electricity for charging their own Vehicle / Rickshaws shall be the same as applicable for the relevant category of metered connection from which the Vehicle / Rickshaws are being charged.

Tariff:

Category	Existing		Proposed	
	Monthly Fixed Charges	Energy Charge (Paise/unit)	Monthly Fixed Charges	Energy Charge (Paise/unit)
Electric Vehicle/ Rickshaw charging installations	Rs 100 per kVA or 125 per kW of Billing Demand	600	Rs 100 per kVA or 125 per kW of Billing Demand	600

Specific Terms and Conditions for LV-6 category:

- (a) **Additional Charge for Excess demand:** Shall be billed as given in General Terms and Conditions of Low Tension tariff.
- (b) For the consumers in this category, demand based tariff is mandatory. The Distribution Licensee shall provide Trivector/Bivector Meter capable of recording Demand in kVA/kW, kWh, kVAh.
- (c) Other terms and conditions shall be as specified under General Terms and Conditions of Low Tension Tariff.

GENERAL TERMS AND CONDITIONS OF LOW TENSION TARIFF

1. **Rural Areas** mean those areas notified by the GoMP vide notification no. 2010/F13 /05/13/2006 dated 25th March 2006 as may be amended from time to time. **Urban areas** mean all areas other than those notified by the GoMP as Rural Areas.
 2. **Rounding off:** All bills will be rounded off to the nearest rupee i.e. up to 49 paisa shall be ignored and 50 paisa upwards shall be rounded off to next Rupee.
 3. **Billing Demand:** In case of demand based tariff, the billing demand for the month shall be the actual maximum kVA demand of the consumer during the month or 90% of the contract demand, whichever is higher. The billing demand shall be rounded off to the nearest integer number i.e. fraction of 0.5 or above will be rounded to next higher integer and the fraction of less than 0.5 shall be ignored.
 4. **Fixed charges billing:** Unless specified otherwise, fractional load for the purposes of billing of fixed charges shall be rounded off to nearest integer i.e. fraction of 0.5 or above will be rounded to next higher integer and the fraction of less than 0.5 shall be ignored. However for loads less than one kW/HP, it shall be treated as one kW/HP.
5. **Method of billing of minimum consumption:**
- A. **For metered agricultural consumers and other than agricultural consumers horticulture activity - LV 5.1 and LV 5.2:** The consumer shall be billed minimum monthly consumption (kWh) specified for his category for the month in which his actual consumption is less than prescribed minimum consumption.
 - B. **For other consumers where applicable:**
 - a. The consumer shall be billed one twelfth of guaranteed annual minimum consumption (kWh) specified for his category each month in case the actual consumption is less than above mentioned minimum consumption.
 - b. During the month in which actual cumulative consumption equals or is greater than the annual minimum guaranteed consumption, no further billing of monthly minimum consumption shall be done in subsequent months of the financial year and only actual recorded consumption shall be billed.
 - c. Tariff minimum consumption shall be adjusted in the month in which cumulative actual or billed monthly consumption exceeds cumulative monthly prorated minimum annual guaranteed consumption. If actual cumulative consumption does not get fully adjusted in that month, adjustment shall continue to be provided in subsequent months of the financial year. The following example illustrates the procedure for monthly billing of consumption where prorated monthly minimum consumption is 100 kWh based on annual consumption of 1200 kWh.

Month	Actual cumulative consumption (kWh)	Cumulative minimum consumption (kWh)	Higher of 2 and 3 (kWh)	Already billed in the year (kWh)	To be billed in the month = (4-5) (kWh)
1	2	3	4	5	6
April	95	100	100	0	100
May	215	200	215	100	115
June	315	300	315	215	100
July	395	400	400	315	85
Aug	530	500	530	400	130
Sept	650	600	650	530	120
Oct	725	700	725	650	75
Nov	805	800	805	725	80
Dec	945	900	945	805	140
Jan	1045	1000	1045	945	100
Feb	1135	1100	1135	1045	90
March	1195	1200	1200	1135	65

6. Additional Charge for Excess connected load or Excess Demand: Shall be billed as per following procedure:

- a) **For demand based tariff:** The consumers availing supply at demand based tariff shall restrict their actual maximum demand within the contract demand. However, in case the actual maximum demand recorded in any month exceeds 120% of the contract demand, the tariff in this schedule shall apply to the extent of 120 % of the contract demand only. The consumer shall be charged for demand recorded in excess of 120% of contract demand (termed as Excess Demand) at the following rates: -
 - i. **Energy charges for Excess Load:** The consumer shall pay charges @ 1.3 times the tariff for energy charges for consumption corresponding to excess demand in case the maximum demand recorded exceeds the 120% of the contract demand.
 - ii. **Fixed Charges for Excess Demand:** These charges shall be billed as per following:
 - a. **Fixed Charges for Excess Demand when the recorded maximum demand is up to 130% of the contract demand:** Fixed Charges for Excess Demand over and above the 120 % of contract demand shall be charged at 1.3 times the normal rate of Fixed Charges.
 - b. **Fixed Charges for Excess Demand when the recorded maximum demand exceeds 130% of contract demand:** In addition to Fixed Charges in 1 above, recorded demand over and above 130 % of the contract demand shall be charged at 2 times the normal rate of Fixed Charges.
- b) **For connected load based tariff:** The consumers availing supply at connected load based tariff shall restrict their actual connected load within the sanctioned

load. However, in case the actual connected load in any month exceeds 120% of the sanctioned load, the tariff in this schedule shall apply to the extent of 120 % of the sanctioned load only. The consumer shall be charged for the connected load found in excess of 120% of the sanctioned load (termed as Excess Load) at the following rates:-

- i. **Energy charges for Excess Load:** The consumer shall pay charges @ 1.3 times the tariff for energy charges for consumption corresponding to excess load in case the connected load found at the consumer's premises exceeds the 120% of the sanctioned load for the entire period for which such use of excess load has taken place and if, however, the period during which such use of excess load has taken place cannot be ascertained, such period shall be limited to a period of twelve months immediately preceding the date of inspection.
 - ii. **Fixed Charges for Excess load:** These charges shall be billed as per following, for the period for which the use of excess load is determined in condition i) above:
 - a. **Fixed Charges for Excess load when the connected load is found up to 130% of the sanctioned load:** Fixed Charges for Excess load over and above the 120 % of sanctioned load shall be charged at 1.3 times the normal rate of Fixed Charges.
 - b. **Fixed Charges for Excess load when the connected load exceeds 130% of sanctioned load:** In addition to Fixed Charges in 1 above, connected load found over and above 130 % of the sanctioned load shall be charged at 2 times the normal rate of Fixed Charges.
- c) The above billing for Excess Connected Load or Excess Demand, applicable to consumers is without prejudice to the Distribution Licensee's right to ask for revision of agreement and other such rights that are provided under the Regulations notified by the Commission or under any other law.
- d) The maximum demand of the consumer in each month shall be reckoned as four times the largest amount of kilovolt-ampere hours delivered at the point of supply of the consumer during any continuous fifteen minutes in that month.
- e) In case it is found that the actual recorded maximum demand or sanctioned load as the case may be, of a LT consumer exceeds maximum permissible contract demand or connected load as per supply code 2021 as amended from time to time, the billing shall be done according to the applicable LT tariff, with additional Charge for excess connected load or excess Demand calculated in accordance with above clause a or b. Further in such case provision of clause 8 (a) of the other term and conditions of LT tariff shall also be applicable.

7. Incentives/Rebates:

- (a) **Rebate on advance payment:** For advance payment made before commencement of consumption period for which bill is prepared, a rebate of 1 % per month on the amount (excluding security deposit) which remains with the Distribution Licensee at the end of billing month shall be credited to the account of the consumer after adjusting any amount payable to the Distribution Licensee.
- (b) **Incentive for prompt payment:** An incentive for prompt payment @0.50% of the bill amount (excluding arrears, security deposit, meter rent, any subsidy given by Government and Government levies viz. Electricity Duty and Cess etc.) shall be given in case the payment is made at least 7 days in advance of the due date of payment where the current month billing amount is equal to or greater than Rs. Ten Thousand. The consumers in arrears shall not be entitled for this incentive.
- (c) **Rebate for online bill payment:** Rebate of 0.50% on the total bill amount maximum up to Rs 20 and minimum of Rs 5 will be applicable for making online payment of bill.
- (d) **Load Factor incentive:** Following slabs of incentive shall be allowed for consumers billed under demand based tariff:

Load factor	Concession in energy charges
Above 25% and up to 30 % load factor on contract demand	12 paise per unit concession on the normal energy charges for all energy consumption over and above 25% load factor during the billing month
Above 30% and up to 40 % load factor on contract demand	In addition to load factor concession available up to 30% load factor, concession at the rate of 24 paise per unit on the normal energy charges for all energy consumption over and above 30 % load factor during the billing month
Above 40% load factor on contract demand	In addition to load factor concession available up to 40% load factor, concession at the rate of 36 paise per unit on the normal energy charges for all energy consumption over and above 40% load factor during the billing month

The **load factor** shall be calculated as per the following formula:

$$\text{Load factor (\%)} = \frac{\text{Monthly consumption} \times 100}{\text{No. of hours in the billing month} \times \text{Demand (KW)}}$$

- i. Monthly consumption shall be units (kWh) consumed in the month excluding those received from sources other than Licensee.
- ii. No. of Hours in billing month shall exclude period of scheduled outages

in hours.

- iii. Demand shall be maximum demand recorded or contract demand whichever is higher.

Note: The Load Factor (%) shall be rounded off to the nearest lower integer. The billing month shall be the period in number of days between the two consecutive dates of meter readings taken for the purpose of billing to the consumer for the period under consideration as a month.

- (e) **Power Factor Incentive:** If the average monthly power factor of the LT three-phase consumer (other than domestic consumers), *whose connected load includes motive power/induction motors(s) of capacity 3BHP and above*, is equal to or more than 85%, incentive shall be payable as follows:

Power Factor	Percentage incentive payable on billed energy charges
Above 85% up to 86%	0.5
Above 86% up to 87%	1.0
Above 87% up to 88%	1.5
Above 88% up to 89%	2.0
Above 89% up to 90%	2.5
Above 90% up to 91%	3.0
Above 91% up to 92%	3.5
Above 92% up to 93%	4.0
Above 93% up to 94%	4.5
Above 94% up to 95%	5.0
Above 95% up to 96%	6.0
Above 96% up to 97%	7.0
Above 97% up to 98%	8.0
Above 98% up to 99%	9.0
Above 99%	10.0

Note:

For this purpose, the “average monthly power factor” is defined as the ratio expressed in percentage of total kilo-watt-hours to the total kilo-volt-ampere-hours recorded during the billing month. This ratio (%) shall be rounded off to the nearest integer figure and the fraction of 0.5 or above will be rounded off to next higher figure and the fraction of less than 0.5 shall be ignored.

In the case of billing or credit of guaranteed minimum consumption incentive shall be provided with respect to energy actually consumed during the month. All the rebates/incentives shall be calculated on amount excluding Government Subsidy.

8. Other Terms and Conditions:

- (a) **The sanctioned load/ connected load (for sanctioned load-based tariff) or contract demand (for demand based tariff), as the case may be, should not exceed 112kW / 150 HP except where a higher limit is specified or the category is exempted from the ceiling on connected load.** If the consumer exceeds his connected

load or contract demand **as the case may be**, beyond this ceiling **in two consecutive billing months** during the tariff period, the Distribution Licensee may insist on the consumer to avail HT supply.

- (b) No metering charges shall be billed in this Tariff Order.
- (c) In case the cheque presented by the consumer is dishonoured, without prejudice to Distribution Licensee's rights to take recourse to such other action as may be available under the relevant law, a service charge of Rs. 200 plus applicable GST per cheque shall be levied in addition to delayed payment surcharge
- (d) Other charges as stated in Schedule of Miscellaneous Charges shall also be applicable.
- (e) Existing LT power consumer (other than LV-1: Domestic Consumer) shall ensure that LT capacitor of proper rating is provided. In this regard, the Madhya Pradesh Electricity Supply Code, 2013, as amended from time to time may be referred for guidance. It shall be the responsibility of the consumer to ensure that overall average power factor during any month is not less than 0.8 (80%) failing which the consumer shall be liable to pay low power factor surcharge on the entire billed amount against energy charges during the month. Provided that such surcharge shall be billed on the basis of energy actually consumed during the month. Power factor surcharge shall be billed at the rates given below:

1. For the LT three- phase consumer (excluding domestic consumers) whose meter is capable of recording average power factor:

- a Surcharge @ 1 % of energy charges for every 1% fall in power factor below 80% up to 75 %.
- b Surcharge of 5% plus 1.25% of energy charges for every 1% fall in power factor below 75% up to 70%.

The maximum limit of surcharge will be 10 % of the energy charges billed during the month.

2. For LT three-phase consumers (excluding domestic consumers) other than e (1) above: The consumer shall ensure that LT capacitors of proper rating are provided and are in good working condition. In this regard, the Madhya Pradesh Electricity Supply Code, 2013, as amended from time to time may be referred for guidance. In case of failure to meet the above criteria, the consumer would be levied a low power factor surcharge of 10% on the entire billed amount against energy charges during the month and would be continued to be billed till such time the consumer meets the above criteria .

Note:

- a. For this purpose, the “average monthly power factor” is defined as the ratio expressed in percentage of total kilo-watt-hours to the total kilo-volt-ampere-hours recorded during the billing month. This ratio (%) shall be rounded off to the nearest integer figure and the fraction of 0.5 or above will be rounded off to next higher figure and the fraction of less than 0.5 shall be ignored.
 - b. In the case of billing or credit of guaranteed minimum consumption such surcharge shall be billed with respect to energy actually consumed during the month.
- (f) Levy of power factor surcharge as indicated hereinabove shall be without prejudice to the rights of the Licensee to disconnect the consumer's installation, if steps are not taken to improve the power factor by installing suitable shunt capacitors.
- (g) In case of any dispute on applicability of tariff on a particular LT category, the decision of the Commission shall be final.
- (h) The tariff does not include any tax, cess or duty, etc. on electrical energy that may be payable at any time in accordance with any law then in force. Such charges, if any, shall also be payable by the consumer in addition to the tariff charges and applicable miscellaneous charges.
- (i) **Delayed payment Surcharge for all categories:** Surcharge at the rate of 1.25 % per month or part thereof on the amount outstanding (including arrears) will be payable if the bills are not paid up to due date subject to a minimum of Rs.5/- per month for total outstanding bill amount up to Rs. 500/- and Rs 10/ per month for amount of bill more than Rs.500/. The part of a month will be reckoned as full month for the purpose of calculation of delayed payment surcharge. The delayed payment surcharge will not be levied for the period after supply to the consumer is permanently disconnected. This provision shall not be applicable to that category where the levy of delayed payment surcharge has been prescribed separately.
- (j) In case of conversion of LT connection into HT connection, it is mandatory on the part of both the consumer and the licensee to get the HT agreement executed before availing supply at HT.
- (k) **Use of mix loads in one connection:** Unless otherwise permitted specifically in the tariff category, the consumer using mix loads for different purposes shall be billed for the purpose for which the tariff is higher.
- (l) Consumers in the notified Industrial Growth Centres/Industrial areas/Industrial parks receiving supply under urban discipline shall be billed urban tariff.
- (m) No change in the tariff or the tariff structure including minimum charges for any category of consumer is permitted except with prior written permission from the Commission. Any action taken without such written permission of the Commission

shall be treated as null and void and shall also be liable for action under relevant provisions of the Electricity Act, 2003.

- (n) All conditions prescribed herein shall be applicable to the consumer notwithstanding if any contrary provisions exist in the agreement entered into by the consumer with the licensee.
- (o) If any difficulty arises in giving effect to any of the provisions of this order, the Commission may, by general or special order, direct the Licensees to do or undertake things, which in the opinion of the Commission is necessary or expedient for the purpose of removing the difficulties.

9. Additional conditions for Temporary Supply at LT:

Temporary supply cannot be demanded by a prospective/ existing consumer as a matter of right but will normally be arranged by the Distribution Licensee when a requisition giving due notice is made. The temporary additional supply to an existing consumer also shall be treated as a separate service and charged subject to following conditions. However, service under Tatkal Scheme shall be made available within 24 hours according to the charges specified in the order of the Commission regarding Schedule of Miscellaneous Charges.

- (a) Fixed Charge and Energy Charge for temporary supply shall be billed at **1.25** times the normal charges as applicable to relevant category if not specified otherwise specifically.
 - (b) Estimated bill amount is payable in advance before serving the temporary connection subject to replenishment from time to time and adjustment as per final bill after disconnection. No interest shall be given to consumers for this advance payment.
 - (c) The Sanctioned load / connected load (for sanctioned load based Tariff) or contract demand (for demand based tariff), as the case may be, shall not exceed 112kW / 150 HP.
 - (d) The month for the purpose of billing of charges for temporary supply shall mean 30 days from the date of connection. Any period less than 30 days shall be treated as full month for the purpose of billing.
 - (e) Connection and disconnection charges and other miscellaneous charges shall be paid separately as may be specified in the Schedule of Miscellaneous Charges.
 - (f) Load factor concession shall not be allowed on the consumption for temporary connection.
 - (g) Power factor incentive/penalty shall be applicable at the same rate as applicable for permanent connection.
- 10.** Wherever, there is contradiction in general terms & conditions and specific terms & conditions given for any particular category, the specific terms and conditions shall prevail for that category.

TARIFF SCHEDULES FOR HIGH TENSION CONSUMERS

Tariff Categories		Page No
HV-1	Railway Traction	296
HV-2	Coal Mines	299
HV-3	Industrial, Non-industrial and Shopping Malls	300
HV-4	Seasonal	307
HV-5	Irrigation Public Water Works and Other than Agriculture	309
HV-6	Bulk Residential Users	311
HV-7	Synchronization of Power for Generators connected to Grid.	313
HV-8	E-Vehicle / E-Rickshaw.	314
	General terms and conditions of high tension tariff	315

Tariff Schedule - HV-1

RAILWAY TRACTION:

Applicability:

This Tariff shall apply to the Railways for Traction loads only.

Tariff:

Category of consumer	Existing		Proposed	
	Monthly Fixed Charge (Rs. per kVA of billing demand per month)	Energy Charge (paise / unit)	Monthly Fixed Charge (Rs. per kVA of billing demand per month)	Energy Charge (paise / unit)
Railway Traction on 132 kV / 220 kV	310	590	310	590

Note: A rebate of Rs. 2 per Unit in energy charges is applicable. This rebate shall be applicable up to FY 2022-23.

Specific Terms and Conditions for HV-1 category:

- (a)** In order to give impetus to electrification of Railway network in the State, a rebate of 15% in energy charges for new Railway traction projects shall be allowed for a period up to FY 2022-23 for new projects. The rebate provided in earlier orders shall remain in force at the rate and for the duration as mentioned in those tariff orders.
- (b)** The dedicated feeder maintenance charges shall not be applicable.
- (c)** Guaranteed Annual Minimum Consumption shall be 1500 units (kWh) per kVA of Contract Demand. The method of billing of minimum consumption shall be as given in General Terms and Conditions of High Tension Tariff.
- (d)** The consumer shall at all times restrict their actual maximum demand within the contract demand. In case the actual maximum demand in any month exceeds 120% of the contract demand, the tariffs given in various schedules shall apply to the extent of the 120% of the contract demand only. The consumer shall be charged for excess demand computed as difference of recorded maximum demand and 120% of contract demand on fixed charges and while doing so, the other terms and conditions of tariff, if any, shall also be applicable on the said excess demand.
- (e)** **Energy charges for excess demand:** No extra charges are applicable on the energy charges due to the excess demand or excess connected load.
- (f)** The excess demand so computed as per above, if any, in any month shall be charged at the following rates:

- (a) When the recorded maximum demand is up to 130% of contract demand- Excess Demand over and above 115 % of the contract demand—at the rate of Rs. 341 per kVA
- (b) When the recorded maximum demand exceeds 130% of contract demand: - In addition to fixed charges in (a) above, recorded demand over and above 30 % of the contract demand shall be charged—at the rate of Rs. 465 per kVA

While doing so, other provisions of electricity tariff (such as tariff minimum charge etc.) will also be applicable on aforesaid excess demand.

(g) Power Factor Penalty:

- i. If the average monthly power factor of the consumer falls below 90 percent, penalty will be levied at the rate of one percent of total energy charges for the month for each one percent fall in the average monthly power factor below 90 percent. **For determination of power factor, lag only logic shall be used and no power factor penalty shall be levied if leading power factor is recorded.**
- ii. If the average monthly power factor of the consumer falls below 85 percent, the consumer shall be levied a penalty of 5% (five percent) plus @ 2% (two percent) for each one percent fall in his average monthly power factor below 85 percent, on the total amount of bill under the head of “Energy Charge”. This penalty shall be subject to the condition that overall penalty on account of low power factor does not exceed 35%.
- iii. For this purpose, the “average monthly power factor” is defined as the ratio expressed in percentage of total kilowatthours recorded to the total kilovoltampere hours recorded during the billing month. This ratio (%) shall be rounded off to the nearest integer figure and the fraction of 0.5 or above will be rounded to next higher integer and the fraction of less than 0.5 shall be ignored.
- iv. Notwithstanding what has been stated above, if the average power factor of a new connection of the consumer is found to be less than 90% in any month during the first 6 (six) months from the date of connection, the consumer shall be entitled to a maximum period of six months to improve it to not less than 90% subject to following conditions:
 - This period of six months shall be reckoned from the month in which the average power factor was found for the first time to be less than 90%.
 - In all cases, the consumer will be billed penal charges for low power factor, but in case the consumer maintains the average power factor in subsequent three months (thus in all four months) to not less than 90%,

the charges on account of low power factor billed during the said six months period, shall be withdrawn and credited in next monthly bills.

- The facility, as mentioned herein, shall be available not more than once to new consumer whose average power factor is less than 90% at any time during 6 months from the date of connection. Thereafter, the charges on account of low average power factor, if found less than 90%, shall be payable as by any other consumer.
- (h) **Emergency feed extension:** Provided that if as a result of the emergency in the traction substation or in the transmission line supplying load or part thereof is transferred to an adjacent traction substation, the M.D. for the month for that adjacent traction substation shall be as the average of M.D. for previous three months during which no emergency had occurred.
- (i) Other terms and conditions shall be as mentioned in the General Terms and Conditions of High Tension Tariff.

Tariff Schedule - HV-2

COAL MINES:

Applicability:

This Tariff shall apply to the Coal Mines for power, ventilation, lights, fans, coolers, etc. which shall mean and include all energy consumed for coal mines and lighting in the offices, stores, canteen, compound lighting etc. and the consumption for residential use therein.

Tariff:

Sub category	Monthly Fixed Charge (Rs./kVA of billing demand per month)		Energy Charge for consumption up to 50% load factor (Paise/unit)		Energy Charge for consumption in excess of 50% load factor (paise/unit)	
Coal Mines	Existing	Proposed	Existing	Proposed	Existing	Proposed
11 kV supply	675	700	725	761	640	672
33 kV supply			715	758	620	657
132 kV supply			695	730	600	630
220 kV supply			672	706	576	605

Specific Terms and Conditions for HV-2 category:

- a. **Guaranteed Minimum Consumption** shall be on the following basis :

Supply Voltage	Guaranteed annual minimum consumption in units (kWh) per kVA of contract demand
<i>For supply at 220/132 kV</i>	1620
<i>For supply at 33/11 kV</i>	1200

Note: The method of billing of minimum consumption shall be as given in General Terms and Conditions of High Tension Tariff.

- b. **Time of Day Surcharge / Rebate:** This surcharge/ rebate shall be as specified in General Terms and Conditions of High Tension Tariff.
- c. Other terms and conditions shall be as specified under General Terms and Conditions of High Tension Tariff.

Tariff Schedule - HV-3

INDUSTRIAL, NON-INDUSTRIAL AND SHOPPING MALLS

Applicability:

The tariff **HV-3.1(Industrial)** shall apply to all HT industrial consumers including mines (other than coal mines) for power, light and fan etc. which shall mean and include all energy consumed for factory and lighting in the offices, main factory building, stores, canteen, residential colonies of industries, compound lighting, common and ancillary facilities such as Banks, General purpose shops, Water supply, Sewage pumps, Police Stations, telecom tower etc. within the premises of the industrial units and Dairy units where milk is processed (other than chilling, pasteurization etc.) to produce other end products of milk. This tariff shall also apply to cold storages.

The tariff **HV-3.2 (Non Industrial)** shall apply to establishments like Railway Stations, Offices, Hotels, Hospitals, Institutions etc. (excluding group of consumers) having mixed load for power, light and fan etc. which shall mean and include all energy consumed for lighting in the offices, stores, canteen, compound lighting etc. This shall also cover all other categories of consumers, defined in LT non-domestic category subject to the condition that the HT consumer shall not redistribute/sub-let the energy in any way to other person.

The **tariff HV-3.3 (Bulk Supply to non-industrial consumers including shopping mall)** shall apply to establishments having group of non-industrials consumers including shopping malls subject to the specific terms and conditions specified in (i) of this schedule. Further any use of power other than non-industrial purpose shall also be permitted under this category.

Shopping Mall shall be a multi-storeyed shopping centre in an urban area having a system of enclosed walkways with collection of independent retail stores, services and parking areas constructed and maintained by a management firm/ developer as a unit.

The **tariff HV-3.4 (Power intensive industries)** shall apply to Mini Steel Plants (MSP), MSP with rolling mills/ sponge iron plants in the same premises, electro chemical/ electro thermal industry, Ferro alloy industry which shall mean and include all energy consumed for factory and lighting in the offices, main factory building, stores, canteen, residential colonies of industries, compound lighting etc.

Note: This tariff shall apply to only those Mini Steel Plants (MSP), MSP with re-rolling mills / sponge iron plants in the same premises and Ferro Alloy plants where smelting / heating of iron & steel is done using Electric Furnaces only.

Tariff:

S. no.	Sub-Category of consumer	Existing			Proposed		
		Monthly Fixed Charge (Rs/KVA) of billing demand per month	Energy Charge for consumption on up to 50% load factor (paise/unit)	Energy Charge for consumption in excess 50% load factor (paise/unit)	Monthly Fixed Charge (Rs/KVA) of billing demand per month	Energy Charge for consumption on up to 50% load factor (paise/unit)	Energy Charge for consumption in excess 50% load factor (paise/unit)
3.1	Industrial						
	11 kV supply	347	710	610	350	730	650
	33 kV supply	570	705	600	570	710	610
	132 kV supply	660	662	565	665	674	575
	220/400kV supply	660	620	520	665	639	536
3.2	Non-Industrial						
	11 kV supply	327	745	655	346	745	670
	33 kV supply	470	725	630	398	736	628
	132 kV supply	560	680	570	525	685	595
	220/400kV supply						
3.3	Shopping Malls						
	11 kV supply	336	725	650	346	746	670
	33 kV supply	388	715	610	398	736	628
	132 kV supply	520	665	590	525	685	595
	220/400kV supply						
3.4	Power Intensive Industries*						
	33 kV supply	580	540	540	605	600	600
	132 kV supply	710	517	517	740	595	595
	220 kV supply	710	510	510	740	575	575

Specific Terms and Conditions for HV-3 category:

- (a) Guaranteed Minimum Consumption** for all the above categories shall be on following basis :

Supply Voltage	Sub- category	Guaranteed annual minimum consumption in units (kWh) per kVA of contract demand
<i>For supply at 220/132kV</i>	Rolling Mills	1200
	Educational institutions	720
	Others	1800
<i>For supply at 33 / 11 kV</i>	Educational institutions	600
	Contract demand up to 100kVA	600
	Others	1200

Note:

- (i) Guaranteed Minimum Consumption: For supply at 33/11 kV Contract demand up to 100 kVA:** If recorded MD of such connection exceeds its CD during two billing-months in a

financial year, the guaranteed annual minimum consumption shall be 1.5 times of the applicable TMM for that particular month in which the MD exceeds (900 Units/kVA/annum).

(ii) The method of billing of minimum consumption shall be as given in General Terms and Conditions of High Tension Tariff.

(b) Time of Day Surcharge / Rebate: This surcharge/ rebate shall be as specified in General Terms and Conditions of High Tension Tariff.

(c) Rebate for existing HT connections: A rebate of Rs. 1/Unit in energy charges is applicable for incremental monthly consumption w.r.t corresponding month of FY 2015-16. For any new consumer served during and after FY 2015-16, the base months for calculation of incremental monthly consumption shall be the first 12 months subsequent to the month of availing the connection. The incremental consumption for any month shall be worked out considering the consumption of the corresponding base month.

The consumer availing this rebate shall not be entitled to the rebate of new HT connection/ Green field connection under clause (d) below.

(d) Rebate for New HT connections: A rebate of Rs 1/Unit or 20% whichever would be less is applicable in energy charges for new connection for the consumption recorded. The rebate shall be allowed up to FY 2022-23 from the date of connection for such new projects for which agreements for availing supply from licensee are finalized during and after FY 2016-17.

- i. New projects for which agreements for availing supply from licensee are finalised during FY 2022-23 shall be eligible for this rebate.
- ii. This rebate shall be allowed up to FY 2022-23 subject to the provisions of the tariff order of the respective year.
- iii. No rebate shall be applicable for connections obtained by virtue of change in ownership in existing connection or by reconnection.
- iv. New connection on the permanently disconnected premises shall only be eligible for such rebate, if, the application for new service connection on such premises is received not before the expiry of six months from the date of its permanent disconnection.
- v. The consumer availing this rebate shall not be entitled for the rebate of incremental consumption under clause (c) above.

(e) Rebate for Captive power plant consumers:

Applicability: The rebate shall be applicable to consumers-

- i. Who have been meeting their demand either fully or partially during FY 2016-17 and/or FY 2017-18 and/or FY 2018-19 and/or FY 2019-20 and/or FY 2020-21 and/or FY 2021-22 through their captive power plants located in Madhya Pradesh.
- ii. The rebate shall be applicable up to FY 2022-23 from the date of request submitted by the consumer to the Licensee during and after FY 2017-18. The consumer shall be required to apply to the Licensee for the rebate indicating that he would be willing to avail supply from Licensee by switching consumption from his existing captive power plant.
- iii. The **base year** shall be the financial year preceding the year during which the consumer has applied for switching consumption from his captive power plant to the licensee.
e.g., if a consumer applies for switching his consumption from captive power plant to Licensee in August, 2019, then his base year for calculation of incremental consumption would be FY 2018-19.
- iv. Who have recorded an incremental consumption i.e., an increase in the units consumed from the Licensee in any month of the current year (FY 2022-23) compared to the same month in **base year**.
- v. A rebate of Rs 2 per unit shall be applicable on incremental units of the consumer subject to reduction in captive generation as per the methodology given below:-

Scenario	Base Year		Current Financial Year		Incremental Consumption from Discom	Reduction in Captive Generation	Units eligible for 60 paise rebate in energy charges as per Clause (c) of specific terms & conditions	Units eligible for Rs 2/ Unit rebate on incremental units
	Consumption from Discom (Units)	Captive Generation Units	Consumption from Discom (Units)	Captive Generation (Units)	Units	Units	Units	Units
	(A ₁)	(B ₁)	(A ₂)	(B ₂)	X = A ₂ -A ₁	Y = B ₁ -B ₂		
Scenario 1	100	90	110	90	10	0	10	0
Scenario 2	100	90	110	80	10	10	0	10
Scenario 3	100	90	110	70	10	20	0	10
Scenario 4	100	90	100	80	0	10	0	0
Scenario 5	100	90	120	80	20	10	10	10

- Note:
- 1) Captive power plant referred above shall be the "Captive Generating Plant" as defined in Rule 3 of the Electricity Rules, 2005.
 - 2) For new consumers added during this tariff period who were fully meeting their demand from their captive power Plants during the previous financial year then their consumption from Discom may be treated as zero for the base year.

X = the incremental consumption recorded by the captive consumer in any month of the current financial year compared to the same month of base year.

And

Y = the quantum of reduction in units consumed from captive plant (self-consumption) achieved by the captive consumer in any month of the current financial year compared to the same month in the base year.

For all other cases of incremental consumption i.e when X>Y, the existing rebate of Rs 1/unit in energy charges will be applicable on X-Y units (as per the rebate for incremental consumption given in clause (c) in the Specific Terms & Conditions for HV-3).

Scenario 1: There is no reduction in Captive Generation but only incremental consumption from Discom, hence a rebate of Rs 1/unit in energy charges is applicable on incremental consumption from Discom (as per the rebate for incremental consumption given in clause (c) in the Specific Terms & Conditions for HV-3).

Scenario 2: The incremental consumption from Discom is due to the reduction of captive consumption by same quantum of units hence it will attract a rebate of Rs 2 per unit on incremental units.

Scenario 3: There is higher reduction in Captive Generation as compared to incremental Consumption from Discom hence incremental units consumed from the Discom as shown in the table, shall qualify for a Rebate of Rs 2 per unit.

Scenario 4: There shall not be any rebate due to absence of incremental Consumption from Discom irrespective of reduction in Captive Generation.

Scenario 5: This scenario depicts higher incremental consumption from Discom (X) than reduction in Captive Generation (Y) hence units corresponding to (X-Y) shall qualify for rebate of Rs 1/unit in energy charges (as per the rebate for incremental consumption given in clause (c) in the Specific Terms & Conditions for HV-3) while units Y shall qualify for Rebate of Rs 2 per unit.

(f) Rebate for Open Access Consumers

Applicability: The rebate shall be applicable to consumers

- i. Who have been availing open accesses during the last financial year, i.e., FY 2021-22.

- ii. Who have recorded an incremental consumption i.e., an increase in the units consumed from the Licensees in any month of the current year (FY 2022-23) compared to the same month in last year (FY 2021-22).
- iii. The rebate shall be applicable from the date of request submitted by the consumer to the Licensee during FY 2022-23.
- iv. The consumer shall be required to apply with the Licensee for the rebate indicating that he would be willing to avail supply from Licensee by switching consumption from open access.
- v. A rebate of Rs 1 per unit shall be applicable on incremental units of the consumer subject to reduction in open access consumption as per the methodology given below:

Scenarios	FY 2021-22		FY 2022-23		Incremental Consumption from Discom $X = A_2 - A_1$	Reduction in OA units $Y = B_1 - B_2$	60 paisa rebate applicable units as per clause (c) of specific terms & conditions	Rs 1/unit rebate on incremental units of Open Access
	Consumption from Discom (A1)	Wheeled Units (B1)	Consumption from Discom (A2)	Wheeled Units (B2)				
Scenario 1	100	90	110	90	10	0	10	0
Scenario 2	100	90	110	80	10	10	0	10
Scenario 3	100	90	110	70	10	20	0	10
Scenario 4	100	90	100	80	0	10	0	0
Scenario 5	100	90	120	80	20	10	10	10

X = the incremental consumption recorded by the open access consumer in any month of the current financial year as compared to the same month of base year.

And

Y = the quantum of reduction in units consumed from open access by the consumer in any month of the current financial year as compared to the same month in the base year.

For all other cases of incremental consumption i.e. when $X > Y$, the existing rebate of Rs 1/unit in energy charges will be applicable on $X - Y$ units (as per the rebate for incremental consumption given in clause (c) in the Specific Terms & Conditions for HV-3).

Scenario 1: There is no reduction in open access consumption but only incremental consumption from Discom, hence a rebate of Rs 1/unit in energy charges is applicable on incremental consumption from Discom (as per the

rebate for incremental consumption given in clause (c) in the Specific Terms & Conditions for HV-3).

Scenario 2: The incremental consumption from Discom is due to the reduction of open access consumption by same quantum of units hence it will attract a rebate of Rs 1 per unit on incremental units.

Scenario 3: There is higher reduction in open access consumption as compared to incremental Consumption from Discom hence incremental units consumed from the Discom as shown in the table, shall qualify for a Rebate of Rs 1 per unit.

Scenario 4: There shall not be any rebate due to absence of incremental Consumption from Discom irrespective of reduction in open access consumption.

Scenario 5: This scenario depicts incremental consumption from Discom (X) and reduction in open access consumption (Y) hence units corresponding to (X-Y) shall qualify for rebate of Rs 1/unit in energy charges (as per the rebate for incremental consumption given in clause (c) in the Specific Terms & Conditions for HV-3) while units Y shall qualify for Rebate of Rs 1 per unit.

(g) Conversion of Existing LT Industrial/Non domestic connection to corresponding HT connection

A rebate of Rs. 1 per unit in the energy charges on the HT tariff shall be provided to those existing LT consumers who convert to HV 3 category during FY 2022-23. The rebate is applicable for FY 2022-23 for the units billed only after the commencement of HT Agreement during FY 2022-23.

(h) Additional specific terms and conditions for shopping mall

Individual end user shall not be levied a rate which is exceeding non-domestic-commercial tariff (LV 2.2) in case of LT connection and HT non-industrial tariff (HV 3.2) in case of HT connection, as determined by the Commission.

Tariff Schedule - HV-4

SEASONAL:-

Applicability:

This tariff shall be applicable to such seasonal industries / consumers requiring energy for the production purposes for maximum continuous six months and for a minimum period of three months. **If the declared season/off-season spreads over two tariff periods, then the tariff for the respective period shall be applicable.**

The licensee shall allow this tariff to any industry having seasonal use only.

Tariff:

Category of consumers	Monthly Fixed Charge (Rs./kVA of billing demand per month)		Energy Charge for consumption up to 50% load factor (paise / unit)		Energy Charge for consumption in excess of 50% load factor (paise per unit)	
	Existing	Proposed	Existing	Proposed	Existing	Proposed
During Season						
11 kV supply	367	377	695	730	590	620
33 kV supply	408	418	675	709	570	599
During Off-Season						
11 kV supply	Rs. 367 on 10% of contract demand or actual recorded demand whichever is higher	Rs. 377 on 10% of contract demand or actual recorded demand whichever is higher	834 i.e. 120% of seasonal energy charge	876 i.e. 120% of seasonal energy charge	Not applicable	Not applicable
33 kV supply	Rs. 408 on 10% of contract demand or actual recorded demand whichever is higher	Rs. 418 on 10% of contract demand or actual recorded demand whichever is higher	810 i.e. 120% of seasonal energy charge	851 i.e. 120% of seasonal energy charge	Not applicable	Not applicable

Specific Terms and Conditions for HV-4 category:

- a) **Guaranteed Annual Minimum Consumption** shall be 900 units (kWh) per kVA of contract demand. The method of billing of minimum consumption shall be as given in General Terms and Conditions of High Tension Tariff
- b) **Time of Day Surcharge / Rebate:** This surcharge/ rebate shall be as specified in General Terms and Conditions of High Tension Tariff.
- c) The consumer has to declare months of season and off season to the licensee within 60 days of issue of this tariff order and inform the same to the licensee. If the consumer has already informed the Licensee of his season/off- season months prior to issue of this order, same shall be accepted and shall be valid for this tariff order.

- d)** The seasonal period once declared by the consumer cannot be changed during the year.
- e)** This tariff schedule is not applicable to composite units having seasonal and other category loads.
- f)** The consumer will be required to restrict his monthly off season consumption to 15% of highest of the average monthly consumption of the preceding three seasons. In case this limit is exceeded in any off season month, the consumer will be billed under HV-3.1 Industrial Schedule for the current financial year.
- g)** The consumer will be required to restrict his maximum demand during off season up to 30 % of the contract demand. In case the maximum demand recorded in any month of the declared off season exceeds 36.0% of CD (120% of 30% of CD), the consumer will be billed under HV 3.1 Industrial tariff for the current financial year as per the tariff in force.
- h)** Other terms and conditions shall be as per the General Terms and Conditions of High Tension Tariff.

Tariff Schedule - HV-5

IRRIGATION, PUBLIC WATER WORKS AND OTHER THAN AGRICULTURAL

Applicability:

This Tariff Category shall apply to supply of power to lift irrigation schemes, group irrigation, Public Utility Water Supply schemes, sewage treatment plants/sewage pumping plants and for energy used in lighting pump house.

This Tariff category shall also applicable to River link projects implemented by government or its agency provided that the supply of power is utilized for purposes covered under this category only.

Note: Private water supply scheme, water supply schemes run by institutions for their own use/employees/townships etc. will not fall in this category but billed under the appropriate tariff category to which such institution belongs. In case water supply is being used for two or more different purposes then the highest tariff shall be applicable.

This tariff category shall also apply to supply of power to other than agriculture pump connections i.e. the connection for hatcheries, fisheries ponds, poultry farms, cattle breeding farms, grasslands, vegetables/ fruits/ floriculture/ mushroom growing units etc. and dairy (for those dairy units where only extraction of milk and its processing such as chilling, pasteurization etc. is done). However, in units where milk is processed to produce other end products of milk, billing shall be done under HV-3.1 (Industrial) category.

Tariff:

Sub-Category	Monthly Fixed Charge (Rs./KVA of billing demand per month)		Energy Charge (paise per unit)	
	Existing	Proposed	Existing	Proposed
11 kV supply	327	338	602	580
33 kV supply			590	635
132 kV supply			550	622
220 kV & above			---	560

Specific Terms and Conditions for HV-5 category:

- (a) **Guaranteed Annual Minimum Consumption** shall be 720 units (kWh) per kVA of contract demand. The method of billing of minimum consumption shall be as given in General Terms and Conditions of High Tension Tariff.
- (b) Time of Day Surcharge / Rebate: This surcharge/ rebate shall be as specified in General Terms and Conditions of High Tension Tariff.

(c) Incentive for adopting Demand Side Management

An incentive equal to 5 % energy charges shall be given on installation and use of energy saving devices (such as ISI energy efficient motors for pump sets). Incentive will only be admissible if full bill is paid within due dates failing which all consumed units will be charged at normal rates as the case may be. Such incentive will be admissible from the month following the month in which energy saving devices are put to use and its verification by a person authorized by the licensee. The incentive will continue to be allowed till such time these energy saving devices remain in service. The Distribution Licensee is required to arrange wide publicity for above incentive. The Distribution Licensee is required to place quarterly information regarding incentives provided on its web site.

(d) Other terms and conditions shall be as per the General Terms and Conditions of High Tension Tariff.

Tariff Schedule - HV-6

BULK RESIDENTIAL USERS

Applicability:

The tariff category HV-6.1 is applicable for supply to industrial or any other township (e.g. that of University or academic institutions, hospitals, MES and Border villages etc.) for domestic purpose only such as lighting, fans, heating etc. provided that the connected load for essential common facilities such as Non-domestic supply in residential area, street lighting shall be within the limits specified hereunder: -

- (i) Water supply and Sewage pumping, Hospital - **No limit**
- (ii) Non-domestic/Commercial and other General purpose put together - **20 % of total connected load.**

The tariff category HV-6.2 is applicable for supply to Registered Cooperative Group Housing Societies as per the Ministry of Power's notification no. S.O.798 (E) dated 9th June, 2005 and also to other Registered Group Housing Societies and individual domestic user, old age homes, day care centres for senior citizens, rescue houses and orphanages run by Govt./charitable trust. The Terms and Conditions to this category of consumers shall be applicable as per relevant provisions of the Madhya Pradesh Electricity Supply Code, 2013 as amended from time to time.

Provided that the connected load for essential common facilities such as Non-domestic supply in residential area, street lighting shall be within the limits specified hereunder: -

- (i) Water supply and Sewage pumping, Hospital - **No limit**
- (ii) Non-domestic/Commercial and other General purpose put together - **20 % of total connected load.**

Tariff:

Sr no.	Sub-Category	Monthly Fixed Charge (Rs. /KVA of billing demand per month)		Energy Charge for consumption up to 50% load factor (paise / unit)		Energy Charge for consumption in excess of 50% load factor (paise / unit)	
		Existing	Proposed	Existing	Proposed	Existing	Proposed
6.1	For Tariff Sub-Category 6.1						
	11 kV supply	326	362	625	681	560	610
	33 kV supply			610	665	540	589
	132 kV supply			590	643	520	567
6.2	For Tariff Sub-Category 6.2						
	11 kV supply	204	226	625	681	560	610
	33 kV supply			610	665	540	589
	132 kV supply			550	643	510	567

Specific Terms and Conditions for HV-6 category:

- (a) Guaranteed Annual Minimum Consumption** shall be 780 units (kWh) per kVA of contract demand. The method of billing of minimum consumption shall be as given in General Terms and Conditions of High Tension Tariff.
- (b)** The individual end user shall not be levied a rate exceeding the tariff applicable to the corresponding LT category.
- (c)** Other terms and conditions shall be as specified under General Terms and Conditions of High Tension Tariff.

Tariff Schedule - HV-7

SYNCHRONIZATION OF POWER FOR GENERATORS CONNECTED TO THE GRID

Applicability:

This Tariff shall apply to that generators/co-generators (conventional as well as renewable source based) who are already connected to the grid and draw power for synchronization with the grid or during shutdown period of its plant or during other emergencies.

Tariff for all voltages: **Tariff:**

Category of consumers	Energy (paisa/unit)	Energy (paisa/unit)
	Existing	Proposed
Generators connected to the Grid	960	1008

Specific Terms and Conditions for HV-7 category:

- (a) The supply for above purpose with the grid shall not exceed 15% of the capacity of the Power Plant. In case of drawl of power above 15% of the capacity of the power plant on any occasion, the excess energy drawn during the billing month shall be billed at the rate of 2 times of the normal energy charges.
- (b) The condition for minimum consumption shall not be applicable to the generators including CPP. Billing shall be done for energy recorded on each occasion of availing supply during the billing month.
- (c) The supply shall not be allowed to the CPP for production purpose for which they may avail stand-by support under the relevant Regulations.
- (d) The synchronization with the grid shall only be made available after commissioning of the plant.
- (e) The generator including CPP shall execute an agreement with the Licensee for meeting the requirement of synchronization/power with the grid incorporating the above terms and conditions.

Tariff Schedule - HV-8

E- VEHICLE / E- RICKSHAWS CHARGING STATIONS

Applicability:

The tariff is applicable exclusively for Electric Vehicle / Electric Rickshaws charging and Battery Swapping stations. However, tariff for other consumers who use electricity for charging their own Vehicles/Rickshaws shall be the same as applicable for the relevant category of connection from which the Vehicles/Rickshaws is being charged at such premises.

Tariff:

Category of consumer	Existing		Proposed	
	Monthly Fixed Charge (Rs. per kVA of billing demand per month)	Energy Charge (paise / unit)	Monthly Fixed Charge (Rs. per kVA of billing demand per month)	Energy Charge (paise / unit)
Electric Vehicle/ Rickshaw charging installations	100	590	100	590

Specific Terms and Conditions for HV-8 category:

- (a) **Additional Charge for Excess demand:** Shall be billed as given in General Terms and Conditions for High Tension tariff.
- (b) For the consumers in this category, demand-based tariff is mandatory. The Distribution Licensee shall provide Trivector /Biverctor Meter capable of recording Demand in kVA/kW, kWh, kVAh.
- (c) Other terms and conditions shall be as specified under General Terms and Conditions for High Tension Tariff.

GENERAL TERMS AND CONDITIONS OF HIGH TENSION TARIFF

The following terms and conditions shall be applicable to all HT consumer categories subject to Specific Terms and Conditions for that category as mentioned in the Tariff Schedule of respective category:

- 1.1 The contract demand shall be expressed in whole number only.
- 1.2 **Character of Service:** The character of service shall be as per the Madhya Pradesh Electricity Supply Code, 2013 as amended from time to time.
- 1.3 Point of Supply:
 - (a) The power will be supplied to the consumer ordinarily at a single point for the entire premises.
 - (b) In case of Railway Traction, the supply at each sub-station shall be separately metered and charged.
 - (c) In case of coal mines, the power will be supplied ordinarily at a single point for the entire premises. The power may, however, be supplied, on the request of the consumer, at more than one point subject to technical feasibility. In such cases, metering and billing will be done for each point of supply separately.
- 1.4 **Determination of Demand:** The **maximum demand** of the supply in each month shall be four times the largest number of kilovolt ampere hours delivered at the point of supply during any continuous 15 minutes during the month as per sliding window principle of measurement of demand.
- 1.5 **Billing demand:** The billing demand for the month shall be the actual maximum kVA demand of the consumer during the month or 90% of the contract demand, whichever is higher. In case power is availed through open access, the billing demand for the month shall be the actual maximum kVA demand during the month excluding the demand availed through open access for the period for which open access is availed or 90% of the contract demand, whichever is higher, subject to clause 3.4 of the M.P. Electricity Supply Code, 2013.

The provisions regarding additional charges for excess demand shall be applicable as per clause 1.15 of these conditions.

Note: The billing demand shall be rounded off to the nearest integer number i.e. the fraction of 0.5 or above will be rounded off to next integer figure and the fraction of less than 0.5 shall be ignored.

1.6 Tariff minimum consumption shall be billed as follows:

- 1) The consumer shall be billed for guaranteed annual minimum consumption (kWh) based on number of units per kVA of contract demand specified for his category, irrespective of whether any energy is consumed or not during the year.
- 2) The consumer shall be billed one twelfth of guaranteed annual minimum consumption (kWh) specified for his category each month in case the actual consumption is less than above mentioned minimum consumption.
- 3) During the month in which actual cumulative consumption equals or greater than the annual minimum guaranteed consumption, no further billing of monthly minimum consumption shall be done in subsequent months of the financial year.
- 4) Tariff minimum consumption shall be adjusted in the month in which cumulative actual or billed monthly consumption exceeds cumulative monthly prorated minimum annual guaranteed consumption. If actual cumulative consumption does not get fully adjusted in that month, adjustment shall continue to be provided in subsequent months of the financial year. The following example illustrates the procedure for monthly billing of consumption where prorated monthly minimum consumption is 100 kWh based on annual consumption of 1200 kWh.

Month	Actual cumulative consumption (kWh)	Cumulative minimum consumption * (kWh)	Higher of 2 and 3 (kWh)	Already billed in the year (kWh)	To be billed in the month = (4-5) (kWh)
1	2	3	4	5	6
April	95	100	100	0	100
May	215	200	215	100	115
June	315	300	315	215	100
July	395	400	400	315	85
Aug	530	500	530	400	130
Sept	650	600	650	530	120
Oct	725	700	725	650	75
Nov	805	800	805	725	80
Dec	945	900	945	805	140
Jan	1045	1000	1045	945	100
Feb	1135	1100	1135	1045	90
March	1195	1200	1200	1135	65

1.7 Rounding off: All bills will be rounded off to the nearest rupee i.e. up to 49 paisa shall be ignored and 50 paisa upwards shall be rounded off to next Rupee.

Incentive/ Rebate / Penalties

1.8 Power Factor Incentive:

If the average monthly power factor of the consumer is above 95%, Power factor incentive shall be payable as follows:

Power Factor	Percentage incentive payable on billed energy charges
Above 95% and up to 96%	1.0 (one percent)
Above 96% and up to 97%	2.0 (two percent)
Above 97% and up to 98%	3.0 (three percent)
Above 98 % up to 99%	5.0 (five percent)
Above 99 %	7.0 (seven percent)

Note:

- (i) For this purpose, the “average monthly power factor” is defined as the ratio expressed in percentage of total kilo-watt-hours to the total kilo-volt-ampere-hours recorded during the billing month. This ratio (%) shall be rounded off to the nearest integer figure and the fraction of 0.5 or above will be rounded to next higher integer and the fraction of less than 0.5 shall be ignored.

Provided that in case of billing or credit of guaranteed minimum consumption, incentive shall be provided with respect to energy actually consumed during the month.

- (ii) For the removal of doubt it is clarified that in case the consumer is getting power through open access, net energy charges (after deducting units drawn from other sources, from the consumed units) billed to consumer shall only be taken for the purpose of working out power factor incentive

1.9 Load factor calculation

- 1) The **Load Factor** shall be calculated as per the following formula:

$$\text{Load Factor \%} = \frac{\text{Monthly Consumption} \times 100}{\text{No. of Hours in the billing month} \times \text{Demand (kVA)} \times \text{PF}}$$

- i. Monthly consumption shall be units (kWh) consumed in the month excluding those received from sources other than Licensee.
- ii. No. of Hours in billing month shall exclude period of scheduled outages in hours.
- iii. Demand shall be maximum demand recorded or contract demand whichever is higher.
- iv. Power factor shall be 0.9 or actual monthly power factor whichever is higher

Note: The load factor (%) shall be rounded off to the nearest lower integer. In case the consumer is getting power through open access, units set off from other sources, the net energy (after deducting units set off from other sources, from the consumed units)

billed to consumer shall only be taken for the purpose of working out load factor. The billing month shall be the period in number of days between the two consecutive dates of meter readings taken for the purpose of billing to the consumer.

1.10 **Incentive for advance payment:** For advance payment made before commencement of consumption period for which bill is prepared, an incentive of 1 % per month on the amount which remains with the licensee at the end of billing month (excluding security deposit) shall be credited to the account of the consumer after adjusting any amount payable to the licensee.

1.11 **Rebate for online bill payment:** Rebate of 0.5% on the total bill amount maximum up to Rs 1000 will be applicable for making online payment of bill.

1.12 **Prompt payment incentive:** An incentive for prompt payment @0.25% of bill amount (excluding arrears, security deposit, meter rent and Government levies viz. Electricity Duty and Cess) shall be given in case the payment is made at least 7 days in advance of the due date of payment where the current month billing amount is equal to or greater than Rs. One Lakh. The consumers in arrears shall not be entitled for this incentive.

Surcharge amounts are levied in the bills where there are arrears and if consumer is eligible for prompt payment incentive then surcharge amount is proposed to be subtracted before calculating prompt payment incentive.

1.13 **Time of Day (ToD) Surcharge / Rebate:** This scheme is applicable to categories of consumers for which applicability of ToD/ Rebate is expressly mentioned in the tariff order. This is applicable for different periods of the day i.e. normal period, peak load and off-peak load period. The surcharge / rebate on energy charges according to the period of consumption shall be as per following table:

Sr. No	Peak / Off-peak Period	Surcharge / Rebate on energy charges on energy consumed during the corresponding period
Months	April to October	
1.	Normal hours (i.e. Hours excluding Off peak hours)	Normal rate of Energy Charge
2.	Off peak load period (10 PM to 6 AM next day)	10 % of Normal rate of Energy Charge as Rebate
Months	November to March	
1.	Normal hours (i.e. Hours excluding Off peak hours)	Normal rate of Energy Charge
2.	Off peak load period (10 PM to 6 AM next day)	20 % of Normal rate of Energy Charge as Rebate

Note: Fixed charges shall always be billed at normal rates i.e. ToD Surcharge / Rebate shall not be applied on Fixed Charges

1.14 Power Factor Penalty (For consumers other than Railway Traction HV-1)

- (i) If the average monthly power factor of the consumer falls below 90 percent, the consumer shall be levied a penalty @ 1% (one percent), for each one percent fall in his average monthly power factor below 90 percent, on total amount of bill under the head of “Energy Charges”.

Provided that in case of billing or credit of guaranteed minimum consumption, such penalty will be billed with respect to energy actually consumed during the month.

- (ii) If the average monthly power factor of the consumer falls below 85 percent, the consumer shall be levied a penalty of 5% (five percent) plus @ 2% (two percent) for each one percent fall in his average monthly power factor below 85 percent, on the total amount of bill under the head of “Energy Charges”. This penalty shall be subject to the condition that overall penalty on account of low power factor does not exceed 35%.
- (iii) Should the average monthly power factor fall below 70%, the Distribution Licensee reserves the right to disconnect the consumer’s installation till steps are taken to improve the same to the satisfaction of the Distribution Licensee. This is, however, without prejudice to the levy of penalty charges for low power factor in the event of supply not being disconnected.
- (iv) For this purpose, the “average monthly power factor” is defined as the ratio expressed in percentage of total kilowatthours to the total kilovoltampere hours recorded during the billing month. This ratio (%) shall be rounded off to the nearest integer figure and the fraction of 0.5 or above will be rounded to next higher integer and the fraction of less than 0.5 shall be ignored.

Power Factor penalty shall be billed on the basis of energy actually consumed during the month.

- (v) Notwithstanding what has been stated above, if the average monthly power factor of a new consumer is found to be less than 90% in any month during the first 6 (six) months from the date of connection, the consumer shall be entitled to a maximum period of six months to improve it to not less than 90% subject to following conditions:
- a) This period of six months shall be reckoned from the month following the month in which the average power factor was found for the first time to be less than 90%.
- b) In all cases, the consumer will be billed the penal charges for low power factor, but in case the consumer maintains the average monthly power factor in subsequent three months (thus in all four months) to not less than

90%, the charges on account of low power factor billed during the said six months period, shall be withdrawn and credited in next monthly bills.

- c) The facility, as mentioned herein, shall be available not more than once to new consumer whose average monthly power factor is less than 90% in any month during 6 months from the date of connection. Thereafter, the charges on account of low average power factor, if found less than 90%, shall be payable as applicable to any other consumer.

1.15 Additional Charges for Excess Demand

- i. The consumer shall at all times restrict their actual maximum demand within the contract demand. In case the actual maximum demand in any month exceeds 120% of the contract demand, the tariffs given in various schedules shall apply to the extent of the 120% of the contract demand only. The consumer shall be charged for excess demand computed as difference of recorded maximum demand and 120% of contract demand on fixed charges and while doing so, the other terms and conditions of tariff, if any, shall also be applicable on the said excess demand. The excess demand so computed, if any, in any month shall be charged at the following rates from all consumers except Railway Traction.
- ii. **Energy charges for Excess Demand:** The consumer shall pay charges @ 1.3 times the tariff for energy charges for consumption corresponding to excess demand in case the maximum demand recorded exceeds the 120% of the contract demand.
- iii. **Fixed charges for Excess Demand:** - These charges shall be billed as per following:
 1. **Fixed charges for Excess Demand when the recorded maximum demand is up to 130% of the contract demand:** Fixed charges for Excess Demand over and above the 120 % of contract demand shall be charged at 1.3 times the normal fixed charges.
 2. **Fixed charges for Excess Demand when the recorded maximum demand exceeds 130% of contract demand:** In addition to Fixed charges in 1 above recorded demand over and above 30 % of the contract demand shall be charged at 2 times the normal fixed charges.

Example for fixed charges billing for excess demand: If the contract demand of a consumer is 100 kVA and the maximum demand recorded in the billing month is 140 kVA, the consumer shall be billed towards fixed charges as under:-

- a) Up to 120 kVA at normal tariff.

- b) Above 120 kVA up to 130 kVA i.e. for 10 kVA at 1.3 times the normal tariff.
 - c) Above 130 kVA up to 140 kVA i.e. for 10 kVA at 2 times the normal tariff.
- iv. The excess demand computed in any month will be charged along with the monthly bill and shall be payable by the consumer.
 - v. The billing of excess demand at higher tariff is without prejudice to the Licensee's right to discontinue the supply in accordance with the provisions contained in the Madhya Pradesh Electricity Supply Code, 2013.

1.16 **Delayed Payment Surcharge:** Surcharge at the rate of 1.25 % per month or part thereof on the amount outstanding (including arrears) will be payable if the bills are not paid up to due date. The part of a month will be reckoned as full month for the purpose of calculation of delayed payment surcharge. The delayed payment surcharge will not be applicable after supply to the consumer is permanently disconnected.

1.17 All the rebates/incentives shall be calculated on amount excluding Government Subsidy.

1.18 **Service Charge for Dishonoured Cheques:** In case the cheque(s) presented by the consumer are dishonoured, a service charge at the rate of Rs. 1000/- plus applicable taxes (GST) per cheque shall be levied in addition to delayed payment surcharge as per rules. This is without prejudice to the Distribution Licensee's rights to take action in accordance with any other applicable law.

1.19 **Temporary supply at HT:** The character of temporary supply shall be as defined in the M.P. Electricity Supply Code, 2013. If any consumer requires temporary supply then it shall be treated as a separate service and charged subject to the following conditions:

- (a) Fixed Charges and Energy Charges shall be charged at 1.25 times the normal tariff. The fixed charges shall be recovered for the number of days for which the connection is availed during the month by prorating the monthly fixed charges. Month shall be considered as the number of total days in that calendar month.
- (b) The consumer shall guarantee minimum consumption (kWh) as applicable to the permanent consumers on pro-rata basis based on number of days as detailed below:

Minimum consumption for additional supply for temporary period	Annual minimum consumption as applicable to permanent supply	No. of days of temporary connection
		No. of days in the year

- (c) The billing demand shall be the demand requisitioned by the consumer or the highest monthly maximum demand during the period of supply commencing from the month of connection ending with the billing month, whichever is higher. For example:

Month	Recorded Maximum Demand (kVA)	Billing Demand (kVA)
April	100	100
May	90	100
June	80	100
July	110	110
August	100	110
September	80	110
October	90	110
November	92	110
December	95	110
January	120	120
February	90	120
March	80	120

- (d) The consumer shall pay the estimated charges in advance, before serving the Temporary Connection subject to replenishment from time to time and adjustment as per final bill after disconnection. No interest shall be given on such advance payment.
- (e) Connection and Disconnection Charges shall also be paid.
- (f) In case of existing HT consumer, the temporary connection may be given through existing permanent HT connection on following methodology of assessment:
- Fixed Charges shall be charged at 1.25 times the normal tariff
 - Deemed contract demand (DCD) = CD for permanent connection + sanctioned demand for temporary connection.
 - Billing demand and fixed charges for the month shall be worked out in the following manner :
 - When recorded MD in the month is found to be less than deemed CD for the month, fixed charges for the month shall be sum of fixed charges at temporary tariff on 100% temporary sanctioned demand + fixed charge at normal tariff on highest of **a** or **b**, where **a** is Recorded MD minus temporary sanctioned demand and **b** is 90% CD of permanent connection.
 - When recorded MD in the month is found to be equal to deemed CD for the month, fixed charges for the month shall be sum of fixed charges at normal tariff on 100% CD for permanent

- connection + fixed charges at temporary tariff on 100% temporary sanctioned demand.
3. When recorded MD in the month is found to be in excess of deemed CD for the month, fixed charges for the month shall be sum of fixed charges at normal tariff on 100% CD for permanent connection + fixed charges at temporary tariff on 100% temporary sanctioned demand + fixed charges on 100% excess demand over and above deemed CD at 1.2 times of temporary tariff.
 4. The fixed charges shall be recovered for the number of days for which the connection is availed during the month by prorating the monthly fixed charges. Month shall be considered as the number of total days in that calendar month.
- iv. The consumption corresponding to Permanent connection i.e. (A) during the month shall be billed in the following manner:

$$A = \frac{\text{Contract Demand (Permanent)}}{\text{Deemed contract demand or actual demand whichever is higher}} \times \text{Total Consumption}$$

- v. The consumption corresponding to temporary sanctioned demand during the month i.e. (B) shall be billed at 1.25 times the normal energy charges and shall be billed in the following manner:

$$B = \frac{\text{sanctioned demand for temporary connection}}{\text{Deemed contract demand or actual demand whichever is higher}} \times \text{Total Consumption}$$

- vi. Consumption during the month corresponding to excess demand i.e. (C), if any, shall be calculated in the following manner:

C = total recorded consumption minus (consumption corresponding to permanent connection i.e. A + consumption corresponding to temporary sanctioned demand i.e. B)

- vii. The demand recorded in excess of deemed contract demand shall be treated as Excess Demand. For billing purposes such Excess demand, if any, in any month shall be treated as pertaining to temporary connection load and shall be charged at 1.2 times the normal fixed charges and energy charges of temporary connection. Additional charges for excess demand recorded during the period of temporary connection shall be calculated as given below :

Fixed charges for excess demand = fixed charges per kVA for temporary connection * excess demand * 1.2

Energy charges for consumption corresponding to excess demand = energy charges per unit for temporary connection * 1.2 * (consumption corresponding to excess demand i.e. C)

- viii. Load factor incentive shall not be allowed on the consumption for temporary connection.
- ix. Power factor incentives / penalties and the condition for Time of Day Surcharge/ rebate shall be applicable at the same rate as for permanent connection.

Other Terms and Conditions for permanent connections:

- 1.20 The existing 11 kV consumer with contract demand exceeding 300 kVA who want to continue to avail supply at 11 kV at his request, shall be required to pay additional charge at 3 %. This additional charge of 3% shall be applicable for enhanced maximum demand recorded for fixed charges and incremental units proportionate to enhanced maximum demand recorded for energy charges. In case maximum demand recorded is equal to or below the ceiling of 300 kVA than no billing of additional charge shall be done under this clause.
- 1.21 The existing 33 kV consumer with contract demand exceeding 10,000 kVA who want to continue to avail supply at 33 kV at his request, shall be required to pay additional charge at 2%. This additional charge of 2% shall be applicable for enhanced maximum demand recorded for fixed charges and incremental units proportionate to enhanced maximum demand recorded for energy charges. In case maximum demand recorded is equal to or below the ceiling of 10,000 kVA than no billing of additional charge shall be done under this clause.
- 1.22 The existing 132 kV consumer with contract demand exceeding 50,000 kVA who want to continue to avail supply at 132 kV at his request, shall be required to pay additional charge at 1%. This additional charge of 1% shall be applicable for enhanced maximum demand recorded for fixed charges and incremental units proportionate to enhanced maximum demand recorded for energy charges.
- 1.23 No Metering Charges shall be billed in this Tariff Order.
- 1.24 The tariff does not include any tax or duty, etc. on electrical energy that may be payable at any time in accordance with any law then in force. Such charges, if any, shall be payable by the consumer in addition to the tariff charges.
- 1.25 In case any dispute arises regarding interpretation of this tariff order and/or applicability of this tariff, the decision of the Commission shall be final and binding.
- 1.26 No changes in the tariff or the tariff structure including minimum charges for any category of consumer are permitted except with prior written permission of the Commission. Any order without such written permission of the Commission will be

treated as null and void and also shall be liable for action under relevant provisions of the Electricity Act, 2003.

- 1.27 In case a consumer, at his request, avails supply at a voltage higher than the standard supply voltage as specified under relevant category, he shall be billed at the rates applicable for actually availed supply voltage and no extra charges shall be levied on account of higher voltage
- 1.28 All consumers to whom fixed charges are applicable are required to pay fixed charges in each month irrespective of whether any energy is consumed or not.
- 1.29 If any difficulty arises in giving effect to any of the provisions of this order, the Commission may, by general or special order, direct the Licensees to do or undertake things, which in the opinion of the Commission is necessary or expedient for the purpose of removing the difficulties.
- 1.30 All conditions prescribed herein shall be applicable notwithstanding if any contrary provisions, exist in the agreement entered into by the consumer with the licensee.
- 1.31 Wherever, there is contradiction in general terms & conditions and specific terms & conditions given for any particular category, the specific terms and conditions shall prevail for that category.
