

in:inbox

Arvind Kumar

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From: Rakesh Kumar

To: Rajesh Dangi Arvind Kumar Deepti Dayal Nishi Raj

Cc: Jyoti Prasad

Annexure-4 REC ...r_GED_10102022.pdf (4.1 MB) [Download](#) | [Briefcase](#)Annexure-2 Lett...fence Ministry.pdf (1.8 MB) [Download](#) | [Briefcase](#)1.ED-GOA Petiti...23-24)-Final-2.pdf (2.3 MB) [Download](#) | [Briefcase](#)[Download all attachments](#)Annexure-3 Manpower Assesment.pdf (1,014.1 KB) [Downlo:](#)Annexure-1 APR ... 2023-24 Model.xlsx (2.1 MB) [Download](#) |Affidavit of AR...23-24 Petition.pdf (4.7 MB) [Download](#) | [Brie](#)**From:** "Chief Electrical Engineer" <cee-elec.goa@nic.in>**To:** "Rakesh Kumar" <secy.jercuts@gov.in>, "Sunil Dutt Sharma" <dirfin.jercuts@gov.in>**Cc:** "iniansrimalan d" <iniansrimalan.d@abpsiapl.com>, nutanbene@gmail.com, aeipm@yahoo.com, "sayish s" <sa**Sent:** Friday, December 2, 2022 1:19:11 PM**Subject:** Fwd: ED Goa Petition for APR 22-23 , ARR and Tariff Proposal for FY 2023-24

Dear Sir,

Kindly ignore the affidavit mailed on 30th November through trailing mail. Attached herewith is the final copy of EDG by Courier. The fees of the Petition are under process and will be deposited in the next week.

Office of the Chief Electrical Engineer
Government of Goa,
Electricity Department
3rd Floor, Vidyut Bhavan, Adjacent Hotel Mandovi,
Panaji, Tiswadi, Goa 403 001.
TelNo. 2224680, Fax 2426986,
Website <https://www.goaelectricity.gov.in/>

From: "Chief Electrical Engineer" <cee-elec.goa@nic.in>**To:** "Rakesh Kumar" <secy.jercuts@gov.in>, "Sunil Dutt Sharma" <dirfin.jercuts@gov.in>**Cc:** "Bharat" <aeipm@yahoo.com>, "nutanbene" <nutanbene@gmail.com>**Sent:** Wednesday, November 30, 2022 4:27:54 PM**Subject:** ED Goa Petition for APR 22-23 , ARR and Tariff Proposal for FY 023-24

Sir,

PFA the affidavit sworn in respect of above subject Petition. The detail Petition will be mailed by tomo

BEFORE

JOINT ELECTRICITY REGULATORY COMMISSION

FOR THE STATE OF GOA AND UNION TERRITORIES

GURUGRAM



PETITION

FOR

APPROVAL OF

ANNUAL PERFORMANCE REVIEW OF FY 2022-23, AGGREGATE REVENUE REQUIREMENT

FOR FY 2023-24 & TARIFF PROPOSAL FOR FY 2023-24

BY



ELECTRICITY DEPARTMENT
Government of GOA

NOVEMBER 2022

BEFORE THE JOINT ELECTRICITY REGULATORY COMMISSION FOR THE STATE OF GOA, & UNION
TERRITORIES, GURUGRAM

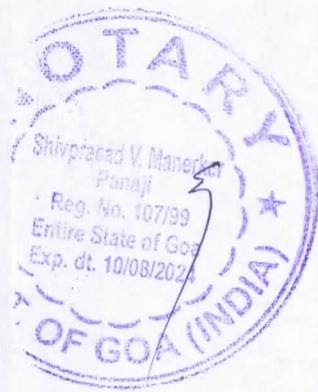
Filing No.....

Case No.....

IN THE MATTER OF: Petition for approval of APR for FY 2022-23, ARR for FY 2023-24 and
Tariff Proposal for FY 2023-24.

AND

IN THE MATTER OF: Electricity Department, Government of Goa,
Vidyut Bhavan, Panaji, Goa



.....Petitioner

Electricity Department, Government of Goa (hereinafter referred to as "EDG"), files petition for approval of APR for FY 2022-23, ARR for FY 2023-24 and Tariff Proposal for FY 2023-24 for the Electricity Department of Goa under section 45, 46, 61, 62, 64 and 86 of the Electricity Act, 2003 (EA 2003).

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AND

IN THE MATTER OF: Electricity Department, Government of Goa
Vidyut Bhavan, Panaji, Goa

.....Petitioner



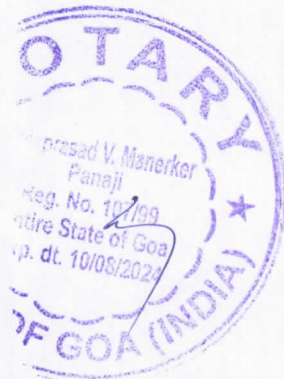
AFFIDAVIT VERIFYING THE PETITION

I, Shri. **Stephen Fernandes**, son of Shri. **Roque Fernandes** aged **44** years, the deponent named above do hereby solemnly affirm and state on oath as under:

1. That I am Chief Electrical Engineer and Head of Electricity Department, Government of Goa and am authorised to sign and submit the said petition and am acquainted with the facts deposed to below.
2. I say that on behalf of EDG, I am now filing this Petition under the Electricity Act, 2003, Petition for approval of APR for FY 2022-23, ARR for FY 2023-24 and Tariff Proposal for FY 2023-24.
3. I further say that the statements made, and financial data presented in the aforesaid Petition are as per records of the Department and believe that to be true to the best of my knowledge.

4. Further, to my knowledge and belief, no material information has been concealed in the aforesaid Petition.

The Electricity Department,
Government of Goa

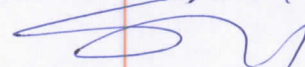


Place: Panaji, Goa

Dated: 30th November 2022




DEPONENT

BEFORE ME BY Shri. Stephen
Fernandes chief, Electronics Engg. Co. Panaji
REG. No. 980 DATED 30/11/22

SHIVPRASAD V. MANERKER
NOTARY AT PANAJI
ENTIRE STATE OF GOA

VERIFICATION

I, Shri Shivprasad Varudev Manerker Advocate and Notary having office at Panaji-Goa, do hereby declare that the person making this affidavit is known to me through the perusal of records and I am satisfied that he is the same person alleging to be deponent himself.

Advocate

Solemnly affirmed before me on this 30th day of November 2022 by the deponent who has been identified by the aforesaid Advocate. I have satisfied myself by examining the deponent that he understood the contents of the affidavit which has been read over and explained to him. He has also been explained about section 193 of Indian Penal Code that whoever intentionally gives false evidence in any of the proceedings of the Commission or fabricates evidence for purpose of being used in any of the proceedings shall be liable for punishment as per law.

BEFORE THE JOINT ELECTRICITY REGULATORY COMMISSION FOR THE STATE OF GOA, & UNION
TERRITORIES, GURUGRAM

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AND

IN THE MATTER OF: Electricity Department, Government of Goa

Vidyut Bhavan, Panaji, Goa

.....Petitioner



PETITIONER, UNDER SECTIONS 45, 46, 61, 62 AND 64 OF THE ELECTRICITY ACT, 2003 FILES FOR
INITIATION OF PROCEEDINGS BY THE HON'BLE COMMISSION FOR DECIDING ON THE MATTERS
CONCERNING THE PETITION FOR APPROVAL OF APR FOR FY 2022-23, ARR FOR FY 2023-24 AND
TARIFF PROPOSAL FOR FY 2023-24.

The Petitioner respectfully submits as under: -

1. The Petitioner, Electricity Department – Goa (EDG) is deemed Distribution Licensee for the State of Goa.
2. Pursuant to the enactment of the Electricity Act, 2003, EDG is required to submit its Annual Revenue Requirement and Tariff Petition as per the procedures outlined in section 61, 62 & 64 of EA 2003, and in accordance with the provisions JERC (Generation, Transmission and Distribution Multi Year Tariff) Regulations, 2021 (MYT Regulations, 2021)
3. EDG hereby submits the present Petition for approval of APR for FY 2022-23, ARR for FY 2023-24 and Tariff Proposal for FY 2023-24 based on the principles outlined in the JERC MYT Regulations 2021 notified by the Hon'ble Commission.

-
4. EDG hereby submits that the documents related to Budgetary Support assurance from the Government of Goa for FY 2022-23 and FY 2023-24 shall be submitted after issuance of the same by Government of Goa.
 5. EDG prays to the Hon'ble Commission to admit the attached petition for APR for FY 2022-23, ARR for FY 2023-24 and Tariff Proposal for FY 2023-24.

Prayers to the Hon'ble Commission:

- A. The petition provides, inter-alia, EDG's approach for formulating the present petition, the broad basis for projections used, performance of EDG in the recent past, and certain issues impacting the performance of EDG in the Licensed Area.
- B. Formulating the APR for FY 2022-23, Aggregate Revenue Requirement for FY 2023-24, based on the principles specified in JERC (Generation, Transmission and Distribution Multi Year Tariff) Regulations, 2021.
- C. In order to align the thoughts and principles behind the ARR and Tariff Petition, EDG respectfully seeks an opportunity to present its case prior to the finalization of the Tariff Order. EDG believes that such an approach would go a long way towards providing a fair treatment to all the stakeholders and may eliminate the need for a review or clarification.

The Petitioner respectfully prays that the Hon'ble Commission may:

- a) Accept and admit the Petition for APR for FY 2022-23, ARR for FY 2023-24 and Tariff Proposal for FY 2023-24 which is in line with the principles laid by the Hon'ble Commission contained in MYT Tariff Regulations 2021.
- b) Approve the total recovery and revenue gap for Annual Performance Review for FY 2022-23 and ARR for FY 2023-24 and Tariff Proposal for FY 2023-24 and other claims as proposed by EDG;
- c) Approve the Revenue gap of Rs. 297.71 Cr for FY 2022-23 as per APR and standalone Revenue Gap considering revenue from proposed tariff amounting to Rs. 349.98 Cr. for FY 2023-24 on provisional basis and the revenue gap as may be approved by the Hon'ble Commission during the process of finalising tariff petition;
- d) To consider the Tariff Design Philosophy and grant approval for proposed changes in Tariff Schedule (changes in applicability clauses), charges for services, miscellaneous charges and general terms & condition of the Tariff Order for FY 2023-24;
- e) Approve the revenue at the proposed tariff for FY 2023-24 and the gap of Rs. 349.98 Cr. till FY 2023-24. The revenue gap of Rs. 349.98 Cr. is proposed to be met through the budgetary support by the Government of Goa. The letter for Budgetary Support shall be submitted after issuance of the same by Government of Goa;



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JOINT ELECTRICITY REGULATORY COMMISSION

FOR THE STATE OF GOA AND UNION TERRITORIES

GURUGRAM

PETITION

FOR

APPROVAL OF

ANNUAL PERFORMANCE REVIEW OF FY 2022-23, AGGREGATE REVENUE REQUIREMENT

FOR FY 2023-24 & TARIFF PROPOSAL FOR FY 2023-24

BY



ELECTRICITY DEPARTMENT
Government of GOA

NOVEMBER 2022

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3. I further say that the statements made, and financial data presented in the aforesaid Petition are as per records of the Department and believe that to be true to the best of my knowledge.

-
4. Further, to my knowledge and belief, no material information has been concealed in the aforesaid Petition.

**The Electricity Department,
Government of Goa**

DEPONENT

Place: Panaji, Goa

Dated: 30th November 2022

VERIFICATION

I, Shri _____ Advocate and Notary having office at Panaji-Goa, do hereby declare that the person making this affidavit is known to me through the perusal of records and I am satisfied that he is the same person alleging to be deponent himself.

Advocate

Solemnly affirmed before me on this **30th day of November 2022** by the deponent who has been identified by the aforesaid Advocate. I have satisfied myself by examining the deponent that he understood the contents of the affidavit which has been read over and explained to him. He has also been explained about section 193 of Indian Penal Code that whoever intentionally gives false evidence in any of the proceedings of the Commission or fabricates evidence for purpose of being used in any of the proceedings shall be liable for punishment as per law.

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- B. Formulating the APR for FY 2022-23, Aggregate Revenue Requirement for FY 2023-24, based on the principles specified in JERC (Generation, Transmission and Distribution Multi Year Tariff) Regulations, 2021.
- C. In order to align the thoughts and principles behind the ARR and Tariff Petition, EDG respectfully seeks an opportunity to present its case prior to the finalization of the Tariff Order. EDG believes that such an approach would go a long way towards providing a fair treatment to all the stakeholders and may eliminate the need for a review or clarification.

The Petitioner respectfully prays that the Hon'ble Commission may:

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- Approve the total recovery and revenue gap for Annual Performance Review for FY 2022-23 and ARR for FY 2023-24 and Tariff Proposal for FY 2023-24 and other claims as proposed by EDG;
- Approve the Revenue gap of Rs. 298.33 Cr for FY 2022-23 as per APR and standalone Revenue Gap considering revenue from proposed tariff amounting to Rs. 348.69 Cr. for FY 2023-24 on provisional basis and the revenue gap as may be approved by the Hon'ble Commission during the process of finalising tariff petition;
- To consider the Tariff Design Philosophy and grant approval for proposed changes in Tariff Schedule (changes in applicability clauses), charges for services, miscellaneous charges and general terms & condition of the Tariff Order for FY 2023-24;
- Approve the revenue at the proposed tariff for FY 2023-24 and the gap of Rs. 348.69 Cr. till FY 2023-24. The revenue gap of Rs. 348.69 Cr. is proposed to be met through the budgetary support by the Government of Goa. The letter for Budgetary Support shall be submitted after issuance of the same by Government of Goa;

-
- Pass suitable orders with respect to APR for FY 2022-23 and ARR for FY 2023-24 and Tariff Determination Proposal for FY 2023-24 for the expenses to be incurred by EDG for serving its consumers;
 - Grant any other relief as the Hon'ble Commission may consider appropriate;
 - The Petitioner craves leave of the Hon'ble Commission to allow further submission, addition and alteration to this petition as may be necessary from time to time;
 - Condone any inadvertent omissions/errors/shortcomings and permit EDG to add/ change/ modify/ alter this filing and make further submissions as may be required at a future date;
 - To pass any other Order as the Hon'ble Commission may deem fit and appropriate under the circumstances of the case and in the interest of justice.

Electricity Department,
Government of Goa

Petitioner

Place: Panaji

Dated: 30th November 2022



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1 INTRODUCTION

1.1 Preamble

The Hon'ble Commission has notified JERC (Generation, Transmission and Distribution Multi Year Tariff) Regulations, 2021. In line with the same, EDG submits this Petition for APR for FY 2022-23, ARR for FY 2023-24 and Tariff Determination Proposal for FY 2023-24 as per the provisions of MYT Tariff Regulations, 2021

1.2 Background: Electricity Department of Goa

The Electricity Department was formed in January 1963 under the Government of Goa, Daman & Diu. It is the only licensee operating in the State of Goa for transmission and distribution of Electrical Energy. The Electricity Department of Goa does not have its own generation. Most of the power requirement for the State of Goa is met through its share from Central Sector Power Stations of NTPC Ltd as allocated by the Central Government.

ED-Goa came into regulatory regime w.e.f. FY 2011-12 i.e. the first tariff filing year. The Electricity Department is a deemed Distribution Licensee within the meaning of Section 2 (17) of Electricity Act 2003 and pursuant to the Section 14 of the Electricity Act. Further, Section 42 and 43 of the Electricity Act 2003 prescribes the following duties of the deemed Distribution Licensee:

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

The main purpose is to undertake the transmission, distribution and retail supply of electricity in its license area and for this purpose to plan, acquire, establish, construct, erect, lay, operate, run, manage, maintain, enlarge, alter, renovate, modernize, automate, work and use a power system network in all its aspects and also to carry on the business of purchasing, selling, importing of electrical energy, including formulation of tariff, billing and collection thereof and then to study, investigate, collect information and data, review operations, plan, research, design and prepare project reports, diagnose operational difficulties and weaknesses and advise on the remedial measures to improve and modernize existing sub-transmission and supply lines and sub-stations.



The Electricity Department of Goa caters 6.89 Lakh consumers (as on 30th September 2022) with an annual energy consumption of approx. 4009 MU for FY 2021-22. The Consumers of the Electricity Department of Goa are classified as under:

Table 1-1: No. of Consumer & Sales for FY 2022-23 H1

Particulars	FY 2022-23 H1		FY 2022-23 H1	
	No.of Consumers	%	Sales	%
Domestic	552650	80.17%	714.75	32.27%
Commercial	106354	15.43%	313.84	14.17%
Industrial	6466	0.94%	1114.74	50.33%
Agriculture	12760	1.85%	18.29	0.83%
Temporary	4706	0.68%	4.54	0.20%
Defence Establishment	14	0.00%	16.12	0.73%
Others	6367	0.92%	32.73	1.48%
Total	689317	100.00%	2215.01	100.00%

The peak demand of Goa during FY 2021-22 was around 704 MW (March 2022). As per CEA LGBR report, for FY 2021-22, the Energy Deficit and the peak deficit for the State of Goa were 0.00% (NIL) and 0.00% (NIL) respectively. The peak demand in FY 2022-23 (April to September) recorded in April was 726 MW. EDG is currently receiving 418 MW of power from the Western Region (WR) and 100 MW from the Southern Region (SR). The total firm allocation of power from central sector is approx 518 MW. In addition, the department also purchases power from Co-generation stations within state and short-term power procurement from the market, Traders, DEEP portal. Filing in the current Petition

EDG hereby submits that that audit works is in progress for the accounts of FY 2020-21 and FY 2021-22 which will be finalised by ED-Goa by December 2022 and the same will be submitted to CAG for auditing purposes. Accordingly, EDG has considered provisional actual numbers for FY 2020-21 and FY 2021-22 in this petition, however, the True-up petition for FY 2020-21 and FY 2021-22 will be submitted separately once the accounts are audited by CAG.

EDG also submits that for APR of the year 2022-23, the provisional actual figures for H1 and projected figures of ARR components for H2 have been considered. EDG also submits that the Revenue for FY 2022-23 has been calculated as per the existing Tariff approved by the Hon'ble Commission.

EDG further submits that for FY 2023-24 the ARR has been projected considering the



number of Consumers and Connected Load and Energy Sales for FY 2022-23 as per the revised projections. It has been projected based on the historical trends and current realistic scenario. All other components have been considered as per MYT Regulations 2021. Further, EDG has proposed a new tariff for FY 2023-24 to be levied on the consumers.



2 OVERALL APPROACH FOR PRESENT FILING

The Hon'ble Commission had notified JERC (Generation, Transmission and Distribution Multi Year Tariff) Regulations, 2021 on 22nd March 2021.

In line with the above Regulations, EDG is filing the APR petitions and ARR petitions for consideration of the Hon'ble Commission in the formats laid down for providing information relating to past, present and future performance.

2.1 Annual Performance Review for FY 2022-23

EDG is filing this Annual Performance Review petition for the year FY 2022-23 based on the provisional actual performance during the 1st half of the year and revised estimated for the 2nd half of the year taking into considering the approved figures by the Hon'ble Commission vide its Tariff Order dated 31st March, 2022.

2.2 Determination of ARR for FY 2023-24 and Tariff for FY 2023-24.

The Hon'ble Commission has issued the ARR for the MYT control period FY 2022-23 to FY 2024-25 vide order dated 31st March 2022. In the said Tariff Order; Capex, capitalisation, power purchase requirement and sales have been approved by the Hon'ble Commission for the base year FY 2021-22 and MYT period FY 2022-23 to FY 2024-25. Further, considering the same as well as revised projections based on the realistic scenario, EDG is submitted the ARR and tariff proposal for FY 2023-24. The Commission in its Tariff order FY 2022-23 has hiked the tariff on average by 1.58%



3 TRUE-UP

The Commission through its directives has directed the Petitioner to submit the audited annual accounts for FY 2017-18, FY 2018-19, FY 2019-20 and FY 2020-21 by 30th November 2021, so that the appropriate base year values for 3rd MYT Control Period can be considered.

Complying the directives, the EDG hereby submits that that the True-up Petition for FY 2017-18 to FY 2019-20 is already filed before the Hon'ble Commission. Further the Financial Accounts for FY 2020-21 & FY 2021-22 are completed. The CAG audit team is auditing the accounts. Upon completion of the audit of the Accounts for FY 2020-21 & FY 2021-22 the True-up Petitions for FY 2020-21 & FY 2021-22 will be submitted before the Hon'ble JERC by December 20, 2022.

The ED-Goa considered the provisional actual numbers for FY 2021-22 for the purpose of the Annual performance Review (APR) of FY 2022-23 and ARR for FY 2023-24.



4 ANNUAL PERFORMANCE REVIEW FOR FY 2022-23

4.1 Background to FY 2022-23 Petition

EDG in this chapter submits the performance of each parameter of ARR of FY 2022-23 against the values approved by the Hon’ble Commission in the Tariff Order dated 31st March 2022. This chapter summarizes each component of ARR for FY 2022-23 and requests the Hon’ble Commission to review the performance for FY 2022-23.

4.2 Performance Review for FY 2022-23

4.2.1 Regulation 12 of the Joint Electricity Regulatory Commission for the State of Goa and Union Territories (Generation, Transmission and Distribution Multi Year Tariff) Regulations, 2021 states that,

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

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

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

The Hon’ble Commission had issued the Tariff Order for FY 2022-23 on 31st March 2022. For the purpose of ease of reference; the summary of approved ARR vis-a-vis submitted by EDG for FY 2022-23 submitted in the previous filing is reproduced hereunder:

Table 4-1: ARR approved by JERC for FY 2022-23 (Rs. Cr.) in Tariff Oder dt. 31st March 2022

S. No.	Particulars	Approved in MYT Order dt. 31 th March 2022	Submitted by EDG
1.	Power Purchase Cost	1839.53	2,230.19
2.	O&M Expenses	433.95	497.08



S. No.	Particulars	Approved in MYT Order dt. 31 th March 2022	Submitted by EDG
3.	Depreciation	52.64	58.92
4.	Interest on Loan	22.26	26.76
5.	Return on Equity	64.36	60.26
6.	Interest on Security Deposit	3.60	5.37
7.	Interest on Working Capital	18.13	14.92
8.	Total Revenue Requirement	2434.47	2893.49
9.	Less: Non-Tariff Income	26.32	29.36
10.	Net Revenue Requirement	2408.15	2864.13

EDG would now discuss each of the elements of review in detail for the revised estimates for FY 2022-23 for determination of ARR and its gap for FY 2022-23.

4.3 Energy Sales

The energy sales for H1 (April to September) of FY 2022-23 is 2215.01 MU. It is submitted that the Hon'ble Commission had approved the estimated sales for FY 2022-23. For the purpose of Annual Performance Review for FY 2022-23, the figures of H1 sales of FY 2022-23 are taken from SAP accounts, and ED-Goa has extrapolated these based on actual sales in second half of FY 2021-22 with respect actual sales during first half of FY 2021-22 to arrive at the projections of FY 2022-23 i.e. the base year.

The following table shows the overall sales considered by EDG for APR of FY 2022-23 vis-à-vis Sales approved in Tariff Order dated 30th March 2021.

Table 4-2: Sales for FY 2022-23 (MUs)

Sr. No.	Category of Consumer	Approved in Order dt. 31-03-2022	FY 2022-23 (H1)	FY 2022-23 (H2)	FY 2022-23 (Estimated in APR)
A. LOW TENSION SUPPLY					
1	LTD/Domestic	1384.58	714.08	624.45	1338.53
2	LT-L.I.G (Low income Group)	1.37	0.48	0.42	0.9
3	LTC/Commercial	472.52	237.67	259.28	496.95
4	LTI/ Industrial	80.91	1.93	2.11	4.04
5	LT Mixed/ LT-P Hotel Industries	4.48	43.92	47.15	91.07



Sr. No.	Category of Consumer	Approved in Order dt. 31-03-2022	FY 2022-23 (H1)	FY 2022-23 (H2)	FY 2022-23 (Estimated in APR)
6	Low Tension-AG/LT-AGP (Pump Sets/Irrigation)	18.08	8.16	10.34	18.5
7	Low Tension-AG/LT-AGA (Allied Activities)		0.63	0.80	1.43
8	LTPL Public lighting	29.61	29.97	17.60	47.57
9	LT Hoarding /Sign Board	0.16	0.13	0.17	0.3
B. HIGH TENSION SUPPLY					
10	HTD Domestic		0.18	0.19	0.37
11	HT Commercial	135.02	74.24	92.16	166.4
	HTI Industrial	1499.12	826.87	868.44	1695.31
12	High Tension-Ferro/SM.PI/SR	555.35	243.95	256.21	500.16
13	High Tension-AG/HT-AGP (Pump Sets/Irrigation)		2.89	3.43	6.32
14	High Tension-AG/HT-AG (Allied Activities)	15.54	6.61	7.86	14.47
15	Military Engineering Services/defense Establishments	26.66	16.12	15.75	31.87
C. TEMPORARY SUPPLY					
16	L.T. Temporary	9.77	1.78	2.19	3.97
17	H.T. Temporary	2.33	2.76	3.39	6.15
D. Single Point Supply					
18	Residential Complexes				
19	Commercial Complexes	5.65	2.63	3.78	6.41
20	Industrial Complexes				
	Total	4103.52	2215.01	2215.73	4430.74

The Hon'ble Commission is requested to approve the revised sales figures considered in the table above for APR of FY 2022-23 which is based on actual sales for first half of the year. The figures for energy sales for FY 2022-23 are provided in Format 5 of Tariff Filing Formats.

4.4 Number of Consumers

The consumer base of Goa comprises of HT Industry, LT Industry, Commercial and Domestic consumers with the maximum number of consumers attributable to the domestic category. For FY 2022-23, EDG is submitting (H1+H2) overall projected number



of consumers in format 5 of this petition. The table below shows category wise number of consumers considered for FY 2022-23 vis-à-vis number of consumers approved by the Hon'ble Commission in tariff order for FY 2022-23.

Table 4-3: Number of Consumers for FY 2022-23 (Nos)

S. No.	Category of Consumer	Approved in Order dt. 31-03-2022	FY 2022-23 (Estimated in APR)
A. LOW TENSION SUPPLY			
1	LTD/Domestic	588323	563341
2	LT-L.I.G (Low income Group)	1314	903
3	LTC/Commercial	108137	108066
4	LTI/ Industrial	5799	119
5	LT Mixed/ LT-P Hotel Industries	125	5851
6	Low Tension-AG/LT-AGP (Pump Sets/Irrigation)	12634	12742
7	Low Tension-AG/LT-AGA (Allied Activities)		295
8	LTPL Public lighting	1097	6284
9	LT Hoarding /SignBoard	47	67
B. HIGH TENSION SUPPLY			
10	HTD Domestic	3	4.00
11	HT Commercial	302	315.26
	HTI Industrial	915	807
12	High Tension-Ferro/SM.PI/SR	26	23.29
13	High Tension-AG/HT-AGP (Pump Sets/Irrigation)	47	43
14	High Tension-AG/HT-AG (Allied Activities)		3
15	Military Engineering Services/defense Establishments	14	14
C. TEMPORARY SUPPLY			
16	L.T. Temporary	2609	5003
17	H.T. Temporary	11	16
D. Single Point Supply			
18	Residential Complexes		
19	Commercial Complexes	1	1
20	Industrial Complexes		
E Other Categories			
21	Electric Vehicle Charging Station		2
	Total	721405	703904



The Hon'ble Commission is requested to approve number of consumers for APR of FY 2022-23 as submitted in the above table. The figures for number of consumers for FY 2022-23 are provided in Format 5 of Tariff Filing Formats.

4.5 Connected Load

EDG has estimated the Connected Load in line with the principles adopted for the number of consumers for entire FY 2022-23. Category wise Connected Load considered for APR of FY 2022-23 vis-à-vis Connected Load approved by the Hon'ble Commission in tariff order for FY 2022-23 dated 31st March 2022 is provided in the table given below.

Table 4-4: Connected Load for FY 2022-23 (KW/ kVA)

S. No.	Category of Consumer	Approved in Order dt. 31-03-2022	FY 2022-23 (Estimated in APR)
A. LOW TENSION SUPPLY			
1	LTD/Domestic	1808437	1787294
2	LT-L.I.G (Low income Group)	117	71
3	LTC/Commercial	407424	404213
4	LTI/ Industrial	146918	2435
5	LT Mixed/ LT-P Hotel Industries	2757	141770
6	Low Tension-AG/LT-AGP (Pump Sets/Irrigation)	52385	46060
7	Low Tension-AG/LT-AGA (Allied Activities)		2336
8	LTPL Public lighting	3212	9767
9	LT Hoarding /SignBoard	567	555
B. HIGH TENSION SUPPLY			
10	HTD Domestic	300	400
11	HT Commercial	90575	118644
	HTI Industrial	619237	583061
12	High Tension-Ferro/SM.PI/SR	95340	111983
13	High Tension-AG/HT-AGP (Pump Setss/Irrigation)	12610	9541
14	High Tension-AG/HT-AG (Allied Activities)		2267
15	Military Engineering Services/defense Establishments	8470	8799
C. TEMPORARY SUPPLY			
16	L.T. Temporary	9107	7526
17	H.T. Temporary	2468	7083
D. Single Point Supply			



S. No.	Category of Consumer	Approved in Order dt. 31-03-2022	FY 2022-23 (Estimated in APR)
18	Residential Complexes		
19	Commercial Complexes	4035	2500
20	Industrial Complexes		
	Total	3263959	3246305

The Hon'ble Commission is requested to approve the Connected Load for APR of FY 2022-23 as submitted in the above table. The details of Connected Load for FY 2022-23 are provided in Format 5 of Tariff Filing Formats.

4.6 Energy Requirement & T&D Loss for FY 2022-23

Inter-State Transmission Losses: PGCIL losses are on account of two regions, Western region (WR) and Southern Region (SR). The Petitioner has considered the actual transmission losses of FY 2022-23 H1 for the FY 2022-23. Accordingly, Inter-state transmission losses for FY 2022-23 have been considered as under:

Table 4-5: Inter-State Transmission Losses for FY 2022-23 (%)

Particulars	FY 2022-23 (Approved)		FY 2022-23 (APR)		FY 2022-23 Revised Estimate
	WR	SR	WR	SR	Total
Inter-State Transmission Loss (%)	3.34%	7.92%	2.89%	6.97%	3.55%

Distribution Loss for overall FY 2022-23: The Hon'ble Commission has approved distribution loss of 10.15% for FY 2022-23 in the Tariff Order dated 31st March 2022. For H1 of FY 2022-23 the actual distribution loss arrived at 8.11%. However, for the projections for FY 2022-23 the Provisional Distribution loss of 8.45% arrived for FY 2021-22 is considered. EDG has projected power purchase requirement for FY 2022-23 considering same Distribution Loss level of 8.45% for entire FY 2022-23.

EDG submits that, for projection of power from tied-up capacity, it has taken into consideration the H1 figures since there is no change in capacity. For projecting the energy availability for FY 2022-23, EDG has considered the actual power purchase quantum for first half of FY 2022-23 and projected the energy availability for second half of FY 2022-23.



Further, w.r.t total Power Purchase requirement for FY 2022-23, after considering projected sales and Distribution losses of 8.45%,EDG has also considered the purchase of short-term power from IEX for off peak and peak period as per FY 2022-23 and computed the sale of excess power available, respectively.

- Percentage Allocation of firm as well as of unallocated quota from the CGS has been considered as per the allocation obtained from WRPC/Comml.-I/6/Alloc/2022/10680 dated 13th October 2022 and SRPC Allocation Circular No: SRPC/SE(O)/54/UA/2022-23/ dated 28th October 2022.
- EDG submits that it has considered auxiliary consumption for each of the central generating station as per the CERC Tariff Order.
- Inter-state transmission loss of 2.89% and 6.97% considered for power purchase through western and southern region respectively as per actual.
- Based on the above assumptions, EDG has estimated the power purchase quantum from CGS stations.
- With respect to purchase/ sale of power from IEX/Traders, EDG considered the actual purchase of 68.36 MUs and sale of 158.39 MUs for FY 2022-23 H1.

EDG has also considered the power received through banking from GMR and Manikaran Power and Kreate Energy Private Limited.

To meet any shortfall, if occurs, EDG purchase power through short term (Traders). For FY 2022-23, ED-Goa has envisaged purchase of 348.84 MUs from traders/exchange at a rate of Rs. 3.89/unit depending upon the past rates.

EDG, while computing Energy Balance for entire FY 2022-23, has considered the actual over-drawl/under-drawl only during first half of FY 2022-23. Thus, based on the foregoing paragraphs, the Energy Balance for the year FY 2022-23 is shown in the table below.

Table 4-6: Energy Balance for FY 2022-23 (MUs) (Periphery-wise)

Particulars	FY 2022-23 H1			FY 2022-23 H2	FY 2022-23
	WR	SR	Total	Total	Total
Energy Input at Goa Periphery	1,980.69	367.72	2,348.41	2,313.93	4,662.34
Total Power Scheduled/ Purchased at Goa Periphery					
Total Schedule Billed Drawal - CGS	1,761.68	331.53	2,093.21	1,670.45	3,763.66



Petition for APR for FY 2022-23 & ARR for the Control period FY 2023-24

Particulars	FY 2022-23 H1			FY 2022-23 H2	FY 2022-23
	WR	SR	Total	Total	Total
Add: Overdrawal	21.23	23.76	44.98	-	44.98
Add: Power purchase from NVVN / Banking	(51.95)		(51.95)	48.33	(3.63)
Add: Power purchase from Traders	26.28	15.07	41.35	-	41.35
Add: Power purchase from / Open Market	43.45	24.91	68.36	348.84	417.20
Add : Hydro Power		-	-	-	
Less: Underdrawal	0.78	-	0.78	-	0.78
Add: Renewable Power	398.04	-	398.04	318.63	716.67
Less: Power diverted to Exchange	158.39	-	158.39	-	158.39
Total	2,039.56	395.26	2,434.82	2,386.24	4,821.06
PGCIL Losses - MUs	58.87	27.54	86.41	72.31	158.72
PGCIL Losses - %	2.89%	6.97%	3.55%	3.55%	3.55%
<u>Total Power Purchased within Goa State</u>			-		
Add: Co-generation	46.56		46.56	92.57	139.13
Add: Independent Power Producers (IPP)			-		
Add: Net Metering	12.89		12.89	17.11	30.00
Add: PM KUSUM	-		-		
Add: Hindustan Waste Treatment Plant	2.77		2.77	5.23	8.00
Total	62.21	-	62.21	114.92	177.13
Total Power Purchase availability after PGCIL Losses	2,042.90	367.72	2,410.62	2,428.85	4,839.47
Power Purchase required (MU)			2,410.62	2,428.85	4,839.47
Less: Retail Sales to Consumers	2,215.01		2215.01	2,215.73	4,430.74
Distribution Losses - MUs			195.61	213.12	408.73
Distribution Losses - %			8.11%	8.77%	8.45%



Table 4-7: Energy Balance for FY 2022-23 (MUs)

Sr. No.	Particulars	APR		
		FY 2022-23 H1	FY 2022-23 H2	FY 2022-23
A)	ENERGY REQUIREMENT			
1	Energy sales to metered category within the State	2,215.01	2,215.73	4,430.74
2	Total sales within the State	2,215.01	2,215.73	4,430.74
3	Distribution Losses (MU)	195.61	213.12	408.73
4	Distribution Losses (%)	8.11%	8.77%	8.45%
5	Energy required at Discom Periphery	2,410.62	2,428.85	4,839.47
6	Intra-State Transmission Losses	-		
7	Energy Required at State Periphery for own sale	2,410.62	2,428.85	4,839.47
8	Sales to common pool consumers	0.78	-	0.78
9	Sales outside state	158.39	0.00	158.39
10	Total Energy Requirement at State Periphery	2,251.45	2,428.85	4,680.30
B)	ENERGY AVAILABILITY			
1	Availability from firm sources outside state	2,439.30	2,037.40	4,476.70
2	Availability from UI Over-drawal/ Under-drawal	44.20	-	44.20
3	Net Purchase from open market	-48.68	348.84	300.16
5	Total Availability of Energy from outside the state	2,434.82	2,386.24	4,821.06
6	PGCIL Losses - MUs	86.41	72.31	158.72
7	PGCIL Losses - %	3.55%	3.55%	3.55%
8	Total Availability of Energy at State Periphery from outside state after Interstate Losses	2,348.41	2,313.93	4,662.34
9	Availability from firm sources inside the state	62.21	114.92	177.13
10	Total Availability of Energy for the State	2,410.62	2,428.85	4,839.47
11	Surplus / (Deficit)	-	-	-

The Hon'ble Commission is requested to approve the Energy Balance for FY 2022-23 as computed in the above table. The energy requirement and source wise power purchase details are discussed in subsequent paragraph. The details of energy Balance for FY 2022-23 (annual) are provided in Format 6 of Tariff Filing Formats.

4.7 Power Purchase Quantum & Cost for FY 2022-23

Power Purchase Cost for FY 2022-23 H1:

EDG meets its total energy requirement from its allocation from the Central Generating Stations (CGS), state-based Co-generation facilities, Power Exchanges etc. EDG receives



power from CGS like NTPC and NPCIL as per allocation from time to time. The power purchases from other sources such as Co-generation has been considered as per respective PPAs. Also, Renewable Power has been procured from NVVNL, SECI and Manikaran Power, APPCPL, Net Metering and Hindustan Waste Treatment Plant.

The below table shows the summary of Power Purchase (at Goa periphery) from various sources along with their costs for H1 of FY 2022-23 including Transmission Charges, Banking, Over-drawl and purchase from traders:

Table 4-8: Power Purchase Summary FY 2022-23 H1

Particulars	Gross Purchase	Cost
	MUs	Rs. Cr.
NTPC	1,970.25	713.04
NPCIL	122.96	35.33
IEX (Net of Purchase and Sales)	(90.03)	(22.18)
<i>IEX Purchase (Peak Hrs)</i>	<i>68.36</i>	<i>51.35</i>
<i>IEX Sale (Off Peak Hrs)</i>	<i>158.39</i>	<i>73.53</i>
Traders	41.35	47.28
Net Over drawal	44.20	38.93
Co-Generation	46.56	10.14
Renewable	413.69	185.66
Transmission Charges		145.25
Banking of Power (Net)	(51.95)	0.06
Revenue recovered from HT Consumer for dedicated Power Purchase		33.34
Total	2497.03	1,120.16

During the peak Hours in Summer season (March-May 2022) Goa was experiencing shortfall of Power to the tune of 125 MW. The shortfall of power during this deficit period was to the tune of 125 MW which was mainly met by Goa through purchase of power through IEX (through all their segment such as DAM, RTM, GDAM, TAM etc).

From the month of Mar'22, the rate on the Indian Energy Exchange during deficit Hours was Rs 12.53/kWh (Inclusive of losses & Trading Margins) since all India demand had increased due to prevalent summer season and there was a shortage of power in the country mainly due to the following reasons,



- (i) High demand for domestic coal and shortage of International Coal which has increased the market clearing prices in Exchange for the Power.
- (ii) Shortage of Gas due to Ukraine crisis as a result most of Gas units were under shut down or running below their capacity.
- (iii) Some Thermal Plants had gone on planned or forced outage resulting in dropping the Goa’s schedule from ISGS by around 40 MW.

In view of high All India Demand and due to low generation, the grid frequency was in the range of 49.60 – 49.90 Hz during the evening hours. As a result of which the Regional Load Despatch Center (RLDC) had issued directions to all the State Load Despatch Centers (SLDCs for mandatory load shedding to maintain their drawal to the schedule.

Hence due to non-clearing of bids in IEX due to exorbitantly high rate of Power i.e @ 12.53/kWh and directions from RLDCs for restricting the demand to the allocated schedule, Goa was forced to impose load restrictions on Industrial consumers to the tune of 100-125 MW depending upon the schedule.

In view of smooth functioning of the HT industries, HT consumers of Goa had insisted EDG to buy costly power from any source wherein the cost of additional sourcing cost power will be borne by them at the flat rate which will be very reasonable as compared to the power generated through the DG sets. In this regard the EDG has got the approval from the Hon’ble Commission and EDG has purchased the Power and recovered the same from the HT Consumers of Rs. 33.34 Crore.

EDG procured power from GMR where the power was arranged through banking arrangement for compliance of Hydro Purchase Obligation for FY 2022-23. Accordingly, EDG complied the HPO target with surplus of 0.83 MUs.

The source wise details of Power Purchase Quantum and its cost are covered in Format 3 of the Tariff Filing Formats.

EDG on a real time basis has also overdrawn/ under drawn power from grid. Reactive charges have been adjusted in the over-drawl and under-drawl charges. The details of the same for FY 2022-23 H1 are provided in the table given below:

Table 4-9: DSM Power (Over-drawl & Under-drawl) Charges for H1 of FY 2022-23

Region	Over drawal		Under drawal		Net Drawal	
	Rs. Crore	MUs	Rs. Crore	MUs	Rs. Crore	MUs
April	22.04	19.12	0.00	0.00	22.04	19.12
May	4.82	7.14	0.09	0.47	4.74	6.66



Region	Over drawal		Under drawal		Net Drawal	
	Rs. Crore	MUs	Rs. Crore	MUs	Rs. Crore	MUs
June	3.61	4.50	0.00	0.00	3.61	4.50
July	5.32	8.85	0.00	0.00	5.32	8.85
August	1.83	3.02	0.00	0.00	1.83	3.02
September	1.48	2.34	0.08	0.31	1.40	2.04
Total	39.09	44.98	0.17	0.78	38.93	44.20

Transmission Charges for FY 2022-23 of H1: The transmission charges for the H1 of FY 2022-23 comprises of transmission charges for Western Region and Southern Region. The Transmission charge comes to around Rs. 145.25 Cr. The same is considered for FY 2022-23 H2 resulting in Rs.290.50 Cr.

Power Purchase Fixed Cost for FY 2022-23: As CERC has still not issued the Order for most of the Plant, ED-Goa has considered actual fixed charges paid to the plant in H1 of FY 2022-23 to arrive at the revised projections of base year FY 2022-23 for respective Central Generating Stations.

Power Purchase Variable Cost for FY 2022-23: The Petitioner has considered the average of actual per unit variable costs for FY 2021-22 and escalated the same with 7 % for the revised projections of FY 2022-23.

Power Purchase from Renewable Energy Sources:

Solar RPO: In order to meet the Solar RPO, EDG in FY 2022-23 would purchase renewable energy from SECI, NVVNL and through STOA from APPCPL & Manikaran.

Non-Solar RPO: To meet Non-Solar RPO, EDG has planned to procure power from SECI, Manikaran, Hindustan Waste Treatment Plant and APPCL on short term basis.

EDG submits that it would be able to meet Solar and Non-Solar RPO in FY 2022-23 (as per the Power purchase projections) of the applicable Solar and Non-Solar RPO target. EDG submits shortfall if any, the same shall be met through REC to fulfil its shortfall.

However, the details of the Solar and Non-Solar RPO Status for FY 2022-23 as per the Power Purchase considered are given in the table below:

Table 4-10: Solar & Non-Solar RPO Status for FY 2022-23

S.No	Description	Unit	Revised Projections
			FY 2022-23



S.No	Description	Unit	Revised Projections
			FY 2022-23
1	Sales Within State	MUs	4241.87
2	RPO Obligation	%	18.35
	- Solar	%	9.00
	- Non Solar	%	9.00
	HPO	%	0.35
3	RPO Obligation	MUs	
	- Solar	MUs	381.77
	- Non Solar	MUs	381.77
	HPO	MUs	14.85
4	Power Purchase	MUs	770.34
	- Solar	MUs	314.43
	- Non Solar	MUs	440.24
	HPO	MUs	15.68

Table 4-11: RPO & REC Status for FY 2022-23

Particulars	Approved in Order dated 31-03-2022	Revised Projections FY 2022-23
Sales within State (MU)	4241.87	4241.87
Hydro Power available at State Periphery (MU)		
T&D Losses		
Resultant Energy Sales for calculation of RPO (after adjustment of power from hydro sources) (MU)		
RPO Obligation (in %)	18.35%	18.35%
Solar	9.00%	9.00%
Non-Solar	9.35%	9.35%
RPO Obligation for the year (in MU)	778.38	778.38
Solar	381.77	381.77
Non-Solar	396.61	396.61
RPO Compliance (Physical Power available at Consumer Periphery after adjusting Inter-State Transmission and Intra-State T&D Loss)	776.40	754.67
Solar	367.77	314.43
Non-Solar	408.63	440.24



Particulars	Approved in Order dated 31-03-2022	Revised Projections FY 2022-23
Total RPO compliance (REC Certificates to be purchased)	14.00	67.34
Solar	14.00	67.34
Non-Solar	-	
Total RPO compliance (Physical Power Plus REC)	391.41	822.01
Solar	344.30	381.77
Non-Solar	47.10	440.24

Power Purchase Cost for FY 2022-23:

In line with the foregoing paragraphs, the total estimated Power Purchase Quantum & Cost for FY 2022-23 as well as that approved by the Hon'ble Commission in Tariff Order dated 31st March 2022 is summarized in the table below:

Table 4-12: Power Purchase Summary for FY 2022-23

Particulars	Approved in Tariff Order 31-03-2022			Revised Projections for FY 2022-23		
	Gross Purchase	Cost	Rate	Gross Purchase	Cost	Rate
	MUs	Rs.Cr.	Rs./kWh	MUs	Rs.Cr.	Rs./kWh
NTPC	3445.35	1,124.26	3.26	3574.89	1357.66	3.62
NPCIL	215.19	67.22	3.12	188.77	48.64	2.87
IEX (Net of Purchase and Sales)	139.59	60.32	4.32	258.81	113.55	2.46
IEX Purchase (Peak Hrs)	139.59	60.32	4.32	417.20	187.08	7.51
IEX Sale (Off Peak Hrs)				158.39	73.53	4.64
Traders				41.35	47.28	11.43
Net Overdrawal				44.20	38.93	8.88
Co-Generation	149.79	35.95	2.40	139.13	32.35	2.18
Renewable	776.40	325.64	4.19	754.67	334.33	4.49
Transmission		226.15			290.50	
Banking of Power (Net)				-3.63	0.29	
Revenue recovered from HT Consumer for dedicated Power Purchase					33.34	
Total	4726.31	1839.54	3.89	4,998.19	2,230.19	4.46



It is submitted that net power purchase at state periphery after losses is 4,662.34 MU with total power purchase cost of Rs. 2230.19 Cr. and the average power purchase cost works out to Rs. 4.46/kWh against approved net power purchase cost of Rs. 3.89/kWh for FY 2022-23.

The power purchase details for entire FY 2022-23 are provided in Tariff Filing Format -3.

It is requested to the Hon'ble Commission to approve the power purchase cost including transmission charges for FY 2022-23 as detailed in tables given above.

4.8 Operation & Maintenance Expenses

Operation & Maintenance Expenses consists of three elements viz Employee Expenses, A&G Expense and R&M Expense:

- Employee expenses
- Administrative and General
- Repairs and Maintenance Expenses

Employee Expenses for FY 2022-23:

Actual employee expense for FY 2022-23 H1 is Rs. 233.44 Cr. EDG has projected normative Employee Expenses for FY 2022-23 H2 at Rs. 175.27 Cr.

The Provisional Actual Employee expenses of FY 2022-23 H1 with the projection FY 2022-23 as per the regulations are provided in the following:

Table 4-13: Actual and Projected Employee expenses of FY 2022-23 (Rs. Crore)

S.No	Particulars	FY 2022-23		
		Actual (H1)	Projection (H2)	Estimated
A	Employee Cost (Other than covered in 'C'&'D')			
1	Salaries	159.83	120.00	279.83
2	Dearness Allowance (DA)	18.13	13.62	31.75
3	Other Allowances+ HRA	32.38	24.31	56.69
4	Interim Relief / Wage Revision			
5	Overtime			
6	Bonus			
7	Generation Incentive			
8	Any Other Item (specify)			
	Sub Total			
B	Other Costs			
1	Medical Expenses Reimbursement	2.89	2.17	5.05
2	Travelling Allowance (Conveyance Allowance)	7.56	5.68	13.23
3	Leave Travel Assistance			



S.No	Particulars	FY 2022-23		
		Actual (H1)	Projection (H2)	Estimated
4	Payment Under Workman's Compensation Act			
5	Electricity Concession to Employees			
6	Other Staff Welfare Expenses			
7	Any Other Item (specify)			
	Sub Total			
C	1 Apprentice and Other Training Expenses			
D	Contribution to Terminal Benefits			
1	Earned Leave Encashment			
2	Provident Fund Contribution(NPS)	12.65	9.50	22.15
3	Provision for PF Fund			
4	Pension			
5	Gratuity			
6	Ex-gratia			
7	Any Other Item (specify)			
	Sub Total			
E	Grand Total (A+B+C+D)	233.44	175.27	408.71
F	Employee Expenses Capitalized			
G	Net Employee Expenses (E)-(F)	233.44	175.27	408.71

A&G Expenses:

The Provisional Actual A&G expenses of FY 2022-23 H1 with the projection FY 2022-23 as per the regulations are provided in the following:

Table 4-14: Actual and Projected A&G expenses for FY 2022-23 (Rs. Crore)

S.No	Particulars	FY 2022-23		
		Actual (H1)	Projection (H2)	Estimated
A.	1 Lease/ Rent	0.46	0.65	1.11
	2 Insurance			
	3 Revenue Stamp Expenses Account			
	4 Telephone, Postage, Telegram & Telex Charges			
	5 Incentive & Award to Employees/Outsiders			
	6 Consultancy Charges			
	7 Technical Fees			
	8 Other Professional Charges	0.45	0.63	1.08



S.No	Particulars		FY 2022-23			
			Actual (H1)	Projection (H2)	Estimated	
9	Conveyance and Travelling Expenses		0.19	0.27	0.46	
10	License and Registration Fees					
11	Vehicle Expenses (Other Than Trucks and Delivery Vans)					
12	Security / Service Charges Paid to Outside Agencies					
	Sub Total 'A' (1 to 12)		1.10	1.55	2.65	
B. Other Charges	1	Fee and Subscription for Books and Periodicals				
	2	Printing and Stationery Expenses				
	3	Advertisement Expenses (Other than Purchase Related) Exhibition & Demo.	0.12	0.17	0.29	
	4	Contributions/Donations to Outside Institutes / Associations				
	5	Electricity Charges of Offices				
	6	Water Charges				
	7	Entertainment Charges				
	8	Miscellaneous Expenses (specify details)				
		Office expenses	10.55	14.84	25.39	26.89
		Other Charges		2.09	2.94	5.03
		minor works		0.16	0.23	0.39
		Sub-Total 'B' (1 To 8)		12.92	18.18	31.10
C.	Legal Fee/Charges					
D.	Auditor's Fee					
E. Material Related Expenses	1	Freight on Capital Equipments				
	2	Purchase Related Advertisement Expenses				
	3	Vehicle Running Expenses Truck / Delivery Van				
	4	Vehicle Hiring Expenses Truck / Delivery Van				
	5	Other Freight				
	6	Transit Insurance				
	7	Octroi				
	8	Incidental Stores Expenses				
	9	Fabrication Charges				
		minor works				
	Sub Total 'E' (1 To 9)		0.00	0.00	0.00	
F.	Direction And Supervision Charges					



S.No	Particulars		FY 2022-23		
			Actual (H1)	Projection (H2)	Estimated
G.	Annual License fee and tariff determination fee payable to JERC				
	Grand Total (A To G)	Total Charges	14.02	19.72	33.74
H.	Total Charges Chargeable To	Capital Works (-)			
		Revenue Expenses			

R&M Expenses:

The Provisional Actual Repair and Maintenance expenses of FY 2022-23 H1 with the projection as per the EDG for the FY 2022-23 H2 are provided in the following:

Table 4-15: Actual and Projected R&M expenses for FY 2022-23 (Rs. Crore)

S.No.	Particulars	FY 2022-23		
		Actual (H1)	Projection H2	Estimated
1	Plant and Machinery	22.40	16.80	39.20
	- 220 kV Sub-Station			
	- 110 kV Sub-Station			
	- 33kV Sub-Station			
	- 11kV Sub-Station			
	- Switchgear and cable connections			
	- Others	0.09	0.07	0.16
2	Building	1.45	1.09	2.53
3	Civil Works			
4	Hydraulic Works			
5	Lines, Cables, Networks etc.			
	- 220 kV Sub-Station			
	- 110 kV Sub-Station			
	- 33kV Lines			
	- 11kV Lines			
	- LT Lines			
	- Others			
6	Vehicles	7.25	5.44	12.68
7	Furniture and Fixtures			
8	Office Equipments			
9	Station Supplies			
10	Metering Equipments			
11	Any Other Item	0.02	0.02	0.04
A	Gross R&M Expenses	31.21	23.41	54.62



S.No.	Particulars	FY 2022-23		
		Actual (H1)	Projection H2	Estimated
B	R&M Expenses Capitalised			
12	Net R&M Expenses	31.21	23.41	54.62

O&M Expenses Summary FY 2022-23:

The O&M Expenses is based on the H1 (Actual) and H2 Projection based on the Total expected expenses as per the Accounts dept. The O&M expenses for the FY 2022-23 vis-a-vis that approved by the Hon'ble Commission is shown in the table below:

Table 4-16: O&M Expenses for FY 2022-23 (Rs. Cr.)

Particulars	Approved in Tariff order dated 30-03-2022	H1 Actual	H2 Projection	Revised Projections FY 2022-23
Employee Expenses	344.56	233.44	175.27	408.71
A&G Expenses	34.06	14.02	19.72	33.74
R&M Expenses	55.33	31.21	23.41	54.62
Total O&M Expenses	433.95	278.67	220.39	499.06

The Hon'ble Commission is requested to approve the O&M Expenses as shown in the table above.

4.9 Capital Expenditure and Capitalization

EDG submits that it has considered the Capex & Capitalization for FY 2022-23 as per revised projection as submitted in formats along with the Petition. The Capital Investment, Capitalization, Capital Work in Progress (CWIP) and Gross Fixed Asset (GFA) for FY 2022-23 are discussed hereunder as:

Capital Investment and Capitalization during FY 2022-23:

EDG submits that the Gross Block considered in FY 2022-23 is based on audited figure of FY 2020-21 and further addition based on the provisional values of capital investment and capitalisation for FY 2021-22. The EDG has differed few projects tendered for FY 2022-23 to FY 2023-24.

EDG hereby submits a gist on the Capital Expenditure & Capitalization for FY 2022-23:



Table 4-17: Capital Expenditure & Capitalisation for FY 2022-23 (Rs. Cr.)

S.No	Name of scheme	FY 2022-23			
		Approved		Revised Estimates	
		CAPEX	CAPITALISATION	CAPEX	CAPITALISATION
Existing Schemes					
A1	Schedule Tribe Development Scheme (P)			41.24	65.70
A2	Infrastructure development through Electricity Duty (Plan)	107.78	156.78	142.04	103.74
A3	Erection and Augmentation of 33/11 KV S/S line (Plan)			5.00	5.00
A4	Normal Development Schemes (Plan)	6.00	11.00	6.00	6.00
A5	System Improvement Schemes (Plan)			33.77	31.30
A6	Construction of staff quarters and office buildings (Plan)	0.50	0.12	2.00	2.00
A7	Strengthening of 220 KV Transmission Network			11.74	11.74
A8	Erection of 220/110/33/11 KV Sub-Station at Verna (New)			-	-
A9	Restructured Accelerated Power Development and Reforms Programme Part A			10.00	-
A10	Underground Cabling		19.95	162.10	54.54
A11	R-APDRP Part B / IPDS	15.00	22.00	2.00	18.00
A12	EHV new Transmission / Sub-Station / Capacitor banks schemes			-	-
B1	Smartgrid Development of existing network			-	-
B2	Sub-transmission and distribution improvement scheme			79.00	89.00
	Total	128.28	209.85	494.89	387.22
New Schemes					
	Projects with Administrative approval	86.42	86.42	21.00	-
	Projects Approved by EFC	387.34	387.34	54.00	-
	Projects tendered (To start next year)	103.94	83.94	37.40	14.40
REVAMPED Distribution Projects					
1	Smart Meter and AMI	10.00		-	-
2	SCADA upgradation, cabling connection, infra development, modernization	225.00		-	-



S.No	Name of scheme	FY 2022-23			
		Approved		Revised Estimates	
		CAPEX	CAPITALISATION	CAPEX	CAPITALISATION
3	Training and Placement	20.00		-	-
	Total	255.00	130.00	-	-
Other Schemes					
1	Saligao 3/63 MVA 220X33 kV S/s at Saligao & Associated D/C Lines			-	-
2	Verna 220/110/33 kV			-	-
3	Upgradation of PONDA EHV S/s project			5.00	-
4	Tuem Project			20.00	-
5	Over Head to Underground Cuncholim Conocona			-	-
6	Xeldom S/s (220/33 63 MVA T/F)			-	-
	Total			25.00	-
Deposit Works					
	Deposit Works	35.37	53.37	22.9	21.27
Grand Total		997.35	950.92	655.19	422.89

As seen from the above table, the total Capital Expenditure and Capitalization estimated for FY 2023-23 as per estimates is Rs. 632.29 Cr. and Rs. 401.62 Cr. respectively without deposit works. The detail of capital expenditure schemes for FY 2022-23 is provided in the Format (Capex & Capitalisation FY 2022-23) of Tariff Filing Formats.

The details of opening Capital Works-in-Progress, investments during the year and investments capitalised for the year are summarized in the table below:

Table 4-18: CWIP for FY 2022-23 (Rs. Cr.)

Particulars	Revised Projections FY 2022-23
Opening Balance	1,009.85
Add: New Investments	632.29
Total	1642.14
Less: Investment Capitalized	401.62
Other Entries in CWIP	0.00
Closing Balance	1,240.52



Opening and Closing GFA for FY 2022-23

EDG submits that the opening and closing balance of GFA for FY 2022-23 onwards has been arrived at after considering the provisional capitalization for the period FY 2021-22 and estimated capitalization for FY 2022-23. The computation of the same is provided in the table given below.

Table 4-19: Opening & Closing GFA for FY 2022-23

Particulars	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23
Opening GFA	1,274.13	1,398.63	1,443.85	1,566.39
Addition	127.18	50.86	165.19	401.62
Retirement	2.68	5.63	3.17	
Closing GFA	1,398.63	1,443.85	1,566.39	1,968.01

EDG also submits that Opening and Closing GFA for FY 2022-23 after excluding the assets created from Electricity Duty and Grants in the following table:

Table 4-20: Opening & Closing GFA (excl. ED and Grant) for FY 2022-23

Particulars	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23
Opening GFA (Excl. Grand & ED)	1068.37	1107.15	1136.00	1,212.86
GFA Addition during the year	127.18	51.90	165.19	401.62
Less: 60% and 75% Grant Component of APDRP Part-B / IPDS Scheme	16.78	2.74	28.88	10.80
Less: Schemes out of ED Fund	68.94	14.68	59.45	114.74
Net GFA addition during the year	41.46	34.48	76.86	276.08
Less: Retirement	2.68	5.63		
Opening GFA (Excl. Grant & ED)	1107.15	1136.00	1,212.86	1,488.94

Regulation 31.4 of JERC MYT Regulation 2021 states that,

“In case of existing assets, the balance depreciable value as on April 1, 2022,



shall be worked out by deducting the cumulative depreciation as admitted by the Commission up to March 31, 2021, from the gross depreciable value of the assets.”

Accordingly, the opening & closing balance of GFA from FY 2022-23 onwards has been arrived at after reduction of accumulated depreciation as on 1st April 2022 and accordingly, the details of the Net Fixed Assets for FY 2022-23 are provided in the table below:

Table 4-21: Opening & Closing GFA (Net of Accumulated Depreciation) for FY 2022-23

Particulars	FY 2021-22	FY 2022-23
Opening NFA net of Accumulated Depreciation	1119.93	1178.42
Addition	58.49	276.08
Retirement		
Closing GFA	1178.42	1454.50

4.10 Depreciation for FY 2022-23

Regulation 31.7 of the JERC MYT Regulations, 2021 provides for depreciation to be calculated as specified below:

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

Regulation 31.1 of the JERC MYT Regulations, 2021 provides for depreciation to be calculated as specified below:

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

Provided that the depreciation shall be allowed after reducing the approved original cost of the retired or replaced or decapitalized assets:

Provided also that the no depreciation shall be allowed on the assets financed through consumer contribution, deposit work, capital subsidy or grant.”

As per the above said Regulation, the depreciation shall not be allowed on assets funded through capital subsidies, consumer contribution or grants. Accordingly, average GFA excluding grant and electricity duty works out as Rs. 1,178.42 Cr is derived. Hence



depreciation towards GFA excluding grant & electricity duty works out as Rs. 58.92 Cr. in proportion with GFA excluding grant & electricity duty to total average GFA. The table below shows the working of Depreciation considered in ARR for FY 2022-23.

Table 4-22: Depreciation for FY 2022-23 (Rs. Cr.)

Particulars	Revised Projections FY 2022-23
Opening Gross Fixed Assets (excluding Grants/ consumers Contribution etc)	1178.42
Add: Gross Asset Addition	401.62
Less: Contribution from Subsidies/ Grants/ Beneficiaries' Contribution / Consumers Contribution	125.54
Value of Asset eligible for depreciation	276.08
Add: Addition During the Year	276.08
Less: Decapitalisation	-
Closing Gross Fixed Assets (excluding Grants/ consumers Contribution etc.)	1454.50
Average Gross Fixed Assets (excluding Grants/ consumers Contribution etc.)	1316.46
Depreciation	58.92
Wt. Avg Rate of Depreciation	4.48%

The detail of GFA & Depreciation for FY 2022-23 is provided in the Format 15 of Tariff Filing Formats respectively. The Hon'ble Commission is requested to approve the depreciation for the year for FY 2022-23.

4.11 Interest & Finance Charge

EDG submits that the Regulations 29.1 & 29.2 of the JERC MYT Regulations, 2021 specifies that:

"29.1 The loans arrived at in the manner indicated in Regulation 27 on the assets put to use, shall be considered as gross normative loan for calculation of interest on the loan:

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

Provided further that in case of De-capitalisation or retirement or replacement of assets, the loan capital shall be reduced to the extent of outstanding loan



component of the original cost of the decapitalized or retired or replaced assets, based on documentary evidence.

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

EDG submits that as per Regulation 27.2 of JERC MYT Regulations, 2021, if the actual equity deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as a normative loan for the Licensee for determination of tariff. Extract of the relevant Regulation is reproduced as under:

“27 Debt to Equity Ratio

.....

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

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

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

EDG submits that most capital assets are created out of the equity contribution from Government of Goa and the actual borrowing of loan is only to the extent of the APDRP schemes. EDG has computed loan balance and interest on loan as per normative principles and methodology adopted by the Hon’ble Commission in past orders.

EDG doesn’t have any actual loan in EDG’s Books of Accounts, hence normative loan is calculated in line with above mentioned regulations. The Hon’ble Commission has approved normative loan as on 31st March 2017 in final true up of FY 2016-17. The same normative loan balance has considered as opening balance for FY 2017-18, and normative loan addition is calculated at 70% of the GFA excluding grant and electricity duty fund contribution till 31st March 2022. The same balance is carried forward as opening normative loan for FY 2022-23. Further during FY 2022-23, addition of net GFA (excluding grant and electricity duty) is added. Normative loan repayments are considered same as depreciation amount excluding in proportion of grant and electricity



duty for FY 2022-23. The rate of Interest for long term Interest rate has been considered at the rate of 8.00% including 100 basis points as per one-year SBI MCLR Interest rate applicable as on 1st April relevant financial year, i.e. 01st April 2022 in this regard. It is requested to Hon'ble Commission to approve Interest on Loan on normative principles.

EDG has not considered the Letter of Credit charges for payment security charges as directed by the Hon'ble Commission, as the same will be considered at the time of true up.

Table 4-23: Interest & Finance Charges for FY 2022-23 (Rs. Cr.)

Particulars	Approved in Order dt. 31-03-2022	Revised Projections FY 2022-23
Opening Normative Loan	223.50	267.37
Add: Normative Loan during the year/GFA during the year	162.08	193.26
Less: Normative Repayment for the year	52.64	58.92
Closing Normative Loan	332.94	401.71
Average Normative Loan	278.22	334.54
Rate of Interest	8.00%	8.00%
Interest on Normative Loan	22.26	26.76

The Hon'ble Commission is requested to approve the Interest & Finance Charges for FY 2022-23 as shown in the above table. The details of Interest & Finance charges are provided in Format 12 of the Tariff Filing Formats.

4.12 Interest on Working Capital

As per Regulation 63.1 of the JERC MYT Regulations, 2021, Interest on Working Capital for retail supply activity of the licensee shall consist of:

- O&M Expenses for one (1) month;
- Maintenance spares at 40% of repair and maintenance for one month;
- Receivables equivalent to two (2) months of the expected revenue from consumers at prevailing tariff;
- Less: Consumer security deposit but excluding bank guarantee/ fixed deposit receipt.

Regulation 32.4 of the JERC MYT Regulations, 2021 specifies as below:

"32.4 The rate of interest on working capital shall be equal one (1) Year State Bank of India (SBI) MCLR / any replacement thereof as notified by RBI for the time being in effect applicable for one (1) Year period, as may be applicable as on 1st April of



the Financial Year in which the Petition is filed plus 200 basis points”

The Interest Rate is considered equivalent to the SBI base Rate available as on 01st April 2022 for FY 2022-23 which is at 7.00% plus 200 basis points which works out to be 9.00%.

In line with the aforesaid regulation, the detailed computation of Interest on Working Capital for FY 2022-23 is provided in the table below:

Table 4-24: Interest on Working Capital for FY 2022-23 for Wire Business (Rs. Cr.)

For Wheeling Business			
S. No.	Particulars	Ref. Form No.	APR
			FY 2022-23
A)	O&M Expenses for Wire Business		
i)	R&M Expenses	-	49.16
ii)	A&G Expenses	-	16.87
iii)	Employee Cost	-	163.48
iv)	Total O&M Expenses		229.52
v)	O&M Expenses for wire business for 1 month		19.13
B	Maintenance Spares (@ 40% of R&M Expenses)		1.64
C	Receivables equivalent to two (2) month of the expected revenue from charges for use of Distribution Wires at the prevailing tariffs.	Fixed Charges	47.34
D	Less: Amount, if any, held as security deposits from Distribution System Users		9.96
E	Total Working Capital (A (v)+B+C-D)		58.15
F	Rate of Interest		9.00%
G	Interest on Working Capital		5.23

Table 4-25: Interest on Working Capital for FY 2022-23 for Supply Business (Rs. Cr.)

For Retail Supply Business			
S. No.	Particulars	Ref. Form No.	APR
			FY 2022-23
A)	O&M Expenses for Retail Supply Business		
i)	R&M Expenses	-	5.46
ii)	A&G Expenses	-	16.87
iii)	Employee Cost	-	245.23
iv)	Total O&M Expenses		267.56
v)	O&M Expenses for retail supply business for 1 month		22.30



For Retail Supply Business			
S. No.	Particulars	Ref. Form No.	APR
			FY 2022-23
B	Maintenance Spares (@40% of R&M Expenses for Retail Supply Business)		0.18
C	Receivables equivalent to 2 months of average of total revenue from sale of energy, approved by Commission in the ARR	Energy Charges	360.63
D	Less: Consumer Security Deposit		89.63
E	Less: One month of power procurement cost		185.85
F	Total Working Capital (A (v) + B + C - D -E)		107.62
G	Rate of Interest		9.00%
H	Interest on Working Capital		9.69

The Hon'ble Commission is requested to approve the Interest on Working Capital as presented in the table above. The details of Interest on Working Capital for FY 2022-23 are provided in Format 14 of the Tariff Filing Formats.

4.13 Interest on Consumer Security Deposit

As per the Regulation 5.135 of Electricity Supply Code Regulations, 2018 and subsequent amendment dated 25th March 2019:

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

Regulation 28.11 of the JERC MYT Regulations, 2021 specifies as follows :

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



in which the Petition is filed:

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

The provision of interest on security deposits is to be made at the bank rate. The interest rate considered is 4.25% which is RBI Bank rate as on 01st April 2022.

In view of the above, Interest on Security Deposit is calculated at Rs. 3.96 Cr. (FY 2022-23 H1) and Rs. 4.23 Crore (FY 2022-23) on cash security deposit amounts excluding Bank Guarantee & Fixed Deposit Receipts based on the regulation stated above.

The table below shows details of Interest on Security Deposit for FY 2022-23:

Table 4-26: Interest on Security Deposit for FY 2022-23 (Rs. Cr.)

Particulars	Approved in Order dt. 31-03-2022	Revised Projections FY 2022-23
Opening Security Deposit	77.02	86.60
Net Additions during the year	15.65	26.68
Less: Deposits Refunded	0.37	0.71
Closing Security Deposit	92.31	112.58
Average Security Deposit	84.67	99.59
Rate of Interest (%)	4.25%	4.25%
Interest on Security Deposit	3.60	4.23
Cumulative Interest on Security Deposit including Past Years		31.29
Interest on Security Deposit Paid		5.36
Balance Interest on Security Deposit to be Paid		0.00

The Hon’ble Commission is requested to approve the Interest on Security Deposit for FY 2022-23 as detailed in the above table.

4.14 Return on Equity

Regulation 28.2 & 28.3 of the JERC MYT Regulations, 2021 specifies that:

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



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

In line with the above regulation and the methodology proposed in the JERC MYT Regulations, 2021, EDG has calculated the Return on Equity as outlined in the following table for FY 2022-23.

The opening balance of assets and accumulated depreciation are considered as per audited account of FY 2019-20 and further provisional actual numbers used to arrive at the opening balance for FY 2022-23.

Further normative equity addition during the year is considered 30% of the net GFA addition excluding proportion of grant and electricity duty as computed provided below:

The table below shows calculation of Return on equity for FY 2022-23:

Further normative equity addition during the year is considered 30% of the net GFA addition excluding proportion of grant and electricity duty as computed in format 16.

Table 4-27: Return on Equity for FY 2022-23 (Rs. Cr.)

S. No	Particulars	FY 2022-23	
		Approved in Order dt. 31-03-2022	Revised Projections FY 2022-23
1	Opening Balance of Equity	379.16	346.08
2	Net Additions during the Year	69.46	82.82
3	Closing Balance of Equity	448.62	428.91
4	Average Equity	413.89	387.50
5	Average Equity (Wires Business)	372.50	348.75
6	Average Equity (Retail Supply Business)	41.39	38.75
7	Rate of Return on Equity for Wire Business %	15.50%	15.50%
8	RoE Wire Business	57.74	54.06
9	Rate of Return on Equity for Retail Supply Business %	16.00%	16.00%
10	RoE on Retail Supply business	6.62	6.20
11	RoE (Wire and Retail Supply business)	64.36	60.26

The Hon’ble Commission is requested to approve the Return on equity for FY 2022-23 as shown in the table above. The details of Return on Equity for FY 2022-23 are provided in Format 16 of the Tariff Filing Formats.



4.15 Non-Tariff Income

Non-Tariff Income comprises of proceeds from sale of dead stock, wastepaper, receipt from State Electrical Inspectorate and other miscellaneous receipts. The Non-Tariff Income for the year FY 2022-23 is estimated to be Rs. 29.36 Cr.

Table 4-28: Non-Tariff Income for FY 2022-23 (Rs. Cr.)

S. No.	Particulars	Approved in Order dt. 31-03-2022	Projection		
			FY 2022-23	FY 2022-23	FY 2022-23
			Actual (H1)	Projection (H2)	Estimated
1	Meter/metering equipment/service line rentals				
2	Service Charges				
3	Customer Charges				
4	Revenue from Late Payment Surcharge*				
5	Miscellaneous Charges				
6	Incentives from CGSs				
7	Miscellaneous Receipts		3.89	17.7	21.59
8	Interest on advances to suppliers/contractors				
9	Interest on Staff Loans and Advances				
10	Income from Trading				
11	Income from Staff Welfare Activities				
12	Excess found on Physical Verification				
13	Interest on Investments, Fixed and Call Deposits and Bank Balances				
14	Prior Period Income				
15	Income from Open Access Charges (Application fee, Cross Subsidy Surcharge, Additional Surcharge, Transmission and/or Wheeling Charges, Scheduling Charges etc.				
16	Sale Proceeds of dead stock, waste paper etc		2.53	5.24	7.77
16	Any other Income not included above				
	Total	20.78	6.42	22.94	29.36

The details of Non-Tariff Income for FY 2022-23 are provided in Format 21 of the Tariff Filing Formats.



4.16 Aggregate Revenue Requirement for FY 2022-23

Based on the submissions made in the foregoing paragraphs, the net Aggregate Revenue Requirement for the year FY 2022-23 and the revenue gap is shown in the table below:

Table 4-29: Aggregate Revenue Requirement for FY 2022-23 (APR) (Rs. Cr.)

Sr. No.	Particulars	Approved in	Estimated
		ARR dt. 31-03-2022	FY 2022-23
A	Receipts		
1	Revenue from Sale of Power	2024.02	2,565.79
B	Expenditure		
1	Cost of Power Purchase from Own Generating Stations		-
2	Cost of Power Purchase from other Generating Stations	1,613.38	2,230.19
3	Inter State Transmission Charges	226.15	-
4	Intra State Transmission Charges		-
5	SLDC Fees & Charges		-
6	O&M Expenses (Gross)	433.95	497.08
	a) R&M Expenses		54.62
	b) Employee Cost		408.71
	c) A&G Expenses		33.74
7	Depreciation	52.64	58.92
8	Interest and Finance Charges	22.26	26.76
9	Interest on Working Capital	18.13	14.92
10	Prior Period Expenses		-
	Interest on Consumer Security Deposit	3.60	5.36
11	Extraordinary Items		-
12	Bad and Doubtful Debts		-
13	Other Debts and Write-offs		-
14	Statutory Levies and Taxes, if any		-
15	Less: Expenses Capitalised		
	a) Interest Charges Capitalized		-
	b) R&M Expenses Capitalized		-
	c) A&G Expenses Capitalized		-
	d) Employee Cost Capitalized		-
	Sub Total (a+b+c+d)		-
	Sub Total Expenditure (1 to 14-15)		2,833.23
C	Return on Equity	64.36	60.26



Sr. No.	Particulars	Approved in ARR dt. 31- 03-2022	Estimated
			FY 2022-23
D	Less: Non Tariff and other Income	26.32	29.36
E	Less: Any Grant/ Subventions, other subsidy provided by the Government		-
F	Annual Revenue Requirement (B+C-D-E)	2,408.15	2,864.13
G	Revenue Gap 'Surplus(+)' / Shortfall (-) (A-F)	-384.13	-298.33

The Hon'ble Commission is requested to approve the net Aggregate Revenue Requirement for FY 2022-23 as described in the above table.

4.17 Revenue from Retail Sale of Power

EDG has billed the consumers based on the tariff approved for FY 2022-23. The revenue for H1 (April to September) is Rs.1047.40 Crore against sale of 2215.01 MUs. The overall revenue from sale of power for FY 2022-23 computes to Rs. 2125.94 Cr. for sale of 4430.74 MU and Hon'ble Commission is requested to approve the same. The category wise computation of revenue is represented in the table given below:

Table 4-30: Revenue from Sale of Power for FY 2022-23 (Rs.Cr.)

Sl. No.	Category	Revenue for FY 2022-23 from approved retail tariff determined by Commission (In INR Cr) FY 2022-23				Average Billing Rate (Rs/kWh)	Revenue for FY 2023-24 from existing retail tariff determined by Commission (In INR Cr) FY 2023-23		
		Full year revenue (Rs. Crore)					Full year revenue (Rs. Crore)		Average Billing Rate (Rs/kWh)
		Sales in MU	Revenue from Fixed Charges	Revenue from Energy Charges	Total		Sales in MU	Total	
1	Domestic	1386.33	36.93	361.03	397.96	2.87	1339.81	369.58	2.76
(i)	LT-D Domestic	1384.58	36.89	360.84	397.74	2.87	1338.53	369.35	2.76
	0-100 units	544.79	11.8	87.17	98.96	1.82	484.47	81.55	1.68
	101-200 units	331.54	9.07	77.91	86.98	2.62	315.46	76.45	2.42
	201-300 units	175.22	6.17	51.69	57.86	3.3	181.19	55.42	3.06



Sl. No.	Category	Revenue for FY 2022-23 from approved retail tariff determined by Commission (In INR Cr) FY 2022-23				Average Billing Rate (Rs/kWh)	Revenue for FY 2023-24 from existing retail tariff determined by Commission (In INR Cr) FY 2023-23		
		Full year revenue (Rs. Crore)					Full year revenue (Rs. Crore)		Average Billing Rate (Rs/kWh)
		Sales in MU	Revenue from Fixed Charges	Revenue from Energy Charges	Total		Sales in MU	Total	
	301-400 units	96.5	3.48	37.64	41.12	4.26	106.12	42.26	3.98
	Above 400 units	236.53	6.38	106.44	112.82	4.77	251.29	113.67	4.52
(ii)	Low Income Group	1.37	0	-	0	0.02	0.90	0.00	0.02
(iii)	HT-D Domestic	0.38	0.03	0.18	0.22	5.75	0.38	0.23	6.03
2	Commercial	607.53	44.89	301.75	346.64	5.71	663.35	397.83	6.00
(i)	LT-C Commercial	472.52	21.79	228.11	249.9	5.29	496.95	266.45	5.36
	0-100 units	77.99	4.59	27.69	32.28	4.14	79.70	34.94	4.38
	101-200 units	47.8	1.69	20.79	22.49	4.7	50.51	24.30	4.81
	201-400 units	60.12	3.14	29.16	32.3	5.37	65.17	34.64	5.32
	Above 400 units	286.61	12.36	150.47	162.83	5.68	301.57	172.57	5.72
(ii)	HT-C Commercial	135.02	23.1	73.64	96.74	7.17	166.40	131.39	7.90
3	Industrial	2139.85	189.41	1035.98	1225.39	5.73	2290.58	1315.54	5.74
(i)	LT-I Industrial	80.91	7.05	31.07	38.12	4.71	91.06	44.31	4.87
	0-500 units	16.18	3.4	5.5	8.9	5.5	17.11	9.99	5.84
	Above 500 units	64.73	3.66	25.57	29.22	4.51	73.95	34.32	4.64
(ii)	Low Tension-Mixed/LT-P (Hotel Industries)	4.48	0.14	2.35	2.49	2.49	4.04	2.30	5.70
(iii)	High Tension-I/HT-I	1499.12	157.91	734.68	892.58	892.58	1695.31	984.06	5.80
	Connected at 11/33 kV	1247.94	135.2	616.15	751.36	751.36	1448.28	843.31	5.82
	Connected at 110 kV	251.18	22.7	118.52	141.22	141.22	247.03	140.75	5.70
(iv)	High Tension-Ferro/SM/PI/SR	555.35	24.31	267.89	292.2	292.2	500.17	284.88	5.70
4	Agriculture	33.62	1.71	5.88	7.59	7.59	40.73	9.64	2.37
(i)	Low Tension-AG/LT-AGP (Pump Sets/Irrigation)	17.29	1.09	2.59	3.69	3.69	18.50	4.33	2.34



Sl. No.	Category	Revenue for FY 2022-23 from approved retail tariff determined by Commission (In INR Cr) FY 2022-23					Revenue for FY 2023-24 from existing retail tariff determined by Commission (In INR Cr) FY 2023-23			
		Full year revenue (Rs. Crore)				Average Billing Rate (Rs/kWh)	Full year revenue (Rs. Crore)		Average Billing Rate (Rs/kWh)	
		Sales in MU	Revenue from Fixed Charges	Revenue from Energy Charges	Total		Sales in MU	Total		
(ii)	Low Tension-AG/LT-AGA (Allied Activities)	0.79	0.05	0.14	0.19	0.19	1.44	0.37	2.55	
(iii)	High Tension-AG/HT-AGP (Pump Sets/Irrigation)	4.89	0.44	1.03	1.47	1.47	6.32	1.68	2.66	
(iv)	High Tension-AG/HT-AG (Allied Activities)	10.65	0.12	2.12	2.24	2.24	14.47	3.26	2.26	
5	Military Engineering Services/ defense Establishments	26.96	1.73	13.7	15.43	15.43	31.87	20.70	6.49	
6	Public Lighting	29.61	0.23	16.73	16.96	16.96	47.56	20.21	4.25	
7	Hoardings/Signboards	0.16	0.04	0.16	0.2	0.2	0.31	0.38	12.45	
8	Temporary	12.1	0	10.18	10.18	10.18	10.12	9.14	9.03	
(i)	LT	9.77	0	8.07	8.07	8.07	3.97	0.70	1.76	
	LT Domestic	0.69	0	0.3	0.3	0.3	1.03	0.34	3.29	
	LT Commercial	9.08	0	7.77	7.77	7.77	2.94	0.36	1.23	
(ii)	HT	2.33	0	2.11	2.11	2.11	6.15	8.44	13.73	
9	Single Point Supply	5.69	0.91	2.76	3.67	3.67	6.41	4.26	6.65	
(i)	<i>Residential Complexes</i>	0	0	0	0	0				
(ii)	<i>Commercial Complexes</i>	5.69	0.91	2.76	3.67	3.67	6.41	4.26	6.65	
(iii)	<i>Industrial Complexes</i>	0	0	0	0	0				
	TOTAL	4241.87	275.84	1748.18	2024.02	4.77	4430.74	2147.29	4.85	

Actual Revenue of FPPCA for H1 of Rs. 187.09 Crore and the estimated amount of Rs. 161.99 Crore for Q3 which is approved by Hon'ble JERC @ Rs.1.36 /Unit and estimated amount of Rs. 69.43 Crore for Q4 is considered for FY 2022-23 which works out to



Rs.418.51 Crore. So, the revenue out of Fixed Charge (FC) and Energy Charge (EC) or Variable Charge (VC) for FY 2022-23 (H1 + H2) of Rs.2147.29 Crore Plus Rs. 418.51 Crore of revenue FPPCA is considered for computation of the Revenue Gap detailed in the following.

4.18 Estimated Revenue Gap for FY 2022-23

EDG submits that it has estimated the Net Revenue Gap for FY 2022-23 after considering the budgetary support from the Government of Goa and the same is presented in the table given below.

Table 4-31: Revenue Gap for FY 2022-23 (APR) (Rs. Cr.)

Particulars	Approved in Order dt. 31-03-2022	Revised Projections FY 2022-23
Net Revenue Requirement	2408.15	2,864.13
Revenue from Sale of Power	1992.53	2,565.79
Revenue Gap during the Year	415.62	298.33
Less: Budgetary Support for State Govt.	-	298.33
Net Revenue to be carried forward	415.62	-

Government of Goa has agreed to provide the budgetary support for any revenue gap for FY 2022-23. Accordingly, the final revenue gap approved by the Hon'ble Commission for FY 2022-23 will be provided by Government of Goa as budgetary support. Accordingly, the entire revenue gap as computed above is proposed to be met by the Government of Goa as a budgetary support. Thus, the revenue gap carried forward to FY 2022-23 has been considered as NIL.

In view of above, the Hon'ble Commission is requested to allow Revenue Gap for FY 2022-23 as NIL as computed in the above table for the purpose of carrying forward to FY 2023-24.



5 AGGREGATE REVENUE REQUIREMENT FOR FY 2023-24

5.1 Preamble

The Hon'ble Joint Electricity Regulatory Commission (JERC) has notified the Regulations, JERC (Generation, Transmission and Distribution Multi Year Tariff) Regulations, 2021 on 22nd March 2021 for the determination of tariff for the MYT control period based on certain norms of operation and financial parameters.

The JERC (Multi Year Distribution Tariff) Regulations, 2021 hereafter referred to as MYT Regulations, 2021 clearly states that the Hon'ble Commission shall determine the tariff under MYT framework with effect from 1st April 2021. The relevant section is quoted below:

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

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

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

ED accordingly submits proposed Aggregate Revenue Requirement for FY 2023-24 along with the proposed Tariff for FY 2023-24 (based on the parameters defined in the MYT



Regulations, 2021) against the approved Business Plan Order and Tariff Order for MYT Control Period of FY 2022-23 to FY 2024-25 issued by the Hon'ble Commission.

5.2 Principles for determination of ARR

This chapter summarizes the Aggregate Revenue Requirement (ARR) for FY 2023-24. The projections have been made based on the parameters specified in the MYT Regulations, norms proposed and approved in Business Plan & Tariff Order and also based on actual data for previous years.

The overall performance parameters proposed for the FY 2023-24 is based on the methodologies discussed in subsequent paragraphs.

5.3 Billing Determinants for FY 2023-24

EDG has submitted number of category-wise Consumers, Connected Load and Sales projected based on the various CAGR and assumptions. The same has been considered to project the revenue for FY 2023-24 as per the format provided by Hon'ble Commission tabulated below.

Sales:

EDG submits that the Hon'ble Commission had approved the estimated sales for FY 2023-24 as 4,385.84 MUs. EDG would like to submit that post COVID, the economic activity in the State of Goa has increased and the sales have increased in FY 2021-22 and first half of FY 2022-23. The actual sales for FY 2021-22 was 4009.03 MU and the actual sales during first half of FY 2022-23 was 2215.01 MU. EDG has considered the actual sales during FY 2021-22 and first half of FY 2022-23 for projecting the category wise sales for FY 2023-24.

For the purpose of ARR for FY 2023-24, ED-Goa has extrapolated the figures of sales determined for APR FY 2022-23 with 3,4 & 5 year CAGR and in case of (-) negative CAGR assumption of 3% is considered.

The following table shows the overall sales considered by EDG for FY 2023-24 vis-à-vis Sales approved in Tariff Order dated 31st March 2022.



Table 5-1: Sales for FY 2023-24

Sr. No.	Category of Consumer	Approved in Order dt. 31-03-2022	FY 2023-24 (Projections)
A. LOW TENSION SUPPLY			
1	LTD/Domestic	1,451.32	1385.41
2	LT-L.I.G (Low income Group)	1.37	0.93
3	LTC/Commercial	485.13	511.86
4	LTI/ Industrial	80.91	4.16
5	LT Mixed/ LT-P Hotel Industries	4.48	93.79
6	Low Tension-AG/LT-AGP (Pump Sets/Irrigation)	18.08	19.05
7	Low Tension-AG/LT-AGA (Allied Activities)		1.48
8	LTPL Public lighting	29.61	50.09
9	LT Hoarding /Sign Board	0.16	0.34
B. HIGH TENSION SUPPLY			
10	HTD Domestic	0.38	0.39
11	HT Commercial	142.13	170.89
12	HTI Industrial	1,528.95	1738.62
13	High Tension-Ferro/SM.PI/SR	581.12	512.94
14	High Tension-AG/HT-AGP (Pump Sets/Irrigation)	17.09	6.51
15	High Tension-AG/HT-AG (Allied Activities)		14.90
16	Military Engineering Services/defense Establishments	27.27	33.43
C. TEMPORARY SUPPLY			
17	L.T. Temporary	9.77	4.09
18	H.T. Temporary	2.33	6.33
D. Single Point Supply			
19	Residential Complexes		
20	Commercial Complexes	5.74	6.68
21	Industrial Complexes		
	Total	4,385.84	4561.91



CAGR considered for Sales:

Table 5-2: CAGR considered for Sales of FY 2023-24

S.No	Category wise Sales (MU)	FY 2022-23	Growth Rate (%)	Basis	FY 2023-24
A.	LT				
	Domestic	1339.43	3.50%	4 year CAGR	1386.3
	Non Domestic	500.99	3%	Assumption	516.0
	LT Industrial	91.06	3%	Assumption	93.8
	LT Agriculture	19.94	3%	Assumption	20.5
	Street Light	47.56	5.31%	5year CAGR	50.1
	Hoarings/Signboards	0.31	10.97%	3 year CAGR	0.3
	sub-total	1999.30			2067.1
B.	HT				
	HT Domestic	0.38	3.47%	4 year CAGR	0.4
	HT Commercial	166.40	2.70%	4 year CAGR	170.9
	HT Industrial	2195.48	2.55%	4 year CAGR	2251.6
	HT Agriculture	20.79	3%	Assumption	21.4
	HT-MES/Defence	31.87	4.89%	3 year CAGR	33.4
	sub-total	2414.92			2477.7
C.	Temporary	10.12	3%	Assumption	10.4
D.	Single Point Supply	6.41	4.23%	5year CAGR	6.7
E	Others	0.00			0.0
	Total	4430.74			4561.91

Note: Assumption is considered if the CAGR is arrived at negative (-).

The Hon'ble Commission is requested to approve the revised sales figures considered in the table above for ARR of FY 2023-24. The figures for energy sales for FY 2023-24 are provided in Format 5 of Tariff Filing Formats.

No. of Consumers:

The consumer base of Goa comprises of HT Industry, LT Industry, Commercial and Domestic consumers with the maximum number of consumers attributable to the domestic category. For the purpose of ARR for FY 2023-24, ED-Goa has extrapolated the figures of No.of Consumers for FY 2021-22 3,4 & 5 year CAGR and in case of (-) negative CAGR assumption of 3% is considered.

The figures of No. of Consumers is provided in the format 5 of this petition. The table below shows category wise number of consumers considered for FY 2023-24 vis-à-vis number of consumers approved by the Hon'ble Commission in MYT Tariff order for FY



2023-24.

Table 5-3: Number of Consumers for FY 2023-24 (Nos)

S. No.	Category of Consumer	Approved in Order dt. 31-03-2022	FY 2023-24 (Projections)
A. LOW TENSION SUPPLY			
1	LTD/Domestic	612,209	581956
2	LT-L.I.G (Low income Group)	1,314	903
3	LTC/Commercial	111,025	111549
4	LTI/ Industrial	5,799	123
5	LT Mixed/ LT-P Hotel Industries	125	6027
6	Low Tension-AG/LT-AGP (Pump Sets/Irrigation)	12,870	13125
7	Low Tension-AG/LT-AGA (Allied Activities)		304
8	LTPL Public lighting	3	6473
9	LT Hoarding /SignBoard	321	69
B. HIGH TENSION SUPPLY			
10	HTD Domestic	3	4.00
11	HT Commercial	321	343
	HTI Industrial	978	833
12	High Tension-Ferro/SM.PI/SR	26	24
13	High Tension-AG/HT-AGP (Pump Sets/Irrigation)	48	44
14	High Tension-AG/HT-AG (Allied Activities)		3
15	Military Engineering Services/defense Establishments	14	15
C. TEMPORARY SUPPLY			
16	L.T. Temporary	2,609	5003
17	H.T. Temporary	11	16
D. Single Point Supply			
18	Residential Complexes		
19	Commercial Complexes	1	1
20	Industrial Complexes		
E Other Categories			
21	Electric Vehicle Charging Station		2
	Total	748498	726815



CAGR considered for No. of Consumer:

Table 5-4: CAGR considered for No. of Consumer FY 2023-24

S.No	Number of Consumers	FY 22-23 H1	Growth Rate (%)	Basis	FY 2022-23	FY 2023-24
A.	LT					
	Domestic	552646	3.30%	5 year CAGR	564244	582859
	Non Domestic	106052	3.22%	5 year CAGR	108186	111672
	LT Industrial	5646	3%	Assumption	5851	6027
	LT Agriculture	12715	3%	Assumption	13038	13429
	Street Light	6300	3%	Assumption	6284	6473
	Hoardings/Signboards	64	3%	Assumption	67	69
	sub-total	683423			697670	720528
B.	HT					
	HT Domestic	4			4.00	4.00
	HT Commercial	302	8.71%	5 year CAGR	315	343
	HT Industrial	820	3.16%	5 year CAGR	830	857
	HT Agriculture	45	1.88%	5 year CAGR	46	47
	HT-MES/Defence Establishment	14	3.13%	5 year CAGR	14	15
	sub-total	1185			1210	1265
C.	Temporary	4706			5019	5019
D.	Single Point Supply	1			1.00	1.00
E	Others	2			2	2.00
	Total	689317			703902	726815

Note: Assumption is considered if the CAGR is arrived at negative (-).

The Hon'ble Commission is requested to approve number of consumers for ARR of FY 2023-24 as submitted in the above table. The figures for number of consumers for FY 2023-24 are provided in Format 5 of Tariff Filing Formats.

Connected Load:

For the purpose of ARR for FY 2023-24, ED-Goa has extrapolated the figures of Connected Load determined for FY 2021-22 with 3,4 & 5 year CAGR and in case of (-) negative CAGR assumption of 3% is considered.

The figures of Connected Load is provided in the format 5 of this petition. The table below shows category wise number of consumers considered for FY 2023-24 vis-à-vis number of consumers approved by the Hon'ble Commission in MYT Tariff order for FY 2023-24.



Table 5-5: Connected Load for FY 2023-24 (KW/ kVA)

S. No.	Category of Consumer	Approved in Order dt. 31-03-2022	FY 2023-24 (Projections)
A. LOW TENSION SUPPLY			
1	LTD/Domestic	1908443	1881661
2	LT-L.I.G (Low income Group)	117	71
3	LTC/Commercial	426899	426256
4	LTI/ Industrial	149240	2567
5	LT Mixed/ LT-P Hotel Industries	2757	146023
6	Low Tension-AG/LT-AGP (Pump Sets/Irrigation)	54134	47441
7	Low Tension-AG/LT-AGA (Allied Activities)		2406
8	LTPL Public lighting	3212	10061
9	LT Hoarding /SignBoard	567	572
B. HIGH TENSION SUPPLY			
10	HTD Domestic	300	400
11	HT Commercial	93,093	131089
	HTI Industrial	650632	606555
12	High Tension-Ferro/SM.PI/SR	95340	116495
13	High Tension-AG/HT-AGP (Pump Sets/Irrigation)	13085	10006
14	High Tension-AG/HT-AG (Allied Activities)		2377
15	Military Engineering Services/defense Establishments	8753	9223
C. TEMPORARY SUPPLY			
16	L.T. Temporary	9107	7526
17	H.T. Temporary	2468	7083
D. Single Point Supply			
18	Residential Complexes		
19	Commercial Complexes	4035	2500
20	Industrial Complexes		
	Total	3422183	3410314



CAGR considered for Connected Load:

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

S.No	Connected Load	FY 22-23 H1	Growth Rate (%)	Basis	FY 2022-23	FY 2023-24
A.	LT					
	Domestic	1685093	5.28%	4 year CAGR	1787365	1881732
	Non Domestic	383168	5.45%	4 year CAGR	406647	428823
	LT Industrial	136699	3%	Assumption	141770	146023
	LT Agiculture	49039	3%	Assumption	48396	49847
	Sreet Light	8923	3%	Assumption	9767	10061
	Hoarings/Signboards	501	3%	Assumption	555	572
	sub-total	2263423			2394501	2517058
B.	HT					
	HT Domestic	400			400.00	400.00
	HT Commercial	115268	10.49%	5 year CAGR	118644	131089
	HT Industrial	672186	4.03%	4 year CAGR	695043	723050
	HT Agriculture	11460	4.87%	4 year CAGR	11808	12383
	HT-MES/Defence	8175	4.82%	4 year CAGR	8799	9223
	sub-total	807489			834695	876146
C.	Temporary	13077			14609	14609
D.	Single Point Supply	2500			2500.00	2500.00
E	Others	0			0	0.00
	Total	3086489			3246305	3410314

Note: Assumption is considered if the CAGR is arrived at negative (-).

The Hon'ble Commission is requested to approve the Connected Load for ARR of FY 2023-24 as submitted in the above table. The details of Connected Load for FY 2023-24 are provided in Format 5 of Tariff Filing Formats.

5.4 T&D Loss for FY 2023-24

EDG has considered the actual transmission losses of H1 of FY 2022-23 as the revised transmission (PGCIL) losses for the FY 2023-24. Further, ED-Goa. The following table shows the transmission losses that are considered for energy projection:

Table 5-7: Inter-State Transmission Loss Projections

Region	FY 2022-23	FY 2023-24
Western Region	2.89%	2.89%
Southern Region	6.97%	6.97%



Region	FY 2022-23	FY 2023-24
Total	3.55%	3.55%

EDG submits that, EDG has considered same T&D loss as per FY 2022-23 H1 actual. EDG has been working hard to reduce its Distribution losses to the targets approved by the Hon`ble Commission in the previous Tariff Order and has reduced some of its Distribution Loss due to implementation of SAP, R-APDRP Part A schemes, by resolving the billing issues, transition of billing and collection agencies and infusion of funds to strengthen and improve the distribution network. As the issues are resolved and data billing etc is done through SAP, the provisional actual distribution losses observed for FY 2021-22 are 8.45%. Further, EDG has considered the distribution loss for target FY 2023-24 of 8.45%. Further, EDG submits that it would further invest in the capital expenditure during the FY 2024-25 of the Control Period to further to optimise the technical losses and commercial losses.

ED-Goa has proposed the T&D Loss for FY 2023-24 as tabulated below:

Table 5-8: T&D Loss for FY 2023-24 (%)

Particulars	FY 2023-24
	%
Transmission and Distribution Loss	8.45%

5.5 Energy Balance

Based on the Sales and distribution loss, and PGCIL losses for FY 2022-23 and FY 2023-24, the energy requirement has been projected by the EDG. The Energy balance for FY 2022-23 and FY 2023-24 is shown in the following table with WR and SR Breakup:

Table 5-9: Energy Balance for FY 2023-24 (Periphery wise)

Particulars	FY 2022-23 H1			FY 2022-23 H2	FY 2022-23	FY 2023-24
	WR	SR	Total	Total	Total	Total
Energy Input at Goa Periphery	1,980.69	367.72	2,348.41	2,313.93	4,662.34	4,780.60
Total Power Scheduled/ Purchased at Goa Periphery						
Total Schedule Billed Drawal - CGS	1,761.68	331.53	2,093.21	1,670.45	3,763.66	4,169.49
Add: Overdrawal	21.23	23.76	44.98	-	44.98	-
Add: Power purchase from NVVN / Banking	(51.95)		(51.95)	48.33	(3.63)	(7.32)
Add: Power purchase from Traders	26.28	15.07	41.35	-	41.35	-



Particulars	FY 2022-23 H1			FY 2022-23 H2	FY 2022-23	FY 2023-24
	WR	SR	Total	Total	Total	Total
Add: Power purchase from / Open Market	43.45	24.91	68.36	348.84	417.20	-
Add : Hydro Power		-	-	-		
Less: Underdrawal	0.78	-	0.78	-	0.78	-
Add: Renewable Power	398.04	-	398.04	318.63	716.67	788.27
Less: Power diverted to Exchange	158.39	-	158.39	-	158.39	-
Total	2,039.56	395.26	2,434.82	2,386.24	4,821.06	4,950.44
PGCIL Losses - MUs	58.87	27.54	86.41	72.31	158.72	169.84
PGCIL Losses - %	2.89%	6.97%	3.55%	3.55%	3.55%	3.55%
<u>Total Power Purchased within Goa State</u>			-			
Add: Co-generation	46.56		46.56	92.57	139.13	154.13
Add: Independent Power Producers (IPP)			-			
Add: Net Metering	12.89		12.89	17.11	30.00	40.00
Add: PM KUSUM	-		-			
Add: Hindustan Waste Treatment Plant	2.77		2.77	5.23	8.00	8.00
Total	62.21	-	62.21	114.92	177.13	202.13
Total Power Purchase availability after PGCIL Losses	2,042.90	367.72	2,410.62	2,428.85	4,839.47	4,982.73
Power Purchase required (MU)			2,410.62	2,428.85	4,839.47	4,982.73
Less: Retail Sales to Consumers	2,215.01		2215.01	2,215.73	4,430.74	4,561.91
Distribution Losses - MUs			195.61	213.12	408.73	420.83
Distribution Losses - %			8.11%	8.77%	8.45%	8.45%

5.6 Power Purchase quantum and Cost for FY 2023-24

The MYT regulations, 2021 specifies the following provisions with respect to cost of power purchase.

“59 Cost of Power Purchase



59.1 The Distribution Licensee shall be allowed to recover the cost of power generated by the Generating Stations owned by it or purchased from approved sources for supply to Consumers based on the power procurement plan of the Distribution Licensee, approved by the Commission.”

Following is the Power purchase quantum for FY 2023-24 submitted:

Table 5-10: Power Purchase Quantum for FY 2023-24

Particulars	Gross Purchase	Cost	Rate
	MUs	Rs. Cr.	Rs./kWh
NTPC	3,943.93	1,297.81	3.29
NPCIL	225.55	44.73	1.98
IEX (Net of Purchase and Sales)	-	-	
<i>IEX Purchase (Peak Hrs)</i>	-	-	
<i>IEX Sale (Off Peak Hrs)</i>	-	-	
Traders	-	-	
Net Overdrawal	-	-	
Co-Generation	154.13	36.99	2.40
Renewable	836.27	343.56	4.11
Transmission		290.50	
Banking of Power (Net)	(7.32)	0.35	
Total	5,152.57	2,013.94	

Power purchase quantum projected above is based on the FY 2022-23 H1 actuals and projections of FY 2022-23 H2. Further, in the projections no additional power from the market/traders/DEEP portal is considered as the major Power Purchase from Central Generating Stations. However, deficit if any shall be met from the market/exchange/DEEP portal.

Fixed Cost for Central Generating Stations: - As CERC has still not issued the Order for most of the Plants, ED-Goa has considered actual fixed charges paid to the plant in H1 of FY 2022-23 to arrive at the revised projections of base year FY 2022-23 for respective Central Generating Stations and the same is considered for FY 2023-24.



Table 5-11: Fixed Cost for FY 2023-24

S. No.	Source	Power Purchase Cost - Fixed Cost (FC) (Rs. Cr)
		Projections (FC Rs. Crore)
		2022-23
A	Central Sector Power Stations	
I	NTPC	
1	KSTPS	110.57
2	VSTPS - I	24.01
3	VSTPS - II	7.97
4	VSTPS -III	9.83
5	VSTPS-IV	17.49
6	VSTPS-V	8.74
7	KGPP	7.92
8	GGPP	8.69
9	SIPAT- I	23.51
11	KSTPS-VII	5.69
14	RSTPS	50.12
15	SIPAT- II	9.90
16	Solapur	25.10
17	Gadarwara	31.48
18	Lara	17.55
19	Khargone	22.08
20	Mouda I	19.98
21	Mouda II	20.80
	<i>Add/ Less: Other Adjustments</i>	
III	NPCIL	
	KAPS	-
	TAPS	-
IV	Traders	
	a) IEX PURCHASE AND SALES	-
	a) IEX PURCHASE	-
	a) IEX SALES	-
	b) Traders	-
V	OVER/ UNDER DRAWAL	-
	OVER DRAWAL	-
	UNDER DRAWAL	-
VI	Banking of Power	-
B	Within State Generations	
I	CO- GENERATION	
	Vedanta Plant-1	-



S. No.	Source	Power Purchase Cost - Fixed Cost (FC) (Rs. Cr)
		Projections (FC Rs. Crore)
		2022-23
	<i>Vedanta Plant -2</i>	-
	<i>Goa Sponge and private limited</i>	-
C	RPO Obligation	
	Solar	
	<i>NVVNL Solar</i>	-
	<i>Solar STOA</i>	-
	<i>SECI Solar</i>	-
	<i>Net Metering</i>	-
	Non-Solar	
	Non Solar - SECI Wind Tranche II LTOA	-
	STOA (Non Solar)	-
	<i>SECI Tranche-VI</i>	-
	Hindustan waste treatment plant Goa	-
D	REC Certificates	
E	OTHER CHARGES	-
	<i>PGCIL Transmission Charges, Wheeling, Open Access & Trading Margin & Other Charges</i>	-
F	Total	421.43

Variable Cost for Central Generating Stations: The Petitioner has considered the average of actual per unit variable costs for FY 2021-22 and escalated the same with 7 % for the revised projections of FY 2022-23 and the same is considered for FY 2023-24. The Petitioner has considered any increase in Variable Cost for FY 2023-24 and any increase will be considered as part of fuel price adjustment.

For Solar and Non-Solar firm power, the rates as per the PPA are considered for the FY 2023-24 without any escalation.

To fulfil the RPO compliance, the deficit renewable power as per the ED-Goa's obligation is compensated by procuring renewable power (Solar and Non-Solar) from the Short-Term Market. The GTAM rates as per the actuals of H1 FY 2022-23 is considered for FY 2023-24 without any escalation. The market rates as per actuals of H1 FY 2022-23 is escalated at 5% for FY 2023-24.



Table 5-12: Variable Cost for FY 2023-24

S. No.	Source	Power Purchase Cost - Variable Cost (VC)	
		Projections (VC-paise/unit)	Projections (VC- Rs. Crore)
		2023-24	2023-24
A	Central Sector Power Stations		
I	NTPC		876.38
1	KSTPS	145.52	236.98
2	VSTPS - I	163.18	44.46
3	VSTPS - II	157.18	16.57
4	VSTPS -III	155.90	14.94
5	VSTPS-IV	153.87	18.04
6	VSTPS-V	158.79	8.43
7	KGPP	-	-
8	GGPP	-	-
9	SIPAT- I	149.48	27.66
11	KSTPS-VII	142.31	7.83
14	RSTPS	342.40	246.89
15	SIPAT- II	154.40	16.14
16	Solapur	507.61	53.76
17	Gadarwara	363.80	41.13
18	Lara	222.56	22.37
19	Khargone	428.00	38.94
20	Mouda I	432.82	37.76
21	Mouda II	437.20	44.49
	Add/ Less: Other Adjustments		
III	NPCIL	398.17	44.73
	KAPS	171.20	19.85
	TAPS	226.96	24.88
IV	Traders		
	a) IEX PURCHASE AND SALES	408.54	-
	a) IEX PURCHASE	464.23	-
	a) IEX SALES	429.14	-
	b) Traders	-	-
V	OVER/ UNDER DRAWAL		
	OVER DRAWAL		-
	UNDER DRAWAL		-
VI	Banking of Power		0.35
B	Within State Generations		
I	CO- GENERATION		36.99
	Vedanta Plant-1	240.00	19.36
	Vedanta Plant -2	240.00	16.51



S. No.	Source	Power Purchase Cost - Variable Cost (VC)	
		Projections (VC-paise/unit)	Projections (VC- Rs. Crore)
		2023-24	2023-24
	<i>Goa Sponge and private limited</i>	240.00	1.12
C	RPO Obligation		
	Solar		162.65
	<i>NVVNL Solar</i>	550.00	7.03
	<i>Solar STOA</i>	502.44	112.62
	<i>SECI Solar</i>	550.00	29.95
	<i>Net Metering</i>	326.00	13.04
	Non-Solar		180.91
	Non Solar - SECI Wind Tranche II LTOA	271.00	38.53
	STOA (Non Solar)	505.00	107.31
	<i>SECI Tranche-VI</i>	218.50	31.07
	Hindustan waste treatment plant Goa	500.00	4.00
D	REC Certificates		
E	OTHER CHARGES		
	<i>PGCIL Transmission Charges, Wheeling, Open Access & Trading Margin & Other Charges</i>		290.50
F	Total		1592.51

Power Projection within State Generation:

ED-Goa has tied up power from three Co-Generating Plants within State namely Vedanta Pvt. Ltd. Plant I, Goa Sponge and Power Limited (GSPL) and Vedanta Pvt. Ltd. Plant II. The total energy projection from above three plants for the FY 2023-24 is based on actual energy received i.e 154.13 MUs and at the same rates.

Purchase from Solar:

EDG has been procuring power from the Renewable Sources whereby 6 MW Solar Power is procured from NVVN, 25 MW from SECI to meet its RPO obligations.

Further, ED-Goa has planned the tie-ups of Renewable energy in FY 2023-24 to meet its RPO obligations and the same has been discussed in the earlier section of Upcoming Power plant. However, the same has been reproduced here below.



ED-Goa has signed Power purchase Agreement with SECI 150 MW RTC Peak Power from a combined sources of Renewable Power comprising of Solar, Wind and Battery Energy Storage System (BESS) provides assured Peak Power to compensate the Peak Deficit of Goa. The project contributes to Peak Power compensation and RPO as well. The project envisages the supply to start FY 2023-24 at the rate of Rs 4.03 /unit at Goa periphery. However, the approval of CERC is awaited to initiate the commissioning of the project.

Further, ED-Goa is also expecting the consumers to go for solar rooftops and indulge in more Net Metering/ Gross Metering for FY 2023-24. The total Cumulative installed capacity including all types of rooftop solar and ground mounted solar as on 30.10.2022 within Goa is 32.53 MW of which, Rooftop is 23.13 MW and Ground Mounted is 9.22 MW. ED-Goa expects to receive certain power from rooftop projects for FY 2023-24.

Apart from above, to meet any shortfall (if any) and to fulfil the Solar RPO obligation, EDG shall purchase power through short term (Traders) through DEEP portal, GTAM.

Purchase from Non-Solar:

ED-Goa would be procuring non-solar Renewable power for meeting the RPO in FY 2023-24 through short term on DEEP portal. ED-Goa has procured 2.77 MUs (for FY 2022-23 H1) and it is projected to receive 5.23 MUs in FY 2022-23 H2 from Hindustan Waste Energy Ltd as it is proposed to increase the capacity of the project. Accordingly, it is projected that 8 MUs will be supplied by Hindustan Waste Energy Ltd to EDG for FY 2023-24.

Further, the petitioner receiving the power from SECI Tranche II 50 MW Wind power and procuring the power at a rate of Rs. 2.72/unit plus trading margin of Rs. 0.07/kWh at Goa periphery since August 2022. The actual energy delivered by SECI Tranche II 50 MW, for FY 2022-23 H1 is 82.31 MU. Accordingly for FY 2023-24 it is projected as 142.18 MUs based on the Energy flow of Wind Power in the past.

EDG submits that it has executed a Power Sale Agreement (PSA) on 16th August 2019 with SECI for Procurement of 50 MW Wind Power (Tranche VI) for 25 years at a fixed tariff for Rs. 2.82/kWh plus trading margin of Rs. 0.07/kWh for fulfilment of Non-Solar RPO. EDG has started receiving the Power from September 2022 and inline with the SECI Tranche II 50 MW Wind power the projections are performed for FY 2023-24.

Apart from above, to meet any shortfall (if any) and to fulfil the Non-Solar RPO



obligation, EDG shall purchase power through short term (Traders) through DEEP portal, GTAM.

SECI 150 MW Combined Solar, Non-Solar and BESS:

ED-Goa has signed Power purchase Agreement with SECI 150 MW RTC Peak Power from a combined sources of Renewable Power comprising of Solar, Wind and Battery Energy Storage System (BESS) provides assured Peak Power to compensate the Peak Deficit of Goa. The project contributes to Peak Power compensation and RPO as well. The project envisages the supply to start FY 2023-24 at the rate of Rs 4.03 /unit at Goa periphery. However, the approval of CERC is awaited to initiate the commissioning of the project.

Renewable Purchase Obligation:

As discussed above, ED-Goa envisages to meet its RPO obligation through purchase of physical renewable power and may even exceed the RPO obligations as cheap power is available in the market, in comparison to the conventional sources. Further, after considering all the proposed tied-up renewable energy, ED-Goa proposes to meet any shortfall to fulfil the RPO obligation, through purchase from short term (Traders) through DEEP portal, GTAM. For projection of ED-Goa plans to buy REC for FY 2023-24.

The following table shows the Renewable Purchase Obligation for Solar and Non-Solar for ED-Goa for the respective years.

Table 5-13: RPO obligation and compliance for FY 2023-24

S.No	Description	Unit	Projections
			FY 2023-24
1	Sales Within State (As approved in Order dt. 31-03-2022)	MUs	4385.84
2	RPO Obligation	%	19.91%
	Solar	%	10.00%
	Non Solar	%	9.25%
	HPO	%	0.66%
3	RPO Obligation	MUs	873.22
	Solar	MUs	438.58
	Non Solar	MUs	405.69
	HPO	MUs	28.95
4	Power Purchase	MUs	836.27
	Solar	MUs	331.41



S.No	Description	Unit	Projections
			FY 2023-24
	Non Solar	MUs	504.86
	HPO	MUs	0.00

Power Purchase from Traders/ Short Term:

ED-Goa also expects to purchase power in Short-term from exchanges or Traders or DEEP portal to fulfil its peak or shortfall requirements. Further, ED-Goa also expects some surplus to be available during off-peak hours and would indulge in banking or sale of power in exchanges in the real time basis.

To meet any shortfall, if occurs, EDG purchases the power through short term (Traders). For FY 2022-23 H1, ED-Goa has procured 68.36 MUs at the average rate of Rs.7.51/unit and EDG has further envisaged to purchase of 348.84 MUs from traders/exchange at a rate of Rs. 3.89/unit depending upon the past rates for FY 2022-23. However, for the FY 2023-24, ED-Goa does not envisage to buy any power from the traders/exchange/short term.

Power Purchase from New/Upcoming Stations:

ED-Goa has no upcoming power purchase planned from the Central Generating Stations. ED-Goa has planned the tie-ups of Renewable energy both outside and within the state for FY 2023-24 to meet its RPO obligations. Accordingly, ED-Goa has also considered the upcoming power stations for FY 2023-24. The same is as under:

Further, ED-Goa has signed Power purchase Agreement with SECI 150 MW RTC Peak Power from a combined sources of Renewable Power comprising of Solar, Wind and Battery Energy Storage System (BESS) provides assured Peak Power to compensate the Peak Deficit of Goa. The project contributes to Peak Power compensation and RPO as well. The project envisages the supply to start FY 2023-24 at the rate of Rs 4.03 /unit at Goa periphery. However, the approval of CERC is awaited to initiate the commissioning of the project.

The Petitioner has considered the actual transmission charges for H1 of FY 2022-23 and calculated the transmission charges per unit for PGCIL. The same per unit rate has been considered for computation of Transmission charges for FY 2023-24. Based on the above assumptions, power purchase quantum for Central Generating Stations is derived for FY 2023-24.



As discussed in forgoing paras, following is the station wise power purchase quantum and cost for the FY 2023-24

Table 5-14: Power purchase quantum and cost for FY 2023-24

S. No	Source	Energy Sent out (Scheduled)	External Losses (%)	Energy Received by the Licensee	Variable Charges	Fixed Cost (FC)	Variable Cost (VC)	Other Charges	Supplementary Charges	Total Cost	Per Unit Cost
		MU	interstate	MU	paaise/unit	₹ crore	₹ crore	₹ crore	₹ crore	₹ crore	paaise/unit
1	Central Generating Stations										
A	Thermal										
a	NTPC	3,943.93		3,779.31		421.43	876.38	-	-	1,297.81	3.43
(i)	KSTPS	1,628.48	3.55%	1,570.69	145.52	110.57	236.98			347.54	2.21
(ii)	VSTPS - I	272.46	3.55%	262.79	163.18	24.01	44.46			68.47	2.61
(iii)	VSTPS - II	105.44	3.55%	101.70	157.18	7.97	16.57			24.55	2.41
(iv)	VSTPS -III	95.85	3.55%	92.45	155.90	9.83	14.94			24.77	2.68
(v)	VSTPS-IV	117.22	3.55%	113.06	153.87	17.49	18.04			35.52	3.14
(vi)	VSTPS-V	53.07	3.55%	51.19	158.79	8.74	8.43			17.16	3.35
(vii)	KGPP	1.85	3.55%	1.79	-	7.92	-			7.92	44.36
(viii)	GGPP	4.46	3.55%	4.30	-	8.69	-			8.69	20.22
(ix)	SIPAT- I	185.06	3.55%	178.49	149.48	23.51	27.66			51.18	2.87
(x)	KSTPS-VII	55.01	3.55%	53.06	142.31	5.69	7.83			13.52	2.55
(xi)	RSTPS	721.05	6.97%	670.80	342.40	50.12	246.89			297.01	4.43
(xii)	SIPAT- II	104.53	3.55%	100.82	154.40	9.90	16.14			26.04	2.58
(xiii)	Solapur	105.90	3.55%	102.14	507.61	25.10	53.76			78.85	7.72
(xiv)	Gadarwara	113.07	3.55%	109.06	363.80	31.48	41.13			72.62	6.66
(xv)	Lara	100.49	3.55%	96.93	222.56	17.55	22.37			39.92	4.12
(xvi)	Khargone	90.98	3.55%	87.75	428.00	22.08	38.94			61.02	6.95
(xvii)	Mouda I	87.25	3.55%	84.15	432.82	19.98	37.76			57.75	6.86
(xviii)	Mouda II	101.76	3.55%	98.15	437.20	20.80	44.49			65.29	6.65



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S. No	Source	Energy Sent out (Scheduled)	External Losses (%)	Energy Received by the Licensee	Variable Charges	Fixed Cost (FC)	Variable Cost (VC)	Other Charges	Supplementary Charges	Total Cost	Per Unit Cost
		MU	interstate	MU	paaise/unit	₹ crore	₹ crore	₹ crore	₹ crore	₹ crore	paaise/unit
	Add/ Less: Other Adjustments										
B	NPC										
a	NPCIL	225.55		217.55		-	44.73	-	-	44.73	2.06
(i)	KAPS	115.94	3.55%	111.82	171.20	-	19.85	-	-	19.85	1.78
(ii)	TAPS	109.62	3.55%	105.73	226.96	-	24.88	-	-	24.88	2.35
2	Banking of Power	-7.32		-7.32		0.00	0.35	0.00	0.00	0.35	-0.48
(i)	Drawal	73.20		73.20	4.78	-	0.35	-	-	0.35	0.05
(ii)	Injection	80.52		80.52	-	-	0.00	-	-	0.00	0.00
4	Short- Term Power										
	Traders	0.00		0.00		0.00	0.00	0.00	0.00	0.00	
(I)	IEX Purchase & Sales	0.00		0.00		0.00	0.00	0.00	0.00	0.00	
(ii)	IEX Purchase	0.00	3.55%	-	-	0.00	0.00	0.00	0.00	0.00	
(iii)	IEX Sales	0.00	3.55%	-	-	0.00	0.00	0.00	0.00	0.00	
	Traders Drawal	0.00	3.55%	-	-	0.00	0.00	0.00	0.00	0.00	
	Traders Injection	0.00	3.55%	-	-	0.00	0.00	0.00	0.00	0.00	
5	Within State Generations										
	CO- GENERATION	154.13		154.13		0.00	36.99	0.00	0.00	36.99	2.40
	Vedanta Plant-1	80.68		80.68	240.00	0.00	19.36	0.00	0.00	19.36	2.40
	Vedanta Plant-2	68.78		68.78	240.00	0.00	16.51	0.00	0.00	16.51	2.40



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S. No	Source	Energy Sent out (Scheduled)	External Losses (%)	Energy Received by the Licensee	Variable Charges	Fixed Cost (FC)	Variable Cost (VC)	Other Charges	Supplementary Charges	Total Cost	Per Unit Cost
		MU	interstate	MU	paaise/unit	₹ crore	₹ crore	₹ crore	₹ crore	₹ crore	paaise/unit
	Goa Sponge and private limited	4.66		4.66	240.00	0.00	1.12	0.00	0.00	1.12	2.40
6	RPO Obligation	836.27		820.78		0.00	343.56	0.00	0.00	343.56	4.19
	Solar	331.41		323.45		0.00	162.65	0.00	0.00	162.65	5.03
	NVVNL Solar	12.79		12.79	550.00	0.00	7.03	0.00	0.00	7.03	5.50
	Solar STOA	224.16	3.55%	216.20	502.44	0.00	112.62	0.00	0.00	112.62	5.21
	SECI Solar	54.46		54.46	550.00	0.00	29.95	0.00	0.00	29.95	5.50
	Net Metering	40.00		40.00	326.00	0.00	13.04	0.00	0.00	13.04	3.26
	Non-Solar	504.86		497.32		0.00	180.91	0.00	0.00	180.91	3.64
	Non Solar - SECI Wind Tranche II LTOA	142.18		142.18	271.00	0.00	38.53	0.00	0.00	38.53	2.71
	STOA (Non Solar)	212.50	3.55%	204.96	505.00	0.00	107.31	0.00	0.00	107.31	5.24
	SECI Tranche-VI	142.18		142.18	218.50	0.00	31.07	0.00	0.00	31.07	2.19
	Hindustan waste treatment plant Goa	8.00		8.00	500.00	0.00	4.00	0.00	0.00	4.00	5.00
										0.00	
7	REC Certificates	0.00		0.00		0.00	0.00	0.00	0.00	0.00	
	Solar-REC										
	Non Solar- REC										
9	UI (Net Overdrawal)	0.00		0.00		0.00	0.00	0.00	0.00	0.00	
	OVER DRAWAL	0.00		-	-	0.00	0.00	0.00	0.00	0.00	
	UNDER DRAWAL	0.00		-	-	0.00	0.00	0.00	0.00	0.00	



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S. No	Source	Energy Sent out (Scheduled)	External Losses (%)	Energy Received by the Licensee	Variable Charges	Fixed Cost (FC)	Variable Cost (VC)	Other Charges	Supplementary Charges	Total Cost	Per Unit Cost
		MU	interstate	MU	paaise/unit	₹ crore	₹ crore	₹ crore	₹ crore	₹ crore	paaise/unit
8	OTHER CHARGES										
	PGCIL Transmission Charges, Wheeling, Oen Access & Trading Marrgin & Other Charges						290.50			290.50	
10	Total Power Purchase	5152.57	0.00	4964.44		421.43	1592.51	0.00	0.00	2013.94	4.06

The Hon'ble Commission is kindly requested to approve the total power purchase cost of for FY 2023-24 as stated in the table above. The details of the Power Purchase Expenses for FY 2023-24 are provided in Format 3 of Tariff Filing Formats.



5.7 Operation and Maintenance (O&M Expenses)

Operation & Maintenance expenses comprise of the following heads of expenditure viz.

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

The JERC MYT regulations, 2021 notifies formula based on the same O&M expense for the nth year of the control period shall be approved by Hon'ble Commission. The relevant extract of the Regulation is mentioned as follows.

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

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

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

Where,

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

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

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

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

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

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



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

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

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

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

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

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

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

Employee Expenses: - While projecting employee cost for the FY 2023-24 EDG has considered FY 2022-23 as base year. It is submitted that the last available provisional accounts are of FY 2020-21 and FY 2021-22. Accordingly, EDG has considered the provisional actual values of FY 2020-21 to FY 2021-22 to compute the base year FY 2022-23. Employee expenses for FY 2023-24 is projected based on the methodology as provided in the Regulations. For FY 2022-23 (base year), employee expenses are arrived by escalating the mid average of FY 2020-21 by considering the average of FY 2019-20, FY 2020-21, FY 2021-22 by CPI inflation. As per regulation, CPI inflation of three preceding years to be considered. Hence EDG has considered average of CPI inflation for FY 2019-20 to FY 2021-22. Working of the same is provided as under:-

Table 5-15: Calculation of CPI rate considered for Employee Cost projection

Particulars	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FY 23-24
CPI based on Industrial Workers, All India	322.50	338.69	356.06	373.10	373.10
YoY		5.02%	5.13%	4.79%	0.00%
3 years average		6.00%	5.89%	5.89%	5.89%



S. No.	Particulars	O&M Expenses			3-Year Average	3-Year Average
		FY 2019-20	FY 2020-21	FY 2021-22		
		(a)	(b)	(c)	(d) = [(a)+(b)+(c)]/3	CPI Inflation (%)
1	Actual Employee Expenses	340.39	332.21	353.55	342.05	5.89%

Further, as per Regulation 52 of JERC MYT Regulation, 2021, Gn factor is a growth factor which will be approved by Hon'ble Commission to meet the additional manpower requirement proposed tariff filing. EDG submits that on calculation of Gn factor for FY 2023-24 by considering the employee strength in the past few years, provide a negative growth trend. Accordingly, for the purpose of projection for the FY 2023-24, the Petitioner has considered the growth factor Gn as 0.63%.

Computation of employee cost for FY 2023-24 is provided as under:

Table 5-16: Calculation of Employee cost for FY 2023-24

Particulars	Units	Projections
		FY 2023-24
Employee Cost for nth-1 year (A)	Rs.Crs	408.71
Gn Factor (Y-O-Y) (B)	%	0.63%
CPI Inflation (C)	%	5.89%
Employee Cost for nth year $D = A * (1+B) * (1+C)$	Rs.Crs	435.52

Repairs and Maintenance Expense: - In line with JERC MYT regulations, 2021, R&M expense for is calculated for FY 2022-23 considered as base year. It is submitted that the last available provisional accounts are of FY 2020-21 and FY 2021-22. Accordingly, EDG has considered the provisional actual values of FY 2020-21 to FY 2021-22 to compute the base year FY 2022-23.

As per JERC MYT regulations, 2021, average of preceding three years of WPI considered in above calculation of R&M expense. Calculation of average rate of WPI of 5.32% is shown below.



Table 5-17: Calculation of R&M Expense for FY 2023-24

Escalation rate working	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FY 23-24
WPI based on Office of Economic Advisor, Gol	121.80	123.38	139.41	153.50	153.50
YoY		1.29%	13.00%	10.11%	0.00%
3 years average		2.42%	5.32%	5.32%	5.32%

S. No.	Particulars	R & M Expenses			3-Year Average	3-Year Average	FY 2022-23 (Base Year)
		FY 2020-21	FY 2021-22	FY 2022-23			
		(a)	(b)	(c)	(d) = [(a)+(b)+(c)]/3	WPI Inflation (%)	(e)
1	Actual R&M Expenses	32.98	12.48	60.77	35.41	4.98%	30.59

K factor is calculated as ratio of actual R&M over GFA. The K factor considered is as under:

R&M Expenses	FY 2020-21	FY 2021-22	FY 2022-23
R&M exp	26.91	26.20	60.77
Opening GFA	1,274.13	1,398.63	1,443.85
K factor	2.11%	1.87%	4.21%
Avg of K factor			2.73%

The R&M expenses projected for FY 2023-24 as per the Regulations is 45.06 Crore. However, the R&M expenses for FY 2022-23 H1 (actual) is Rs. 31.21 Crore. So, the projection of EDG Accounts dept and Technical dept is considered at 75% of FY 2022-23 H1 for the FY 2022-23 H2 which is arrived at Rs. 54.62 Crore which is comparatively higher than the R&M expenses as per the Regulations. So, the R&M expenses arrived for FY 2022-23 is considered for FY 2023-24.

Accordingly, R&M expense projected for FY 2023-24, as per Regulations and considered for ARR is as under:

Table 5-18: R&M Expense for FY 2023-24

Particulars	Units	Projections
		FY 2023-24
GFA for nth-1 year (A)	Rs.Crs	1566.39
K factor (R&M Cost/GFA) (B)	%	2.73%



Particulars	Units	Projections
		FY 2023-24
WPI Inflation (C)	%	5.32%
R&M Cost for nth year $D = A * B * (1 + C)$	Rs.Crs	45.06
Considered for ARR	Rs Crs	54.62

Administrative and General Expenses: EDG has considered FY 2022-23 as base year. It is submitted that the last available accounts are of FY 2020-21 and FY 2021-22. Accordingly, EDG has considered the provisional actual values of FY 2020-21 to FY 2020-22 to compute the base year FY 2022-23. A&G expenses for FY 2023-24 is projected based on the methodology as provided in the Regulations. For FY 2022-23 (base year), A&G expenses are arrived by escalating the average (FY 2020-21) by CPI inflation. As per regulation, CPI inflation of three preceding years to be considered. Hence EDG has considered average of CPI inflation for FY 2019-20 to FY 2021-22. Working of the same is provided as under:-

Table 5-19: Calculation of CPI rate considered for Employee Cost projection

Particulars	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FY 23-24
CPI based on Industrial Workers, All India	322.50	338.69	356.06	373.10	373.10
YoY		5.02%	5.13%	4.79%	0.00%
3 years average		6.00%	5.89%	5.89%	5.89%

S. No.	Particulars	A&G Expenses			3-Year Average	3-Year Average	FY 2022-23 (Base Year)
		FY 2019-20	FY 2020-21	FY 2021-22			
		(a)	(b)	(c)	(d) = $[(a)+(b)+(c)]/3$	CPI Inflation (%)	(e)
1	Actual A&G Expenses	26.91	26.20	39.79	30.97	5.89%	31.87

Accordingly, calculation of A&G expense for FY 2023-24 is provided below:-

Table 5-20: A&G Expense for FY 2023-24

Particulars	Units	Projections
		FY 2023-24
A&G Cost for nth-1 year (A)	Rs.Crs	33.74
CPI Inflation (B)	%	5.89%
A&G Cost for nth year $D = A * (1 + B)$	Rs.Crs	35.73



Total O&M expenses projected for the FY 2023-24 are as under:

Table 5-21: O&M Expenses for FY 2023-24 (Rs.Cr.)

S. No.	Particulars	FY 2023-24	
		Approved in Tariff Order dt. 31-03-2022	Projected
1	Employee Expenses	354.39	435.52
2	A&G Expenses	36.11	35.73
3	R & M Expenses	82.28	54.62
4	Total O&M Expenses	472.78	525.87

5.8 Capital expenditure and Capitalisation

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

“8.5 Capital Investment Plan

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

b) The Capital Investment Plan proposed by the Transmission Licensee shall be in conformity with the plans made by the Authority/Central Transmission Utility and with the Capital Investment Plan of the Distribution Licensee;

c) During the Annual Performance Review, the Commission shall monitor the progress of the actual capital expenditure incurred by the Licensee vis-à-vis the approved capital expenditure. The Licensees shall submit the actual capital expenditure incurred along with the annual performance review, true-up and determination of tariff filing;



d) *The truing up of the capital cost incurred for the new projects and additional capital cost for the existing projects shall be done on yearly basis based on the actual capital cost incurred.:*

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

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

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

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

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

f) *The Licensee shall **submit a report for every quarter** detailing the progress of the capital expenditure and capitalisation undertaken against that proposed in the*



Capital Investment Plan, on or before the last Day of the month succeeding the respective quarter for review by the Commission.”

As per above provisions of Capital investment plan, EDG has submitted the proposed plan of Capex and Capitalisation in the Business Plan petition against which the Hon`ble Commission has approved the same in Business Plan Order dt 31-03-2022. Accordingly, the revised projections of Capex and Capitalisation for FY 2023-24 is submitted in the following.

Summary of the Capex and Capitalisation is tabulated as under:

Table 5-22: Capital Expenditure & Capitalisation Spilled schemes upto FY 2023-24 (Rs.Cr.)

S.No	Name of scheme	Capital expenditure		Capitalisation	
		FY 2023-24	FY 2023-24	FY 2023-24	FY 2023-24
		Approved	Revised Projection	Approved	Revised Projection
Existing Schemes					
A1	Schedule Tribe Development Scheme (P)		38.83		44.83
A2	Infrastructure development through Electricity Duty (Plan)	39.01	69.21	39.01	63.20
A3	Erection and Augmentation of 33/11 KV S/S line (Plan)		10.00		10.00
A4	Normal Development Schemes (Plan)	6.00	6.00	6.00	6.00
A5	System Improvement Schemes (Plan)		6.00		6.00
A6	Construction of staff quarters and office buildings (Plan)		26.00		5.00
A7	Strengthening of 220 KV Transmission Network		21.00		21.00
A8	Erection of 220/110/33/11 KV Sub-Station at Verna (New)		-		-
A9	Restructured Accelerated Power Development and Reforms Programme Part A		5.00		-
A10	Underground Cabling		117.50		229.50
A11	R-APDRP Part B / IPDS		-		-
A12	EHV new Transmission / Sub-Station / Capacitor banks schemes		-		-
B1	Smart grid Development of existing network		-		-
B2	Sub-transmission and distribution improvement scheme		20.00		20.00
	Sub- Total (existing schemes)	45.01	319.54	45.01	405.63
New Schemes					



S.No	Name of scheme	Capital expenditure		Capitalisation	
		FY 2023-24	FY 2023-24	FY 2023-24	FY 2023-24
		Approved	Revised Projection	Approved	Revised Projection
A	Projects with Administrative approval	74.75	113.72	74.75	73.72
B	Projects Approved by EFC	96.84	286.00	96.84	153.00
C	Projects tendered (To start next year)	62.00	117.84	82.00	132.84
D	New EHV Works	0.00	272.00	0.00	62.00
E	REVAMPED Distribution Projects	450.00	240.56	425.00	240.56
F	Sub-Total New Schemes	683.58	1030.12	678.58	662.12
G	Existing Schemes + New Schemes	728.59	1349.66	723.59	1,067.75
	TOTAL	728.59	1,349.66	723.59	1,067.75
H	DEPOSIT WORKS	0.00	18.90	0.00	50.94
	GRAND TOTAL	728.59	1,368.56	723.59	1,118.69

It is submitted that the scheme wise details of capital expenditure and capitalization has also been provided in Format 7 & Format 10 of Tariff Filing Formats. Further, the financing plan of CAPEX is as under:

Table 5-23: Source of Funds for FY 2023-24

S.No	Sources of Funds	FY 2023-24
A	Total Capital Expenditure (without deposit works)	1,349.66
B	Electricity Duty Fund	702.77
C	Grant	112.58
D	Total Capital Expenditure (excluding Electricity Duty Fund and Grant) (A-B-C)	534.31
E	Debt (%)	70%
F	Equity (%)	30%
G	Normative Debt (D x E)	374.01
H	Equity (INR Cr) (D x F)	160.29



In terms of above, the financing of the capitalization i.e. GFA addition during FY 2023-24 has also been projected by EDG. EDG further submits that, since depreciation, Interest on loan and return on equity is not allowed on the assets created through grants and electricity duty fund or any subsidy.

Following is the calculation of net GFA/Capitalisation after removal of grant and electricity duty portion.

Table 5-24: Net addition to GFA for FY 2023-24

S.No	Particulars	Approved in Tariff Order dt. 31-03-2022	Projections FY 2023-24
1	Additions to GFA	723.59	1,067.75
2	Less: 60% and 75% Grant Component of APDRP Part-B / IPDS scheme		-
3	Less: Revamped Scheme (15% Grant Prepaid Meter; 100% for DBM, billing modules etc; 60% for SCADA)	728.6	180.58
4	Less: Schemes out of ED Fund	218.10	321.76
5	Net Additions to GFA	250.24	565.41
6	Debt (%)	70%	70%
7	Equity (%)	30%	30%
8	Normative Debt addition (INR Cr)	175.17	395.78
9	Equity addition (INR Cr)	75.07	169.62

5.9 Depreciation

The MYT Regulations, 2021 specifies the following provisions for projection of Depreciation.

“31 Depreciation

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

Provided that the depreciation shall be allowed after reducing the approved original cost of the retired or replaced or decapitalized assets:

Provided also that the no depreciation shall be allowed on the assets financed through consumer contribution, deposit work, capital subsidy or grant.



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

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

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

31.4 In case of existing assets, the balance depreciable value as on April 1, 2022, shall be worked out by deducting the cumulative depreciation as admitted by the Commission up to March 31, 2021, from the gross depreciable value of the assets.

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

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

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

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

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

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

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



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

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

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

As stated in the above Regulation and as per the MYT formats provided by the Hon`ble Commission, EDG has computed depreciation as per new depreciation rate specified in the MYT regulations 2021. Further, total depreciation is calculated asset block wise on the total GFA. However, since depreciation on assets created through grants, electricity duty fund or subsidies are not allowed as per regulations. Hence Depreciation for the GFA excluding grant and electricity duty fund has been arrived in Format 15 of the MYT Tariff formats.

In line with above, the following table shows the depreciation projected by EDG for the FY 2023-24

Table 5-25: Depreciation for FY 2023-24 (Rs.Cr.)

Particulars	Approved in Tariff Order dt. 31-03- 2022	Projections FY 2023-24
Opening Gross Fixed Assets (excluding Grants/ consumers Contribution etc)	1493.43	1454.50
Add: Gross Asset Addition	250.24	1,067.75
Less: Contribution from Subsidies/ Grants/ Beneficiaries' Contribution / Consumers Contribution		502.34
Value of Asset eligible for depreciation		565.41
Add: Addition During the Year		565.41
Less: Decapitalisation	0.00	
Closing Gross Fixed Assets (excluding Grants/ consumers Contribution etc.)	1743.67	2019.91
Average Gross Fixed Assets (excluding Grants/ consumers Contribution etc.)	1618.55	1737.20



Particulars	Approved in Tariff Order dt. 31-03- 2022	Projections FY 2023-24
Depreciation	61.84	77.75
Wt. Avg Rate of Depreciation	3.82%	4.48%

5.10 Interest on Loan

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

“29 Interest on Loan

29.1 The loans arrived at in the manner indicated in Regulation 27 on the assets put to use, shall be considered as gross normative loan for calculation of interest on the loan:

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

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

29.2 The normative loan outstanding as on April 1, 2022, shall be worked out by deducting the cumulative repayment as admitted by the Commission up to March 31, 2021, from the gross normative loan.

29.3 Notwithstanding any moratorium period availed by the Transmission Licensee or the Distribution Licensee, as the case may be, the repayment of loan shall be considered from the first Year of commercial operation of the project and shall be equal to the annual depreciation allowed in accordance with Regulation 31.

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

Provided that at the time of truing up, the weighted average rate of interest calculated on the basis of the actual loan portfolio during the Year applicable to



the Transmission Licensee or the Distribution Licensee shall be considered as the rate of interest after prudence check:

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

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

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

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

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

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

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

29.9 The excess interest during construction on account of time and/or cost overrun as compared to the approved completion schedule and capital cost or on account of excess drawal of the debt funds disproportionate to the actual requirement based on Scheme completion status, shall be allowed or disallowed partly or fully



on a case to case basis, after prudence check by the Commission: Provided that where the excess interest during construction is on account of delay attributable to an agency or contractor or supplier engaged by the Transmission or Distribution Licensee, any liquidated damages recovered from such agency or contractor or supplier shall be taken into account for computation of capital cost: Provided further that the extent of liquidated damages to be considered shall depend on the amount of excess interest during construction that has been allowed by the Commission.

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

29.11 Interest shall be allowed on the amount held as security deposit held in cash from Retail Consumers at the Bank Rate as on 1st April of the Financial Year in which the Petition is filed: Provided that at the time of truing-up, the interest on the amount of security deposit for the Year shall be considered on the basis of the actual interest paid by the Licensee during the Year, subject to prudence check by the Commission.”

EDG doesn't have any actual loan in EDG's books, hence normative loan has been calculated in line with above regulations. Accordingly, the Interest rate charged has been considered as then one (1) Year State Bank of India (SBI) MCLR plus 100 basis points, which works out to be 8.00%. Further, EDG has considered the closing normative loan base for FY 2021-22 (arrived by considering provisional actual figures from FY 2017-18 to FY 2020-21 & APR of FY 2021-22), as opening normative loan base for FY 2021-22 and the normative debt addition due to asset addition for the year as discussed in the above section. Further, the normative repayment has been considered the depreciation projected for the particular year.

In line with above methodology, following is calculation of the normative interest on loan shown:



Table 5-26: Normative Interest on Loan for FY 2023-24 (Rs. Cr.)

Particulars	Approved in Tariff Order dt. 31-03-2022	Projections FY 2023-24
Opening Normative Loan	332.94	401.71
Add: Normative Loan during the year/GFA during the year	175.17	395.78
Less: Normative Repayment for the year	61.84	77.55
Closing Normative Loan	446.27	719.75
Average Normative Loan	389.61	560.73
Rate of Interest	8.00%	8.00%
Interest on Normative Loan	31.17	44.86

The detailed calculation has been provided in Format 12 of Tariff Filing Formats filed along with this Petition. The Hon'ble Commission is requested to approve the interest on loan as shown in the table above.

5.11 Return on Equity

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

"28 Return on Equity

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

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

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



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

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

“27 Debt to Equity Ratio

27.1 In case of Existing Projects, debt to equity ratio allowed by the Commission for determination of tariff for the period ending March 31, 2022 shall be considered:

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

27.2 For New Projects, the debt-equity ratio as on the Date of Commercial Operation shall be 70:30 of the amount of capital cost approved by the Commission under Regulation 24, after prudence check for determination of tariff:

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

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

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

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

Provided further that the premium, if any, raised by the Licensee while issuing share capital and investment of internal resources created out of its free reserves, for the funding of the scheme, shall be reckoned as paid up capital for the purpose of computing return on equity, provided such premium amount and internal resources are actually utilised for meeting the capital expenditure of the



transmission system or the distribution system, and are within the ceiling of 30% of capital cost approved by the Commission.

27.3 Any expenditure incurred or projected to be incurred on or after April 1, 2022, as may be admitted by the Commission, as additional capital expenditure for determination of tariff, and renovation and modernisation expenditure for life extension shall be serviced in the manner specified in these Regulations.

Opening equity for FY 2023-24 is taken as per closing normative equity for FY 2022-23 calculated in previous chapter, further equity addition during the year is considered 30% of the capitalisation (excluding capitalisation through grant and electricity duty fund) in line with above specified regulations.

The following table shows the calculation of return on equity for the FY 2023-24.

Table 5-27: Return on equity for FY 2023-24 (Rs. Cr.)

Particulars	Approved in Tariff Order dt. 31-03-2022	Projections FY 2023-24
Opening Balance of Equity	448.62	428.91
Net Additions during the Year	75.07	169.62
Closing Balance of Equity	523.70	598.53
Average Equity	486.16	513.72
Average Equity (Wires Business)	437.54	462.35
Average Equity (Retail Supply Business)	48.62	51.37
Rate of Return on Equity for Wire Business %	15.50%	15.50%
RoE Wire Business	67.82	71.66
Rate of Return on Equity for Retail Supply Business %	16.00%	16.00%
RoE on Retail Supply business	7.78	8.22
Total RoE (Wire and Retail Supply business)	75.60	79.88

The detailed calculation has been provided in Format 16 of Tariff Filing Formats filed along with this Petition. The Hon'ble Commission is requested to approve the return on equity as shown in the table above.

5.12 Interest on Security Deposit

The opening security deposit is considered from the closing balance of deposit arrived for FY 2021-22. Addition of consumer security deposit projected as per new consumer



expected to connect in FY 2023-24. The interest rate considered is 4.25% based on the RBI bank rate applicable on the 1st April of the financial year in which tariff petition is being filed.

The following table shows the interest on security deposit for FY 2023-24.

Table 5-28: Interest on Security Deposit for FY 2023-24 (Rs. Cr.)

Particulars	Approved in Tariff Order dt. 31-03-2022	Projections FY 2023-24
Opening Security Deposit	92.31	112.58
Additions during the year	16.16	27.55
Less: Deposits Refunded	0.38	-
Closing Security Deposit	108.09	
Average Security Deposit	100.20	140.13
Rate of Interest (%)	4.25%	4.25%
Interest on Security Deposit	4.26	5.37
Interest on Security Deposit to be paid and claimed in ARR	-	5.37

The detailed calculation has been provided in Format 22B of Tariff Filing Formats filed along with this Petition. The Hon'ble Commission is requested to approve the interest on security deposit as shown in the table above.

5.13 Interest on Working Capital

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

"32 Interest on Working Capital

32.1 The norms for working capital for Transmission Licensee shall be as specified in Chapter 5 of these Regulations.

32.2 The norms for working capital for Distribution Wires Business and Retail Supply Business shall be as specified in Chapter 6 and Chapter 7 of these Regulations respectively.

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



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

In line with above provisions stated in MYT Regulations, 2021. EDG has calculated the working capital requirement. As on 1st April 2021, MCLR rate is at 7.00% plus 200 basis point. Hence Interest rate of 9.00% is considered to calculate the Interest on working capital loan for FY 2023-24.

Following table shows the Interest on working capital loan for FY 2023-24:

Table 5-29: Interest on working capital for FY 2023-24 (Rs. Cr.)

For Wheeling Business			
S. No.	Particulars	Ref. Form No.	Projections
			FY 2023-24
A	O&M Expenses for Wire Business		
i)	R&M Expenses		49.16
ii)	A&G Expenses		17.87
iii)	Employee Cost		174.21
iv)	Total O&M Expenses		241.23
v)	O&M Expenses for wire business for 1 month		20.10
B	Maintenance Spares (@ 40% of R&M Expenses)		1.64
C	Receivables equivalent to two (2) month of the expected revenue from charges for use of Distribution Wires at the prevailing tariffs.	Fixed Charges	56.86
D	Less: Amount, if any, held as security deposits from Distribution System Users		12.64
E	Total Working Capital (A (v)+B+C-D)		65.96
F	Rate of Interest		9.00%
G	Interest on Working Capital		5.94

For Retail Supply Business			
S. No.	Particulars	Ref. Form No.	Projections
			FY 2023-24
A	O&M Expenses for Retail Supply Business		
i)	R&M Expenses	-	5.46
ii)	A&G Expenses	-	17.87
iii)	Employee Cost	-	261.31
iv)	Total O&M Expenses		284.64



For Retail Supply Business			
S. No.	Particulars	Ref. Form No.	Projections
			FY 2023-24
v)	O&M Expenses for retail supply business for 1 month		23.72
B	Maintenance Spares (@40% of R&M Expenses for Retail Supply Business)		0.18
C	Receivables equivalent to 2 months of average of total revenue from sale of energy, approved by Commission in the ARR	Energy Charges	375.10
D	Less: Consumer Security Deposit		113.72
E	Less: One month of power procurement cost		167.83
F	Total Working Capital (A (v) + B + C - D -E)		117.46
G	Rate of Interest		9.00%
H	Interest on Working Capital		10.57

The detailed calculation has been provided in Format 14 of Tariff Filing Formats filed along with this Petition. The Hon'ble Commission is requested to approve the interest on working capital shown in the table above as per MYT Regulation 2021. Further, IWC for wire and supply business has been computed based on the allocation provided in the Regulations.

5.14 Non-Tariff Income

The Regulatory provisions for Non-Tariff Income have been stated below.

"54 Non-Tariff Income

54.1 The amount of Non-Tariff Income relating to the Distribution Wires Business as approved by the Commission shall be deducted from the Aggregate Revenue Requirement in determining the wheeling charges of Distribution Wires Business of the Distribution Licensee:

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

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



- a) Income from rent of land or buildings;
- b) Income from sale of scrap in excess of 10% of the salvage value;
- c) Income from statutory investments;
- d) Income from interest on contingency reserve investment;
- e) Interest on advances to suppliers/contractors;
- f) Rental from staff quarters;
- g) Rental from contractors;
- h) Income from hire charges from contactors and others;
- i) Income from advertisements, etc.;
- j) Miscellaneous receipts;
- k) Excess found on physical verification;
- l) Deferred Income from grant, subsidy, etc., as per Annual Accounts;
- m) Prior period income, etc.:

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

The following table shows the Non-tariff Income as projected by EDG.

Table 5-30: Non-Tariff Income for FY 2023-24 (Rs. Crore)

S. No.	Particulars	Approved in Tariff Order dt. 31-03-2022	Projections FY 2023-24
1	Meter/metering equipment/service line rentals		
2	Service Charges		
3	Customer Charges		
4	Revenue from Late Payment Surcharge		
5	Miscellaneous Charges		
6	Incentives from CGSs		
7	Miscellaneous Receipts		22.01
8	Interest on advances to suppliers/contractors		
9	Interest on Staff Loans and Advances		
10	Income from Trading		



S. No.	Particulars	Approved in Tariff Order dt. 31-03-2022	Projections FY 2023-24
11	Income from Staff Welfare Activities		
12	Excess found on Physical Verification		
13	Interest on Investments, Fixed and Call Deposits and Bank Balances		
14	Prior Period Income		
15	Income from Open Access Charges (Application fee, Cross Subsidy Surcharge, Additional Surcharge, Transmission and/or Wheeling Charges, Scheduling Charges etc.)		
16	Sale Proceeds of dead stock, waste paper etc		7.92
16	Any other Income not included above		
	Total	29.20	29.93

EDG request Hon'ble Commission to approve above mentioned Non-Tariff income for FY 2023-24.

5.15 Aggregate Revenue Requirement for FY 2023-24

The Net Revenue Requirement derived for FY 2023-24 based on the expenses discussed in the previous sections is shown in the table below.

Table 5-31: Net Aggregate Revenue Requirement for FY 2023-24 (Rs. Cr.)

Sr. No.	Particulars	Approved in Tariff Order dt. 31-03-2022	Projections FY 2023-24
A	Receipts		
1	Revenue from Sale of Power		2,250.60
B	Expenditure		
1	Cost of Power Purchase from Own Generating Stations		-
2	Cost of Power Purchase from other Generating Stations	1,900.80	2,013.94
3	Inter State Transmission Charges		-
4	Intra State Transmission Charges		-
5	SLDC Fees & Charges		-
6	O&M Expenses (Gross)	472.78	525.87
	a) R&M Expenses		54.62
	b) Employee Cost		435.52
	c) A&G Expenses		35.73
7	Depreciation	61.84	77.75



Sr. No.	Particulars	Approved in Tariff Order dt. 31-03-2022	Projections FY 2023-24
8	Interest and Finance Charges	31.17	44.86
9	Interest on Working Capital	18.60	16.51
10	Prior Period Expenses		-
	Interest on Consumer Security Deposit	4.26	5.37
11	Extraordinary Items		-
12	Bad and Doubtful Debts		-
13	Other Debts and Write-offs		-
14	Statutory Levies and Taxes, if any		-
15	Less: Expenses Capitalised		
	a) Interest Charges Capitalized		-
	b) R&M Expenses Capitalized		-
	c) A&G Expenses Capitalized		-
	d) Employee Cost Capitalized		-
	Sub Total (a+b+c+d)		-
	Sub Total Expenditure (1 to 14-15)		2,684.30
C	Return on Equity	75.60	79.88
D	Less: Non Tariff and other Income	26.32	29.93
E	Less: Any Grant/ Subventions, other subsidy provided by the Government		-
F	Annual Revenue Requirement (B+C-D-E)	2,538.73	2,734.25
G	Revenue Gap 'Surplus (+) / Shortfall (-) (A-F) - Before Tariff Revision		-483.65

EDG request Hon'ble Commission to approve net Revenue requirement of Rs. 2734.25 Cr, for FY 2023-24 respectively.

5.16 Revenue from Sale of Power at Existing Tariff

The Revenue from sale of power at existing tariff rates (approved by Hon'ble Commission for FY 2022-23) by ED-Goa for FY 2023-24 is outlined below. The detailed computation has been provided in Format F 23 of the MYT Tariff Formats.



Table 5-32: Revenue from Sale of Power at existing Tariff from FY 2023-24 (Rs. Cr.)

Sl. No.	Category	Revenue for FY 2022-23 from approved retail tariff determined by Commission (In INR Cr) FY 2022-23					Revenue for FY 2023-24 from existing retail tariff determined by Commission (In INR Cr) FY 2023-23				
		Full year revenue (Rs. Crore)				Average Billing Rate (Rs/kWh)	Full year revenue (Rs. Crore)				Average Billing Rate (Rs/kWh)
		Sales in MU	Revenue from Fixed Charges	Revenue from Energy Charges	Total		Sales in MU	Revenue from Fixed Charges	Revenue from Energy Charges	Total	
1	Domestic	1386.33	36.93	361.03	397.96	2.87	1386.73	45.21	372.34	417.56	3.01
(i)	LT-D Domestic	1384.58	36.89	360.84	397.74	2.87	1385.41	45.16	372.16	417.32	3.01
	0-100 units	544.79	11.8	87.17	98.96	1.82	501.44	13.78	80.23	94.01	1.87
	101-200 units	331.54	9.07	77.91	86.98	2.62	326.50	9.94	76.73	86.67	2.65
	201-300 units	175.22	6.17	51.69	57.86	3.3	187.54	7.80	55.32	63.12	3.37
	301-400 units	96.5	3.48	37.64	41.12	4.26	109.83	4.67	42.83	47.50	4.33
	Above 400 units	236.53	6.38	106.44	112.82	4.77	260.09	8.96	117.04	126.00	4.84
(ii)	Low Income Group	1.37	0	-	0	0.02	0.93	0.00	-	0.00	0.02
(iii)	HT-D Domestic	0.38	0.03	0.18	0.22	5.75	0.39	0.05	0.19	0.24	6.16
2	Commercial	607.53	44.89	301.75	346.64	5.71	682.75	62.86	338.22	401.08	5.87
(i)	LT-C Commercial	472.52	21.79	228.11	249.9	5.29	511.86	23.53	247.40	270.93	5.29
	0-100 units	77.99	4.59	27.69	32.28	4.14	82.09	6.62	29.14	35.76	4.36
	101-200 units	47.8	1.69	20.79	22.49	4.7	52.03	2.07	22.63	24.70	4.75
	201-400 units	60.12	3.14	29.16	32.3	5.37	67.12	2.64	32.55	35.20	5.24
	Above 400 units	286.61	12.36	150.47	162.83	5.68	310.61	12.21	163.07	175.28	5.64
(ii)	HT-C Commercial	135.02	23.1	73.64	96.74	7.17	170.89	39.33	90.82	130.15	7.62
3	Industrial	2139.85	189.41	1035.98	1225.39	5.73	2349.52	226.46	1136.74	1363.20	5.80
(i)	LT-I Industrial	80.91	7.05	31.07	38.12	4.71	93.79	9.39	36.08	45.47	4.85



Petition for APR for FY 2022-23 & ARR for the Control period FY 2023-24

Sl. No.	Category	Revenue for FY 2022-23 from approved retail tariff determined by Commission (In INR Cr) FY 2022-23					Revenue for FY 2023-24 from existing retail tariff determined by Commission (In INR Cr) FY 2023-23				
		Full year revenue (Rs. Crore)				Average Billing Rate (Rs/kWh)	Full year revenue (Rs. Crore)				Average Billing Rate (Rs/kWh)
		Sales in MU	Revenue from Fixed Charges	Revenue from Energy Charges	Total		Sales in MU	Revenue from Fixed Charges	Revenue from Energy Charges	Total	
	0-500 units	16.18	3.4	5.5	8.9	5.5	17.63	4.33	5.99	10.33	5.86
	Above 500 units	64.73	3.66	25.57	29.22	4.51	76.17	5.06	30.09	35.14	4.61
(ii)	Low Tension-Mixed/LT-P (Hotel Industries)	4.48	0.14	2.35	2.49	2.49	4.16	0.15	2.19	2.34	5.62
(iii)	High Tension-I/HT-I	1499.12	157.91	734.68	892.58	892.58	1738.62	181.97	851.27	1033.24	5.94
	Connected at 11/33 kV	1247.94	135.2	616.15	751.36	751.36	1485.28	156.38	731.97	888.35	5.98
	Connected at 110 kV	251.18	22.7	118.52	141.22	141.22	253.34	25.59	119.30	144.89	5.72
(iv)	High Tension-Ferro/SM/PI/SR	555.35	24.31	267.89	292.2	292.2	512.94	34.95	247.20	282.15	5.50
4	Agriculture	33.62	1.71	5.88	7.59	7.59	41.95	2.38	7.31	9.69	2.31
(i)	Low Tension-AG/LT-AGP (Pump Sets/Irrigation)	17.29	1.09	2.59	3.69	3.69	19.05	1.37	2.86	4.23	2.22
(ii)	Low Tension-AG/LT-AGA (Allied Activities)	0.79	0.05	0.14	0.19	0.19	1.48	0.10	0.26	0.36	2.40
(iii)	High Tension-AG/HT-AGP (Pump Sets/Irrigation)	4.89	0.44	1.03	1.47	1.47	6.51	0.64	1.29	1.93	2.97



Sl. No.	Category	Revenue for FY 2022-23 from approved retail tariff determined by Commission (In INR Cr) FY 2022-23					Revenue for FY 2023-24 from existing retail tariff determined by Commission (In INR Cr) FY 2023-23				
		Full year revenue (Rs. Crore)				Average Billing Rate (Rs/kWh)	Full year revenue (Rs. Crore)				Average Billing Rate (Rs/kWh)
		Sales in MU	Revenue from Fixed Charges	Revenue from Energy Charges	Total		Sales in MU	Revenue from Fixed Charges	Revenue from Energy Charges	Total	
(iv)	High Tension-AG/HT-AG (Allied Activities)	10.65	0.12	2.12	2.24	2.24	14.90	0.27	2.90	3.17	2.13
5	Military Engineering Services/ defense Establishments	26.96	1.73	13.7	15.43	15.43	33.43	2.21	17.20	19.41	5.81
6	Public Lighting	29.61	0.23	16.73	16.96	16.96	50.09	0.85	28.30	29.14	5.82
7	Hoardings/Signboards	0.16	0.04	0.16	0.2	0.2	0.34	0.05	0.34	0.39	11.41
8	Temporary	12.1	0	10.18	10.18	10.18	10.42	0.46	5.79	6.26	6.01
(i)	LT	9.77	0	8.07	8.07	8.07	4.09	0.46	0.25	0.72	1.75
	LT Domestic	0.69	0	0.3	0.3	0.3	1.06	0.07	0.25	0.33	
	LT Commercial	9.08	0	7.77	7.77	7.77	3.03	0.39	0.00	0.39	1.28
(ii)	HT	2.33	0	2.11	2.11	2.11	6.33	0.00	5.54	5.54	8.75
9	Single Point Supply	5.69	0.91	2.76	3.67	3.67	6.68	0.66	3.21	3.87	5.79
(i)	<i>Residential Complexes</i>	0	0	0	0	0	0.00	0.00	0.00	0.00	
(ii)	<i>Commercial Complexes</i>	5.69	0.91	2.76	3.67	3.67	6.68	0.66	3.21	3.87	5.79
(iii)	<i>Industrial Complexes</i>	0	0	0	0	0	0.00	0.00	0.00	0.00	
	TOTAL	4241.87	275.84	1748.18	2024.02	4.77	4561.91	341.14	1909.46	2250.60	4.93



The ABR for FY 2023-24 is higher compared to FY 2022-23, due to the higher fixed charge projected for FY 2023-24. The Connected Load for FY 2023-24 is comparatively higher when compared to FY 2022-23.

Based on the aggregate revenue requirement and revenue calculation based on the existing tariff, the revenue gap/ (surplus) for the FY 2023-24 has been computed. The revenue gap for FY 2023-24 is as shown in the table below:

Table 5-33: Revenue Gap at existing Tariff for FY 2023-24 (Rs. Cr.)

Particulars	FY 2023-24
Net Revenue Requirement	2,734.25
Revenue from Sale of Power	2250.60
Revenue Gap during the Year	-483.65

Further, EDG submits that the gap is to proposed to be partially bridged by Tariff hike at 6.00% for FY 2023-24 and the remaining will be bridged through Government of Goa by providing budgetary support for the same.



6 TARIFF PHILOSOPHY

6.1 Preamble

This Chapter elucidates the proposed retail tariff and miscellaneous charges to be applicable for FY 2023-24. EDG prays to the Hon'ble Commission to approve the proposed retail tariff for FY 2023-24 as proposed for different categories of consumers, applicable from 1st April 2023.

6.2 Tariff Design Principles

Over the years, Hon'ble Commission has been guided by the Electricity Act, 2003 and the National Tariff Policy while determining retail tariffs across the Goa. Hon'ble Commission has always laid emphasis on adoption of factors that encourages economy, efficiency, effective performance and improved conditions of supply. On these lines, the Hon'ble Commission, in this order too, may apply similar principles keeping in view the ground realities.

6.3 Philosophy of Tariff Design

EDG submits that gap of FY 2023-24 is proposed to be bridged partially through tariff hike and remaining through budgetary support.

EDG has filed the True-up Petitions for FY 2017-18, FY 2018-19 & FY 2019-20 before the Hon'ble JERC in August 2022 and Public hearing for the same has also been conducted.

Financial Accounts for FY 2020-21 & FY 2021-22 are completed. The CAG audit team is auditing the accounts. Upon completion of the audit of the Accounts for FY 2020-21 & FY 2021-22 the True-up Petitions for FY 2020-21 & FY 2021-22 will be submitted before the Hon'ble JERC by December 20, 2022.

Further, the revenue gap may be provisionally recognized by the Hon'ble Commission and due treatment be given for recovery at a later date when petition for True-ups are filed based on actual accounts / figures of revenue gap. However, revenue gap on account of True-ups of FY 2020-21 & FY 2021-22 will not be passed over to the Consumers of EDG on account of Budgetary Support letters issued by Government of Goa from time to time.

For the FY 2023-24, the Government of Goa has decided to increase the tariff for consumers as is being levied on them currently. **Accordingly, to partially bridge the huge revenue gap and to avoid the tariff shock to consumers, EDG proposes increase**



in current Tariff.

However, for the Category of HT Military Engineering Services/ Defense Establishment, EDG proposes no tariff hike in view of letter from Hon'ble Defense Minister of India addressed to Hon'ble Chief Minister of Goa requesting to propose tariff slab for Armed Forces at par or lower than that applicable to the domestic consumers. The Letter is attached in the **Annexure-2**.

As stated above, EDG proposes the revised retail tariff for FY 2023-24 and the same is tabulated below as:



Table 6-1: Proposed Tariff Structure for FY 2023-24

S. No.	Category	Tariff approved by JERC in T.O. dated 31 st March 2022 w.e.f. 01 st April 2022		Proposed Tariff for FY 2023-24		
		Fixed Charges	Energy Charges (INR/kWh)	Fixed Charges	Energy Charges (INR/kWh)	
					Units	Rate
1	Domestic					
	Low Tension-D/LT-D					
A	0-100 units	INR 20/kW/Month	1.6	INR 22/kW/Month	Rs/kWh	1.75
	101-200 units		2.35		Rs/kWh	2.60
	201 to 300 units		2.95		Rs/kWh	3.30
	301 to 400 units		3.90		Rs/kWh	4.40
	Above 400 units		4.50		Rs/kWh	5.10
B	Low Tension-LIG/LT-LIG					
	Consumption up to 50 Units p.m	INR 20/kW/Month	-	INR 22/kW/Month	Rs/kWh	-
C	High Tension-D/HT-D					
	All Units	INR 110/kVA/Month	4.60	INR 125/kVA/Month	Rs/kVAh	5.30
2	Commercial					
	Low Tension-C/LT-C					
A	0-100 units	For consumers with Load upto 20 kW INR 40/kW/Month	3.55	For consumers with Load upto 20 kW INR 45/kW/Month	Rs/kWh	4.00
	101-200 units		4.35		Rs/kWh	4.85
	201 units- 400 units	For consumers with Load more than 20 kW and upto 90 kW INR 60/kW/Month	4.85	For consumers with Load more than 20 kW and upto 90 kW INR 70/kW/Month	Rs/kWh	5.50
	Above 400 units		5.25		Rs/kWh	6.00
B	High Tension-C/HT-C					
	All Units	INR 250/kVA/month	5.25	INR 285/kVA/month	Rs/kVAh	6.00
3	Industrial					
	Low Tension-I/LT-I					
A	0-500 units	INR 40/HP/Month	3.40	INR 41/HP/Month	Rs/kWh	3.50
	Above 500 units	INR 40/HP/Month	3.95	INR 41/HP/Month	Rs/kWh	4.05
B	Low Tension-Mixed/LT-P (Hotel Industries)					
	All Units	INR 50/kW/Month	5.25	INR 55/kW/Month	Rs/kWh	5.60



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S. No.	Category	Tariff approved by JERC in T.O. dated 31 st March 2022 w.e.f. 01 st April 2022		Proposed Tariff for FY 2023-24		
		Fixed Charges	Energy Charges (INR/kWh)	Fixed Charges	Energy Charges (INR/kWh)	
					Units	Rate
High Tension-I/HT-I						
C	Connected at 11/33 kV	INR 250/kVA/Month	4.80	INR 255/kVA/Month	Rs/kVAh	4.90
	Connected at 110 kV	INR 250/kVA/Month	4.70	INR 255/kVA/Month	Rs/kVAh	4.80
High Tension- Ferro/SM/ PI/ SR						
D	All Units	INR 250/kVA/Month	4.80	INR 255/kVA/Month	Rs/kVAh	4.90
4 Agricultural						
Low Tension-AG/LT-AGP (Pump Sets/Irrigation)						
A	All Units	INR 18/HP/Month	1.5	INR 20/HP/Month	Rs/kWh	1.60
Low Tension-AG/LT-AGA (Allied Activities)						
B	All Units	INR 25/HP/Month	1.75	INR 27/HP/Month	Rs/kWh	2.00
High Tension-AG/HT-AGP (Pump Sets/Irrigation)						
C	All Units	INR 40/kVA/Month	1.60	INR 42/kVA/Month	Rs/kVAh	1.70
High Tension-AG/HT-AG (Allied Activities)						
D	All Units	INR 70/kVA/Month	1.95	INR 77/kVA/Month	Rs/kVAh	2.15
5 Military Engineering Services/ defense Establishments						
	All Units	INR 200/kVA/Month	4.90	INR 200/kVA/Month	Rs/kVAh	4.90
6 Public Lighting						
	All Units	INR 70/kW/Month	5.65	INR 72/kW/Month	Rs/kWh	5.80
7 Hoardings/Signboards						
	All Units	INR 70/kVA/Month	10.00	INR 77/kVA/Month	Rs/kWh	11.00
8 Temporary Supply						
A	LT Temporary Domestic	Tariff shall be Fixed/ Demand charges (if any) plus energy charges (for relevant slab, if any) under corresponding permanent supply category plus 50% of both.		Tariff shall be Fixed/ Demand charges (if any) plus energy charges (for relevant slab, if any) under corresponding permanent supply category plus 50% of both. For multi activity pursuit, applicable Tariff for temporary connection shall be with reference to that of commercial category for permanent supply.		
B	LT Temporary Commercial	For multi activity pursuit, applicable Tariff for temporary connection shall be with reference to				



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S. No.	Category	Tariff approved by JERC in T.O. dated 31 st March 2022 w.e.f. 01 st April 2022		Proposed Tariff for FY 2023-24		
		Fixed Charges	Energy Charges (INR/kWh)	Fixed Charges	Energy Charges (INR/kWh)	
					Units	Rate
C	HT Temporary	that of commercial category for permanent supply.				
9	Single Point Supply					
A	Residential Complexes	INR 110 per kVA per month or part thereof	3.55	INR 120 per kVA per month or part thereof	Rs/kVAh	3.90
B	Commercial Complexes	INR 220 per kVA per month or part thereof	4.80	INR 240 per kVA per month or part thereof	Rs/kVAh	5.30
C	Industrial Complexes	INR 220 per kVA per month or part thereof	4.40	INR 240 per kVA per month or part thereof	Rs/kVAh	4.90
10	Electric Vehicle Charging Station					
	All Units	-	3.5*	-	Rs/kWh	3.70

*This tariff is applicable only for supply at HT. In case of LT supply, tariff will be INR 0.20/kVAh higher than the above tariff.



6.4 General Conditions and Definitions

- a) These tariffs are proposed to be made applicable from 1st April 2023 and shall remain valid till further Orders of the Commission. Tariffs are subject to revision and/or surcharge that may be levied by ED-Goa from time to time as per the directives of the Commission.
- b) The tariffs are exclusive of electricity duty and taxes levied by the Government or other competent authority from time to time which are payable by the consumers in addition to the charges levied as per the tariffs.
- c) Unless otherwise agreed to, these tariffs for power supply are applicable for supply at one point only.
- d) Unless specifically stated to the contrary the figures of energy charges relate to rupee per unit (kWh for LT consumers and kVAh for HT & EHT Consumers) charge for energy consumed and fixed charge relates to a month.
- e) If the energy supplied for a specific purpose under a particular tariff is used for a different purpose not contemplated in the contract for supply and / or for which a higher tariff is applicable, it shall be deemed as unauthorized use of electricity and shall be assessed under the provisions of section 126 of the Electricity Act, 2003 and Supply Code Regulation 2018 notified by the JERC.
- f) If connected load of a domestic category is found to be at variance with the sanctioned/contracted load as a result of replacement of appliances such as lamps, fans, fuses, switches, low voltage domestic appliances, fittings, it shall not fall under Section 126 and Section 135 of the EA 2003.
- g) Fixed charges, wherever applicable, will be charged on pro-rata basis from the date of release of connection. These shall be double in case bi-monthly billing is carried out and shall be proportionately calculated as per the number of days of billing, similarly, slabs of energy consumption shall also be considered accordingly in case of bi-monthly or periodic billing.
- h) The consumption for factory lighting/pump house lighting shall be billed as per respective main tariff category. A separate energy meter for recording energy consumed towards factory lighting for new installation need not be provided. For the existing installations, till the factory lighting meter's mains are shifted to main meter, the total energy consumption shall be arrived at by adding the energy consumption of the main energy meter and the factory lighting meter.
- i) Supply of power in all cases shall be subject to the execution of Agreement between the Electricity Department, Goa and consumers and as per the JERC (Electricity Supply Code) Regulation 2018. The other conditions, definitions etc. shall be applicable as per the Electricity Act 2003 and various JERC Regulations, such as Standards of



Performance, Supply Code, Conditions of Supply, Distribution Code etc., issued from time to time.

- j) Billing of Demand in excess of Contracted Demand:
- k) The billing shall be on the maximum demand recorded during the month or 85% of contracted demand whichever is higher. If in any month, the recorded maximum demand of the consumer exceeds its contracted demand, that portion of the demand in excess of the contracted demand shall be billed at double the normal rate. Similarly, energy consumption corresponding to excess demand shall also be billed at double the normal energy rate.
- l) The definition of the maximum demand would be in accordance with the provisions of the JERC (Electricity Supply Code) Regulations, 2018. If such over-drawl is more than 20% of the contracted demand, then the connection shall be disconnected immediately.
- m) Explanation:
- n) Assuming the contract demand as 100 kVA, maximum demand at 120 kVA and total energy consumption as 12000 units, then the consumption corresponding to the contract demand will be 10,000 units ($12000 \times 100 / 120$) and consumption corresponding to the excess demand will be 2000 units. This excess demand of 20 kVA and excess consumption of 2000 units will be billed at twice the respective normal rate. E.g. in case of HTI/Industrial category at 11/33 kV, excess demand and consumption will be billed at the rate of Rs 510 per kVA per month and Rs 9.79/kWh respectively. Connections drawing more than 120 kVA shall be disconnected immediately.

6.5 Miscellaneous and General Charges

Fuel & Power Purchase Cost Adjustment (FPPCA) Formula:

The adjustment because of Fuel and Power Purchase Cost variation shall be calculated in accordance with the FPPCA formula separately notified by the Commission. The FPPCA charge will be determined based on the formula approved by Hon'ble Commission vide order date 31st March, 2022 and relevant directions, as may be given by the Hon'ble Commission from time to time and will be applicable to all consumer categories except for Below Poverty Line (BPL) and Agriculture consumers for their consumption.

The details for each quarter shall be available on Electricity Department, Government of Goa website at <http://www.goelectricity.gov.in/>

The values of the 'K' factor applicable for the different consumer categories for use in the FPPCA formula shall be as specified in the respective Tariff Order. FPPCA



charges so worked out shall be recovered/ refunded in accordance with the terms and conditions specified in the FPPCA formula.

Electricity Duty & Public Lighting Duty:

The Electricity Duty and Public Lighting Duty will be charged as per Government guidelines from time to time in addition to charges as per the Commission approved tariffs mentioned hereunder. However, the rate and the reference number of the Government Resolution/ Order vide which the Electricity Duty and Public Lighting Duty is made effective, shall be stated in the bill. A copy of the said Resolution/Order shall be made available on Electricity Department, Government of Goa website at <http://www.goaelectricity.gov.in/>

Power Factor Calculation.

(Applicable for all HT, EHT categories and LT categories wherever approved by Commission in terms of Supply Code Regulations 2018)

Wherever, the average power factor measurement is not possible through the installed meter, the following method for calculating the average power factor during the billing period shall be adopted-

$$\text{Average Power Factor} = \frac{\text{Total (kWh)}}{\text{Total (kVAh)}}$$
$$\text{Wherein the kVAh is} = \sqrt{\sum (\text{kWh})^2 + \sum (\text{RkVAh})^2}$$

(i.e., Square Root of the summation of the squares of kWh and RkVAh)

Power Factor Penalty:

EDG submits that since, kVAh based billing has an inbuilt incentive/penalty mechanism, separate mechanism for Power Factor Penalty is no more required for HT & EHT consumers.

The following are the provisions for Power Factor Penalty shall be applicable only for LT consumers:

The monthly average power factor of the supply shall be maintained by the consumer not less than 0.90 (lagging), If the monthly average power factor of (a) consumer falls below 90% (0.90 lagging), such consumer shall pay a surcharge in



addition to his normal tariff @ 1% on billed demand and energy charges for each fall of 1% in power factor upto 70% (lagging).

If the monthly average power factor falls below 70%, such consumer shall pay a surcharge in addition to his normal tariff @ 1.5% on billed demand and energy charges, FPPCA, and fixed/ Demand Charges but excluding Taxes and duties for each fall of 1% in power factor below 70% (lagging)

If the average power factor falls below 0.70 (lagging) consecutively for 3 months, the licensee reserves the right to disconnect the consumer's service connection without prejudice for the levy of the surcharge.

The power factor shall be rounded off to two decimal places. For example, 0.886 shall be treated as 0.89 and 0.884 shall be treated as 0.88.

Power Factor Incentive:

EDG submits that since, kVAh based billing has an inbuilt incentive/penalty mechanism, separate mechanism for Power Factor Penalty is no more required for HT & EHT consumers.

The following are the provisions for Power Factor Incentive which shall be applicable only for LT consumers:

In case the monthly average power factor of the consumer is more than 95% (0.95 lagging), a power factor incentive shall be given to the consumer as 1 % of monthly bill including energy charges, FPPCA, and fixed/ Demand Charges but excluding Taxes and duties for each increase of 0.01 in power factor above 0.95 (lagging)

The power factor shall be rounded off to two decimal places. For example, 0.944 shall be treated as 0.94 and 0.946 shall be treated as 0.95.

Payment Rebates:

Advance Payment Rebate: If payment is made in advance well before commencement of consumption period for which bill is prepared, a rebate @ 1% per month shall be given on the amount (excluding security deposit, taxes and duties) which remains with the licensee at the end of the month. Such rebate, after adjusting any amount payable to the licensee, shall be credited to the account of the consumer.

If payment is made in advance along with prior declaration of premises to be closed for a certain period of time, a rebate of 1% per month shall be given on the amount (excluding security deposit, taxes and duties) which remains with the licensee at the



end of the month. Such rebate, after adjusting any amount payable to the licensee, shall be credited to the account of the consumer.

Prompt Payment Rebate: If payment is made at least 7 days in advance of the due date of payment a rebate for prompt payment @ 0.25 % of the bill amount (excluding taxes and duties) shall be given in case of cash payment. Those consumers having arrears shall not be entitled for such rebate and the amount paid will first be used to set off past liabilities.

Provided that in case the payment is made by cheque, the prompt payment discount will be applicable only if the payment by cheque is made 3 days prior to date of availing the prompt payment discount i.e. before 10 days from the due date of payment.

Delayed Payment Charges (DPC):

In case the electricity bills are not paid within the due date mentioned on the bill, delayed payment charges of 1.5% (computed on a daily basis on the outstanding bill from the due date till the date of payment) shall be levied on the bill amount. However, if a consumer makes part payment of a bill (in exceptional circumstances, with prior approval of the Chief Electrical Engineer), within the due date, then the delayed payment charges shall be applicable only on the amount which was not paid within the due date.

Such surcharge shall be rounded off to the nearest multiple of one rupee. Amount less than 50 paise shall be ignored and amount of 50 paise or more shall be rounded off to the next rupee.

If the consumer fails to pay the energy bill presented to him by the due date the department shall have the right to disconnect the supply as per provision of the Electricity Act 2003 and Supply Code Regulations notified by JERC as amended from time to time.

In case of non-realization of payment through Cheque, a penalty of 5% of the cheque amount in addition to the Delayed Payment Charges (DPC) will be levied on the consumers.

Time of Day tariff (ToD):

Under the Time of Day (ToD) Tariff, electricity consumption and maximum demand in respect of HT/EHT consumers for different periods of the day, i.e. normal period, peak load period and off-peak load period, shall be recorded by installing a ToD meter.



The maximum demand and consumption recorded in different periods shall be billed at the following rates on the tariff applicable to the consumer.

Time of use	Demand Charges	Energy Charges
Normal period (7:00 a.m. to 6:00 p.m)	Normal Rate	Normal rate of energy charges
Evening peak load period (6:00 p.m to 11.00 p.m)	Normal Rate	120% of normal rate of energy charges
Off-peak load period (11:00 p.m to 7:00 a.m)	Normal Rate	90% of normal rate of energy charges

Applicability and Terms and Conditions of TOD tariff:

- o) TOD tariff is mandatory for HT/EHT consumers and shall be optional for LT industrial and commercial consumers.
- p) The facility of aforesaid TOD tariff shall not be available to HT/EHT consumers having captive power plants and/or availing supply from sources other than EDG through wheeling of power.
- q) The HT/EHT industrial consumers who have installed standby generating plants shall also be eligible for the aforesaid TOD tariff
- r) In the event of applicability of TOD tariff to a consumer, all other terms and conditions of the applicable tariff shall continue to apply.

6.6 Schedule of Miscellaneous Charges

There is no change proposed in the schedule of Miscellaneous charges for FY 2023-24 and are proposed to be retained as approved by the Hon'ble Commission vide its order dated 31st March 2022.

Table 6-2: Schedule of Miscellaneous Charges

Description	Miscellaneous Charges
Monthly Meter Rental Charges (As per provisions of (Electricity Supply Code) Regulations 2018)	
Single Phase LT meter	Rs 15/month
Three Phase LT meter	Rs 25/month
Three Phase LT meter with CTs	Rs 75/month
LT Meter with MD Indicator	Rs 30/month
LT Trivector meter with CT's	Rs 75/month
Tri-vector Meter	Rs 1200/month
Bi-directional meter	Rs.1500/month



Description	Miscellaneous Charges
Temporary Supply	Shall be twice as applicable in above meter types
Changing or moving a Meter board	Actual Cost + 15%
Note:	
a. For all domestic and other LT loads less than 50 kW loads in Urban and Rural areas - Static single phase / three phase meters	
b. For LT (contracted load \geq 50 KW) / HT / EHT consumer – Static, 3 Phase Tri-vector meters with MDI (MD Display)	
Reconnection Charges (As per provisions of (Electricity Supply Code) Regulations 2018)	
LT Services – At Cut outs	
Single Phase	Rs 25/-
Three Phase	Rs 50/-
LT Services – At Overhead Mains	
Single Phase	Rs 30/-
Three Phase	Rs 50/-
LT Services – At Underground Mains	
Single Phase	Rs 75/-
Three Phase	Rs 125/-
HT Services	
HT Services	Rs 200/-
<i>Note: If the same consumer seeks reconnection within 12 months from the date of reconnection or disconnection, 50% will be added to above charges</i>	
Re-Rating of Installations	
Lighting Installation	Rs. 50/-
Motive Power Installation	Rs. 100/-
HT	Rs. 500/-
Testing Fee for Various Metering Equipment's (As per provisions (Electricity Supply Code) Regulations 2018)	
Single phase LT	Rs 25/energy meter
Poly Phase LT without CT	Rs 50/energy meter
L.T. meter with CTs/Demand or Special Type Meters	Rs 150/energy meter
H.T and E.H.T. metering equipment	Rs 10,000/- at site
Transformer Oil	Rs 200/- per sample
LT Current Transformer at lab	Rs.50/- per Sample



Description	Miscellaneous Charges
Three Phase Tri-vector Meter Industrial LT Consumer	Rs 1,000/- for laboratory testing
Three Phase Tri-vector Meter 11 KV and 33kV HT Consumer	Rs 5,000/- at site
Three Phase Tri-Vector Meter 110 KV EHT Consumers	Rs 1,000/-at site
Combined CTPT Unit for 11kV and 33kV Consumer	Rs 2,500/-
110 KV CT / PT Unit	Rs 10,000/-
Single Phase CT	Rs 150/ unit
Three Phase TT Block	Rs 500/unit
Distribution Transformer Testing (HT consumer)	Rs 6,000
Power Transformer Testing (EHT consumer)	Rs 20,000
Service Connection Charges (As per provisions of (Electricity Supply Code) Regulations 2018)	
Single Phase 1 ϕ	Rs 250
Three Phase 3 ϕ	
up to 5 HP	Rs 500
5 HP to 20 HP	Rs 800
Above 20 HP	Rs 1,200
HT (First 500 KVA)	Rs 10,000
HT (Beyond 500 KVA)	Rs 20,000
HT Additional load	Rs.500/- for every addition of 100 KVA
Extra Length for 1 ϕ (beyond 30 meters)	Rs 50 /meter
Extra Length for 1 ϕ for agricultural consumers (beyond 300 meters)	Rs 25 /meter
Extra Length for 3 ϕ (beyond 30 meters)	Rs 100 /meter
Extra Length for 3 ϕ for agricultural consumers (beyond 300 meters)	Rs 50 /meter
Underground Service Cable	Actual charges +15%
Shunt Capacitor- 20 kW to 50 kW	Rs 2,000
Shunt Capacitor- above 50kW	Rs 5,000
Testing Consumer's installation (As per provisions of (Electricity Supply Code) Regulations 2018)	
For first test of the new installation on or off an extension to an existing installation if the installation is found to be defective.	NIL



Description	Miscellaneous Charges
For Subsequent test of the new installation or of an existing installation if the installation is found to be defective	
Single phase LT	Rs 100/-
Three phase	Rs 200/-
MS/BS loads upto70kW	Rs 4,000 + GST
LS/BS/RT (loads Above 70kW)	Rs 8,000 + GST
Shunt Capacitor- 20 kW to 50 kW	Rs 1,000 + GST
Shunt Capacitor- above 50kW	Rs 4,000 + GST
Changing the Meter or its position in the same premises at the request of the consumer when no additional material is required (As per provisions of (Electricity Supply Code) Regulations 2018)	
Single phase	Rs 100/-
3-phase without C.Ts	Rs 200/-
L.T. meter with C.T.s	Rs 500/-
H.T and E.H.T. metering equipment	Rs 8000 + GST
Re-sealing charges irrespective of the number of seals involved against each item below and where seals found to have been broken by the consumer	
Meter cupboard / Meter Cubical / Box	Rs 50/-
Where cut-out is independently sealed	Rs 50/-
Meter cover or Meter Terminal cover	Rs 50/-
Meter cover of Meter Terminal cover (3 phase).	Rs 50/-
Maximum demand Indicator or C.T.s chamber	Rs 50/-
Service Charges	
General Supply	
• Single Phase	Rs 10/-
• Three phase below 70kW	Rs 20/-
• Three phase above 70kW	Rs 50/-
Industrial/bulk/ agriculture /Street Lightning Supply	
• Upto70kW	Rs 25/-
• Above 70kW	Rs 50/-
Replacement of broken glass	
Replacement of broken glass of meter cupboard (When there is default on Consumer Side)	Rs 50/-



Petition for APR for FY 2022-23 & ARR for the Control period FY 2023-24

Description	Miscellaneous Charges
Replacement of broken Glass of single-phase meter if the consumer has broken or tamper and with meter.	Rs 50/-
Replacement of broken Glass of three phase meter if the consumer has broken or tamper and with meter	Rs 50/-
Supply of duplicate copies of electricity bills	
Domestic Consumers	Rs 5 per bill
Non-Domestic consumers	Rs 10 per bill
LT Industrial upto 20kW and AP Consumer	Rs 5 per bill
H.T Industrial and Bulk supply consumer	Rs 10 per bill
Stand by meter	
HT	Rs. 10,000
EHT	Rs. 20,000
Check Meter	
HT	Rs. 10,000
EHT	Rs. 20,000
Load enhancement	Actual Cost + 15% Supervision Charges
system strengthening charges or capacity building charges,	Actual Cost + 15% Supervision Charges
Advance for Temporary Connections (Except of pre-paid meters) (To be adjusted in bills)	
• Single phase LT	Rs. 2,000
• Three phase	Rs. 5,000
• HT	Rs. 20,000
• EHT	Rs. 20,000
<i>Note: this shall be adjusted in bills</i>	
Non-Refundable Registration-cum-processing fees	As per Supply code Regulations notified by JERC
Underground service cable	
1 Phase through underground service cable	Rs.100/meter
Extra Length 1 phase for Agriculture consumer (beyond 300 meters) through underground service cable	Rs.25/meter
3 Phase through underground service cable	Rs.300/meter
Extra Length for 3Phase for Agriculture consumers (beyond	Rs.100/meter



Description	Miscellaneous Charges
300meters) through underground service cable	
At location where overhead network exist and consumer desires to avail power through Underground service cable	Actual charges+15%

In case of bonafide agricultural pumping loads, the department shall provide overhead service lines at a free of cost upto 300 meters from the nearest distribution point i.e. existing rural transformer sub-station or from a service line already laid for supply to any other consumer, provided the latter has sufficient current carrying capacity. Any length in excess of the specified length shall be payable at a fixed cost of INR 25 / metre for single phase and INR.50/ meter for Three phase as approved under Schedule of General and Miscellaneous Charges.



7 TARIFF SCHEDULE FOR FY 2023-24

This Chapter highlights the tariff schedule.

7.1 Tariff Schedule - LT Consumers

Low Tension Category - Applicable to Power Supply of Voltages at 230V and 440V Voltages when the Sanctioned Load is below 100 KVA/ 90 KW / 120 HP and power is supplied at single/ three phase.

LT Domestic/LT-D:

Existing Applicability Clause	Point of Supply/Notes	Proposed Applicability Clause
<p>This schedule shall apply to private residential houses, government residential quarters, Government schools and related facilities, charitable institutions, religious institutions etc. for consumption of energy using normal domestic appliances.</p> <p>Professionals such as Doctors, Engineers, Lawyers, CAs, Journalists and Consultants practicing from their residence irrespective of location provided that such use shall not exceed 25% of the area of the premises or as specified in the rules/regulations of their respective State or Union Territory.</p>	<p>a. For the premises or flats which are closed or locked for a continuous period of more than three months and having sanctioned / connected load more than 10 kW, the monthly minimum charges would be Rs 1000/-</p>	<p>Following applicability is proposed to be included: <i>"This schedule also applies to Street-lights operating within the premises of private establishments/villas"</i></p>

➤ Tariff for LT Domestic/ LT-D:

Consumption Slab	Basis of Fixed charge	Existing Tariff (Approved in T.O. dated 31.03.22)		Proposed Tariff for FY 2023-24	
		Fixed Charges	Energy Charges (Rs. / kWh)	Fixed Charges	Energy Charges (Rs. / kWh)
0-100 units	Rs/kW/ Month	20	1.6	22	1.75
101-200 units			2.35		2.60
201 to 300 units			2.95		3.30
301 to 400 units			3.90		4.40
Above 400 units			4.50		5.10



Low Income Group/ LT-LIG:

Existing Applicability Clause	Point of Supply/Notes	Proposed Applicability Clause
This schedule shall apply to consumers of Low-Income Group who have a sanctioned load of up to 0.25 kW and who consume up to 50 units per month only.	The applicability of the Low-Income Group category will be assessed at the end of each month and in case the consumption exceeds 50 units per month, the entire consumption would be billed at the rate of LTD-/Domestic for that particular month.	No change Proposed

➤ Tariff for LT-LIG/Low Income Group:

Consumption Slab	Basis of Fixed charge	Existing Tariff (Approved in T.O. dated 31.03.22)		Proposed Tariff for FY 2023-24	
		Fixed Charges	Energy Charges (Rs. / kWh)	Fixed Charges	Energy Charges (Rs. / kWh)
Consumption up to 50 Units p.m.	Rs./kW/ Month	20	-	22	-

Low Tension Commercial/ LT-C:

Existing Applicability Clause	Point of Supply/Notes	Proposed Applicability Clause
<p>This tariff is applicable to any activity not specifically covered in any other consumer categories, or although covered in another activity, the use is made for a commercial category. It would include electricity used in all non- residential, non-industrial premises and/or commercial premises for commercial consumption meant for operating various appliances. It would include the following categories but not limited to:</p> <ul style="list-style-type: none"> Houses with rent back facilities Government hospitals Professionals not covered in domestic category. 	<p>Cold Storages which are solely attached to Agriculture and its allied activities shall be charged tariff of Agriculture Allied activities. All other cold storages which are partly or not attached with Agriculture and Allied activities shall be charged commercial tariff.</p>	<p>For the following applicability clause, <i>“Marriage Halls (including halls attached to religious places), Hotels /Restaurants (without boarding facilities), Ice-cream parlours, Bakeries, Coffee Shops, private hospitals, private messes, Internet / Cyber Cafes, Mobile Towers, Micro-wave Towers, Satellite Antennas used for telecommunication activity, Telephone Booths, Fax / Xerox Shops, X-ray installations, bars and cold drink houses, Tailoring Shops, Computer Training Schools, Typing</i></p>



Existing Applicability Clause	Point of Supply/Notes	Proposed Applicability Clause
<ul style="list-style-type: none"> • Commercial Complexes and Business premises, including Shopping malls/show rooms, offices / shops; • Combined lighting and power services for Entertainment including film studios, cinemas and theatres, including multiplexes, Race-course, Meeting/Town Halls, Clubs, all types of Guest houses; • Offices including Government Offices, Commercial Establishments; • Marriage Halls (including halls attached to religious places), Hotels /Restaurants (without boarding facilities), Ice-cream parlours, Bakeries (sales premises only), Coffee Shops, private hospitals, private messes, Internet / Cyber Cafes, Mobile Towers, Micro-wave Towers, Satellite Antennas used for telecommunication activity, Telephone Booths, Fax / Xerox Shops, X-ray installations, bars and cold drink houses, Tailoring Shops, Computer Training Schools, Typing Institutes, Photo Laboratories, Photo Studios, Laundries, Beauty Parlours and Saloons, dry cleaners etc • Automobile and any other type of repair centers, Retail Gas Filling stations, Petrol Pumps and Service Stations including Garages, Tyre Vulcanizing units, Battery Charging Units, Tyre vulcanizing centres etc; • Banks, Telephone Exchanges, TV Station, Microwave Stations, All India Radio (AIR) Stations, ATM Centres etc; • For common facilities, like Water Pumping / Street Lighting / Lifts / Fire Fighting Pumps / Premises (Security) Lighting, etc. in Commercial Complexes; • Sports Clubs, Health Clubs, Gymnasium, Swimming Pools; • Research and Development units/laboratories situated outside Industrial/agricultural premises; 		<p><i>Institutes, Photo Laboratories, Photo Studios, Laundries, Beauty Parlours and Saloons, dry cleaners etc”</i></p> <p><i>“For common facilities, like Water Pumping / Street Lighting / Lifts / Fire Fighting Pumps / Premises (Security) Lighting, etc. in Commercial Complexes;”</i></p> <p><i>“Research and Development units situated outside Industrial premises;”</i></p> <p>EDG proposed to amend the aforementioned clause as given below:</p> <p><i>“Marriage Halls (including halls attached to religious places), Hotels /Restaurants (without boarding facilities), Ice-cream parlours, Bakeries (sales premises only), Coffee Shops, private hospitals, private messes, Internet / Cyber Cafes, Mobile Towers, Micro-wave Towers, Satellite Antennas used for telecommunication activity, Telephone Booths, Fax / Xerox Shops, X-ray installations, bars and cold drink houses, Tailoring Shops, Computer Training Schools, Typing Institutes, Photo Laboratories, Photo Studios, Laundries, Beauty Parlours and Saloons, dry cleaners etc”</i></p> <p><i>“For common facilities, like Water Pumping / Street Lighting / Lifts / Fire Fighting Pumps / Premises (Security)</i></p>



Existing Applicability Clause	Point of Supply/Notes	Proposed Applicability Clause
<ul style="list-style-type: none">Airports, Railways, Railway Stations, Bus stands of KTC etc;Educational institutions excluding Government Schools and related facilities		<p><i>Lighting, etc.—in—Commercial Complexes;”</i></p> <p><i>“Research and Development units/ laboratories situated outside Industrial/ agricultural premises;”</i></p> <p>For the following Point of Supply/Notes:</p> <p><i>Cold Storages which are solely attached to Agriculture and its allied activities shall be charged tariff of Agriculture Allied activities. All other cold storages which are partly or not attached with Agriculture and Allied activities shall be charged commercial tariff.</i></p> <p>EDG proposed to amend the aforementioned clause as given below:</p> <p><i>Cold Storages which are solely attached to Agriculture and its allied activities shall be charged tariff of Agriculture Allied activities. All other cold storages which are partly or not attached with Agriculture and Allied activities shall be charged commercial tariff.</i></p> <p>In addition to the existing applicability clause, the following shall be added:</p> <p><i>“Warehouses/cold storages”</i></p>



➤ Tariff for LT Commercial/ LT-C:

Consumption Slab	Basis of Fixed charge	Existing Tariff (Approved in T.O. dated 31.03.22)		Proposed Tariff for FY 2023-24	
		Fixed Charges	Energy Charges (Rs. / kWh)	Fixed Charges	Energy Charges (Rs. / kWh)
1-100 Units	0-20 kW- Rs./kW/Month Above 20kW and upto 90 kW Rs./KW/month	For consumers with Load upto 20 kW INR 40/kW/Month	3.55	For consumers with Load upto 20 kW INR 45/kW/Month	4.00
101-200 units			4.35		4.85
201-400 Units			4.85		5.50
Above 400 units		For consumers with Load more than 20 kW and upto 90 kW INR 60/kW/Month	5.25	For consumers with Load more than 20 kW and upto 90 kW INR 70/kW/Month	6.00

Low Tension Industrial/ LT-I

Existing Applicability Clause	Point of Supply/Notes	Proposed Applicability Clause
<p>This tariff shall apply to industrial units engaged in industrial activities, manufacturing process etc. It would include the following categories but not limited to:</p> <ul style="list-style-type: none"> Flour Mills, wet grinding, Dal Mills, Rice Mills, Poha Mills, Masala Mills, Saw-Mills, Power looms including other allied activities like Warping, Doubling, Twisting, etc. Ice Factories, Ice Cream Manufacturing units/ Plants, Dairy Testing Process, Milk Dairies, Milk Processing/ Chilling Plants (Dairy) etc.; Engineering workshops, Engineering Goods Manufacturing units, Printing Presses, Transformer repairing Workshops, Tyre retreading units, Motive Power Loads etc.; 	<p>The above-mentioned tariff is based on the supply being given through a single delivery and metering point and at a single voltage.</p>	<p>For the following applicability clause, "Ice Factories, Ice Cream Manufacturing units/ Plants, Dairy Testing Process, Milk Dairies, Milk Processing/ Chilling Plants (Dairy) etc.;"</p> <p>EDG proposed to amend the aforementioned clause as given below: "Ice Factories, Ice Cream Manufacturing units/ Plants,</p>



Existing Applicability Clause	Point of Supply/Notes	Proposed Applicability Clause
<ul style="list-style-type: none"> • Mining, Quarry and Stone Crushing units etc.; • Garment Manufacturing units, • LPG/ CNG Bottling plants etc.; • Sewage Water Treatment Plants/ Common Effluent Treatment Plants owned, operated and managed by Industrial Associations and situated within industrial area. • Pumping of water for public water supply, Sewage Treatment Plants, activities related with public water Supply Schemes and Sewage Pumping Stations. • Use of electricity / power supply for activities/ facilities exclusively meant for employees of the industry within the premises of the Industry. • IT Industry, IT parks etc. 		<p><i>Bakeries Manufacturing units/section/area, Dairy Testing Process, Milk Dairies, Milk Processing/ Chilling Plants (Dairy) etc.;</i></p> <p>In addition to the existing applicability clause, the following shall be added: <i>“Food processing industry including primary food processing activities like packing and storage in transit within the premises only. However, LT Commercial tariff shall be applicable to warehouses/cold storages outside the industrial premises.”</i></p>

➤ Tariff for Low Tension Industrial/ LT-I:

Consumption Slab	Basis of Fixed charge	Existing Tariff (Approved in T.O. dated 31.03.22)		Proposed Tariff for FY 2023-24	
		Fixed Charges	Energy Charges (Rs. / kWh)	Fixed Charges	Energy Charges (Rs. / kWh)
0-500 Units	Rs/HP/Month	40	3.40	41	3.50
Above 500 units		40	3.95	41	4.05



Low Tension-Mixed/LT-P (Hotel Industries)

Existing Applicability Clause	Point of Supply/Notes	Proposed Applicability Clause
This schedule shall apply to Hotels/restaurants with lodging and boarding facilities.	Hotel Industry consumers intending to avail the facility of this tariff should produce a certificate from the Tourism Department stating that the intending applicant is registered under Goa Registration of Tourist Trade Act, 1982 and in the Hotel business on a regular basis. On receipt of the certificate, such tariff shall be made effective from the date of original validity of the certificate. In case of failure to produce the certificate, the same shall be considered under Commercial category.	No change Proposed

➤ Tariff for LTP Mixed (Hotel Industries):

Consumption Slab	Basis of Fixed charge	Existing Tariff (Approved in T.O. dated 31.03.22)		Proposed Tariff for FY 2023-24	
		Fixed Charges	Energy Charges (Rs. / kWh)	Fixed Charges	Energy Charges (Rs. / kWh)
Total Consumption	Rs/kW/Month	50	5.25	55	5.60

LT 4: LT Agriculture/ LTAG/ Agriculture and other Allied Activities

a. Low Tension-Agriculture/ LT-AGP (Pump Sets/ Irrigation)

Existing Applicability Clause	Point of Supply/Notes	Proposed Applicability Clause
This schedule shall apply to establishments for Irrigation pumping, De-watering and Lift Irrigation for cultivation of food crops such as cereals, pulses, vegetables and fruits etc. and Cane crusher and/or fodder	This tariff shall be applicable from the date of production of a certificate from the Directorate of Animal Husbandry or Agriculture Department of Government of Goa to the effect that the consumer carried on the said activity on regular basis. In case of failure to produce the certificate, the same shall be considered under Commercial category.	Existing applicability clause is proposed to be amended as follows: <i>"This schedule shall apply to establishments for Irrigation pumping,</i>



Existing Applicability Clause	Point of Supply/Notes	Proposed Applicability Clause
cutter for self-use for Agricultural purposes.	Cold Storages which are solely attached to Agriculture and its allied activities shall be charged tariff of Agriculture allied activities. All other cold storages which are partly or not attached with Agriculture and Allied activities shall be charged Commercial Tariff.	<p><i>De-watering and Lift Irrigation for cultivation of food crops such as cereals, pulses, vegetables and fruits etc., Cane crusher and/or fodder cutter and <u>peeling of areca nut/ coconut for self-use for Agricultural purposes.</u></i></p> <p>For the following Point of Supply/Notes: <i>Cold Storages which are solely attached to Agriculture and its allied activities shall be charged tariff of Agriculture Allied activities. All other cold storages which are partly or not attached with Agriculture and Allied activities shall be charged commercial tariff.</i></p> <p>EDG proposed to amend the aforementioned clause as given below: <i>Cold Storages which are solely attached to</i></p>



Existing Applicability Clause	Point of Supply/Notes	Proposed Applicability Clause
		<i>Agriculture and its allied activities shall be charged tariff of Agriculture Allied activities. All other cold storages which are partly or not attached with Agriculture and Allied activities shall be charged commercial tariff.</i>

➤ Tariff for LT-AGP (Pump Sets/ Irrigation):

Consumption Slab	Basis of Fixed charge	Existing Tariff (Approved in T.O. dated 31.03.22)		Proposed Tariff for FY 2023-24	
		Fixed Charges	Energy Charges (Rs. / kWh)	Fixed Charges	Energy Charges (Rs. / kWh)
Total Consumption	Rs/HP/Month	18	1.50	20	1.60

b. Low Tension-Agriculture/ LT-AGA (Allied Activities)

Existing Applicability Clause	Point of Supply/Notes	Proposed Applicability Clause
<p>This schedule shall apply to establishments for other allied activities related to Agriculture and shall include but not limited to:</p> <ul style="list-style-type: none"> • Poultry farms, Livestock farms, Combination of livestock farms with dairy, Piggery etc • Horticulture, Green Houses, Plantations, all types of nurseries etc. • Fish farms including ornamental fish farms, prawn farms, other aqua farms etc 	<p>This tariff shall be applicable from the date of production of a certificate from the Directorate of Animal Husbandry or Agriculture Department of Government of Goa to the effect that the consumer carried on the said activity on regular basis. In case of failure to produce the certificate, the</p>	<p>EDG proposed to add the clause in the Point of Supply/Notes as given below: <i>"In case of use of electricity /power supply for activities/ facilities exclusively meant for housing of</i></p>



Existing Applicability Clause	Point of Supply/Notes	Proposed Applicability Clause
<ul style="list-style-type: none"> • Tissue culture, Mushroom activities, Aquaculture, Floriculture, Fisheries, Sericulture, Floricultural nurseries, hatcheries etc • Any other agricultural activity not falling under LT-Agriculture (A) shall be covered under this category 	<p>same shall be considered under Commercial category.</p> <p>Cold Storages which are solely attached to Agriculture and its allied activities shall be charged tariff of Agriculture allied activities. All other cold storages which are partly or not attached with Agriculture and Allied activities shall be charged Commercial Tariff.</p>	<p><i>employees, commercial activities in the premises, primary food processing activities like packaging, storage in transit, testing facilities/ laboratories associated with the activity concerned within the premises, 10% of total consumption and fixed charges (Sanctioned/ Connected Load whichever is higher) shall be charged as LTI tariff. In case the common loads pertaining to the activities / facilities mentioned exceeds 10% of the common loads the consumer shall seek a separate connection for the same."</i></p> <p>For the following Point of Supply/Notes: <i>Cold Storages which are solely attached to Agriculture and its allied activities shall be charged tariff of Agriculture Allied</i></p>



Existing Applicability Clause	Point of Supply/Notes	Proposed Applicability Clause
		<p><i>activities. All other cold storages which are partly or not attached with Agriculture and Allied activities shall be charged commercial tariff.</i></p> <p>EDG proposed to amend the aforementioned clause as given below:</p> <p><i>Cold Storages which are solely attached to Agriculture and its allied activities shall be charged tariff of Agriculture Allied activities. All other cold storages which are partly or not attached with Agriculture and Allied activities shall be charged commercial tariff.</i></p>



➤ Tariff for LT-AGA (Allied Activities):

Consumption Slab	Basis of Fixed charge	Existing Tariff (Approved in T.O. dated 31.03.22)		Proposed Tariff for FY 2023-24	
		Fixed Charges	Energy Charges (Rs. / kWh)	Fixed Charges	Energy Charges (Rs. / kWh)
Total Consumption	Rs/HP/Month	25	1.75	27	2.00

Public Lighting:

Existing Applicability Clause	Point of Supply/Notes	Proposed Applicability Clause
<p>This schedule shall apply to public lighting systems. It would include the following categories but not limited to:</p> <ul style="list-style-type: none"> • Market Places, Roads, Pathways and Parking Lighting belonging to local authorities such as Municipality/ Panchayats/ Government; • Lighting in Public Gardens; • Traffic Signals and Traffic Islands; • State Transport Bus Shelters; • Public Sanitary Conveniences; and • Public Water Fountains and such other Public Places open for general public free of charge. • Street lighting in the colony of a factory which is situated separately from the main factory. • This shall also be applicable to public lighting of Government/ Semi Government Establishments but shall not be applicable in case of private establishments. 		<p>Following applicability clause <i>"This shall also be applicable to public lighting of Government/ Semi Government Establishments but shall not be applicable in case of private establishments."</i></p> <p>In addition to the existing applicability clause is proposed to be amended as follows:</p> <p><i>"This shall also be applicable to public lighting of Government/ Semi Government Establishments but shall not be applicable in case of private"</i></p>



Existing Applicability Clause	Point of Supply/Notes	Proposed Applicability Clause
		<i>establishments/ villas."</i>

➤ Tariff for Public Lighting:

Consumption Slab	Basis of Fixed charge	Existing Tariff (Approved in T.O. dated 31.03.22)		Proposed Tariff for FY 2023-24	
		Fixed Charges	Energy Charges (Rs. / kWh)	Fixed Charges	Energy Charges (Rs. / kWh)
Total Consumption	Rs/kW/Month	70	5.65	72	5.80

LT (7): Hoarding & Sign Boards

Existing Applicability Clause	Point of Supply/Notes	Proposed Applicability Clause
This schedule shall apply to lighting advertisements, hoardings and displays at departmental stores, malls, multiplexes, theatres, clubs, hotels, bus shelters, Railway Stations etc. and shall be separately metered and charged at the tariff applicable for "Hoardings / Sign Board" category. However, use of electricity for displays for the purpose of indicating / displaying the name and other details of the shop, on commercial premises itself, shall be covered under the prevailing tariff for such shops or commercial premises.		No change Proposed



➤ Tariff for Hoarding & Sign Boards:

Consumption Slab	Basis of Fixed charge	Existing Tariff (Approved in T.O. dated 31.03.22)		Proposed Tariff for FY 2023-24	
		Fixed Charges	Energy Charges (Rs. / kWh)	Fixed Charges	Energy Charges (Rs. / kWh)
Total Consumption	Rs/kVA/Month	70	10	77	11

LT (8): Low Tension Temporary Supply/ LTTS

Existing Applicability Clause	Point of Supply/Notes	Proposed Applicability Clause
This schedule shall apply to usage of electricity for all temporary purposes.	<ul style="list-style-type: none"> The Temporary connection shall be released through a proper meter. The Temporary tariff is applicable for temporary period of supply for a period of maximum one (1) year at a time, which may be further extended, as per the provision of Supply Code Regulations notified by JERC. 	No change Proposed

➤ Tariff for LT Temporary Supply:

Consumption Slab	Existing Tariff (Approved in T.O. dated 31.03.22) & Proposed Tariff for FY 2023-24	
	Fixed Charges	Energy Charges
LT Temporary	The Tariff shall be fixed /Demand charges (if any) plus energy charges (for relevant slab, if any) under corresponding permanent supply category plus 50% of both. For multi activity pursuit, applicable tariff for temporary connection shall be with reference to that of commercial category for permanent supply.	

7.2 Tariff Schedule – HT Consumers

High Tension/ Extra High-Tension Category - Applicable to Power Supply of Voltages at 11KV/ 33KV/ 110KV i.e. High/Extra High Voltages when the Contracted Demand is above 100 KVA/ 90 KW / 120 HP and power is supplied at three phase.

High Tension-Domestic/HT-D



Existing Applicability Clause	Point of Supply/Notes	Proposed Applicability Clause
This schedule shall apply to individual residential consumers of Bungalows, Villas, Cottages, etc. using normal domestic appliances and whose contract demand falls within the threshold limit of HT category.		Following applicability is proposed to be included: <i>“This schedule also applies to Street-lights operating within the premises of private establishments/villas”</i>

➤ Tariff for High Tension/Domestic:

Consumption Slab	Basis of Fixed charge	Existing Tariff (Approved in T.O. dated 31.03.22)		Proposed Tariff for FY 2023-24	
		Fixed Charges	Energy Charges (Rs. / kVAh)	Fixed Charges	Energy Charges (Rs. / kVAh)
Total Consumption	Rs/kVA/Month	110	4.60	125	5.30

High Tension Industrial/ HT-I

Existing Applicability Clause	Point of Supply/Notes	Proposed Applicability Clause
<p>This schedule shall apply to consumers taking electricity supply for Industrial purpose. It shall also include the following categories:</p> <ul style="list-style-type: none"> • Bulk Supply of power at 11 KV, 33 kV /110 KV and above for industries, factories and other industrial purposes. • Bulk supply of power at 11 KV and above for educational institutions owned or aided by Government, non-industrial establishments, • Industrial units engaged in Ice Manufacturing Units; • Hotels with lodging and boarding facilities etc 		<p>EDG proposed to add following clause as given below:</p> <p><i>“Hotel Industry consumers intending to avail the facility of this tariff should produce a certificate from the Tourism Department stating that the intending applicant is registered under</i></p>



Existing Applicability Clause	Point of Supply/Notes	Proposed Applicability Clause
<ul style="list-style-type: none">• Use of electricity / power supply by an establishment such as IT Industries, IT Parks, IT Units• Pumping of water, public water supply, public water treatment plant, activities related with Supply Schemes and Sewage Treatment Plants, Sewage Pumping Stations etc		<p><i>Goa Registration of Tourist Trade Act, 1982 and in the Hotel business on a regular basis. On receipt of the certificate, such tariff shall be made effective from the date of original validity of the certificate. In case of failure to produce the certificate, the same shall be considered under Commercial category.</i></p> <p>In addition to the existing applicability clause, the following shall be added:</p> <p><i>“Food processing industry including primary food processing activities like packing and storage in transit within the premises only. However, HT Commercial tariff shall be applicable to warehouses/cold storages outside the industrial premises.”</i></p>



➤ Tariff for HT-I:

Consumption Slab	Basis of Fixed charge	Existing Tariff (Approved in T.O. dated 31.03.22)		Proposed Tariff for FY 2023-24	
		Fixed Charges	Energy Charges (Rs. / kVAh)	Fixed Charges	Energy Charges (Rs. / kVAh)
11/ 33 kV	Rs/kVA/Month	250	4.80	255	4.90
110 kV	Rs/kVA/Month	250	4.70	255	4.80

High Tension Ferro Metallurgical /Steel Rolling/Steel Melting/Power Intensive:

Existing Applicability Clause	Point of Supply/Notes	Proposed Applicability Clause
This schedule shall apply to supply of power having a Contract Demand from 100 KVA up to 1000 KVA at 11 KV and above 1000 KVA at 33 KV for Steel rolling industry and Metal Alloy, Steel Melting, Ferro Alloy, and Ferro metallurgical industries where melting is involved using electric power.		No change Proposed

➤ Tariff Ferro Metallurgical /Steel Rolling/Steel Melting/Power Intensive:

Consumption Slab	Basis of Fixed charge	Existing Tariff (Approved in T.O. dated 31.03.22)		Proposed Tariff for FY 2023-24	
		Fixed Charges	Energy Charges (Rs. / kVAh)	Fixed Charges	Energy Charges (Rs. / kVAh)
Total Consumption	Rs/kVA/Month	250	4.80	255	4.90



High Tension Commercial/ HT-C:

Existing Applicability Clause	Point of Supply/Notes	Proposed Applicability Clause
<p>This tariff is applicable to any activity not specifically covered in any other consumer categories, or although covered in another activity, the use is made for a commercial category. It would include electricity used in all non- residential, non-industrial premises and/or commercial premises for commercial consumption meant for operating various appliances. It would include the following categories but not limited to:</p> <ul style="list-style-type: none"> • Houses with rent back facilities • Government hospitals • Professionals not covered in domestic category. • Commercial Complexes and Business premises, including Shopping malls/show rooms, offices / shops; • Combined lighting and power services for Entertainment including film studios, cinemas and theatres, including multiplexes, Race-Course, Meeting/Town Halls, Clubs, all types of Guest houses; • Offices including Government Offices, Commercial Establishments; • Marriage Halls (including halls attached to religious places), Hotels /Restaurants (without boarding facilities), Ice-cream parlours, Bakeries, Coffee Shops, private hospitals, private messes, Internet / Cyber Cafes, Mobile Towers, Microwave Towers, Satellite Antennas used for telecommunication activity, Telephone Booths, Fax / Xerox Shops, X-ray installations, bars and cold drink houses, Tailoring Shops, Computer Training Schools, Typing Institutes, Photo Laboratories, Photo Studios, Laundries, 	<p>Cold Storages which are solely attached to Agriculture and its allied activities shall be charged tariff of Agriculture Allied activities. All other cold storages which are partly or not attached with Agriculture and Allied activities shall be charged commercial tariff.</p>	<p>For the following applicability clause, <i>“For common facilities, like Water Pumping / Street Lighting / Lifts / Fire Fighting Pumps / Premises (Security) Lighting, etc. in Commercial Complexes;”</i></p> <p>EDG proposed to amend the aforementioned clause as given below: <i>“For common facilities, like Water Pumping / Street Lighting / Lifts / Fire Fighting Pumps / Premises (Security) Lighting, etc.—in Commercial Complexes;”</i></p> <p>For the following existing applicability clause, <i>“Research and Development units situated outside Industrial premises;”</i></p> <p>EDG proposed to amend the aforementioned</p>



Existing Applicability Clause	Point of Supply/Notes	Proposed Applicability Clause
<p>Beauty Parlours and Saloons, dry cleaners etc</p> <ul style="list-style-type: none"> • Automobile and any other type of repair centers, Retail Gas Filling stations, Petrol Pumps and Service Stations including Garages, Tyre Vulcanizing units, Battery Charging Units, Tyre vulcanizing centres etc; • Banks, Telephone Exchanges, TV Station, Micro-Wave Stations, All India Radio (AIR) Stations, ATM Centres etc; • For common facilities, like Water Pumping / Street Lighting / Lifts / Fire Fighting Pumps / Premises (Security) Lighting, etc. in Commercial Complexes; • Sports Clubs, Health Clubs, Gymnasium, Swimming Pools; • Research and Development units situated outside Industrial premises; • Airports, Railways, Railway Stations, Bus stands of KTC etc; • Educational institutions excluding Government Schools and related facilities 		<p>clause as given below: <i>“Research and Development units/ laboratories situated outside Industrial/ agricultural premises;”</i></p> <p>In addition to the existing applicability clause, the following shall be added: <i>“Warehouses/cold storages”</i></p>

➤ Tariff for HT Commercial:

Consumption Slab	Basis of Fixed charge	Existing Tariff (Approved in T.O. dated 31.03.22)		Proposed Tariff for FY 2023-24	
		Fixed Charges	Energy Charges (Rs. / kVAh)	Fixed Charges	Energy Charges (Rs. / kVAh)
Total Consumption	Rs/kVA/Month	250	5.25	285	6.00



High Tension MES/Defence Establishments:

Existing Applicability Clause	Point of Supply/Notes	Proposed Applicability Clause
This schedule shall apply to supply of power for defence installation establishments, having mixed load with predominantly lighting or non-industrial load of more than 50% of connected load.		No change Proposed

➤ Tariff for MES/Defence Establishments:

Consumption Slab	Basis of Fixed charge	Existing Tariff (Approved in T.O. dated 31.03.22)		Proposed Tariff for FY 2023-24	
		Fixed Charges	Energy Charges (Rs. / kVAh)	Fixed Charges	Energy Charges (Rs. / kVAh)
Total Consumption	Rs/kVA/Month	200	4.90	200	4.90

High Tension Agriculture / Agriculture and other Allied Activities:

a. HT-Agriculture Pump Sets (A)

Existing Applicability Clause	Point of Supply/Notes	Proposed Applicability Clause
This schedule shall apply to establishments for Irrigation pumping, De-watering and Lift Irrigation for cultivation of food crops such as cereals, pulses, vegetables and fruits etc and Cane crusher and/or fodder cutter for self-use for Agricultural purposes.	This tariff shall be applicable from the date of production of a certificate from the Directorate of Animal Husbandry or Agriculture Department of Government of Goa to the effect that the consumer carried on the said activity on regular basis. In case of failure to produce the certificate, the same shall be considered under Commercial category. Cold Storages which are solely attached to Agriculture and its allied activities shall be charged tariff of Agriculture allied activities. All other cold storages which are partly or not attached with Agriculture and Allied activities shall be charged Commercial Tariff.	Existing applicability clause is proposed to be amended as follows: This schedule shall apply to establishments for Irrigation pumping, De-watering and Lift Irrigation for cultivation of food crops such as cereals, pulses, vegetables and



Existing Applicability Clause	Point of Supply/Notes	Proposed Applicability Clause
		<p>fruits etc., Cane crusher and/or fodder cutter <u>and peeling of areca nut/ coconut for self-use</u> for Agricultural purposes.</p> <p>For the following Point of Supply/Notes: <i>Cold Storages which are solely attached to Agriculture and its allied activities shall be charged tariff of Agriculture Allied activities. All other cold storages which are partly or not attached with Agriculture and Allied activities shall be charged commercial tariff.</i></p> <p>EDG proposed to amend the aforementioned clause as given below: <i>Cold Storages which are solely attached to Agriculture and its allied activities shall be charged tariff of Agriculture Allied activities. All other cold storages which</i></p>



Existing Applicability Clause	Point of Supply/Notes	Proposed Applicability Clause
		<i>are partly or not attached with Agriculture and Allied activities shall be charged commercial tariff.</i>

➤ Tariff for Agriculture Pump Sets:

Consumption Slab	Basis of Fixed charge	Existing Tariff (Approved in T.O. dated 31.03.22)		Proposed Tariff for FY 2023-24	
		Fixed Charges	Energy Charges (Rs. / kVAh)	Fixed Charges	Energy Charges (Rs. / kVAh)
Total Consumption	Rs/kVA/Month	40	1.60	42	1.70

b. HT-Agriculture Allied Activities (B)

Existing Applicability Clause	Point of Supply/Notes	Proposed Applicability Clause
<p>This schedule shall apply to establishments for other allied activities related to Agriculture and shall include but not limited to:</p> <ul style="list-style-type: none"> • Poultry farms, Livestock farms, Combination of livestock farms with dairy, Piggery etc • Horticulture, Green Houses, Plantations, all types of nurseries etc. • Fish farms including ornamental fish farms, prawn farms, other aqua farms etc • Tissue culture, Mushroom activities, Aquaculture, Floriculture, Fisheries, Sericulture, Floricultural nurseries, hatcheries etc 	<p>This tariff shall be applicable from the date of production of a certificate from the Directorate of Animal Husbandry or Agriculture Department of Government of Goa to the effect that the consumer carried on the said activity on regular basis. In case of failure to produce the certificate, the same shall be considered under Commercial category.</p>	<p>EDG proposed to add the clause to the existing Point of Supply/Notes as given below: <i>"In case of use of electricity /power supply for activities/ facilities exclusively meant for housing of employees, commercial activities in the premises, primary food processing</i></p>



Existing Applicability Clause	Point of Supply/Notes	Proposed Applicability Clause
<ul style="list-style-type: none">Any other agricultural activity not falling under HT-Agriculture (A) shall be covered under this category	Cold Storages which are solely attached to Agriculture and its allied activities shall be charged tariff of Agriculture allied activities. All other cold storages which are partly or not attached with Agriculture and Allied activities shall be charged Commercial Tariff.	<p><i>activities like packaging, storage in transit, testing facilities/ laboratories associated with the activity concerned within the premises, 10% of total consumption and demand charges (Sanctioned/ Connected Load whichever is higher) shall be charged as HTI tariff. In case the common loads pertaining to the activities / facilities mentioned exceeds 10% of the common loads the consumer shall seek a separate connection for the same."</i></p> <p>For the following Point of Supply/Notes: <i>Cold Storages which are solely attached to Agriculture and its allied activities shall be charged tariff of Agriculture Allied activities. All other cold storages which are partly or not</i></p>



Existing Applicability Clause	Point of Supply/Notes	Proposed Applicability Clause
		<p><i>attached with Agriculture and Allied activities shall be charged commercial tariff.</i></p> <p>EDG proposed to amend the aforementioned clause as given below:</p> <p><i>Cold Storages which are solely attached to Agriculture and its allied activities shall be charged tariff of Agriculture Allied activities. All other cold storages which are partly or not attached with Agriculture and Allied activities shall be charged commercial tariff.</i></p>

➤ Tariff for Agriculture Allied Activities:

Consumption Slab	Basis of Fixed charge	Existing Tariff (Approved in T.O. dated 31.03.22)		Proposed Tariff for FY 2023-24	
		Fixed Charges	Energy Charges (Rs. / kVAh)	Fixed Charges	Energy Charges (Rs. / kVAh)
Total Consumption	Rs/kVA/Month	70	1.95	77	2.15



High Tension Temporary Supply/ HT-HTTS

Existing Applicability Clause	Point of Supply/Notes	Proposed Applicability Clause
This schedule shall apply to usage of electricity for all temporary purposes.	<ul style="list-style-type: none"> The temporary connection shall be released through a proper meter The Temporary Tariff is applicable for a temporary period of supply for a period of maximum one (1) year at a time, which may be further extended, as per the provisions of Supply Code Regulations notified by JERC. 	No change Proposed

➤ Tariff for HT Temporary Supply:

Consumption Slab	Existing Tariff (Approved in T.O. dated 31.03.22) & Proposed Tariff for FY 2023-24	
	Fixed Charges	Energy Charges
HT Temporary	<p>The Tariff shall be fixed /Demand charges (if any) plus energy charges (for relevant slab, if any) under corresponding permanent supply category plus 50% of both.</p> <p>For multi activity pursuit, applicable tariff for temporary connection shall be with reference to that of commercial category for permanent supply.</p>	

High Tension Single Point Supply/ HT SPS

Existing Applicability Clause	Point of Supply/Notes	Proposed Applicability Clause
This schedule shall apply to a group of consumers who desire to take a HT connection at single point for consumption of energy within a Residential Complex – Group Housing Societies, Residential Housing	<p>In case of a dispute on whether the complex can be classified as an industrial complex, a certificate from Industries Department, Government of Goa will be required.</p> <p>The following shall be the different combinations for SPS in a defined area:</p> <p>All LT consumer mix area</p> <p>All HT consumer mix area</p> <p>HT+LT consumer mix area</p>	No change Proposed



Existing Applicability Clause	Point of Supply/Notes	Proposed Applicability Clause
<p>Colonies, Cooperative Group Housing Societies, Township Areas; Commercial Complexes, including Malls; Industrial Complexes, including IT Parks, Bio-Parks or other entities classified as industries by the Government of Goa.</p>	<p>The General Conditions, Miscellaneous and General Charges would also be applicable for all SPS categories.</p> <p>Based on technical and administrative feasibility, the ED-Goa may consider providing SPS power supply at HV/ EHV level to a complex at a mutually agreed injection point.</p> <p>The SPS arrangement would be applicable for the application received from a Residential complex / Association of Persons (AOP) / Developer of the complex or any other such similar person.</p> <p>The SPS arrangement would be considered by ED-Goa only if the minimum sanctioned cumulative contracted demand of the complex (group of consumers) is 1.15 MVA/ 1 MW.</p> <p>The complete cost of erection and O&M for the sub-transmission and distribution infrastructure within such complex would need to be borne by the said SPS applicant.</p> <p>The SPS applicant would be required to develop and maintain an efficient, coordinated and quality sub-transmission and distribution system in its area of electricity supply. Further, the applicant would be responsible to comply with Standards of Performance and Supply Code Regulation as laid down under JERC Regulations and guidelines of Goa Electricity Department, if any. The network within the complex will need to be certified by the Chief Electrical Inspector.</p> <p>For Residential Complexes, SPS application shall be entertained for groups of LT consumers only. The loads of common amenities for such group may include pumps for pumping water supply, lifts and lighting of common area. However, the consumption of energy for common services shall</p>	



Existing Applicability Clause	Point of Supply/Notes	Proposed Applicability Clause
	<p>be separately metered with meters installed by the consumer and tested and sealed by licensee. The consumption of such energy over and above 10% of the total consumption of energy shall be billed at LT Commercial Tariff. The user shall inform the details of every non-domestic activity within the residential complex, such as commercial complex, industrial activity, and recreation club, along with the connected load to the licensee at the time of seeking the connection or at the time of enhancement in contract demand, and shall seek a separate connection for the same in case the common load is more than 10%.</p> <p>Individual Domestic HT consumers in a residential complex that opt for SPS shall need to apply separately under HT Domestic category.</p> <p>The SPS applicant shall not charge tariff to the downstream consumers higher than stipulated.</p> <p>The applicant shall be obliged to pay the total tariff (total billed amount) due to ED-Goa, as measured at HT end of SPS. However, to cover energy transformation losses and other O&M expenses, such applicant would be eligible to get rebates from ED-Goa on full bill payment, within the due time:</p> <p>5% on the overall billed amount in all cases of LT and HT consumers</p> <p>Any other loss would be to the account of the applicant.</p> <p>For CC and IC applicant, any LT / HT Consumer in the area should have minimum 80% pre-dominant load of their appropriate category i.e. mix load is allowed only upto 20%. For e.g. If a HT/ LT Industry Consumer has Factory, Residential Colony for its workers and also some Commercial facilities for</p>	



Existing Applicability Clause	Point of Supply/Notes	Proposed Applicability Clause
	<p>his staff and the total of Residential and Commercial load is say around 30%, then separate Individual SPD connection may be taken for each such group as per activity.</p> <p>The implementation of SPS arrangement should be in accordance with the Electricity Act, 2003 and APTEL judgement dated 11th July 2011 in appeal no. 155 and 156 of 2010 in this regard.</p>	

➤ Tariff for HT Single Point Supply:

Consumption Slab	Basis of Fixed charge	Existing Tariff (Approved in T.O. dated 31.03.22)		Proposed Tariff for FY 2023-24	
		Fixed Charges	Energy Charges (Rs. / kVAh)	Fixed Charges	Energy Charges (Rs. / kVAh)
Residential Complex	Rs/kVA/ Month or part thereof	110	3.55	120	3.90
Commercial Complex	Rs/kVA/ Month or part thereof	220	4.80	240	5.30
Industrial Complex	Rs/kVA/ Month or part thereof	220	4.40	240	4.90

Electric Vehicle Charging Station:

Existing Applicability Clause	Point of Supply/Notes	Proposed Applicability Clause
<p>This tariff schedule shall apply to consumers that have set up Public Charging Stations (PCS) in accordance with the technical norms/ standards/specifications laid down by the Ministry of Power, GoI and Central Electricity Authority (CEA) from time to time.</p> <p>The tariff for domestic consumption shall be applicable for domestic charging (LT/HT)</p>		No change Proposed



➤ Tariff EV Charging Station:

Consumption Slab	Basis of Fixed charge	Existing Tariff (Approved in T.O. dated 31.03.22)		Proposed Tariff for FY 2023-24	
		Fixed Charges	Energy Charges (Rs. / kVAh)	Fixed Charges	Energy Charges (Rs. / kVAh)
Total Consumption	NA	-	3.50*	-	3.70*

**This tariff is applicable only for supply at HT. In case of LT supply, tariff will be INR 0.20/kVAh higher than the above tariff.*



8 REVENUE FROM SALE OF POWER AT PROPOSED TARIFF

For the FY 2023-24, the Government of Goa has decided to hike the tariff for consumers as is being levied on them currently.

The Revenue from sale of power at proposed (hike) tariff rates by ED-Goa for FY 2023-24 is outlined below. The detailed proposed tariff structure has been discussed in the Tariff philosophy chapter. The detailed computation has been provided in Format F 23 of the MYT Tariff Formats.

Table 8-1: Revenue from Sale of Power at Proposed Tariff from FY 2023-24 (Rs. Cr.)

Sl. No.	Category	Revenue for FY 2023-24 from Proposed Retail Tariff Proposed by EDG (In INR Cr)				
		Full year revenue (Rs. Crore)				Average Billing Rate (Rs/kWh)
		Sales in MU	Revenue from Fixed Charges	Revenue from Energy Charges	Total	
1	Domestic	1386.73	49.74	415.72	465.46	3.36
(i)	LT-D Domestic	1385.41	49.68	415.50	465.18	3.36
	0-100 units	501.44	15.16	87.75	102.91	2.05
	101-200 units	326.50	10.94	84.89	95.83	2.94
	201-300 units	187.54	8.58	61.89	70.47	3.76
	301-400 units	109.83	5.14	48.33	53.46	4.87
	Above 400 units	260.09	9.86	132.65	142.50	5.48
(ii)	Low Income Group	0.93	0.00	-	0.00	0.02
(iii)	HT-D Domestic	0.39	0.06	0.21	0.27	7.07
2	Commercial	682.75	71.69	385.15	456.84	6.69
(i)	LT-C Commercial	511.86	26.86	281.36	308.21	6.02
	0-100 units	82.09	7.48	32.84	40.32	4.91
	101-200 units	52.03	2.34	25.23	27.57	5.30
	201-400 units	67.12	2.99	36.92	39.91	5.95
	Above 400 units	310.61	14.04	186.37	200.41	6.45
(ii)	HT-C Commercial	170.89	44.83	103.79	148.63	8.70
3	Industrial	2349.52	231.05	1160.56	1391.61	5.92
(i)	LT-I Industrial	93.79	9.63	37.02	46.64	4.97
	0-500 units	17.63	4.44	6.17	10.61	6.02



Sl. No.	Category	Revenue for FY 2023-24 from Proposed Retail Tariff Proposed by EDG (In INR Cr)				
		Full year revenue (Rs. Crore)				Average Billing Rate (Rs/kWh)
		Sales in MU	Revenue from Fixed Charges	Revenue from Energy Charges	Total	
	Above 500 units	76.17	5.18	30.85	36.03	4.73
(ii)	Low Tension-Mixed/LT-P (Hotel Industries)	4.16	0.17	2.33	2.50	6.01
(iii)	High Tension-I/HT-I	1738.62	185.61	869.06	1054.67	6.07
	Connected at 11/33 kV	1485.28	159.50	747.22	906.72	6.10
	Connected at 110 kV	253.34	26.10	121.84	147.94	5.84
(iv)	High Tension-Ferro/SM/PI/SR	512.94	35.65	252.15	287.80	5.61
4	Agriculture	41.95	2.60	7.90	10.50	2.50
(i)	Low Tension-AG/LT-AGP (Pump Sets/Irrigation)	19.05	1.53	3.05	4.57	2.40
(ii)	Low Tension-AG/LT-AGA (Allied Activities)	1.48	0.10	0.30	0.40	2.71
(iii)	High Tension-AG/HT-AGP (Pump Sets/Irrigation)	6.51	0.68	1.37	2.04	3.14
(iv)	High Tension-AG/HT-AG (Allied Activities)	14.90	0.29	3.19	3.48	2.34
5	Military Engineering Services/defense Establishments	33.43	2.21	17.20	19.41	5.81
6	Public Lighting	50.09	0.87	29.05	29.92	5.97
7	Hoardings/Signboards	0.34	0.05	0.37	0.43	12.55
8	Temporary	10.42	0.52	6.61	7.13	6.84
(i)	LT	4.09	0.52	0.28	0.80	1.95
	LT Domestic	1.06	0.08	0.28	0.36	3.40
	LT Commercial	3.03	0.44	0.00	0.44	1.44
(ii)	HT	6.33	0.00	6.33	6.33	10.00
9	Single Point Supply	6.68	0.72	3.54	4.26	6.38
(i)	<i>Residential Complexes</i>	0.00	0.00	0.00	0.00	
(ii)	<i>Commercial Complexes</i>	6.68	0.72	3.54	4.26	6.38
(iii)	<i>Industrial Complexes</i>	0.00	0.00	0.00	0.00	
	TOTAL	4561.91	359.45	2026.11	2385.56	5.23



EDG prays and requests the Hon`ble Commission to approve the hike in the consumer tariff proposed for FY 2023-24.

Based on the Aggregate Revenue Requirement and revenue calculation based on the existing tariff, the revenue gap/ (surplus) for FY 2023-24 has been computed. The revenue gap for FY 2023-24 is as shown in the table below:

Table 8-2: Revenue Gap for FY 2023-24 (Rs. Cr.)

Particulars	FY 2023-24
Net Revenue Requirement	2,734.25
Revenue from Sale of Power at existing Tariff	2250.60
Revenue from Sale of Power at proposed Tariff	2385.56
Revenue Gap during the Year (at proposed Tariff)	-348.69

In view of above, the Hon`ble Commission is requested to kindly approve the revenue gap for FY 2023-24 at proposed tariff. Further, EDG submits that the revenue gap for FY 2023-24 will be partially recovered by Tariff hike and partially recovered through Government of Goa by providing budgetary support for the same.



9 PROPOSAL TO MEET ARR AND REVENUE GAP OF FY 2023-24

9.1 Cumulative Revenue Gap till FY 2023-24

It is submitted that the revenue gap for past years i.e. from FY 2017-18 to FY 2019-20 is being claimed in the audited accounts for the said Financial Years. The respective True-Up Petition are already submitted before the Hon'ble Commission. The said revenue gap after True-up shall be met entirely through budgetary support from the Government of Goa.

Further, the It is submitted that the revenue gap for FY 2020-21 & FY 2021-22 is not being claimed as the audited accounts for the said Financial Years are in process of audit by CAG. The same would be claimed once financial statements are audited and separate True-up petition would be filed before JERC. The said revenue gap after True-up shall be met entirely through budgetary support from the Government of Goa.

Therefore, the revenue gap carried forward as per the APR submitted in this petition is NIL. In view of this, cumulative Revenue gap after proposed tariff, to be claimed in FY 2023-24 is as shown below.

Table 9-1: Cumulative Revenue gap to be claimed in FY 2023-24 (Rs. Cr.)

Particulars	APR	Ensuing Year
	FY 2022-23	FY 2023-24
Net ARR	2,864.13	2,734.25
Revenue from Existing Tariff	2,565.79	2,250.60
Revenue Gap for the Year (at existing tariff)	298.33	483.65
Opening Balance of Gap	0	-
Total Cumulative Gap for years	298.33	483.65
Less: Budgetary Support commitment provided	298.33	348.69
Balance Gap to be recovered	0	134.96
Proposed Gap Recovery through Tariff Hike		134.96
Net Revenue Gap	0.00	0.00

EDG submits that it proposes to recover the cumulative Revenue Gap till FY 2023-24 through budgetary support from the Government of Goa and through partial Tariff hike as shown above.



10 SEGREGATION OF WHEELING AND SUPPLY BUSINESS

10.1 Allocation Policy

EDG submits the bifurcation of all expenses of FY 2023-24 between the functions of wheeling business (wire business) and retail supply business based on the regulation 49 of the MYT Regulations, 2021. The summary of the allocation statement and the segregation of ARR into wheeling and retail supply business for FY 2023-24 is given in the table below:

Table 10-1: Allocation Statement Wheeling and Retail Supply for FY 2023-24 (Rs. Cr.)

Sr. No.	Particulars	Wires Business	Retail Supply Business	Total	Wheeling Business(₹ crore)	Retail Supply Business (₹ crore)
		%	%	Projection	Projection	Projection
				FY 2023-24	FY 2023-24	FY 2023-24
A	Receipts					
1	Revenue from Sale of Power			2,250.60		
B	Expenditure					
1	Cost of Power Purchase from Own Generating Stations			-		
2	Cost of Power Purchase from other Generating Stations	0%	100%	2,013.94		2013.94
3	Inter State Transmission Charges	0%	100%	-		
4	Intra State Transmission Charges	0%	100%	-		
5	SLDC Fees & Charges			-		
6	O&M Expenses (Gross)			525.87	241.23	284.64
	a) R&M Expenses	90%	10%	54.62	49.16	5.46
	b) Employee Cost	40%	60%	435.52	174.21	261.31
	c) A&G Expenses	50%	50%	35.73	17.87	17.87
7	Depreciation	90%	10%	77.75	69.97	7.77
8	Interest and Finance Charges	90%	10%	44.86	40.37	4.49
9	Interest on Working Capital	10%	90%	16.51	5.94	10.57
10	Prior Period Expenses			-		
	Interest on Consumer Security Deposit	10%	90%	5.37	0.54	4.83
11	Extraordinary Items			-		
12	Bad and Doubtful Debts	0%	100%	-		
13	Other Debts and Write-offs			-		
14	Statutory Levies and Taxes, if any			-		



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Sr. No.	Particulars	Wires Business	Retail Supply Business	Total	Wheeling Business(₹ crore)	Retail Supply Business (₹ crore)
		%	%	Projection	Projection	Projection
				FY 2023-24	FY 2023-24	FY 2023-24
15	Less: Expenses Capitalised					
	a) Interest Charges Capitalized			-		
	b) R&M Expenses Capitalized			-		
	c) A&G Expenses Capitalized			-		
	d) Employee Cost Capitalized			-		
	Sub Total (a+b+c+d)			-	0.00	0.00
	Sub Total Expenditure (1 to 14-15)			2,684.30	358.05	2326.25
C	Return on Equity	90%	10%	79.88	71.89	7.99
D	Less: Non Tariff and other Income	10%	90%	29.93	2.99	26.93
E	Less: Any Grant/ Subventions, other subsidy provided by the Government			-		
F	Annual Revenue Requirement (B+C-D-E)			2,734.25	426.96	2307.30
G	Revenue Gap 'Surplus(+)' / Shortfall (-) (A-F) - Before Tariff Revision			-483.65		
H	Energy Sales			4,561.91		
I	Average Cost of Supply (Rs./kWh)			5.99		

The Hon'ble Commission is requested to approve the segregation of ARR into Wheeling & Retail Supply Business for FY 2023-24 as per above table.



11 DETERMINATION OF CHARGES RELATED TO OPEN ACCESS

11.1 Approach for computation of open access charges

EDG submits that as per Regulation 68.2 and 68.3 of JERC MYT Regulations, 2021 category wise cost of supply needs to be computed for facilitating determination of tariff and for gradual reduction of cross subsidy. Cost of supply study also facilitates determination of cross subsidy surcharge. However, the cost of supply methodology suggested by APTEL is based on voltage wise segregation.

In absence of relevant data for computation of open access charges, EDG requests Hon'ble Commission to consider the same methodology and approach as approved in Tariff Order FY 2022-23 dated 31st March 2022.

Accordingly, EDG has computed open access charges considering the following wheeling losses for HT & EHT and allocation % for wheeling cost between HT & LT as approved in Tariff Order FY 2022-23.

Wheeling Loss at HT & EHT Level - 3.55% (balance losses attributable to LT Level)

11.2 Computation of Wheeling Charge and losses

In line with methodology, adopted by Hon'ble Commission in previous tariff orders for FY 2021-22 & FY 2022-23 and based on above mentioned projections for Sales & Wheeling ARR for FY 2023-24, EDG has calculated wheeling charges for LT and HT/EHT level. Following methodology has been adopted:

- O&M Expenses consisting of Employee, A&G and R&M expenses are allocated to each voltage level based on number of consumers.
- All expenses other than the O&M expenses are allocated to each voltage level based on voltage wise asset allocation.
- The resultant cost at HT/EHT voltage level derived after performing the above steps is then divided between LT and HT/EHT voltage level on the basis of input energy at respective voltage levels, since the HT/EHT network is used by consumers of both HT/EHT and LT voltage levels.

EDG submits that parameters assumed for allocation of wheeling cost at LT and HT/EHT level are tabulated below:



Table 11-1: Parameters assumed for allocation of Wheeling Cost

Input	Consumers	Asset Allocation (%)	Sales (MU)	Cumulative Voltage Wise Losses (%)	Energy Input (MU)
Low Tension (LT) Level	725533	60%	2071.21	13.71%	2400.36
High Tension (HT)/ Extra High Tension (EHT)Level	1282	40%	2490.70	3.55%	2582.37
Total	726815	100%	4561.91	8.45%	4982.73

Based on above assumption of parameters, the wheeling charge at LT and HT/EHT level has been determined as shown below.

Table 11-2: Allocation of Wheeling Cost based on voltage Level for FY 2023-24

Input	O&M expenses (Rs.Cr.)	Other Expenses (Rs.Cr.)	Total Expenses (Rs.Cr.)	Sales (MU)
Low Tension (LT) Level	240.81	111.43	352.24	2071.21
High Tension (HT)/ Extra High Tension (EHT)Level	0.43	74.29	74.71	2490.70
Total	241.23	185.72	426.96	4561.91

Table 11-3: Computation of Wheeling Charge for FY 2023-24

Category	O&M expenses (Rs.Cr)	Other Expenses (Rs.Cr)	Total Expenses (Rs.Cr)	Sales (MU)	Wheeling Charges (Rs./kWh)
Low Tension (LT) Level	240.81	111.43	352.24	2071.21	1.70
High Tension (HT)/ Extra High Tension (EHT)Level	0.43	74.29	74.71	2490.70	0.30
Total	241.23	185.72	426.96	4561.91	0.94

Therefore, EDG requests the Hon'ble Commission to approve wheeling charge for HT/EHT and LT category as computed in the above tables

11.3 Computation of Additional Surcharge for FY 2023-24

The Hon'ble Commission has notified the Joint Electricity Regulatory Commission for the State of Goa and Union Territories (Connectivity and Open Access in Intra-State Transmission and Distribution) Regulations, 2017. The Regulation 4.5 (1) of the said Regulations states the following:



“An Open Access Consumer, receiving supply of electricity from a person other than the Distribution Licensee of his area of supply, shall pay to the Distribution Licensee an additional surcharge in addition to wheeling charges and cross-subsidy surcharge, to meet the fixed cost of such Distribution Licensee arising out of his obligation to supply as provided under sub-section (4) of Section 42 of the Act:”

Regulation 4.5 (2) of the said Regulations stipulates:

This additional surcharge shall become applicable only if the obligation of the Licensee in terms of power purchase commitments has been and continues to be stranded or there is an unavoidable obligation and incidence to bear fixed costs by the Licensee consequent to such a contract. However, the fixed costs related to network assets would be recovered through wheeling charges”

Further, Regulation 5.2 (1) (b) states the following:

“The quantum of drawal of electricity by a partial Open Access Consumer from the Distribution Licensee during any Time Block of a Day should not exceed the “Admissible Drawl of Electricity by the Open Access Consumer” which is the difference of Contract Demand and maximum quantum of Open Access for which approval has been granted by the Nodal Agency.

[Illustration: If an Open Access Consumer with a Contract Demand of 10 MW has been given an approval for a maximum Open Access quantum of 6MW for a period of 3 Months, the Admissible Drawl of Electricity from the Distribution Licensee during any Time Block shall be 4 MW for any Day during a period of 3 Months.]”

In line with above regulations, EDG has determined the Additional Surcharge as per the following:

Table 11-4: Additional Surcharge for FY 2023-24

Category	FY 2023-24
Total Power Purchase Cost for FY 2021-22 (Rs. Cr)	2,013.94
Fixed Cost Component in Power Purchase Cost (excluding transmission charges) (Rs. Cr)	421.43
Energy Sales (MU)	4561.91
Additional Surcharge (INR/kWh)	0.92

EDG request Hon’ble Commission to approve additional surcharge for FY 2023-24 as computed in the above table.



11.4 Computation of Cross Subsidy Surcharge for FY 2023-24

The National Electricity Policy as stipulated by the Central Government provides that – Under sub – section (2) of Section 42 of the Act, a surcharge is to be levied by the respective State Commissions on consumers switching to alternate supplies under open access. This is to compensate the host distribution licensee serving such consumers who are permitted Open Access under Section 42 (2), for loss of cross subsidy element built into the tariff of such consumers. An additional surcharge may also be levied under sub – section (4) of section 42 of the said Act for meeting the fixed cost of the distribution licensee arising out of obligation to supply in cases where consumers are allowed open access.

The Government of India has notified the National Tariff Policy, 2016 on 28th January 2016. The Cross-Subsidy surcharge is based on the following formula given in the Tariff Policy, 2016 which is as follows:

$$S = T - [C / (1 - L/100) + D + R]$$

Where,

S is the surcharge

T is the tariff payable by the relevant category of consumers, including reflecting the Renewable Purchase Obligation;

C is the per unit weighted average cost of power purchase by the Licensee, including meeting the Renewable Purchase Obligation;

D is the aggregate of transmission, distribution and wheeling charge applicable to the relevant voltage level

L is the aggregate of transmission, distribution and commercial losses, expressed as a percentage applicable to the relevant voltage level

R is the per unit cost of carrying regulatory assets.”

However, calculation of Cross subsidy surcharge is calculated in this chapter as per methodology adopted by Hon’ble Commission in the previous tariff orders for FY 2021-22 and FY 2022-23.

Voltage wise losses for HT/EHT is considered at 3.55%. In order to maintain the Intra-State T&D losses at 8.45% for FY 2023-24, losses at LT level has been computed. Accordingly, voltage wise losses considered for the calculation of Cross-subsidy Surcharge for FY 2023-24 is provided as below:



Table 11-5: Voltage wise losses assumed for FY 2023-24

Category	Voltage Level Losses (%)	Cumulative Loss upto that voltage level (%)
Low Tension (LT) Level	13.63%	13.71%
High Tension (HT)/ Extra High Tension (EHT)Level	3.55%	3.55%
Total	8.45%	8.45%

Based on the Voltage wise energy sales projected for FY 2023-24, voltage level wise energy input is calculated as given below:

Table 11-6: Voltage wise Energy Input for FY 2023-24

Category	Sales (MU)	Cumulative Loss upto that voltage level (%)	Energy Input (MU)
Low Tension (LT) Level	2071.21	13.71%	2400.36
High Tension (HT)/ Extra High Tension (EHT)Level	2490.70	3.55%	2582.37
Total	4561.91	8.45%	4982.73

Overall ARR arrived for FY 2023-24 is divided into variable and fixed ARR with variable ARR comprising of variable component of the power purchase cost and fixed ARR comprising of all the other costs.

The fixed component comprising of fixed cost of power purchase, O&M etc. is further allocated to each voltage category as per the following principles:

- The fixed cost of power purchase is assigned to each voltage level based on the energy input at respective voltage levels.
- The O&M expenses are allocated to each voltage level based on the number of consumers. The resultant cost allocated to HT/EHT level is then further allocated between HT/EHT and LT level based on the input energy, as the HT/EHT network is utilized by both LT and HT/EHT network consumers.
- The remaining fixed costs are allocated based on the voltage wise asset allocation assumed earlier and further allocated to respective voltage levels based on input energy.



Table 11-7: Parameters used for allocation of fixed costs for FY 2023-24

Category	Energy Input (MU)	Voltage Wise Allocation (%)	Number of Consumers
Low Tension (LT) Level	2400.36	60%	725533
High Tension (HT)/ Extra High Tension (EHT)Level	2582.37	40%	1282
Total	4982.73	100%	726815

The Variable component of the Power purchase cost is allocated based on the energy input.

The Voltage wise cost of supply (VCoS) is then calculated based on the energy sales of respective categories. Accordingly, the VCoS is determined as shown in the table below:

Table 11-8: Voltage Wise Cost of Supply (VCoS) for FY 2023-24

Category	Allocated Fixed Cost (Rs.Cr.)	Allocated Variable Cost (Rs.Cr.)	Total Cost (Rs.Cr.)	Energy Sales (MU)	VCoS (Rs./kWh)
Low Tension (LT) Level	696.58	767.17	1463.75	2071.21	7.07
High Tension (HT)/ Extra High Tension (EHT)Level	445.16	825.34	1270.51	2490.70	5.10
Total	1141.74	1592.51	2734.25	4561.91	5.99

As per above VCoS calculated and applicable level wise ABR level, EDG has computed the Cross-Subsidy Surcharge for FY 2023-24 as provided in the table give below:

Table 11-9: Cross-Subsidy Surcharge for FY 2023-24

Category	VCoS (Rs./kWh)	ABR (Rs./kWh)	Cross Subsidy Surcharge (Rs./kWh)
Low Tension (LT) Level	7.07	4.15	
High Tension (HT)/ Extra High Tension (EHT)Level	5.10	6.13	1.03

Therefore, EDG requests the Hon'ble Commission to approve the cross-subsidy surcharge for FY 2023-24 as computed in the above tables.



12 COMPLIANCE OF DIRECTIVES GIVEN BY HON'BLE COMMISSION

EDG submits that the Hon'ble Commission in its Tariff Order for FY 2021-22 dated 31st March 2022 had laid down certain directives to be complied by EDG. The directives as provided by the Hon'ble Commission and the status of the said directives are replied as below:

12.1 Status of Compliance of Directives issued in tariff order dated 31st March 2022

S. No.	Directives in brief	Commission`s Direction in the Tariff Order for FY 2022-23 dated 31 st March 2022	Compliance by the Electricity Department, Goa
1.	Annual Statement of Accounts	The Commission has taken a serious note of this issue. ED-Goa has failed to comply with the directive every year since the issuance of Tariff Order dated 27th June 2012. ED-Goa is directed to submit the audited annual accounts for FY 2017-18, FY 2018-19, FY 2019-20, FY 2020-21 and FY 2021-22 by November 2022 along with Tariff petition for FY 2023-24.	EDG has filed the True-up Petitions for FY 2017-18, FY 2018-19 & FY 2019-20 before the Hon'ble JERC on August 2022 and Public hearing for the same is also been conducted. Financial Accounts for FY 2020-21 & FY 2021-22 are completed. The CAG audit team is auditing the accounts. Upon completion of the audit of the Accounts for FY 2020-21 & FY 2021-22 the True-up Petitions for FY 2020-21 & FY 2021-22 will be submitted before the Hon'ble JERC by December 20, 2022.
2.	Preparation of Fixed Asset Register	ED-Goa is directed to submit the information upto FY 2021-22 in the next tariff petition along with the audited annual accounts as sought in the preceding directive. The Petitioner is to also ensure that the FAR reports contain the details of the assets which have completed 90% of their but are still included in the FAR.	The FAR for FY 2020-21 & FY 2021-22 will be submitted along with the Audited accounts in the True-Up Petitions of FY 2020-21 & FY 2021-22.
3.	Energy Audit Reports	The Commission has noted with serious concern that the Petitioner has not submitted the Energy Audit Reports for previous years despite repeated directions. The	As per the guidelines from Bureau of Energy Efficiency, Quarterly and Annual Audits have to be carried out by each DISCOM. EDG has already submitted draft Annual



S. No.	Directives in brief	Commission`s Direction in the Tariff Order for FY 2022-23 dated 31 st March 2022	Compliance by the Electricity Department, Goa
		Commission directs the Petitioner to expedite the process and complete the Energy Audit of the State on priority, and positively submit the same along with Tariff Petition for FY 2023-24.	Audit reports for the year 2020-21 and 2021-22 to the consultant appointed by GED for scrutiny. The Quarter and Annual reports for the year 2020-21 and 2021-22 will be submitted to BEE immediately after the scrutiny from the consultants and the same will be submitted to hon`ble JERC.
4.	Employee Cost / Manpower study	The Commission is yet to receive the Manpower Study report from the Petitioner. The Commission directs the Petitioner to submit the same within one month of the issuance of this Order.	ED-Goa has completed the Employee Cost/Manpower Study. The same is submitted in Annexure-3 .
5.	Interest on Consumer Security Deposit	The Commission directs ED-Goa to ensure payment of interest on security deposit upto FY 2021-22 as per the provisions of Supply Code, 2018.	The payment of Interest towards consumer`s security deposit upto FY 2021-22 is Rs. 5.50 Crore is paid to the consumers.
6.	Sub Divisions as Strategic Business Units	The Commission is yet to receive the compiled data as stated by the EDG. The EDG is directed to submit the data for Strategic Business Unit for Sub-Division of Division-IV and Division-XVII within one month of the issuance of this Order.	While collecting the Data for Strategic Business Unit for Sub-Division of Division 4 & 17 it is observed that the Sub-Divisions of the said divisions are transferring power between them and the same is not accounted. In this regard there is an issue in determining the exact distribution loss at Sub-Division Level. So, after completion of the Energy Auditing at Sub-Division level the same shall be initiated.
7.	Installation of Pre Paid Meters	The Commission directs ED-Goa to expedite the process and submit an updated status with the next quarterly progress report.	The Electricity Department has been sanctioned 750356 Prepaid Smart meters under Revamped Distribution Sector Scheme (RDSS) as per the Sanction letter dated 10/10/2022 attached as Annexure-4 . The Electricity Department is in process of obtaining approvals for



S. No.	Directives in brief	Commission`s Direction in the Tariff Order for FY 2022-23 dated 31 st March 2022	Compliance by the Electricity Department, Goa
			floating of the tender. The timelines for installation of all Pre-paid Smart meters is March, 2025.
8.	Unbundling of Electricity Department	The Commission directs the Petitioner to submit the documentary evidence for the decision of the Govt. of Goa to the Commission within one month of the issuance of this Order.	EDG had submitted proposal to the Government in regard to Unbundling of the Electricity Department. The documentary evidence in regard to the decision of the Government will be submitted no sooner received from the Government of Goa.
9.	Renewable Purchase Obligation	The Commission appreciates the efforts undertaken by the Petitioner towards fulfilment of RPO. The Petitioner is emphasizing on procuring more physical power than purchase REC's in accordance with the Commissions directions. The Petitioner is directed to continue its efforts towards fulfilment of RPO and ensure yearly compliance are achieved.	ED-Goa has fulfilled 61.86% (Overall) upto H1 of FY 2022-23 considering the actual Renewable Power purchase position (Physical Power and REC). EDG has already submitted the action plan to fulfill the entire RPO along with the backlog of FY 2021-22 by 31 st March 2023.
10.	Billing and Collection Efficiency	The Commission is yet to receive the report from the Petitioner. The Commission directs the Petitioner to submit the same within one month of the issuance of this Order.	The EDG has submitted the Report on One Time Settlement Scheme 2020 is before the Hon'ble Commission in the 1st Quarter Directives compliance report of FY 2021-22.
11.	Determination of Category wise/ Voltage wise Cost of supply	The Petitioner is directed to submit voltage-wise and category-wise details of assets, O&M expenses and fixed asset cost allocation for the last 3 years along with the Tariff Petition for FY 2023-24.	GIS Mapping of all Assets have been completed. The voltage wise and category wise units have also been identified during the Energy Audit process. GED is in process of appointment of consultant for identify voltage-wise and category-wise details of assets, O&M expenses and fixed asset cost allocation for the last 3 years.
12.	Submission of Petition for	The Commission mentioned that the progress shown by the Petitioner is not satisfactory and the Commission has taken	EDG has filed the True-up Petitions for FY 2017-18, FY 2018-18 & FY 2019-20 before the Hon'ble JERC.



S. No.	Directives in brief	Commission`s Direction in the Tariff Order for FY 2022-23 dated 31 st March 2022	Compliance by the Electricity Department, Goa
	True up of FY 2017-18, FY 2018-19, FY 2019-20 and FY 2020-21.	a serious note of this issue. ED-Goa is directed to submit the audited annual accounts for FY 2017-18, FY 2018-19, FY 2019-20, FY 2020-21 and FY 2021-22 by 30th November 2022.	Financial Accounts for FY 2020-21 & FY 2021-22 are completed. The CAG audit team is auditing the accounts. Upon completion of the audit of the Accounts for FY 2020-21 & FY 2021-22 the True-up Petitions for FY 2020-21 & FY 2021-22 will be submitted before the Hon`ble JERC by December 20, 2022.
13.	Collection of data based on consumer type	The Commission directs ED-Goa to start collecting information of energy sales, connected load, number of consumers, power factor, ToD sales etc., wherever applicable, for different type of consumers such as Hotel Industries, Govt./Private educational institutions, Govt./Private hospitals etc. within the existing categories and submit the requisite information along with the next quarterly progress report. The Commission is yet to receive the requisite details from the Petitioner. The Commission directs the Petitioner to submit the same within one month of the issuance of this Order.	The requisite data has been submitted to the Commission in the MYT ARR Tariff Petition No.63 of 2021 in the Annexure-6.
14.	kVAh based tariff for LT-Industrial and LT-Commercial categories.	The Commission is considering the introduction of kVAh based tariff for LT-Industrial and LT-Commercial categories. Accordingly, the Petitioner is hereby directed to submit a compliance report indicating its readiness for implementation of kVAh billing for LT-Industrial and LT-Commercial categories with the next tariff petition.	The Electricity Department has been sanctioned 750356 Prepaid Smart meters under Revamped Distribution Sector Scheme (RDSS) as per the Sanction letter dated 10/10/2022. The timelines for installation of all Pre-paid Smart meters is March, 2025. The kVAh based billing will be carried out for LT Commercial and LT Industrial after installation of the Smart Meters.



13 PRAYER'S TO THE COMMISSION

13.1 Prayer to the Hon'ble Commission

The Electricity Department, Government of Goa (EDG) respectfully prays to the Hon'ble Commission to:

- a) Accept and admit the petition for APR of FY 2022-23 and Aggregate Revenue Requirement FY 2023-24 and Tariff Determination for FY 2023-24 which is in line with the principles laid by the Hon'ble Commission contained in MYT Tariff Regulations 2021;
- b) Approve the total recovery and revenue gap for Annual Performance Review for FY 2022-23 and ARR & Tariff for FY 2023-24 and other claims as proposed by EDG;
- c) Approve the Revenue Gap for FY 2022-23 of Rs. 298.33 Cr. as per APR and standalone Revenue Gap considering revenue from proposed tariff amounting to Rs. 348.69 Cr. for FY 2023-24 on provisional basis and the revenue gap as may be approved by the Hon'ble Commission during the process of finalising tariff petition;
- d) To consider the Tariff Design Philosophy and grant approval for proposed changes in Tariff Schedule (changes in applicability clauses), charges for services, miscellaneous charges and general terms & condition of the tariff order for FY 2023-24;
- e) Approve the revenue at proposed tariff for FY 2023-24 and the gap of Rs. 348.69 Cr. till FY 2023-24. The revenue gap of Rs. 348.69 Cr. is proposed to be met from the budgetary support by the Government of Goa. The letter for the Budgetary Support shall be submitted after issuance of the same by Government of Goa;
- f) Pass suitable orders with respect to APR for FY 2022-23 and ARR for FY 2023-24 & Tariff Determination Proposal for 2023-24 for the expenses to be incurred by EDG for serving its consumers;
- g) Grant any other relief as the Hon'ble Commission may consider appropriate;
- h) The petitioner craves leave of the Hon'ble Commission to allow further submission, addition and alteration to this petition as may be necessary from time to time;
- i) Condone any inadvertent omissions/errors/shortcomings and permit EDG to add/change/ modify/ alter this filing and make further submissions as may be required at a future date;
- j) To pass any other Order as the Hon'ble Commission may deem fit and appropriate under the circumstances of the case and in the interest of justice.

The Petitioner declares that the subject matter of the petition has not been raised by the petitioner before any other competent forum, and that no other competent forum is currently seized of the matter or has passed any order in relation thereto.



14 ANNEXURES.

14.1 Annexure 1: Tariff Formats

14.2 Annexure 2: Defense Ministry Letter

14.3 Annexure-3: Directives-Manpower Details

14.4 Annexure 4: Directives- Revamped Distribution Sector Scheme (RDSS) Sanction letter

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- f) Pass suitable orders with respect to APR for FY 2022-23 and ARR for FY 2023-24 and Tariff Determination Proposal for FY 2023-24 for the expenses to be incurred by EDG for serving its consumers;
 - g) Grant any other relief as the Hon'ble Commission may consider appropriate;
 - h) The Petitioner craves leave of the Hon'ble Commission to allow further submission, addition and alteration to this petition as may be necessary from time to time;
 - i) Condone any inadvertent omissions/errors/shortcomings and permit EDG to add/change/ modify/ alter this filing and make further submissions as may be required at a future date;
 - j) To pass any other Order as the Hon'ble Commission may deem fit and appropriate under the circumstances of the case and in the interest of justice.

Electricity Department,
Government of Goa



Petitioner

Place: Panaji
Dated: 30th November 2022



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33	Form F31	Income Tax Provisions

Note: 1. The above formats shall be filed by the Distribution Licensee for its Distribution Business (Wheeling Business and Retail Supply Business separately) consistent with the Allocation Statement mentioned in the Regulations.

2. Electronic Copy of the Petition (in Word format) and detailed calculation as per these formats (in Excel format) and any other information submitted shall also be furnished in the electronic form.

3. Formats may be suitably amended where ever required, and additional formats may be designed for any additional information to be submitted along with the Petition.

Annual Revenue Requirement

Sr. No.	Particulars	Wires Business %	Retail Supply %	Remarks	Revised	ARR	Control Period		Control Period
					Estimates	Projection	Estimated	Projection	Projection
					FY 2022-23	FY 2023-24	FY 2022-23	FY 2023-24	FY 2023-24
A	Receipts								
1	Revenue from Sale of Power				2,665.79	2,250.60			
B	Expenditure								
1	Cost of Power Purchase from Own Generating Stations				-	-			
2	Cost of Power Purchase from other Generating Stations	0%	100%		2,230.19	2,013.94			2013.94
3	Inter State Transmission Charges	0%	100%		-	-			
4	Intra State Transmission Charges	0%	100%		-	-			
5	SLDC Fees & Charges				-	-			
6	O&M Expenses (Gross)				497.08	525.87	229.52	241.23	284.64
a)	R&M Expenses	90%	10%		54.62	54.62	49.16	49.16	5.46
b)	Employee Cost	40%	60%		408.71	435.52	163.48	174.21	261.31
c)	A&G Expenses	50%	50%		33.74	35.73	16.87	17.87	17.87
7	Depreciation	90%	10%		58.92	77.75	53.03	69.97	7.77
8	Interest and Finance Charges	90%	10%		26.76	44.86	24.09	40.37	4.49
9	Interest on Working Capital	10%	90%		14.92	16.51	5.23	5.94	10.57
10	Prior Period Expenses				-	-			
	Interest on Consumer Security Deposit	10%	90%		5.36	5.37	0.54	0.54	4.83
11	Extraordinary Items				-	-			
12	Bad and Doubtful Debts	0%	100%		-	-			
13	Other Debts and Write-offs				-	-			
14	Statutory Levies and Taxes, if any				-	-			
15	Less: Expenses Capitalized								
a)	Interest Charges Capitalized				-	-			
b)	R&M Expenses Capitalized				-	-			
c)	A&G Expenses Capitalized				-	-			
d)	Employee Cost Capitalized				-	-			
	Sub Total (a+b+c+d)				-	-	0.00	0.00	0.00
	Sub Total Expenditure (1 to 14-15)				2,833.23	2,684.30	312.40	358.05	2326.25
C	Return on Equity	90%	10%		60.26	79.88	54.23	71.89	7.99
D	Less: Non-Tariff and other Income	10%	90%		29.36	29.93	2.94	2.99	26.93
E	Less: Any Grant/ Subventions, other subsidy provided by the Government				-	-			
F	Annual Revenue Requirement (B+C-D-E)				2,864.13	2,734.25	363.69	426.96	2307.30
G	Revenue Gap 'Surplus(+)' / Shortfall (-) (A-F) - Before Tariff Revision				-298.33	-483.65	-363.69	-426.96	-2307.30
	Energy Sales				4,430.74	4,561.91			
	Average Cost of Supply (Rs./kWh)				6.46	5.99			
	Revenue at Existing Tariff					2250.60			
	Revenue at Proposed Tariff					2385.56			
	Projected additional Revenue on Tariff Hike					134.96			
	Tariff Hike (%)					6.00%			
H	Revenue Gap 'Surplus(+)' / Shortfall (-) (A-F) - After Tariff Revision					-348.69			

Summary of Station Wise details of Power Purchase from Own and Other Sources

S. No	Source	Months in the FY 2021-22												Ma										
		April		May		June		July		August		September			October		November		December		January		February	
	PGCIL Transmission Charges, Wheeling, Oen Access & Trading Marrgin & Other Charges		19.55		30.34		20.32		17.76		22.16		19.01		18.18		26.06		13.16		18.31		17.71	
10	Total Power Purchase	423.97	139.93	356.80	162.28	347.20	144.71	354.00	142.80	380.77	155.93	357.75	141.82	405.69	147.03	388.09	144.78	381.32	134.09	442.87	157.28	375.41	138.95	430.98

Form F4

S. No	Source	Value (₹ crore)
1	Central Generating Stations	
A	Thermal	
a	NTPC	104.26
(i)	KSTPS-3	26.11
(ii)	VSTPS-1	2.59
(iii)	VSTPS-2	6.50
(iv)	VSTPS-3	2.28
(v)	VSTPS-4	2.11
(vi)	MSTPS-1	2.99
(vii)	KGPS	5.42
(viii)	JGPS	0.63
(ix)	SIPAT-1	0.81
(x)	SIPAT-2	3.61
(xi)	VSTPS-5	2.46
(xii)	MST-2	0.57
(xiii)	SLP	4.20
(xiv)	KhSTPS-2	6.60
(xv)	Gadarwara	0.00
(xvi)	Lara	7.19
(xvii)	RST	3.20
(xviii)	Khargone	22.00
(xix)		5.02
B	NPC	
a	NPCIL	6.08
(i)	KAPS	2.55
(ii)	TAPS	3.53
2	Banking of Power	0.05
(i)	Banking Drawal	0.05
(ii)	Banking Injection	0.00
4	Short-Term Power	
(i)	IEX Purchase and Sales	4.94
	IEX Purchase	11.12
	IEX Sales	6.18
(ii)	Traders (Drawal)	0.42
	Traders (Injection)	0.00
5	Within State Generations	
	CO-GENERATION	2.61
	Vedanta Plant-1	1.33
	Goa Sponge and private limited	0.05
	Vedanta Plant-2	1.23
6	RPO Obligation	13.51
	Solar	
	NVVNL Solar	0.68
	SECI Solar	2.87
	Solar STOA	6.09
	Net Metering	0.66
	GTAM	
	Non-Solar	
	Non Solar - SECI Wind Tranche II LTOA	2.97
	Non Solar - SECI Wind Tranche VI LTOA	0.00
	Hindustan waste treatment plant Goa	0.24
	Non Solar STOA	0.00
7	REC Certificates	
	Solar-REC	
	Non Solar- REC	
9	UI (Net Overdrawl)	22.03
	Overdrawal	22.03
	Underdrawal	0.00
8	OTHER CHARGES	16.08

Form F4

S. No	Source	Amount
	PGCIL Transmission Charges, Wheeling, Open Access & Trading Margin & Other Charges	16.08
10	Total Power Purchase	169.99

S. No	Source	Plant Capacity	Auxiliary Consumption	Plant Availability	PLF	Licensee's Firm Share	Energy Sent out (Scheduled)	External Losses(%)			Energy Received by the Licensee	Annual Fixed Cost (AFC)	Variable Charges	Fixed Cost (FC)	Variable Cost (VC)	Other Charges	Supplementary Charges	Total Cost	Per Unit Cost
		MW	%	%	%	%	MW	MU	%	intra-state	inter-state	MU	₹ crore	paise/unit	₹ crore	₹ crore	₹ crore	₹ crore	₹ crore

Summary of Power Banking for FY 2020-21

Months	Source	Opening	Import	Export	Net	Closing Balance
		MW	MW	MW	MW	MW
Apr		1				
		2				
		3				
May		1				
		2				
		3				
Jun		1				
		2				
		3				
Jul		1				
		2				
		3				
Aug		1				
		2				
		3				
Sep		1				
		2				
		3				
Oct		1				
		2				
		3				
Nov		1				
		2				
		3				
Dec		1				
		2				
		3				
Jan		1				
		2				
		3				
Feb		1				
		2				
		3				
March		1				
		2				
		3				
Total						

Note: The above information is to be supplied for (n-3), (n-2), (n-1), current year (n) and years of the control period.

Form F3

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

S. No	Source	Plant Capacity MW	Auxiliary Consumption %	Plant Availability %	PLF %	Licensee's Firm Share % MW	Energy Sent out (Scheduled) MU	External Losses(%)		Energy Received by the Licensee MU	Annual Fixed Cost (AFC) ₹ crore	Variable Charges ₹ crore	Fixed Cost (FC) ₹ crore	Variable Cost (VC) ₹ crore	Other Charges ₹ crore	Supplimentary Charges ₹ crore	Total Cost ₹ crore	Per Unit Cost ₹/unit	
								%	intra-state										inter-state
1	Central Generating Stations																		
A	Thermal																		
a	NTPC	21,913.59				596.14	1,604.64			1,534.66			210.72	372.41	-	-	583.12	3.80	
(i)	KSTPS	2100				10.25%	215.23	732.33		3.55%	706.34	145.52	55.28	106.57			161.85	2.29	
(ii)	VSTPS - I	1260				3.14%	39.60	110.65		3.55%	106.72	163.18	12.00	18.06			30.06	2.82	
(iii)	VSTPS - II	1000				1.55%	15.40	32.84		3.55%	31.07	157.18	3.99	5.16			8.15	2.89	
(iv)	VSTPS - III	1000				1.35%	13.49	24.76		3.55%	23.88	155.90	4.91	3.86			8.77	3.67	
(v)	VSTPS-IV	1000				1.60%	16.04	16.44		3.55%	15.85	153.87	8.74	2.53			11.27	7.11	
(vi)	VSTPS-V	500				1.52%	7.60	9.26		3.55%	8.93	158.79	4.37	1.47			5.84	6.54	
(vii)	GGPP	656.20				1.89%	12.40	-		3.55%	-	-	3.96	-			3.96	#DIV/0!	
(viii)	GGPP	657.39				1.93%	12.66	-		3.55%	-	-	4.35	-			4.35	#DIV/0!	
(ix)	SIPAT - I	1980				1.49%	29.58	61.39		3.55%	59.21	149.48	11.76	9.18			20.93	3.54	
(x)	KSTPS-vii	500				1.39%	6.52	12.96		3.55%	12.50	142.31	2.84	1.84			4.69	3.75	
(xi)	KSTPS	2100				4.76%	100.00	380.21		6.97%	354.97	342.40	25.06	130.42			155.48	4.39	
(xii)	SIPAT - II	1000				1.33%	13.32	21.03		3.55%	20.29	154.40	4.95	3.25			8.20	4.04	
(xiii)	Solsaur	1320				1.63%	21.47	63.12		3.55%	60.88	507.61	12.55	32.04			44.59	7.32	
(xiv)	Gadarwara	1600				1.39%	22.29	29.66		3.55%	28.61	363.80	15.74	10.79			26.53	9.27	
(xv)	Lara	1600				0.94%	13.02	-		3.55%	-	-	8.78	-			8.78	#DIV/0!	
(xvi)	Kharagone	1320				1.37%	18.13	47.24		3.55%	45.56	428.00	11.04	20.22			31.26	6.86	
(xvii)	Mouda I	1000				1.60%	16.04	25.82		3.55%	24.90	432.82	9.99	11.17			21.17	8.50	
(xviii)	Mouda II	1320				1.58%	20.88	36.25		3.55%	34.96	437.20	10.40	15.85			26.25	7.51	
	Add/ Less: Other Adjustments																		
B	NPC																		
a	NPCL																		
(i)	KAPIS																		
(ii)	TAPS																		
2	Banking of Power																		
(i)																			
(ii)																			
(iii)																			
4	Short- Term Power																		
	Traders																		
(i)	IEX Purchase & Sales																		
(ii)	IEX Purchase																		
(iii)	IEX Sales																		
	Traders Drawal																		
	Traders Injection																		
5	Within State Generations																		
	CO- GENERATION																		
	Vedanta Plant-1																		
	Vedanta Plant-2																		
	Goa Sponge and private limited																		
6	RPO Obligation																		
	Solar																		
	NVNL Solar																		
	Solar STOA																		
	SECI Solar																		
	Net Metering																		
	Non-Solar																		
	Non Solar - SECI Wind Tranche II LTOA																		
	STOA (Non Solar)																		
	SECI Tranche-VI																		
	Hindustan waste treatment plant Goa																		
	SECI Hybrid (Non-Solar)																		
7	REC Certificates																		
	Solar-REC																		
	Non Solar- REC																		
9	UI (Net Overdrawl)																		
	OVER DRAWAL																		
	UNDER DRAWAL																		
8	OTHER CHARGES																		
	PGCIL Transmission Charges, Wheeling, Oen Access & Trading Marggin & Other Charges																		
10	Total Power Purchase	21913.59	0.00	0.00	0.00	0.00	596.14	2501.16	0.00	0.00	0.00	2414.75		210.72	837.82	0.00	0.00	1048.53	4.34

Note: The above information is to be supplied for (n-3), (n-2), (n-1), current year (n) and years of the control period.

Note: Details of prior period adjustments if any shall be provided separately

S. No	Source	Plant Capacity	Auxiliary Consumption	Plant Availability	PLF	Licensee's Firm Share	Energy Sent out (Scheduled)	External Losses(%)			Energy Received by the Licensee	Annual Fixed Cost (AFC)	Variable Charges	Fixed Cost (FC)	Variable Cost (VC)	Other Charges	Supplementary Charges	Total Cost	Per Unit Cost
		MW	%	%	%	%	MW	MU	%	intra-state	inter-state	MU	₹ crore	paise/unit	₹ crore	₹ crore	₹ crore	₹ crore	₹ crore

Summary of Power Banking for FY 2020-21

Months	Source	Opening	Import	Export	Net	Closing Balance
		MW	MW	MW	MW	MW
Apr		1				
		2				
		3				
May		1				
		2				
		3				
Jun		1				
		2				
		3				
Jul		1				
		2				
		3				
Aug		1				
		2				
		3				
Sep		1				
		2				
		3				
Oct		1				
		2				
		3				
Nov		1				
		2				
		3				
Dec		1				
		2				
		3				
Jan		1				
		2				
		3				
Feb		1				
		2				
		3				
March		1				
		2				
		3				
Total						

Note: The above information is to be supplied for (n-3), (n-2), (n-1), current year (n) and years of the control period.

Form F3

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

S. No	Source	Plant Capacity	Auxiliary Consumption	Plant Availability	PLF	Licensee's Firm Share	Energy Sent out (Scheduled)	External Losses(%)	Energy Received by the Licensee	Variable Charges	Fixed Cost (FC)	Variable Cost (VC)	Other Charges	Supplementary Charges	Total Cost	Per Unit Cost
		MW	%	%	%	%	MW	interstate	MU	₹ crore	₹ crore	₹ crore	₹ crore	₹ crore	₹ crore	₹ crore
1	Central Generating Stations															
A	Thermal															
	a) NTPC						3,574.89		3,423.36		421.43	874.73	17.83	43.67	1,357.66	3.97
	(i) KSTPS						1,545.04	3.55%	1,490.21	149.87	110.57	231.56	11.34	31.55	385.02	2.58
	(ii) VSTPS - I						247.45	3.55%	238.67	162.26	24.01	40.15	1.48	2.47	68.11	2.85
	(iii) VSTPS - II						87.87	3.55%	84.75	152.79	7.97	13.43	0.51	2.48	24.39	2.88
	(iv) VSTPS - III						73.23	3.55%	70.63	153.91	9.83	11.27	0.38	-0.11	21.37	3.03
	(v) VSTPS-IV						82.01	3.55%	79.10	152.94	17.49	12.54	0.90	2.05	32.97	4.17
	(vi) VSTPS-V						36.78	3.55%	35.47	158.73	8.74	5.84	0.22	-0.10	14.69	4.14
	(vii) KGPP						-	3.55%	-	-	7.92	-	-	3.43	11.35	0.00
	(viii) GGPP						-	3.55%	-	-	8.69	-	-	0.40	9.09	0.00
	(ix) SIPAT - I						148.61	3.55%	143.34	204.63	23.51	30.41	0.78	6.20	60.90	4.25
	(x) KSTPS-VII						33.44	3.55%	32.25	143.67	5.69	4.80	0.19	0.16	10.84	3.36
	(xi) NTPS						721.05	8.97%	670.80	386.10	50.12	278.40	-	2.37	328.15	4.86
	(xii) SIPAT - II						74.31	3.55%	71.67	219.78	9.90	16.33	0.77	-3.68	23.32	3.25
	(xiii) Solapur						105.90	3.55%	102.14	510.77	25.10	54.09	-	0.28	79.47	7.78
	(xiv) Gadawara						102.11	3.55%	98.49	409.37	31.48	41.80	0.51	0.67	74.46	7.56
	(xv) Lara						54.28	3.55%	52.35	278.06	17.55	15.09	0.52	0.27	33.44	6.39
	(xvi) Kharagone						82.46	3.55%	79.53	456.77	22.08	37.67	0.25	0.69	60.68	7.63
	(xvii) Mouda I						78.60	3.55%	75.81	445.97	19.98	35.05	-	-1.30	53.74	7.09
	(xviii) Mouda II						101.76	3.55%	98.15	454.90	20.80	46.29	-0.00	0.57	67.66	6.89
	Add/ Less: Other Adjustments															
B	NPC															
	a) NPCIL						188.77		182.07		-	48.64	-	-	48.64	2.67
	(i) UKAPS						92.63	3.55%	89.34	211.85	-	19.62	-	-	19.62	2.20
	(ii) TAPS						96.14	3.55%	92.73	301.85	-	29.02	-	-	29.02	3.13
2	Banking of Power						-3.63		-3.50			0.29			0.29	-0.84
	(i) Drawal						64.00	3.55%	61.73	4.59		0.29			0.29	0.05
	(ii) Injection						67.63	3.55%	65.23							
4	Short-Term Power															
	Traders						300.18		300.18		0.00	160.82	0.00	0.00	160.82	
	(i) IEX Purchase & Sales						258.81		258.81		0.00	113.55	0.00	0.00	113.55	4.39
	(ii) IEX Purchase						417.20	3.55%	402.39			187.08			187.08	
	(iii) IEX Sales						168.39	3.55%	152.77			73.53			73.53	
	Traders Drawal						41.35	3.55%	39.88			47.28			47.28	11.85
	Traders Injection						0.00	3.55%	-			0.00			0.00	#DIV/0!
5	Within State Generations															
	CO-GENERATION						139.13		134.19		0.00	32.38	0.00	0.00	32.38	2.41
	Yedanta Plant-1						75.08	3.55%	73.00	240.36		18.05			18.05	2.47
	Yedanta Plant-2						58.78	3.55%	56.70	236.75		13.19			13.19	2.33
	Goa Sponge and private limited						4.66	3.55%	4.50	240.00		1.12			1.12	2.49
6	RPO Obligation						754.67		754.67		0.00	334.33	0.00	0.00	334.33	4.43
	Solar						314.43		306.75		0.00	155.93	0.00	0.00	155.93	5.08
	NVVNL Solar						13.05		13.05	550.00		7.18			7.18	5.50
	Solar STOA						216.31	3.55%	208.63	464.95		108.68			108.68	5.21
	SECI Solar						55.06		55.06	550.00		30.29			30.29	5.50
	Net Metering						30.00		30.00	287.00		9.78			9.78	3.26
	Non-Solar						440.24		431.88		0.00	178.41	0.00	0.00	178.41	4.13
	Non-Solar - SECI Wind Tranche II						142.18		142.18	271.12		38.53			38.53	2.71
	STOA (Non Solar)						244.11	3.55%	235.44	471.48		123.27			123.27	5.24
	SECI Tranche-VI						45.95		45.95	290.00		12.60			12.60	
	Hindustan waste treatment plant						8.00		8.00	500.00		4.00			4.00	5.00
	SECI Hybrid (Non-Solar)														0.00	
7	REC Certificates						0.00		0.00		0.00	0.00	0.00	0.00	0.00	0.00
	Solar-REC															
	Non Solar- REC															
9	UI (Net Overdrawal)						44.20		42.63		0.00	38.93	0.00	0.00	38.93	9.13
	OVER DRAWAL						44.98	3.55%	43.39	0.00		39.09			39.09	
	UNDER DRAWAL						0.78	3.55%	0.75	0.00		0.17			0.17	
8	OTHER CHARGES															
	PGCIL Transmission Charges, Wheeling, Oen Access & Trading Margin & Other Charges											290.50			290.50	
10	Revenue recovered from HT Consumer for dedicated Power Purchase											33.34			33.34	
11	Total Power Purchase	0.00	0.00	0.00	0.00	0.00	4998.19	0.00	4833.58		421.43	1747.26	17.83	43.67	2230.19	4.81

Note: The above information is to Note: Details of prior period adjustments if any shall be provided separately

S. No	Source	Plant Capacity	Auxiliary Consumption	Plant Availability	PLF	Licensee's Firm Share		Energy Sent out (Scheduled)	External Losses(%)	Energy Received by the Licensee	Variable Charges	Fixed Cost (FC)	Variable Cost (VC)	Other Charges	Supplementary Charges	Total Cost	Per Unit Cost
		MW	%	%	%	%	MW	MU	Interstate	MU	paaise/unit	₹ crore	₹ crore	₹ crore	₹ crore	₹ crore	₹ crore

Summary of Power Banking for FY 2020-21

Months	Source	Opening	Import	Export	Net	Closing Balance
		MW	MW	MW	MW	MW
Apr	1					
	2					
	3					
May	1					
	2					
	3					
Jun	1					
	2					
	3					
Jul	1					
	2					
	3					
Aug	1					
	2					
	3					
Sep	1					
	2					
	3					
Oct	1					
	2					
	3					
Nov	1					
	2					
	3					
Dec	1					
	2					
	3					
Jan	1					
	2					
	3					
Feb	1					
	2					
	3					
March	1					
	2					
	3					
Total						

Note: The above information is to

Form F4

S. No	Source	Value (₹ crore)
1	Central Generating Stations	
A	Thermal	
a	NTPC	
(i)	KSTPS	
(ii)	KSTPS-3	
(iii)	VSTPS-1	
(iv)	VSTPS-2	
(v)	VSTPS-3	
(vi)	VSTPS-4	
(vii)	MSTPS-1	
(viii)	KGPS	
(ix)	JGPS	
(x)	SIPAT-1	
(xi)	SIPAT-2	
(xii)	VSTPS-5	
(xiii)	MST-2	
(xiv)	SLP	
(xv)	KhSTPS-2	
(xvi)	Gadarwara	
(xvii)	Lara	
(xviii)	RST	
(xix)	Khargone	
B	NPC	
a	NPCIL	
(i)	KAPS	
(ii)	TAPS	
2	Banking of Power	
(i)	Drawal	
(ii)	Injection	
(iii)		
4	Short- Term Power	
(i)	IEX Purchase and Sales	
	IEX Purchase	
	IEX Sales	
(ii)	Traders (Drawal)	
	Traders (Injection)	
5	Within State Generations	
	CO- GENERATION	
	Vedanta Plant-1	
	Goa Sponge and private limited	
	Vedanta Plant-2	
6	RPO Obligation	
	NVVNL Solar	
	SECI Solar	
	Solar STOA	
	Short Term Tender DEEP portal - Solar Power	
	Non Solar - SECI Wind Tranche II LTOA	
	Non Solar - SECI Wind Tranche VI LTOA	
	Hindustan waste treatment plant Goa	
	Non Solar STOA	
	Net Metering	
7	REC Certificates	
	Solar-REC	
	Non Solar- REC	
9	UI (Net Overdrawl)	
	Over Drawal	
	Under Drawal	
8	OTHER CHARGES	
	PGCIL Transmission Charges, Wheeling, Oen Access & Trading Marrgin & Other Charges	

Form F4

S. No	Source	
	Additional Power Purchase Cost recovered from	rch
10	Total Power Purchase	0.00

Summary of Power Purchase from Own Stations and Other Sources for FY 2023-24

S. No	Source	Plant Capacity MW	Auxiliary Consumption %	Plant Availability %	PLF %	Licensee's Firm Share MW	Energy Sent out (Scheduled) MU	External Losses(%)		Energy Received by the Licensee MU	Annual Fixed Cost (AFC) ₹ crore	Variable Charges paise/unit	Fixed Cost (FC) ₹ crore	Variable Cost (VC) ₹ crore	Other Charges ₹ crore	Supplementary Charges ₹ crore	Total Cost ₹ crore	Per Unit Cost paise/unit				
								%	Intrastate										interstate			
1 Central Generating Stations																						
A	Thermal																					
a	NTPC						3,943.93			3,779.31			421.43	876.38	-	-	1,297.81	3.43				
(i)	KSTPS						1,628.48		3.55%	1,570.69		145.52	110.57	236.98			347.54	2.21				
(ii)	VSTPS - I						272.46		3.55%	262.79		163.18	24.01	44.46			68.47	2.61				
(iii)	VSTPS - II						103.44		3.55%	101.70		157.18	7.97	16.57			24.55	2.41				
(iv)	VSTPS-III						95.85		3.55%	92.45		155.90	9.83	14.94			24.77	2.68				
(v)	VSTPS-IV						117.22		3.55%	113.06		153.87	17.49	18.04			35.52	3.14				
(vi)	VSTPS-V						53.07		3.55%	51.19		158.79	8.74	8.43			17.16	3.35				
(vii)	KGPP						1.85		3.55%	1.79		-	7.92	-			7.92	44.36				
(viii)	GGPP						4.46		3.55%	4.30		-	8.69	-			8.69	20.22				
(ix)	SIPAT - I						185.06		3.55%	178.49		149.48	23.51	27.66			51.18	2.87				
(x)	KSTPS-VII						55.01		3.55%	53.06		142.31	5.69	7.83			13.52	2.55				
(xi)	RSTPS						721.05		6.97%	670.90		342.40	50.12	246.89			297.01	4.43				
(xii)	SIPAT - II						104.53		3.55%	100.82		154.40	9.90	16.14			26.04	2.58				
(xiii)	Solapur						105.90		3.55%	102.14		507.61	25.10	53.76			78.85	7.72				
(xiv)	Gadawara						113.07		3.55%	109.06		363.80	31.48	41.13			72.62	6.66				
(xv)	Lara						100.49		3.55%	96.93		222.56	17.55	22.37			38.92	4.12				
(xvi)	Khargone						90.58		3.55%	87.75		428.00	22.08	38.94			61.02	6.95				
(xvii)	Mouda I						87.25		3.55%	84.15		432.82	19.98	37.76			57.75	6.86				
(xviii)	Mouda II						101.76		3.55%	98.15		437.20	20.80	44.49			65.29	6.65				
	Add/ Less: Other Adjustments																					
B NPC																						
a	NPCIL						225.55			217.55			-	44.73	-	-	44.73	2.06				
(i)	KAPS						115.94		3.55%	111.82		171.20	-	19.85	-	-	19.85	1.78				
(ii)	TAPS						109.62		3.55%	105.73		226.96	-	24.88	-	-	24.88	2.35				
2 Banking of Power																						
(i)	Drawal						-7.32			-7.32			0.00	0.35	0.00	0.00	0.35	-0.48				
(ii)	Injection						73.20			73.20		4.78	-	0.35	-	-	0.35	0.05				
							80.52			80.52		-	-	-	-	-	0.00	0.00				
4 Short- Term Power																						
	Traders						0.00			0.00			0.00	0.00	0.00	0.00	0.00	0.00				
(i)	IEX Purchase & Sales						0.00			0.00			0.00	0.00	0.00	0.00	0.00	0.00				
(ii)	IEX Purchase						0.00		3.55%	-		-	0.00	0.00	0.00	0.00	0.00	0.00				
(iii)	IEX Sales						0.00		3.55%	-		-	0.00	0.00	0.00	0.00	0.00	0.00				
	Traders Drawal						0.00		3.55%	-		-	0.00	0.00	0.00	0.00	0.00	0.00				
	Traders Injection						0.00		3.55%	-		-	0.00	0.00	0.00	0.00	0.00	0.00				
5 Within State Generations																						
CO- GENERATION																						
	Vedanta Plant-1						154.13			154.13			0.00	36.99	0.00	0.00	36.99	2.40				
	Vedanta Plant-2						80.68			80.68		240.00	0.00	19.36	0.00	0.00	19.36	2.40				
	Goa Sponge and private limited						68.78			68.78		240.00	0.00	16.51	0.00	0.00	16.51	2.40				
							4.66			4.66		240.00	0.00	1.12	0.00	0.00	1.12	2.40				
6 RPO Obligation																						
	Solar						836.27			820.78			0.00	343.56	0.00	0.00	343.56	4.19				
	NVNL Solar						331.41			323.45			0.00	162.65	0.00	0.00	162.65	5.03				
	SECI STOA						12.79		3.55%	12.79		550.00	0.00	7.03	0.00	0.00	7.03	5.50				
	SECI Solar						234.16		3.55%	216.20		502.44	0.00	112.62	0.00	0.00	112.62	5.21				
	Net Metering						54.46			54.46		550.00	0.00	29.95	0.00	0.00	29.95	5.50				
	Non-Solar						40.00			40.00		326.00	0.00	13.04	0.00	0.00	13.04	3.26				
	Non-Solar - SECI Wind Tranche II LTOA						504.86			497.32			0.00	180.91	0.00	0.00	180.91	3.64				
	STOA (Non Solar)						142.18		3.55%	142.18		271.00	0.00	38.53	0.00	0.00	38.53	2.71				
	SECI Tranche-VI						212.50			204.96		505.00	0.00	107.31	0.00	0.00	107.31	5.24				
	Hindustan waste treatment plant Goa						142.18			142.18		218.50	0.00	31.07	0.00	0.00	31.07	5.00				
							8.00			8.00		500.00	0.00	4.00	0.00	0.00	4.00	5.00				
7 REC Certificates																						
	Solar-REC						0.00			0.00			0.00	0.00	0.00	0.00	0.00	0.00				
	Non Solar- REC																					
9 UI (Net Overdrawal)																						
	OVER DRAWAL						0.00			0.00			0.00	0.00	0.00	0.00	0.00	0.00				
	UNDER DRAWAL						0.00			-		-	0.00	0.00	0.00	0.00	0.00	0.00				
8 OTHER CHARGES																						
	PGCIL Transmission Charges, Wheeling, Oen Access & Trading Margin & Other Charges													290.50			290.50					
10 Total Power Purchase																						
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	5152.57	0.00	0.00	0.00	4964.44			421.43	1592.51	0.00	0.00	2013.94	4.06

Note: The above information is to be supplied for (n-3), (n-2), (n-1), current year (n) and years of the control period.

Note: Details of prior period adjustments if any shall be provided separately

S. No	Source	Plant Capacity	Auxiliary Consumption	Plant Availability	PLF	Licensee's Firm Share	Energy Sent out (Scheduled)	External Losses(%)		Energy Received by the Licensee	Annual Fixed Cost (AFC)	Variable Charges	Fixed Cost (FC)	Variable Cost (VC)	Other Charges	Supplementary Charges	Total Cost	Per Unit Cost
		MW	%	%	%	%	MW	MU	%	Intrastate	Interstate	MU	₹ crore	paise/unit	₹ crore	₹ crore	₹ crore	₹ crore

Summary of Power Banking for FY 2020-21

Months	Source	Opening	Import	Export	Net
		MW	MW	MW	MW
Apr		1			
		2			
		3			
May		1			
		2			
		3			
Jun		1			
		2			
		3			
Jul		1			
		2			
		3			
Aug		1			
		2			
		3			
Sep		1			
		2			
		3			
Oct		1			
		2			
		3			
Nov		1			
		2			
		3			
Dec		1			
		2			
		3			
Jan		1			
		2			
		3			
Feb		1			
		2			
		3			
March		1			
		2			
		3			
Total					

Note: The above information is to be supplied for (n-3), (n-2), (n-1), current year (n) and years of the control period.

Sr. No.	Source	Capacity (MW)	Firm allocation to Licensee		Avail. / PLF (in %) (PLF Considered for FY 2022-23)	Gross Generation
			%	MW		
1	2	4	5		7	8
A	Central Sector Power Stations					
I	NTPC	21,914		492.28		
1	KSTPS	2,100	10.00%	210.00	90.00%	16556.40
2	VSTPS - I	1,260	2.78%	35.00	88.69%	9789.25
3	VSTPS - II	1,000	1.20%	12.00	88.69%	7769.24
4	VSTPS - III	1,000	1.00%	10.00	88.69%	7769.24
5	VSTPS - IV	1,000	1.12%	11.20	88.69%	7769.24
6	VSTPS - V	500	1.04%	5.18	86.00%	3766.80
7	KGPP	656	0.00%	-	40.00%	2299.32
8	GGPP	657	0.00%	-	42.00%	2418.67
9	SIPAT - I	1,980	1.01%	20.00	90.00%	15610.32
10	KSTPS - VII	500	0.90%	4.50	90.00%	3942.00
11	RSTPS	2,100	4.76%	100.00	87.33%	16065.78
12	SIPAT - II	1,000	1.00%	10.00	90.00%	7884.00
13	Solapur	1,320	1.14%	15.09	85.00%	9828.72
14	Gadarwara	1,600	0.91%	14.55	85.00%	11913.60
15	Lara	1,600	0.46%	7.31	85.00%	11913.60
16	Khargone	1,320	0.89%	11.75	85.00%	9828.72
17	Mouda I	1,000	1.12%	11.20	85.00%	7446.00
18	Mouda II	1,320	1.10%	14.50	85.00%	9828.72
	Add/ Less: Other Adjustments					
III	NPCIL	1,520		31		
	KAPS	440	3.69%	16.23	72.00%	2775.17
	TAPS	1,080	1.40%	15.16	80.00%	7568.64
IV	Traders			-		
	a) IEX PURCHASE AND SALES					
	a) IEX PURCHASE					
	a) IEX SALES					

	<i>b) Traders Drawal</i>					
	<i>Traders Injection</i>					
V	OVER/ UNDER DRAWAL					
	<i>OVER DRAWAL</i>					
	<i>UNDER DRAWAL</i>					
VI	Banking of Power					
	<i>Drawal</i>					
	<i>Kreate Energy</i>					
	<i>M/s Manikaran Power Ltd Kolkatta</i>					
	<i>M/s GMR Energy trading Ltd(Trading margin 01/08/2022 to 31/8/2022)</i>					
	<i>Injection</i>					
	<i>Kreate Energy</i>					
	<i>M/s Manikaran Power Ltd Kolkatta</i>					
	<i>M/s GMR Energy trading Ltd(Trading margin 01/08/2022 to 31/8/2022)</i>					
	<i>M/s APPCPL(Trading margin 09/08/2022 to 15/8/2022)</i>					
B	Within State Generations					
I	CO- GENERATION	26		26.00		
	<i>Vedanta Plant-1</i>	<i>14.00</i>	<i>100.00%</i>	<i>14.00</i>		
	<i>Vedanta Plant -2</i>	<i>2.00</i>	<i>100.00%</i>	<i>2.00</i>		
	<i>Goa Sponge and private limited</i>	<i>10.00</i>	<i>100.00%</i>	<i>10.00</i>		
C	RPO Obligation					
	Solar			31.00		
	<i>NVVNL Solar</i>			<i>6</i>		
	<i>Solar STOA</i>					
	<i>SECI Solar</i>			<i>25.00</i>		
	<i>Net Metering</i>					
	Non-Solar			100.00		

	Non Solar - SECI Wind Tranche II LTOA			50.00		
	STOA (Non Solar)					
	<i>SECI Tranche-VI</i>			50.00		
	Hindustan waste treatment plant Goa					
D	REC Certificates					
E	Revenue recovered from HT Consumer for dedicated Power Purchase					
F	OTHER CHARGES					
	<i>PGCIL Transmission Charges, Wheeling, Open Access & Trading Margin & Other Charges</i>					
G	Total	23,460		680.67		

Power Allocated to Goa	Aux consumption (%)	Net Generation	Unit Purchased	External Losses (%)		
				Base Year (Tariff Order Approved)	Projections (As per Tariff Order)	Projections (As per Tariff Order)
				FY 2022-23	2022-23	2023-24
	9	10	11	14	15	16
3,815.54		152,589.53	3,571.92			
1655.64	6.68%	15450.43	1545.04	3.34%	3.34%	3.31%
271.92	9.00%	8908.22	247.45	3.34%	3.34%	3.31%
93.23	5.75%	7322.51	87.87	3.34%	3.34%	3.31%
77.69	5.75%	7322.51	73.23	3.34%	3.34%	3.31%
87.02	5.75%	7322.51	82.01	3.34%	3.34%	3.31%
39.02	5.75%	3550.21	36.78	3.34%	3.34%	3.31%
0.00	5.75%	2167.11	0.00	3.34%	3.34%	3.31%
0.00	5.75%	2279.60	0.00	3.34%	3.34%	3.31%
157.68	5.75%	14712.73	148.61	3.34%	3.34%	3.31%
35.48	5.75%	3715.34	33.44	3.34%	3.34%	3.31%
765.04	5.75%	15142.00	721.05	7.92%	7.92%	7.85%
78.84	5.75%	7430.67	74.31	3.34%	3.34%	3.31%
112.36	5.75%	9263.57	105.90	3.34%	3.34%	3.31%
108.34	5.75%	11228.57	102.11	3.34%	3.34%	3.31%
54.43	5.75%	11228.57	51.30	3.34%	3.34%	3.31%
87.49	5.75%	9263.57	82.46	3.34%	3.34%	3.31%
83.40	5.75%	7017.86	78.60	3.34%	3.34%	3.31%
107.97	5.75%	9263.57	101.76	3.34%	3.34%	3.31%
	9.50%	2511.53	92.63	3.34%	3.34%	3.31%
	9.50%	6849.62	96.14	3.34%	3.34%	3.31%
				3.34%	3.34%	3.31%
				3.34%	3.34%	3.31%
				3.34%	3.34%	3.31%

				3.34%	3.34%	3.31%
				3.34%	3.34%	3.31%
				3.34%	3.34%	3.31%
				3.34%	3.34%	3.31%
				0.03	0.03	0.03
				3.34%	3.34%	3.31%
				3.34%	3.34%	3.31%

Power Purchase (MUs)						
Actuals (MU)	Actuals (MU)	Base Year			Projections	Actuals (V)
2020-21	2021-22	2022-23 (April to September)	2022-23 (Oct to March)	2022-23	2023-24	2020-21
17	18	19	20	21	22	23
3,632.51	3,754.74	1,970.25	1,604.64	3,574.89	3,943.93	
1,627.27	1,628.48	812.72	732.33	1,545.04	1,628.48	139.35
261.60	272.46	136.80	110.65	247.45	272.46	166.79
110.31	105.44	55.03	32.84	87.87	105.44	160.12
104.32	95.85	48.47	24.76	73.23	95.85	159.02
112.18	117.22	65.57	16.44	82.01	117.22	156.90
56.39	53.07	27.52	9.26	36.78	53.07	161.67
17.74	1.85	-	-	-	1.85	201.26
13.45	4.46	-	-	-	4.46	203.93
223.04	185.06	87.22	61.39	148.61	185.06	141.90
57.24	55.01	20.48	12.96	33.44	55.01	137.03
612.22	592.94	340.14	380.91	721.05	721.05	246.67
94.59	104.53	53.27	21.03	74.31	104.53	146.92
59.60	71.50	42.78	63.12	105.90	105.90	298.75
61.30	113.07	72.45	29.66	102.11	113.07	250.06
53.61	100.49	54.28	-	54.28	100.49	204.06
65.92	90.98	35.22	47.24	82.46	90.98	269.02
54.85	87.25	52.78	25.82	78.60	87.25	270.72
46.86	75.08	65.51	36.25	101.76	101.76	290.10
222.63	225.55	122.96	65.81	188.77	225.55	634.08
123.48	115.94	63.52	29.11	92.63	115.94	141.35
99.15	109.62	59.43	36.70	96.14	109.62	492.73
(297.27)	(150.43)	(48.68)	348.84	300.16	-	215.55
(297.27)	(152.10)	(90.03)	348.84	258.81	-	215.55
104.52	124.82	68.36	348.84	417.20		346.17
401.79	276.93	158.39		158.39		255.12

-	16.31	41.35	-	41.35	-	-
	14.63	-	-	-	-	-
(3.82)	24.71	44.20	-	44.20	-	(802.55)
28.70	51.47	44.98		44.98		335.02
32.53	26.77	0.78		0.78		201.32
				-	-	
18.17	(16.83)	(51.95)	48.33	(3.63)	(7.32)	9.17
	76.13	15.68	48.33	64.00	73.20	
				-		
			48.33	48.33	73.20	
		15.68		15.68		
-	92.96	67.63		67.63	80.52	-
		3.78		3.78		
		46.92		46.92	80.52	
		16.93		16.93		
149.53	180.37	46.56	92.57	139.13	154.13	
90.88	97.39	25.23	50.45	75.68	80.68	238.38
53.10	78.32	19.59	39.19	58.78	68.78	234.49
5.55	4.66	1.73	2.93	4.66	4.66	240.00
506.95	531.73	413.69	340.97	754.67	836.27	
	212.90	148.28	166.15	314.43	331.41	
12.97	13.03	6.42	6.63	13.05	12.79	550.00
73.28	135.74	105.33	110.98	216.31	224.16	470.00
49.48	48.10	23.64	31.42	55.06	54.46	550.00
12.65	16.03	12.89	17.11	30.00	40.00	308.00
	318.83	265.42	174.82	440.24	504.86	

49.32	139.09	82.31	59.87	142.18	142.18	271.00
63.11	178.00	170.72	73.38	244.11	212.50	271.00
		9.61	36.34	45.95	142.18	
1.02	1.74	2.77	5.23	8.00	8.00	500.00
	-	70.00	70.00	140.00	140.00	
	-	-		-	-	
		-		-		
4,228.70	4,549.85	2,497.03	2,501.16	4,998.19	5,152.57	

Power Purch						
C Rs./Unit)	Actuals (VC Rs.Crore)		Actual (VC-Rs.Crore)			Per U
2021-22	2020-21	2021-22	2022-23 (April to September)	2022-23 (Oct to March)	2022-23	Actual VC 2022-23 (April to September)
24	25	26	27	28	29	30
				419.5208		
	632.33	707.63	502.32	372.41	874.73	
137.38	226.76	223.72	124.99	106.57	231.56	153.79
161.86	43.63	44.10	22.10	18.06	40.15	161.52
155.34	17.66	16.38	8.26	5.16	13.43	150.17
154.29	16.59	14.79	7.41	3.86	11.27	152.89
152.75	17.60	17.91	10.01	2.53	12.54	152.71
157.92	9.12	8.38	4.37	1.47	5.84	158.70
941.74	3.57	1.74	-	-	-	0.00
616.21	2.74	2.75	-	-	-	0.00
146.62	31.65	27.13	21.23	9.18	30.41	243.44
134.88	7.84	7.42	2.96	1.84	4.80	144.53
275.23	151.02	163.19	147.98	130.42	278.40	435.05
151.84	13.90	15.87	13.08	3.25	16.33	245.59
366.69	17.81	26.22	22.05	32.04	54.09	515.45
309.71	15.33	35.02	31.01	10.79	41.80	428.03
208.29	10.94	20.93	15.09	-	15.09	278.06
293.03	17.73	26.66	17.45	20.22	37.67	495.36
336.91	14.85	29.40	23.88	11.17	35.05	452.41
346.52	13.60	26.02	30.44	15.85	46.29	464.70
217.77	66.31	63.64	35.33	13.31	48.64	
111.94	17.45	26.37	14.64	4.98	19.62	230.47
105.83	48.85	37.27	20.69	8.33	29.02	348.09
207.80	(66.32)	(31.26)	25.10	135.73	160.82	
223.58	(66.32)	(34.01)	(22.18)	135.73	113.55	246.34
471.15	36.18	58.81	51.35	135.73	187.08	751.17
335.17	102.51	92.82	73.53	-	73.53	464.23

429.14	-	7.00	47.28	-	47.28	1143.29
290.49	-	4.25	-	-	-	
1,254.41	3.07	30.99	38.93	-	38.93	880.71
714.68	9.62	36.79	39.09	-	39.09	869.09
216.60	6.55	5.80	0.17	-	0.17	212.73
(17.55)	0.17	0.30	0.06	0.23	0.29	
			0.06	0.23		
				0.23	0.23	
			0.06			
-	-	-	-	-	-	0.00
	35.45	43.25	10.14	22.22	32.35	
240.49	21.66	23.42	5.94	12.11	18.05	235.44
238.76	12.45	18.70	3.78	9.41	13.19	192.97
241.45	1.33	1.13	0.42	0.70	1.12	239.97
	228.53	220.57	185.66	148.67	334.33	
	72.68	98.30	73.66	82.27	155.93	
550.02	7.13	7.16	3.53	3.65	7.18	550.00
442.62	34.44	60.08	52.92	55.76	108.68	502.44
550.00	27.21	26.46	13.00	17.28	30.29	550.00
287.00	3.90	4.60	4.20	5.58	9.78	326.00
	30.98	122.27	112.01	66.40	178.41	

271.00	30.47	37.69	22.31	16.22	38.53	271.00
470.22		83.70	86.21	37.06	123.27	505.00
		-	2.10	10.50	12.60	218.50
503.28	0.51	0.87	1.38	2.62	4.00	500.00
			33.34			
	160.15	238.65	145.25	145.25	290.50	<i>0.00</i>
	160.15	238.65	145.25	145.25	290.50	
	1,059.67	1,273.76	909.45	837.82	1,780.60	<i>880.71</i>

IEX	Actual		Rate Considered
	2021	2022	2022
January			
February	3009.24	3447.37	3447.37
March	3307.67	4345.29	4345.29
April	3715.79	8110.53	3715.79
May	3494.88	9566.51	3494.88
June	2533.08	5879.16	2533.08
July	3015.64	6557.85	3015.64
August	2738.46	4729.71	4729.71
September	4628.76	4980.54	4980.54
October	3839.84	4845.36	4845.36
November	6926.43	3800.95	3800.95
December	3482.92	4783.54	4783.54
	3609.76		

Base Cost - Variable Cost (VC)				
Unit VC		Projections (%)		
VC considered for FY 2022-23 (Oct to March)		% increase w.r.t FY 2019-20 to FY 2021-22	% increase w.r.t FY 2021-22 to FY 2022-23	CAGR (considered)
31		32	33	34
FY 2021-22	ECR Considered			
145.52	145.52	0.00%	3.00%	
163.18	163.18	0.00%	3.00%	
157.18	157.18	0.00%	3.00%	
155.90	155.90	0.00%	3.00%	
153.87	153.87	0.00%	3.00%	
158.79	158.79	0.00%	3.00%	
0.00	0.00	367.92%	-100.00%	
0.00	0.00	202.17%	-100.00%	
149.48	149.48	3.33%	3.00%	
142.31	142.31	0.00%	3.00%	
342.40	342.40	11.58%	3.00%	
154.40	154.40	3.35%	3.00%	
507.61	507.61	22.74%	3.00%	
363.80	363.80	23.85%	3.00%	
222.56	222.56	2.08%	3.00%	
428.00	428.00	8.92%	3.00%	
432.82	432.82	24.45%	3.00%	
437.20	437.20	19.45%	3.00%	
171.20		0.00%	105.90%	
226.96		0.00%	228.91%	
		3.73%	10.18%	
389.09		36.10%	59.43%	5.00%
464.23		31.37%	38.50%	

1143.29				
0.00				
880.71				
869.09				
212.73				
0.04				
0.04				
0.00				
240.00		0.88%	0.00%	
240.00		1.82%	0.00%	
240.00		0.60%	0.00%	
550.00		0.00%	0.00%	
502.44		0.00%	13.52%	
550.00		0.00%	0.00%	
326.00		0.00%	13.59%	

		Power Purchase Cos				
Projections (VC- pc/unit)	Projections (VC- Rs.Crore)	Actuals (FC Rs.Crore)			Projections (FC-Rs.Crore)	
2023-24		2020-21	2021-22	2022-23 (April to September)	2022-23 (Oct to March)	2022-23
35	36	37	38	39	40	41
	876.38	402.88	417.62	210.72	210.72	421.43
145.52	236.98	102.18	102.19	55.28	55.28	110.57
163.18	44.46	22.44	22.98	12.00	12.00	24.01
157.18	16.57	7.49	7.50	3.99	3.99	7.97
155.90	14.94	9.85	9.84	4.91	4.91	9.83
153.87	18.04	17.70	17.52	8.74	8.74	17.49
158.79	8.43	8.88	8.77	4.37	4.37	8.74
-	-	7.59	7.52	3.96	3.96	7.92
-	-	9.77	9.73	4.35	4.35	8.69
149.48	27.66	27.07	25.07	11.76	11.76	23.51
142.31	7.83	6.75	6.68	2.84	2.84	5.69
342.40	246.89	49.11	48.16	25.06	25.06	50.12
154.40	16.14	11.52	11.51	4.95	4.95	9.90
507.61	53.76	26.06	25.39	12.55	12.55	25.10
363.80	41.13	17.42	32.27	15.74	15.74	31.48
222.56	22.37	12.85	17.56	8.78	8.78	17.55
428.00	38.94	23.21	23.02	11.04	11.04	22.08
432.82	37.76	21.31	20.87	9.99	9.99	19.98
437.20	44.49	21.68	21.04	10.40	10.40	20.80
					-	-
					-	-
398.17	44.73			-	-	-
171.20	19.85			-	-	-
226.96	24.88			-	-	-
					-	-
	-			-	-	-
	0.00			-		-
408.54	-			-	-	-
464.23	-			-	-	-

429.14	-			-	-	-
-				-		
					-	-
	-			-	-	-
	-			-	-	-
	-			-	-	-
					-	-
	0.35					
	<i>0.35</i>					
0.05	0.35					
					-	-
					-	-
					-	-
	36.99				-	-
240.00	19.36				-	-
240.00	16.51				-	-
240.00	1.12				-	-
					-	-
	343.56				-	-
					-	-
	162.65				-	-
550.00	7.03				-	-
502.44	112.62				-	-
550.00	29.95				-	-
326.00	13.04				-	-
					-	-
	180.91				-	-

271.00	38.53			-	-	-
505.00	107.31			-	-	-
218.50	31.07			-	-	-
500.00	4.00			-	-	-
					-	-
					-	-
	290.50	28.17		-	-	-
	290.50	28.17		0.00	-	-
				0		-
	1,592.51	431.05	417.62	210.72	210.72	421.43

t - Fixed Cost Cost (FC) (Rs.Cr)				
Projections (FC-Rs.Crore)	Other Charges	Supplementar y Charges	Total Cost (VC + FC Rs.Crore)	
2023-24	FY 2022-23 H1	FY 2022-23 H1	2022-23	2023-24
42	43	44	45	46
421.43	17.83	43.67	1,357.66	1,297.81
110.57	11.34	31.55	385.02	347.54
24.01	1.48	2.47	68.11	68.47
7.97	0.51	2.48	24.39	24.55
9.83	0.38	(0.11)	21.37	24.77
17.49	0.90	2.05	32.97	35.52
8.74	0.22	(0.10)	14.69	17.16
7.92	-	3.43	11.35	7.92
8.69	-	0.40	9.09	8.69
23.51	0.78	6.20	60.90	51.18
5.69	0.19	0.16	10.84	13.52
50.12	-	(2.37)	326.15	297.01
9.90	0.77	(3.68)	23.32	26.04
25.10	-	0.28	79.47	78.85
31.48	0.51	0.67	74.46	72.62
17.55	0.52	0.27	33.44	39.92
22.08	0.25	0.69	60.68	61.02
19.98	-	(1.30)	53.74	57.75
20.80	(0.00)	0.57	67.66	65.29
			-	
			-	
			-	
-			48.64	44.73
-			19.62	19.85
-			29.02	24.88
			-	
			160.82	-
			113.55	-
			187.08	-
			73.53	-

			47.28	-
				-
			-	-
			38.93	-
			39.09	-
			0.17	-
			-	-
			0.29	0.35
			-	-
			-	-
			32.35	36.99
			18.05	19.36
			13.19	16.51
			1.12	1.12
			-	-
			334.33	343.56
			-	-
			155.93	162.65
			7.18	7.03
			108.68	112.62
			30.29	29.95
			9.78	13.04
			-	-
			178.41	180.91

			38.53	38.53
			123.27	107.31
			12.60	31.07
			4.00	4.00
			-	-
			-	-
			-	-
			33.34	
			290.50	290.50
			290.50	290.50
			-	-
421.43	17.83	43.67	2,230.19	2,013.94

1,939.69

4.46

Sales, Consumers & Connected Load

S.No.	Category	Sales (kWh)				
		Current Year	Apr-Sep (FY 2022-23)	Oct-Mar (FY 2022-23)	Current Year	Control Period
		Approved	Actual	Projected	Estimated	Projected
		FY 2022-23	FY 2022-23	FY 2022-23	FY 2022-23	FY 2023-24
1	Domestic					
	11 kV Voltage Level	0.00	0.18	0.19	0.38	0.39
	Tariff HTD/Domestic		0.18	0.19	0.38	0.39
	Tariff-HTTS/Temporary Supply (HT Domestic)					
	LT Voltage Level					
	Tariff LTD/Domestic and Non-Commercial	0.00	714.08	624.45	1,338.53	1,385.41
	0-100 units		258.46	226.01	484.47	501.44
	101-200 units		168.29	147.17	315.46	326.50
	201 to 300 units		96.66	84.53	181.19	187.54
	301 to 400 units		56.61	49.51	106.12	109.83
	Above 400 units		134.06	117.23	251.29	260.09
	Tariff LTD/Low Income Group		0.48	0.42	0.90	0.93
	Tariff-LT/Temporary Domestic		0.46	0.57	1.03	1.06
	0-100 Units				0.46	
	101 to 200 Units				0.00	
	201 to 300 Units		0.46		0.00	
	301 to 400 Units				0.00	
	Above 400 Units				0.00	
	Sub-Total	0.00	715.21	625.63	1340.84	1387.78
2	Commerical					
	33 kV & 11 kV Voltage Level					
	Tariff HT-Commercial		74.24	92.16	166.40	170.89
	11 kV Voltage Level					
	Tariff HT-Commercial					
	Tariff-HTTS/Temporary Supply (HT Commercial)		2.76	3.39	6.15	6.33
	LT Voltage Level					
	Tariff-LTC/Commercial	0.00	237.67	259.28	496.95	511.86
	0-20 KW/Commercial Consumers					
	1-100 Units		36.32	39.62	75.94	78.22
	101-200 units		22.44	24.48	46.92	48.33
	201-400 Units		27.90	30.44	58.34	60.09
	Above 400 units		87.42	95.37	182.79	188.27
	>20-90Kw Commercial Consumers					
	1-100 Units		1.80	1.96	3.77	3.88
	101-200 units		1.72	1.87	3.59	3.70
	201-400 Units		3.27	3.56	6.83	7.04

Sales, Consumers & Connected Load

	Above 400 units		56.80	61.97	118.78	122.34
	Tariff-LT/Temporary Commercial		1.32	1.62	2.94	3.03
	<i>0-20 KW/Commercial Consumers</i>					
	<i>0-100 Units</i>		1.32	1.62	2.94	3.03
	<i>101 - 200 Units</i>					
	<i>201 - 400 Units</i>					
	<i>Above 400 Units</i>					
	<i>>20-90Kw and above Commercial Consumers</i>					
	<i>0 - 100 units</i>					
	<i>101 - 200 units</i>					
	<i>201-400 units</i>					
	<i>Above 400 units</i>					
	Sub-Total		315.99	356.45	672.44	692.11
3	Public Lighting					
	LT Voltage Level					
	Tariff-LTPL/Public Lighting		29.97	17.60	47.56	50.09
	Unmetered LTPL					
4	Agricultural Pumpsets					
	HT Voltage Level (33 kV & 11 kV)					
	HT-Agriculture					
	<i>Tariff-HTAG/Agriculture (Pump Sets/Irrigation) (A)</i>		2.89	3.43	6.32	6.51
	<i>Tariff-HTAG/Agriculture (Allied Activities) (B)</i>		6.61	7.86	14.47	14.90
	HT Voltage Level (33 kV)					
	HT-Agriculture					
	<i>Tariff-HTAG/Agriculture (Pump Sets/Irrigation) (A)</i>					
	<i>Tariff-HTAG/Agriculture (Allied Activities) (B)</i>					
	HT Voltage Level (11 kV)					
	HT-Agriculture					
	<i>Tariff-HTAG/Agriculture (Pump Sets/Irrigation) (A)</i>					
	<i>Tariff-HTAG/Agriculture (Allied Activities) (B)</i>					
	LT Voltage Level					
	LT-Agriculture					
	<i>Tariff-LTAG/Agriculture (Pump Sets/Irrigation) (A)</i>		8.16	10.34	18.50	19.05
	<i>Tariff-LTAG/Agriculture Allied (B)</i>		0.63	0.80	1.44	1.48
	Sub-Total		18.29	22.44	40.73	41.95
5	Small Power					
	LT Voltage Level					
	LTI-Industry		43.92	47.15	91.06	93.79
	<i>0-500 Units</i>		8.25	8.86	17.11	17.63

Sales, Consumers & Connected Load

	<i>Above 500 units</i>		35.66	38.29	73.95	76.17
	Tariff-LTP/Mixed (Hotel Industries)		1.93	2.11	4.04	4.16
	Sub-Total		45.85	49.25	95.10	97.96
6	Medium Supply 11kV, Large Supply 33 kV & Bulk Supply 110 kV					
	33 kV / 11 kV & 110 kV Voltage Level					
	Tariff HTI/Industrial		826.87	868.44	1695.31	1738.62
	33 kV/11kV		706.38	741.90	1448.28	1485.28
	110kV		120.49	126.54	247.03	253.34
	H.T.Industrial (Ferro Metallurgical/ Steel Melting/ Power Intensive)		243.95	256.21	500.17	512.94
	H.T. MES/Defence Establishments		16.12	15.75	31.87	33.43
	Sub-Total		1086.94	1140.41	2227.35	2284.99
8	Bulk Supply					
	110 kV Voltage Level					
	Tariff HTI/Industrial (Connected at 110 kV)					
	33 kV Voltage Level					
	Single Point Supply		2.63	3.78	6.41	6.68
	<i>Residential Complexes</i>					
	<i>Commercial Complexes</i>		2.63	3.78	6.41	6.68
	<i>Industrial Complexes</i>					
	Sub-Total		2.63	3.78	6.41	6.68
9	Other Categories					
	33 kV Voltage Level					
	Electric Vehicle Charging Station					
	11 kV Voltage Level					
	Tariff-LT Hoarding and SignBoard		0.13	0.17	0.31	0.34
	Electric Vehicle Charging Station					
	Grand Total		2215.01	2215.73	4430.74	4561.91

ELECTRICITY DEPARTMENT - GOA

POWER PURCHASE COST YEAR 2022-23 Projection Year 2023-24

ENERGY BALANCE

(All figures in MU)

Sr. No.	Item	FY 2022-23 H1			FY 2022-23 H2	FY 2022-23	FY 2023-24
		WR	SR	Total	Total	Total	Total
1	2	6	7	8	9	10	11
1	Energy Input at Goa Periphery	1,980.69	367.72	2,348.41	2,313.93	4,662.34	4,780.60
2	Total Power Scheduled/ Purchased at Goa Periphery						
	Total Schedule Billed Drawal - CGS	1,761.68	331.53	2,093.21	1,670.45	3,763.66	4,169.49
	Add: Overdrawal	21.23	23.76	44.98	-	44.98	-
	Add: Power purchase from NVVN / Banking	(51.95)		(51.95)	48.33	(3.63)	(7.32)
	Add: Power purchase from Traders	26.28	15.07	41.35	-	41.35	-
	Add: Power purchase from / Open Market	43.45	24.91	68.36	348.84	417.20	-
	Add: Hydro Power		-	-	-		
	Less: Underdrawal	0.78	-	0.78	-	0.78	-
	Add: Renewable Power	398.04	-	398.04	318.63	716.67	788.27
	Less: Power diverted to Exchange	158.39	-	158.39	-	158.39	-
	Total	2,039.56	395.26	2,434.82	2,386.24	4,821.06	4,950.44
3	PGCIL Losses - MUs	58.87	27.54	86.41	72.31	158.72	169.84
	PGCIL Losses - %	2.89%	6.97%	3.55%	3.55%	3.55%	3.55%
4	Total Power Purchased within Goa State			-			
	Add: Co-generation	46.56		46.56	92.57	139.13	154.13
	Add: Independent Power Producers (IPP)			-			
	Add: Net Metering	12.89		12.89	17.11	30.00	40.00
	Add: PM KUSUM	-		-			
	Add: Hindustan Waste Treatment Plant	2.77		2.77	5.23	8.00	8.00
	Total	62.21	-	62.21	114.92	177.13	202.13
5	Total Power Purchase availability after PGCIL Losses	2,042.90	367.72	2,410.62	2,428.85	4,839.47	4,982.73
	Power Purchase required (MU)			2,410.62	2,428.85	4,839.47	4,982.73
	Less: Retail Sales to Consumers	2,215.01		2,215.01	2,215.73	4,430.74	4,561.91
	Distribution Losses - MUs			195.61	213.12	408.73	420.83
6	Distribution Losses - %			8.11%	8.77%	8.45%	8.45%

Energy Balance (Availability Vs Requirement)

Sr. No.	Particulars	Control P	
		APR	
		FY 2022-23 H1	FY 2022-23 H2
A)	ENERGY REQUIREMENT		
1	Energy sales to metered category within the State	2,215.01	2,215.73
2	Total sales within the State	2,215.01	2,215.73
3	Distribution Losses (MU)	195.61	213.12
4	Distribution Losses (%)	8.11%	8.77%
5	Energy required at Discom Periphery	2,410.62	2,428.85
6	Intra-State Transmission Losses	-	
7	Energy Required at State Periphery for own sale	2,410.62	2,428.85
8	Sales to common pool consumers	0.78	-
9	Sales outside state	158.39	0.00
10	Total Energy Requirement at State Periphery	2,251.45	2,428.85
B)	ENERGY AVAILABILITY		
1	Availability from firm sources outside state	2,439.30	2,037.40
2	Availability from UI Over-drawal/ Under-drawal	44.20	-
3	Net Purchase from open market	-48.68	348.84
5	Total Availability of Energy from outside the state	2,434.82	2,386.24
6	PGCIL Losses - MUs	86.41	72.31
7	PGCIL Losses - %	3.55%	3.55%
8	Total Availability of Energy at State Periphery from outise state after Interstate Losses	2,348.41	2,313.93
9	Availability from firm sources inside the state	62.21	114.92
10	Total Availability of Energy for the State	2,410.62	2,428.85
11	Surplus / (Deficit)	-	-

eriod	
	FY 2023-24
FY 2022-23	PROJECTION
4,430.74	4,561.91
4,430.74	4,561.91
408.73	420.83
8.45%	8.45%
4,839.47	4,982.73
4,839.47	4,982.73
0.78	-
158.39	0.00
4,680.30	4,982.73
4,476.70	4,950.44
44.20	-
300.16	-
4,821.06	4,950.44
158.72	169.84
3.55%	3.55%
4,662.34	4,780.60
177.13	202.13
4,839.47	4,982.73
-	-

A5	System Improvement Schemes (Plan)	Distribution Scheme development (System improvement Schemes)		66.90	33.77	100.67		33.77					33.77				
A6	Construction of staff quarters and office buildings (Plan)	Miscellaneous		1.27	2.00	3.27		2.00					2.00				
	Erection of 220/33 KV 1x50 MVA Sub-Station at Concom																
	Erection of 220 KV line from Keldem to Curchoem																
A7	Strengthening of 220 KV Transmission Network	EHV Schemes		6.40	11.74	18.14		11.74					11.74				
	Erection of 220/33KV, 1x50 MVA Sub-Station Xeldem																
	Accelerated Power Development Reforms Programme																
	Erection of 2nd 100 MVA transformer at Xeldem 220/110 KV S/S																
A8	Erection of 220/110/33/11 KV Sub-Station at Verna (New)	EHV Schemes		1.18	0.00	1.18		0.00					0.00				
	Erection of 220 KV line from Ponda-Verna-Xeldem																
	Erection of 220/110/33/11 KV Sub-Station at Socorro																
	Erection of 220 KV D.C line from Colvite to Socorro																
	Erection of 110 KV D.C line from Socorro to Kadamba																
	APDRP(State Schemes)	Distribution Schemes (System Improvement)		1.60	0.00	1.60		0.00					0.00				
A9	Restructured Accelerated Power Development and Reforms Programme Part A	Distribution Schemes (System Improvement)		27.05	10.00	37.05		10.00					10.00				
	Erection of 220KV Baranaz Feeder development																
A10	Underground Cabling	Distribution Schemes (System Improvement)		17.86	162.10	179.96		162.10					162.10				
	(R-APDRP) during Eleventh Plan period																
A11	R-APDRP Part B / IPDS	Distribution Schemes (System Augmentation, System Improvement), Metering Schemes		48.35	2.00	50.35		0.80	1.20				0.80	1.20			
A12	EHV new Transmission / Sub-Station / Capacitor banks schemes	EHV Schemes		0.70	0.00	0.70		0.00					0.00				
B1	Smartgrid Development of existing network			0.00	0.00	0.00		0.00					0.00				
B2	Sub-transmission and distribution improvement scheme	Distribution Schemes (System Improvement)		9.54	79.00	88.54		79.00					79.00				
				0.00	0.00	0.00		0.00					0.00				
	33/11 KV Gas Insulated Sub-Stations			0.00	0.00	0.00		0.00					0.00				
	Underground Cabling of Anjuna Feeder (World Bank Funding)	Distribution Schemes (System Improvement)		0.00	0.00	0.00		0.00					0.00				
	Additional Central Assistance to Tribal Sub-Scheme	Distribution Schemes (System Improvement)		0.00	0.00	0.00		0.00					0.00				
	Public Lighting Scheme	Miscellaneous		0.30	0.00	0.30		0.00					0.00				
	Total			622.00	494.89	1116.89		351.65	143.24				351.65	143.24			
	New Schemes																
	Projects with Administrative approval																
1	Estimate for the work of providing U/G cabling network for ring feeding 11KV Barazan feeder emanating from 1 x 6.3MVA Xelperm S/S under the jurisdiction of SID-III, Sanguem, Div-VII, Curchoem in Sanguem Constituency.	Distribution Schemes (System Improvement)		0.00	0.00	0.00		0.00	0.00				0.00	0.00			
2	Estimate for the work of Design, Supply, Erection, Testing and Commissioning of new Outdoor Gas Insulated Hybrid Switchgears of 220KV Incomer line bays KP-I and TP-II at 220/110/33KV Ponda Sub-Station.	EHV Schemes		0.00	0.00	0.00		0.00	0.00				0.00	0.00			
3	Estimate for conversion of HT O/H lines to U/G network feeder & part of 11KV Xeldem feeder & Rivorna feeder in order to provide un-interrupted power supply to consumers connected of Barasa feeder under Curchoem Constituency.	Distribution Schemes (System Improvement)		0.00	0.00	0.00		0.00	0.00				0.00	0.00			
4	Estimate for the work of conversion of existing 11 KV overhead lines to underground system, coming under the jurisdiction of Sub Division-II, Division XIV Verna of areas under Cortalim Constituency and Narem Constituency.	Distribution Schemes (System Improvement)		0.00	0.00	0.00		0.00	0.00				0.00	0.00			
5	Estimate for the work of S.E.T.C. of 1 no. of 50MVA, 110KV/33KV Power transformer at 110KV/33KV Verna S/S.	EHV Schemes		0.00	0.00	0.00		0.00	0.00				0.00	0.00			
6	Estimate for re-conducting of existing O/H ACSR Racon Conductor to HTLS Conductor of 33KV double circuit line from 110/33KV Kadamba S/S to 33/11KV Bambolim S/S.	Distribution Schemes (System Improvement)		0.00	0.00	0.00		0.00	0.00				0.00	0.00			
7	Estimate for the work of conversion of existing 11KV O/H network to U/G cabling network of 11KV Bhati feeder emanating from 1 x 3.15 MVA, 33/11KV Waddem S/S under the jurisdiction of SID-III Sanguem, Div-VII, Curchoem in Sanguem Constituency.	Distribution Schemes (System Improvement)		0.00	0.00	0.00		0.00	0.00				0.00	0.00			
8	Estimate for the work of conversion of existing 11KV O/H network to U/G cabling network of 11KV Sanguem feeder emanating from 1 x 6.3MVA, 33/11KV Xelperm S/S under the jurisdiction of SID-III, Div-VII, Curchoem in Sanguem Constituency.	Distribution Schemes (System Improvement)		0.00	0.00	0.00		0.00	0.00				0.00	0.00			
9	Estimate for the work of conversion of existing 11KV overhead network to underground cabling network of 11KV Ponaamid feeder emanating from 1x6.3MVA, Xelperm Sub-Station under the jurisdiction of Sub Division-III, Sanguem, Division-VII, Curchoem in Sanguem Constituency.	Distribution Schemes (System Improvement)		0.00	0.00	0.00		0.00	0.00				0.00	0.00			
10	Estimate for the work of supply, erection, testing & commissioning of 11KV, 3Core XLPE armoured cable of size 300sq.mm. for conversion of existing O/H 11KV Mandrem feeder emanating from 33/11KV Tuem S/S to U/G System under the jurisdiction of SID-III, Agarwada, Pernem, Div-XVII, Mapusa in Mandrem Constituency.	Distribution Schemes (System Improvement)		0.00	16.00	16.00		16.00	0.00				16.00	0.00			
11	Estimate for the work of supply, erection, testing & commissioning of 11KV, 3Core XLPE armoured cable of size 300sq.mm. for conversion of existing O/H 11KV Sodiem feeder emanating from 33/11KV Mapusa S/S to U/G System under the jurisdiction of SID-III, Agarwada, Pernem, Div-XVII, Mapusa.	Distribution Schemes (System Improvement)		0.00	0.00	0.00		0.00	0.00				0.00	0.00			

12	Estimate for the work of improvement of 11KV HT network of Undir & Durhat feeder in Village Wad Talulim, Durhat, Bandora, part of Curti & part of Boim inhabited by the Scheduled Tribes population under Tribal Sub-Plan by converting 11KV HT O/H lines to U/G cable under the jurisdiction of S/D-I, Div-X, Ponda	Distribution Schemes (System Improvement)			0.00	5.00	5.00		5.00	0.00			5.00	0.00
13	Estimate for the work of conversion of 11KV HT electrical network of Khedjebandri, Ponda-I, Bazar and part of Durhat, Farmagudi & Curti feeders by converting 11KV HT O/H lines to U/G cable, under the jurisdiction of S/D-I, Div-X, Curti-Ponda.	Distribution Schemes (System Improvement)			0.00	0.00	0.00		0.00	0.00			0.00	0.00
Total					0.00	21.00	21.00		21.00	0.00			21.00	0.00
Projects Approved by EFC														
1	Conversion of existing O/H 11KV HT network to underground (U/G) cabling for Vasco Town under the Jurisdiction of Sub-Division-IU, Vasco.	Distribution Schemes (System Improvement)			0.00	0.00	0.00		0.00	0.00			0.00	0.00
2	Work of conversion of O/H HT network to underground HT network of 33KV Xeldem - Xelgem feeder in order to provide uninterrupted in power supply to Sataulim water works and Domestic consumers of Shati, Uguem, Kalay V.P. areas and Sanguem Municipal areas in Sanguem Constituency.	Distribution Schemes (System Improvement)			0.00	0.00	0.00		0.00	0.00			0.00	0.00
3	Work of conversion of existing overhead ACSR Racon conductor to HTLS conductor of 33 KV Nessai-1 and Nessai-11 feeder from 220/33 KV Xeldem Sub-Station to 33/11KV KRC Sub-Station and Benaulim Sub-Station.	Distribution Schemes (System Improvement)			0.00	0.00	0.00		0.00	0.00			0.00	0.00
4	Work of conversion of existing overhead ACSR Racon conductor to HTLS conductor of 33 KV Nessai-111 and Nessai-IV feeder from 220/33 KV Xeldem Sub-Station to 33/11KV KRC Sub-Station and Benaulim Sub-Station.	Distribution Schemes (System Improvement)			0.00	0.00	0.00		0.00	0.00			0.00	0.00
5	Work of supply, erection, testing and commissioning of 33/11KV, 2x 10 MVA, Indoor type Sub-Station (Electrical and Civil Works) at Mandrem under Sub-Division-III Agarwada, Div XVII Mapusa.	Distribution Schemes (System Augmentation)			0.00	25.00	25.00		0.00	25.00			0.00	25.00
6	Conversion of existing O/H 11 KV Balli feeder into underground cabling system emerging from 33/11 KV Cuncolim Substation under the jurisdiction of Elect. O&M Sub. Div-IV, Div-XVI, Cuncolim.	Distribution Schemes (System Improvement)			0.00	0.00	0.00		0.00	0.00			0.00	0.00
7	Work of conversion of O/H HT network to underground HT network in Chinchinim, Dharnapur & Sazora area of Velim Contiguency under the jurisdiction of Sub-Division-II Chinchinim, Division-XVII Margao, in South Goa District.	Distribution Schemes (System Improvement)			0.00	0.00	0.00		0.00	0.00			0.00	0.00
8	Worth of Design, Supply, Erection & Commissioning of 33 kv, 2x3 Core, 400 Sq.mm XLPE Cable from Cable from Ponda Sub-Station to Banastarim for a distance of 185 kms and 1x3 Core 185 Sq.mm XLPE Cable for a distance of 1.95 kms for providing reliable supply to kundaim, Marcel area and Industries of Kundaim Industrial Estate.	Distribution Schemes (System Improvement)			0.00	5.00	5.00		0.00	5.00			0.00	5.00
9	Work of conversion of Existing 11 KV (HT) overhead lines to underground cabling network for 11 KV Mandop feeder, 11 KV MES feeder, 11 KV Navelim feeder, emanating from 33/11 KRC Substation and provision for additional 11 KV Navelim Express feeder under Subdivision III, Navelim, Division IV, Margao Goa under Infrastructure Development Fund.	Distribution Schemes (System Improvement)			0.00	0.00	0.00		0.00	0.00			0.00	0.00
10	Work of upgrading of 220 KV PXR line by replacement of existing ACSR Drake Conductor with HTLS ACCC DRAKE Conductor from Ponda 220KV Ponda Sub-Station to 220KV Xeldem Sub-Station and replacement of polymer suspension insulator of 220KV AP-II Circuit from Ponda SIS to Kardai point.	EHV Schemes			0.00	0.00	0.00		0.00	0.00			0.00	0.00
11	Work of conversion of the existing overhead 11 KV line of Bicholim City, Assonora, Borelem and Bicholim DC feeder emanating from 33/11 KV Bicholim Sub-station to underground cable system in the jurisdiction of Sub-Division-(U), Bicholim-Goa.	Distribution Schemes (System Improvement)			0.00	12.00	12.00		12.00	0.00			12.00	0.00
12	Work of conversion of existing LT O/H line of 11KV Kakoda Feeder & 11 KV Town-II feeder into underground cabling system in Curchorem Constituency.	Distribution Schemes (System Improvement)			0.00	12.00	12.00		0.00	12.00			0.00	12.00
13	Work of conversion of existing 33KV SC overhead Viridi II feeder to Double Circuit line with HTLS Conductor from 220 KV Amona Sub Station, under Sub-Division - (U), Bicholim.	Distribution Schemes (System Improvement)			0.00	0.00	0.00		0.00	0.00			0.00	0.00
Total					0.00	54.00	54.00		12.00	42.00			12.00	42.00
Projects tendered (To start next year)														
1	Tender No. 19(2020-21)/CSC: Tender for the Work of conversion of 11KV overhead network of Totia feeder to 11KV underground system along the road side from 33/11KV Shiroda substation under Sub-Division II, Div. X, Ponda in Shiroda constituency	Distribution Schemes (System Improvement)			0.00	1.50	1.50		0.00	1.50			0.00	1.50
2	Tender No. 22(2020-21)/CSC: Work of conversion of 11KV S/C O/H St. Cruz feeder to UG network by laying 11KV, 3Core 300sq.mm. aluminium armoured XLPE cable for a distance of 14.5 Kms along with associated equipments.	Distribution Schemes (System Improvement)			0.00	6.00	6.00		0.00	6.00			0.00	6.00
3	Tender No. 23(2020-21)/CSC: Work for conversion of 11KV SC O/H Diwar feeder, Diwar and Cherao section in the jurisdiction of Sub-Division-I, Division-I, Panaji.	Distribution Schemes (System Improvement)			0.00	0.00	0.00		0.00	0.00			0.00	0.00
4	Tender No. 24(2020-21)/CSC: Work of Supply, Laying, Testing & Commissioning of 33KV Core 400 sq.mm. XLPE U/G cable from 220/33KV Amona SIS for providing alternate power supply to 33/11KV Sandhall S/S.	Distribution Schemes (System Improvement)			0.00	2.00	2.00		0.00	2.00			0.00	2.00
5	Tender No. 25(2020-21)/CSC: Work of Supply and Laying of 33KV, 3C X 400sq.mm. XLPE Aluminium cable from Sonshi to Amona S/S.	Distribution Schemes (System Improvement)			0.00	1.00	1.00		0.00	1.00			0.00	1.00

6	Tender No. 26 (2020-21)/CSC: Work of conversion of 11KV S/C O/H Merces feeder to UG network by laying 11KV, 3Core 900sq.mm. Aluminium Armoured XLPE cable for a distance of 13Kms along with associated equipments.	Distribution Schemes (System Improvement)			0.00	5.00	5.00		0.00	5.00			0.00	5.00				
7	Tender No. 27(2020-21)/CSC: Work of conversion of existing 11KV overhead industry feeder, 11KV cable industry feeder and 33KV Unichem feeder to underground system and providing new 11KV feeder at Pileme Industrial Estate, Pileme under Sub Division-II, Ponornim.	Distribution Schemes (System Improvement)			0.00	3.00	3.00		0.00	3.00			0.00	3.00				
8	Tender No. 29(2020-21)/CSC: Work of conversion of overhead 11KV Industry-IV feeder to 11KV underground system along the road from 33/11KV Kundal Sub-Station in Priol Constituency under Sub Division-III, Division-X, Ponda.	Distribution Schemes (System Improvement)			0.00	0.00	0.00		0.00	0.00			0.00	0.00				
9	Tender No. 30(2020-21)/CSC: Work of conversion of overhead 11KV of Shiroda feeder to 11KV underground system along the road side from 33/11KV Bethora Sub-Station in Shiroda Constituency under Sub Division-II, Division-X, Ponda.	Distribution Schemes (System Improvement)			0.00	0.00	0.00		0.00	0.00			0.00	0.00				
10	Tender No. 33(20-21)/CSC: Tender for the work of conversion of 11KV Industry-VIII feeder to 11KV underground system along the road from 33/11KV Kundal Sub-Station in Priol Constituency under Sub Division-III, Division-X, Ponda.	Distribution Schemes (System Improvement)			0.00	0.00	0.00		0.00	0.00			0.00	0.00				
11	Tender No. 37(20-21)/CSC: Tender for the work of conversion of overhead 11KV Sulcoma feeder to underground network from 33/11KV Quimao, Rivora Sub-Station to Davem transformer center under the jurisdiction of Sub Division-I, Division-VII, Curchorem.	Distribution Schemes (System Improvement)			0.00	0.00	0.00		0.00	0.00			0.00	0.00				
12	Tender No. 38(20-21)/CSC: Tender for the work of conversion of overhead 11KV Mollem feeder to underground network under the jurisdiction of Sub Division-IV, Division-VII, Curchorem.	Distribution Schemes (System Improvement)			0.00	2.00	2.00		0.00	2.00			0.00	2.00				
13	Tender No. 39(20-21)/CSC: Tender for the work of conversion of overhead 11KV Dhat feeder to underground network under the jurisdiction of Sub Division-IV, Division-VII, Curchorem.	Distribution Schemes (System Improvement)			0.00	0.00	0.00		0.00	0.00			0.00	0.00				
14	Tender No. 40(20-21)/CSC: Tender for the work of conversion of overhead 11KV Panchawadi feeder to underground network under the jurisdiction of Sub Division-IV, Division-VII, Curchorem.	Distribution Schemes (System Improvement)			0.00	2.00	2.00		0.00	2.00			0.00	2.00				
15	Tender No. 07(2021-22)/CSC: Tender for the Work of conversion of existing 33KV MES single circuit line to double circuit line emanating from 220/33KV Cuncoilm substation to 33/11KV KRC substation under Div. IV, Margao.	Distribution Schemes (System Improvement)			0.00	3.40	3.40		3.40	0.00			3.40	0.00				
16	Tender No. 10(2021-22)/CSC: Work of Supply, Erection, Testing and Commissioning 11KV 3Core, XLPE armoured Cable of size 300 Sq. mm. for conversion of existing overhead 11KV Morjim Feeder to underground system under the jurisdiction of Sub-Division-II, Agarwada, Div XVII - Mapusa.	Distribution Schemes (System Improvement)			0.00	10.00	10.00		0.00	10.00			0.00	10.00				
17	Tender No. 12(2021-22)/CSC: Supply, Laying, Testing and Commissioning of 33KV, 3 Core, 400 Sq.mm. XLPE cable double circuits (Velim-I & Velim-II) from 220/33KV Cuncoilm substation to 33/11KV Velim substation.	Distribution Schemes (System Improvement)			0.00	0.00	0.00		0.00	0.00			0.00	0.00				
18	Tender No. 34(20-21)/CSC: Tender for the work of conversion of 11KV overhead network of Borim feeder to 11KV underground system along the road side from 33/11KV Shiroda Sub-Station in Shiroda Constituency under Sub Division-II, Division-X, Ponda.	Distribution Schemes (System Improvement)			0.00	0.00	0.00		0.00	0.00			0.00	0.00				
19	Tender No. 35(20-21)/CSC: Tender for the work of conversion of 11KV overhead network of Nirankal feeder to 11KV underground system along the road side from 33/11KV Bethora Sub-Station in Shiroda Constituency under Sub Division-II, Division-X, Ponda.	Distribution Schemes (System Improvement)			0.00	1.50	1.50		0.00	1.50			0.00	1.50				
	Total				0.00	37.40	37.40		3.40	34.00			3.40	34.00				
	REVAMPED Distriution Projects																	
1	Smart Meter and AMI	Metering Schemes			0.00	0.00	0.00		0.00	0.00			0.00	0.00				
2	SCADA upgradation, cabling connection, infra development, modernisation	SCADA/DMS			0.00	0.00	0.00		0.00	0.00			0.00	0.00				
3	Training and Placement	Miscellaneous			0.00	0.00	0.00		0.00	0.00			0.00	0.00				
	Total				0.00	0.00	0.00		0.00	0.00			0.00	0.00				
	Other Schemes																	
1	Saligao 3/63 MVA 220X33 kv S/s at Saligao & Associated DIC Lines	EHV Schemes			0.00	0.00	0.00		0.00	0.00			0.00	0.00				
2	Verna 220/110/33 kv	EHV Schemes			0.00	0.00	0.00		0.00	0.00			0.00	0.00				
3	Upgradation of PONDA EHV S/s project	EHV Schemes			0.00	5.00	5.00		0.00	5.00			0.00	5.00				
4	Tuem Project	EHV Schemes			0.00	20.00	20.00		20.00	0.00			20.00	0.00				
5	Over Head to Underground Cuncoilm Conocona	EHV Schemes			0.00	0.00	0.00		0.00	0.00			0.00	0.00				
6	Xeldom S/s (220/33 63 MVA T/F)	EHV Schemes			0.00	0.00	0.00		0.00	0.00			0.00	0.00				
	Total				0.00	25.00	25.00		20.00	5.00			20.00	5.00				
	Sub-Total																	
	Sub-Total				622.00	632.29	1,254.29		-	408.05	224.24		-	-	-	408.05	224.24	
	DEPOSIT WORKS				36.08	22.9	58.98					22.90					22.90	
	GRAND TOTAL				658.08	655.19	1,313.27		-	408.05	224.24		22.90	-	-	408.05	224.24	22.90

Notes:

1. In case of distribution schemes starting during the control period, information must be provided only for such schemes which are included in the approved Capital Investment Plan.

2. Provide break up of Government and Private share.

3. Codes for selecting Nature of work :

a. EHV Schemes

b. Distribution schemes

(i) System augmentation

(ii) System improvement

(iii) Schemes for loss reduction

c. Metering schemes

d. Capacitor

e. SCADA/DMS etc.

f. Miscellaneous

	Change of conductor of 33 KV Verna Sancoale line with higher current carrying capacity HTLS conductor.	Distribution Schemes (System Improvement)										0.00							0.00
	Work of conversion of overhead network to Underground cabling in the balance areas of Porvorim constituency (Phase II)	Distribution Schemes (System Improvement)										0.00							0.00
	Conversion of the overhead HT/LT network to underground cabling in the important town of Vasco, Navelim etc	Distribution Schemes (System Improvement)										0.00							0.00
	Erection of 33/11 Kv Sub-Stations at Navelim, Calangute, Colva	Distribution Schemes (System Improvement)										0.00							0.00
	Conversion of overhead HT network to Aerial Bunched Cabling (Phase II)	Distribution Schemes (System Improvement)										0.00							0.00
	Street Light EESL Payment	Distribution Schemes (Schemes for Loss Reduction)										0.00							0.00
	Other than approved works undertaken	Distribution Schemes										0.00							0.00
A3	Erection and Augmentation of 33/11 KV S/S line (Plan)	Distribution Schemes (System Augmentation)		12.81	10.00	22.81						10.00							10.00
A4	Normal Development Schemes (Plan)	Distribution Schemes development (System Augmentation)		13.74	6.00	19.74						6.00							6.00
A5	System Improvement Schemes (Plan)	Distribution Scheme development (System improvement Schemes)		100.67	6.00	106.67						6.00							6.00
A6	Construction of staff quarters and office buildings (Plan)	Miscellaneous		3.27	26.00	29.27													26.00
	Erection of 220/33 KV 1X50 MVA Sub-Station at Cuncolim			0.00	0.00							0.00							0.00
	Erection of 220 KV line from Xeldem to Cuncolim			0.00	0.00							0.00							0.00
A7	Strengthening of 220 KV Transmission Network	EHV Schemes		18.14	21.00	39.14													21.00
	Erection of 220/33KV 1x50 MVA Sub-Station Xeldem			0.00	0.00							0.00							0.00
	Accelerated Power Development Reforms Programme			0.00	0.00							0.00							0.00
	Erection of 2nd 100 MVA transformer at Xeldem 220/110 KV S/S			0.00	0.00							0.00							0.00
A8	Erection of 220/110/33/11 KV Sub-Station at Verna (New)	EHV Schemes		1.18	0.00	1.18													0.00
	Erection of 220 KV line from Ponda-Verna-Xeldem			0.00	0.00							0.00							0.00
	Erection of 220/110/33/11 KV Sub-Station at Socorro			0.00	0.00							0.00							0.00
	Erection of 220 KV D/C line from Colvale to Socorro			0.00	0.00							0.00							0.00
	Erection of 110 KV D/C line from Socorro to Kadamba			0.00	0.00							0.00							0.00
	APDRP(State Schemes)	Distribution Schemes (System Improvement)		1.60	0.00	1.60													0.00
A9	Restructured Accelerated Power Development and Reforms Programme Part A	Distribution Schemes (System Improvement)		37.05	5.00	42.05													5.00
	Research training and human research development			0.00	0.00							0.00							0.00
A10	Underground Cabling	Distribution Schemes (System Improvement)		179.96	117.50	297.46						117.50							117.50
	(R-APDRP) during Eleventh Plan period			0.00	0.00							0.00							0.00
A11	R-APDRP Part B / IPDS	Distribution Schemes (System Augmentation, System Improvement), Metering Schemes		50.35	0.00	50.35						0.00	0.00						0.00
A12	EHV new Transmission / Sub-Station / Capacitor banks schemes	EHV Schemes		0.70	0.00	0.70													0.00
B1	Smartgrid Development of existing network			0.00	0.00	0.00						0.00							0.00
B2	Sub-transmission and distribution improvement scheme	Distribution Schemes (System Improvement)		88.54	20.00	108.54													20.00
				0.00	0.00	0.00						0.00							0.00
	33/11 KV Gas Insulated Sub-Stations			0.00	0.00	0.00						0.00							0.00
	Underground Cabling of Arjuna Feeder (World Bank Funding)			0.00	0.00	0.00						0.00							0.00
	Additional Central Assistance to Tribal Sub-Scheme			0.00	0.00	0.00						0.00							0.00
	Public Lighting Scheme			0.30	0.00	0.30						0.00							0.00
	Total			1116.89	319.54	1436.43						250.33	69.21						250.33
	New Schemes																		
	Projects with Administrative approval																		
1	Estimate for the work of providing U/G cabling network for ring feeding 11KV Barazan feeder emanating from 1 x 6.3MVA Xelpem S/S under the jurisdiction of S/D-III, Sanguem, Div-VII, Curchozem in Sanguem Constituency.			0.00	15.00	15.00						15.00	0.00						15.00
2	Estimate for the work of Design, Supply, Erection, Testing and Commissioning of new Outdoor Gas Insulated Hybrid Switchgears of 220KV Incomer line bays KP-I and TP-II at 220/110/33KV Ponda Sub-Station.			0.00	4.72	4.72						0.00	4.72						4.72
3	Estimate for conversion of HT OH lines to U/G network feeder & part of 11KV Xeldem feeder & Rivorna feeder in order to provide un-interrupted power supply to consumers connected of Bansai feeder under Curchozem Constituency.			0.00	0.00	0.00						0.00	0.00						0.00

4	Estimate for the work of conversion of existing 11 KV overhead lines to underground system, coming under the jurisdiction of Sub Division-III, Division XII Verna of areas under Cortalim Constituency and Nuvem Constituency.				0.00	20.00	20.00		0.00	20.00				0.00	20.00		
5	Estimate for the work of S.E.T.C. of 1 no. of 50MVA, 110KV/33KV Power transformer at 110KV/33KV Verna S/S.				0.00	9.00	9.00		9.00	0.00				9.00	0.00		
6	Estimate for re-conductoring of existing O/H ACSR Racoon Conductor to HTLS Conductor of 33KV double circuit line from 110/33KV Kadamba S/S to 33/11KV Bambolim S/S.				0.00	0.00	0.00		0.00	0.00				0.00	0.00		
7	Estimate for the work of conversion of existing 11KV O/H network to U/G cabling network of 11KV Bhatti feeder emanating from 1 x 3.15 MVA, 33/11KV Waddem S/S under the jurisdiction of S/D-II Sanguem, Div-VII, Curchorem in Sanguem Constituency.				0.00	5.00	5.00		5.00	0.00				5.00	0.00		
8	Estimate for the work of conversion of existing 11KV O/H network to U/G cabling network of 11KV Sanguem feeder emanating from 1 x 6.3MVA, 33/11KV Xelpem S/S under the jurisdiction of S/D-III, Div-VII, Curchorem in Sanguem Constituency.				0.00	6.00	6.00		6.00	0.00				6.00	0.00		
9	Estimate for the work of conversion of existing 11KV overhead network to underground cabling network of 11KV Ponsamol feeder emanating from 1x6.3MVA, Xelpem Sub-Station under the jurisdiction of Sub Division-III, Sanguem, Division-VII, Curchorem in Sanguem Constituency.				0.00	15.00	15.00		15.00	0.00				15.00	0.00		
10	Estimate for the work of supply, erection, testing & commissioning of 11KV, 3Core XLPE armoured cable of size 300sq.mm, for conversion of existing O/H 11KV Mandrem feeder emanating from 33/11KV Tuem S/S to U/G System under the jurisdiction of S/D-III, Agarwada, Pernem, Div-XVII, Mapusa in Mandrem Constituency.				16.00	8.00	24.00		8.00	0.00				8.00	0.00		
11	Estimate for the work of supply, erection, testing & commissioning of 11KV, 3Core XLPE armoured cable of size 300sq.mm, for conversion of existing O/H 11KV Sodem feeder emanating from 33/11KV Mapusa S/S to U/G System under the jurisdiction of S/D-III, Agarwada, Pernem, Div-XVII, Mapusa.				0.00	7.00	7.00		7.00	0.00				7.00	0.00		
12	Estimate for the work of improvement of 11KV HT network of Under & Durban feeder in Village Wadi Talaum, Durbat, Badora, part of Curti & part of Borim inhabited by the Scheduled Tribes population under Tribal Sub-Plan by converting 11KV HT O/H lines to U/G cable under the jurisdiction of S/D-I, Div-X, Ponda.				5.00	9.00	14.00		9.00	0.00				9.00	0.00		
13	Estimate for the work of conversion of 11KV HT electrical network of Khadpanshi, Ponda-I, Bazar and part of Durbat, Farmagudi & Curti feeders by converting 11KV HT O/H lines to U/G cable, under the jurisdiction of S/D-I, Div-X, Curti-Ponda.				0.00	15.00	15.00		15.00	0.00				15.00	0.00		
	Total				21.00	113.72	134.72		89.00	24.72				89.00	24.72		
Projects Approved by EFC																	
1	Conversion of existing O/H 11KV HT network to underground (U/G) cabling for Vasco Town under the Jurisdiction of Sub Division-(U), Vasco.				0.00	25.00	25.00		0.00	25.00				0.00	25.00		
2	Work of conversion of O/H HT network to underground HT network of 33KV Xeldem - Xelpem feeder in order to provide uninterrupted m power supply to Salsalim water works and Domestic consumers of Bhatti, Uguem, Kaley V.P. areas and Sanguem Municipal areas in Sanguem Constituency.				0.00	20.00	20.00		0.00	20.00				0.00	20.00		
3	Work of conversion of existing overhead ACSR Racoon conductor to HTLS conductor of 33 KV Nessai-1 and Nessai-11 feeder from 220/33 KV Xeldem Sub-Station to 33/11KV KRC Sub-Station and Benaolim Sub-Station.				0.00	20.00	20.00		0.00	20.00				0.00	20.00		
4	Work of conversion of existing overhead ACSR Racoon conductor to HTLS conductor of 33 KV Nessai-111 and Nessai-IV feeder from 220/33 KV Xeldem Sub-Station to 33/11KV KRC Sub-Station and Benaolim Sub-Station.				0.00	8.00	8.00		0.00	8.00				0.00	8.00		
5	Work of supply, erection, testing and commissioning of 33/11KV, 2x 10 MVA, Indoor type Sub-Station (Electrical and Civil Works) at Mandrem under Sub Division-III Agarwada, Div XVII Mapusa.				25.00	27.00	52.00		0.00	27.00				0.00	27.00		
6	Conversion of existing O/H 11 kv Balli feeder into underground cabling system emerging from 33/11 kv Cuncolim Substation under the jurisdiction of Elect. O&M Sub. Div-IV, Div-XVI, Cuncolim.				0.00	25.00	25.00		25.00	0.00				25.00	0.00		
7	Work of conversion of O/H HT network to underground HT network in Chincholim, Diarnapur & Sarzora area of Velim Constituency under the jurisdiction of Subdivision-II Chancholim, Division-XVI Margao, in South Goa District.				0.00	20.00	20.00		0.00	20.00				0.00	20.00		
8	Work of Design, Supply, Erection & Commissioning of 33 kv, 2x3 Core, 400 Sq mm XLPE Cable from Cable from Ponda Sub-Station to Banastarim for a distance of 185 kms and 1x3 Core 185 Sq mm XLPE Cable for a distance of 1.95 kms for providing reliable supply to kundaim, Marcel area and Industries of Kundaim Industrial Estate.				5.00	20.00	25.00		0.00	20.00				0.00	20.00		
9	Work of conversion of Existing 11 KV (HT) overhead lines to underground cabling network for 11 KV Mandop feeder, 11 KV MES feeder, 11 KV Navelim feeder, emanating from 33/11 KRC Substation and provision for additional 11 KV Navelim Express feeder under Subdivision III, Navelim, Division IV, Margao Goa under Infrastructure Development Fund.				0.00	30.00	30.00		0.00	30.00				0.00	30.00		
10	Work of upgrading of 220 KV PDR line by replacement of existing ACSR Drake Conductor with HTLS ACCC DRAKE Conductor from Ponda 220KV Ponda Sub-Station to 220KV Xeldem Sub-Station and replacement of polymer suspension insulator of 220KV AP-4 Circuit from Ponda S/S to Kardi point.				0.00	25.00	25.00		0.00	25.00				0.00	25.00		

11	Work of conversion of the existing overhead 11 KV line of Bicholim City, Assonora, Borden and Bicholim IDC feeder emanating from 33/11 KV Bicholim Sub-station to underground cable system in the jurisdiction of Sub Division-(U), Bicholim-Goa.				12.00	20.00	32.00		20.00	0.00				20.00	0.00		
12	Work of conversion of existing LT OH line of 11KV Kakoda Feeder & 11 KV Town-II feeder into underground cabling system in Curcholem Constituency.				12.00	32.00	44.00		0.00	32.00				0.00	32.00		
13	Work of conversion of existing 33KV SC overhead Viridi II feeder to Double Circuit line with HTLS Conductor from 220 KV Amona Sub Station, under Sub Division – (U), Bicholim.				0.00	14.00	14.00		0.00	14.00				0.00	14.00		
Total					54.00	286.00	340.00		45.00	241.00				45.00	241.00		
Projects tendered (To start next year)																	
1	Tender No. 19(2020-21)CSC: Tender for the Work of conversion of 11KV overhead network of Torla feeder to 11KV underground system along the road side from 33/11KV Shiroda substation under Sub Division II, Div. X, Ponda in Shiroda constituency.				1.50	2.50	4.00		0.00	2.50				0.00	2.50		
2	Tender No. 22(2020-21)CSC: Work of conversion of 11KV S/C OH St. Cruz feeder to UG network by laying 11KV, 3Core 300sq.mm. aluminium armoured XLPE cable for a distance of 14.5 Kms along with associated equipments.				6.00	2.00	8.00		0.00	2.00				0.00	2.00		
3	Tender No. 23(2020-21)CSC: Work for conversion of 11KV SC OH Diwar feeder, Diwar and Chora section in the jurisdiction of Sub Division-I, Division-I, Panaji.				0.00	12.00	12.00		0.00	12.00				0.00	12.00		
4	Tender No. 24(2020-21)CSC: Work of Supply, Laying, Testing & Commissioning of 33KV Core 400 sq.mm. XLPE U/G cable from 220/33KV Amona S/S for providing alternate power supply to 33/11KV Sankhal S/S.				2.00	7.00	9.00		0.00	7.00				0.00	7.00		
5	Tender No. 25(2020-21)CSC: Work of Supply and Laying of 33KV, 3C X 400sq.mm. XLPE Aluminium cable from Sonshi to Amona S/S.				1.00	1.30	2.30		0.00	1.30				0.00	1.30		
6	Tender No. 26 (2020-21)CSC: Work of conversion of 11KV S/C OH Mercedes feeder to UG network by laying 11KV, 3Core 300sq.mm. Aluminium Armoured XLPE cable for a distance of 13kms along with associated equipments.				5.00	2.00	7.00		0.00	2.00				0.00	2.00		
7	Tender No. 27(2020-21)CSC: Work of conversion of existing 11KV overhead Industry feeder, 11KV cable Industry feeder and 33KV Unichem feeder to underground system and providing new 11KV feeder at Pileme Industrial Estate, Pileme under Sub Division-II, Porvorim.				3.00	5.00	8.00		0.00	5.00				0.00	5.00		
8	Tender No. 29(2020-21)CSC: Work of conversion of overhead 11KV Industry-IV feeder to 11KV underground system along the road from 33/11KV Kundali Sub-Station in Priol Constituency under Sub Division-III, Division-X, Ponda.				0.00	2.30	2.30		0.00	2.30				0.00	2.30		
9	Tender No. 30(2020-21)CSC: Work of conversion of overhead 11KV of Shiroda feeder to 11KV underground system along the road side from 33/11KV Bethora Sub-Station in Shiroda Constituency under Sub Division-II, Division-X, Ponda.				0.00	2.74	2.74		0.00	2.74				0.00	2.74		
10	Tender No. 33(20-21)CSC: Tender for the work of conversion of 11KV Industry-III/III feeder to 11KV underground system along the road from 33/11KV Kundali Sub-Station in Priol Constituency under Sub Division-III, Division-X, Ponda.				0.00	5.00	5.00		0.00	5.00				0.00	5.00		
11	Tender No. 37(20-21)CSC: Tender for the work of conversion of overhead 11KV Sulcorna feeder to underground network from 33/11KV Quinamat, Rivona Sub-Station to Devrem transformer center under the jurisdiction of Sub Division-II, Division-VII, Curcholem.				0.00	8.00	8.00		0.00	8.00				0.00	8.00		
12	Tender No. 38(20-21)CSC: Tender for the work of conversion of overhead 11KV Mollem feeder to underground network under the jurisdiction of Sub Division-IV, Division-VII, Curcholem.				2.00	12.00	14.00		0.00	12.00				0.00	12.00		
13	Tender No. 39(20-21)CSC: Tender for the work of conversion of overhead 11KV Dhat feeder to underground network under the jurisdiction of Sub Division-IV, Division-VII, Curcholem.				0.00	11.00	11.00		0.00	11.00				0.00	11.00		
14	Tender No. 40(20-21)CSC: Tender for the work of conversion of overhead 11KV Panchawadi feeder to underground network under the jurisdiction of Sub Division-IV, Division-VII, Curcholem.				2.00	10.00	12.00		0.00	10.00				0.00	10.00		
15	Tender No. 07(2021-22)CSC: Tender for the Work of conversion of existing 33KV MES single circuit line to double circuit line emanating from 220/33KV Cuncoim substation to 33/11KV KRC substation under Div. IV, Margao				3.40	0.00	3.40		0.00	0.00				0.00	0.00		
16	Tender No. 10(2021-22)CSC: Work of Supply, Erection, Testing and Commissioning 11KV 3Core, XLPE Armoured Cable of size 300 Sq. mm. for conversion of existing overhead 11KV Morjim Feeder to underground system under the jurisdiction of Sub-Division-II, Agawada, Div.XVII - Mapusa.				10.00	8.00	18.00		0.00	8.00				0.00	8.00		
17	Tender No. 12(2021-22)CSC: Supply, Laying, Testing and Commissioning of 33KV, 3 Core, 400 Sq.mm. XLPE cable double circuits (Velim-I & Velim-II) from 220/33KV Cuncoim substation to 33/11KV Velim substation				0.00	15.00	15.00		0.00	15.00				0.00	15.00		
18	Tender No. 34(20-21)CSC: Tender for the work of conversion of 11KV overhead network of Boim feeder to 11KV underground system along the road side from 33/11KV Shiroda Sub-Station in Shiroda Constituency under Sub Division-II, Division-X, Ponda.				0.00	10.00	10.00		0.00	10.00				0.00	10.00		

19	Tender No. 35(20-21)CSC: Tender for the work of conversion of 11KV overhead network of Nirankal feeder to 11KV underground system along the road side from 33/11KV Bethora Sub-Station in Shirrods Constituency under Sub Division-II, Division-X, Ponda.			1.50	2.00	3.50			0.00	2.00			0.00	2.00				
	Total			37.40	117.84	155.24			0.00	117.84			0.00	117.84				
	REVAMPED Distribution Projects																	
1	Smart Meter and AMI			0.00	70.56	70.56			59.98	10.58			59.98	10.58				
2	SCADA upgradation, cabling connection, infra development, modernization			0.00	170.00	170.00			68.00	102.00			68.00	102.00				
3	Training and Placement			0.00	0.00	0.00			0.00	0.00			0.00	0.00				
	Total			0.00	240.56	240.56			127.98	112.58			127.98	112.58				
	Other Schemes																	
1	Saligao 3/63 MVA 220X33 kV S/s at Saligao & Associated D/C Lines			0.00	125.00	125.00			0.00	125.00			0.00	125.00				
2	Verna 220/110/33 kV			0.00	100.00	100.00			0.00	100.00			0.00	100.00				
3	Upgradation of PONDA EHV S/s project			5.00	25.00	30.00			0.00	25.00			0.00	25.00				
4	Tuam Project			20.00	22.00	42.00			22.00	0.00			22.00	0.00				
5	Over Head to Underground Cuncholim Conoconra			0.00	0.00	0.00			0.00	0.00			0.00	0.00				
6	Xaldom S/s (220/33 63 MVA T/F)			0.00	0.00	0.00			0.00	0.00			0.00	0.00				
	Total			25.00	272.00	297.00			22.00	250.00			22.00	250.00				
	Sub-Total																	
	Sub-Total			1,254.29	1,349.66	2,603.95			-	534.31	815.35		-	-	-	534.31	815.35	
	DEPOSIT WORKS			58.98	18.90	77.88			0.00	18.90			0.00	18.90			18.90	
	GRAND TOTAL			1,313.27	1,368.56	2,681.83			-	534.31	815.35		-	-	-	534.31	815.35	18.90

Notes:

1. In case of distribution schemes starting during the control period, information must be provided only for such schemes which are included in the approved Capital Investment Plan.
2. Provide break up of Government and Private share.

3. Codes for selecting Nature of work:

- a. EHV Schemes
- b. Distribution schemes
- (i) System augmentation
- (ii) System improvement
- (iii) Schemes for loss reduction
- c. Metering schemes
- d. Capacitor
- e. SCADA/DMS etc.
- f. Miscellaneous

Capital Works in Progress

S. No.	Particulars	FY 2016-17					FY 2017-18					FY 2018-19					FY 2019-20						
		Opening Balance	Additions	Capitalisation	Adjustments	Other Entries in CWIP*	Closing Balance	Opening Balance	Additions	Capitalisation	Adjustments	Closing Balance	Opening Balance	Additions	Capitalisation	Adjustments	Closing Balance	Opening Balance	Additions	Capitalisation	Adjustments	Closing Balance	Opening Balance
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	ED-Goa	511.07	163.32	101.44		18.32	591.27	591.27	103.36	27.55	-66.12	600.97	600.97	158.86	42.01	11.43	729.25	729.25	211.04	127.18	22.43	835.54	835.54

* Other entries : Material lying at site, advance to contractor/Supplier etc

(the data was required in scheme-wise. Since the data is not available in scheme-wise consolidated data is provided)

Note :

1. The above information is to be provided in consolidated form Distribution Licensee.

(₹ crore)

FY 2020-21				FY 2021-22				FY 2022-23				FY 2023-24						
Additions	Capitalisation	Adjustments	Closing Balance	Opening Balance	Additions	Capitalisation	Adjustments	Closing Balance	Opening Balance	Additions	Capitalisation	Adjustments	Closing Balance	Opening Balance	Additions	Capitalisation	Adjustments	Closing Balance
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
165.65	51.90	-19.56	929.73	929.73	245.31	165.19		1,009.85	1,009.85	632.29	401.62		1,240.52	1,240.52	1,368.56	771.95		1,837.13

ELECTRICITY DEPARTMENT - GOA
BUSINESS PLAN FOR THE PERIOD 2022-23]
CAPITAL EXPENDITURE PLAN AND CAPITALISA

S.No	Name of scheme	REF	CAPEX									
			FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	Total Capex of New Works	FY 2022-23	FY 2023-24	FY 2024-25
Existing Schemes												
A1	Schedule Tribe Development Scheme (PI)		5.21	26.90	17.57	36.44	6.00	-	37.63	4.80	32.83	-
A2	Infrastructure development through Electricity Duty (Plan)		155.99	89.28	130.34	129.04	39.21	-	43.00	13.00	30.00	-
A3	Erection and Augmentation of 33/11 KV S/S line (Plan)		0.46	4.16	3.19	-	-	-	20.00	5.00	10.00	5.00
A4	Normal Development Schemes (Plan)		2.04	2.92	2.78	-	-	-	18.00	6.00	6.00	6.00
A5	System Improvement Schemes (Plan)		18.77	22.41	25.72	28.77	-	-	17.00	5.00	6.00	6.00
A6	Construction of staff quarters and office buildings (Plan)		0.38	0.30	0.59	-	-	-	43.00	2.00	26.00	15.00
A7	Strengthening of 220 KV Transmission Network		-	1.39	5.01	10.74	14.00	-	8.00	1.00	7.00	-
A8	Erection of 220/110/33/11 KV Sub-Station at Verna (New)		-	1.18	-	-	-	-	-	-	-	-
A9	Restructured Accelerated Power Development and Reforms Programme Part A		2.64	7.96	16.45	10.00	5.00	5.00	-	-	-	-
A10	Underground Cabling		-	7.04	10.82	162.10	117.50	-	-	-	-	-
A11	R-APDRP Part B / IPDS		25.08	0.01	23.26	2.00	-	-	-	-	-	-
A12	EHV new Transmission / Sub-Station / Capacitor banks schemes		0.37	0.33	-	-	-	-	-	-	-	-
B1	Smartgrid Development of existing network		-	-	-	-	-	-	-	-	-	-
B2	Sub-transmission and distribution improvement scheme		-	-	9.54	79.00	20.00	-	-	-	-	-
	Total	A	211.04	165.65	245.31	458.09	201.71	5.00	186.63	36.80	117.83	32.00
New Schemes												

Projects													
1	Estimate for the work of providing U/G cabling network for ring feeding 11KV Barazan feeder emanating from 1 x 6.3MVA Xelpem S/S under the jurisdiction of S/D-III, Sanguem, Div-VII, Curcholem in Sanguem Constituency.									27.73	15.00	12.73	
2	Estimate for the work of Design, Supply, Erection, Testing and Commissioning of new Outdoor Gas Insulated Hybrid Switchgears of 220KV incomer line bays KP-I and TP-II at 220/110/33KV Ponda Sub-Station.									4.72	4.72	0	
4	Estimate for the work of conversion of existing 11 KV overhead lines to underground system, coming under the jurisdiction of Sub Division-III, Division XIV Verna of areas under Cortalim Constituency and Nuvem Constituency.									33.52	20.00	13.52	
5	Estimate for the work of S.E.T.C. of 1 no. of 50MVA, 110KV/ 33KV Power transformer at 110KV/ 33KV Verna S/S.									10.50	9.00	1.5	
7	Estimate for the work of conversion of existing 11KV O/H network to U/G cabling network of 11KV Bhati feeder emanating from 1 x 3.15 MVA, 33/11KV Waddem S/S under the jurisdiction of S/D-III Sanguem, Div-VII, Curcholem in Sanguem Constituency.									7.44	5.00	2.44	
8	Estimate for the work of conversion of existing 11KV O/H network to U/G cabling network of 11KV Sanguem feeder emanating from 1 x 6.3MVA, 33/11KV Xelpem S/S under the jurisdiction of S/D-III, Div-VII, Curcholem in Sanguem Constituency.									9.81	6.00	3.81	
9	Estimate for the work of conversion of existing 11KV overhead network to underground cabling network of 11KV Ponsamol feeder emanating from 1x6.3MVA, Xelpem Sub-Station under the jurisdiction of Sub Division-III, Sanguem, Division-VII, Curcholem in Sanguem Constituency.	B								35.00	15.00	20	
10	Estimate for the work of supply, erection, testing & commissioning of 11KV, 3Core XLPE armoured cable of size 300sq.mm. for conversion of existing O/H 11KV Mandrem feeder emanating from 33/11KV Tuem S/S to U/G System under the jurisdiction of S/D-III, Agarwada, Pernem, Div-XVII, Mapusa in Mandrem Constituency.									24.00	16.00	8.00	
11	Estimate for the work of supply, erection, testing & commissioning of 11KV, 3Core XLPE armoured cable of size 300sq.mm. for conversion of existing O/H 11KV Sodiem feeder emanating from 33/11KV Mapusa S/S to U/G System under the jurisdiction of S/D-III, Agarwada, Pernem, Div-XVII, Mapusa.										7.00	3.00	
12	Estimate for the work of improvement of 11KV HT network of Undir & Durbhat feeder in Village Wadi Talaulim, Durbhat, Bandora, part of Curti & part of Borim inhabited by the Scheduled Tribes population under Tribal Sub-Plan by converting 11KV HT O/H lines to U/G cable under the jurisdiction of S/D-I, Div-X, Ponda									14.00	5.00	9.00	0
13	Estimate for the work of conversion of 11KV HT electrical network of Khadpabandh, Ponda-I, Bazar and part of Durbhat, Farmagudi & Curti feeders by converting 11KV HT O/H lines to U/G cable, under the jurisdiction of S/D-I, Div-X, Curti-Ponda.									23.00	15.00	8	
Total		B	-	-	-	-	-	-	-	189.72	21.00	113.72	65.00
Projects Approved by EFC													
1	Conversion of existing O/H 11KV HT network to underground (U/G) cabling for Vasco Town under the Jurisdiction of Sub Division-(U), Vasco.									47.00	25.00	22	
2	Work of conversion of O/H HT network to underground HT network of 33KV Xeldem -Xelpem feeder in order to provide uninterrupted power supply to Salaulim water works and Domestic consumers of Bhati, Uigem, Kalay V.P. areas and Sanguem Municipal areas in Sanguem Constituency.									37.00	20.00	17	
3	Work of conversion of existing overhead ACSR Racon conductor to HTLS conductor of 33 KV Nessai-1 and Nessai-11 feeder from 220/33 KV Xeldem Sub-Station to 33/11KV KRC Sub-Station and Benaulum Sub-Station.									29.00	20.00	9	
4	Work of conversion of existing overhead ACSR Racon conductor to HTLS conductor of 33 KV Nessai-111 and Nessai-IV feeder from 220/33 KV Xeldem Sub-Station to 33/11KV KRC Sub-Station and Benaulum Sub-Station.									28.00	8.00	20	
5	Work of supply, erection, testing and commissioning of 33/11kv, 2x 10 MVA, Indoor type Sub-Station (Electrical and Civil Works) at Mandrem under Sub Division-III Agarwada, Div XVII Mapusa.									52.00	25.00	27.00	
6	Conversion of existing O/H 11 KV Balli Feeder into underground cabling system emerging from 33/11 KV Cuncolim Substation under the jurisdiction of Elect. O&M Sub. Div-IV, Div-XVI, Cuncolim.									55.00	25.00	30	
7	Work of conversion of O/H HT network to underground HT network in Chinchinum, Dharmapur & Sarzora area of Velim Contituency under the jurisdiction of Subdivision-II Chinchinum, Division-XVI Margao, in South Goa District.									33.00	20.00	13	
8	Worth of Decan, Supply, Erection & Commissioning of 33 KV, 2x3 Core, 400 Sq.mm XLPE Cable from Cable from Ponda Sub-Station to Banastarim for a distance of 185 kms and 1x3 Core 185 Sq.mm XLPE Cable for a distance of 1.95 kms for providing reliable supply to Kundaim, Marcel area and Industries of Kundaim Industrial Estate.									25.00	5.00	20.00	
9	Work of conversion of Existing 11 KV (HT) overhead lines to underground cabling network for 11 KV Mandop feeder, 11 KV MES feeder, 11 KV Navelim feeder, emanating from 33/11 KRC Substation and provision for additional 11 KV Navelim Express feeder under Subdivision III, Navelim, Division IV, Margao Goa under Infrastructure Development Fund.									65.00	30.00	35	
10	Work of upgrading of 220 KV PXR line by replacement of existing ACSR Drake Conductor with HTLS ACCC DRAKE Conductor from Ponda 220KV Ponda Sub-Station to 220KV Xeldem Sub-Station and replacement of polymer suspension insulator of 220KV AP-II Circuit from Ponda S/S to Kard point.									49.00	25.00	24	
11	Work of conversion of the existing overhead 11 KV line of Bicholim City, Assonora, Bordem and Bicholim IDC feeder emanating from 33/11 KV Bicholim Sub-station to underground cable system in the jurisdiction of Sub Division-(U), Bicholim-Goa.									32.00	12.00	20.00	
12	Work of conversion of existing LT O/H line of 11KV Kakoda Feeder & 11 KV Town-II feeder into underground cabling system in Curcholem Constituency.									44.00	12.00	32.00	
13	Work of conversion of existing 33KV SC overhead Virdi II feeder to Double Circuit line with HTLS Conductor from 220 KV Amona Sub Station, under Sub Division – (U), Bicholim.									34.00	14.00	20	
Total		C	-	-	-	-	-	-	-	530.00	54.00	286.00	190.00

Projects tendered (To start next year)											
1	Tender No. 19(2020-21)/CSC: Tender for the Work of conversion of 11KV overhead network of Toria feeder to 11KV underground system along the road side from 33/11KV Shiroda substation under Sub Division II, Div. X, Ponda in Shiroda constituency							4.00	1.5	2.5	
2	Tender No. 22(2020-21)/CSC: Work of conversion of 11KV S/C OH St. Cruz feeder to UG network by laying 11KV, 3Core 300sq. mm. aluminium armoured XLPE cable for a distance of 14.5 Kms along with associated equipments.						8.00	6	2		
4	Tender No. 24(2020-21)/CSC: Work of Supply, Laying, Testing & Commissioning of 33KV Core 400 sq. mm. XLPE U/G cable from 220/33KV Amona S/S for providing alternate power supply to 33/11KV Sankhal S/S.						9.00	2	7		
5	Tender No. 25(2020-21)/CSC: Work of Supply and Laying of 33KV, 3C X 400sq. mm. XLPE Aluminium cable from Soshi to Amona S/S.						2.30	1	1.3		
6	Tender No. 26(2020-21)/CSC: Work of conversion of 11KV S/C O/H Merces feeder to UG network by laying 11KV, 3Core 300sq. mm. Aluminium Armoured XLPE cable for a distance of 13Kms along with associated equipments.						7.00	5	2		
7	Tender No. 27(2020-21)/CSC: Work of conversion of existing 11KV overhead Industry feeder, 11KV cable Industry feeder and 33KV Unichen feeder to underground system and providing new 11KV feeder at Pilerne Industrial Estate, Pilerne under Sub Division-II, Porvorim.						8.00	3	5		
8	Tender No. 29(2020-21)/CSC: Work of conversion of overhead 11KV Industry-IV feeder to 11KV underground system along the road from 33/11KV Kundai Sub-Station in Priol Constituency under Sub Division-III, Division-X, Ponda.						2.30		2.3		
9	Tender No. 30(2020-21)/CSC: Work of conversion of overhead 11KV of Shiroda feeder to 11KV underground system along the road side from 33/11KV Bethora Sub-Station in Shiroda Constituency under Sub Division-II, Division-X, Ponda.						2.74		2.74		
10	Tender No. 33(20-21)/CSC: Tender for the work of conversion of 11KV Industry-I/II/III feeder to 11KV underground system along the road from 33/11KV Kundai Sub-Station in Priol Constituency under Sub Division-III, Division-X, Ponda.						5.00		5		
11	Tender No. 37(20-21)/CSC: Tender for the work of conversion of overhead 11KV Sulcorna feeder to underground network from 33/11KV Quinamol, Rivona Sub-Station to Devrem transformer center under the jurisdiction of Sub Division-II, Division-VII, Curchorem.						12.00		8	4	
12	Tender No. 38(20-21)/CSC: Tender for the work of conversion of overhead 11KV Mollem feeder to underground network under the jurisdiction of Sub Division-IV, Division-VII, Curchorem.						14.00	2	12		
13	Tender No. 39(20-21)/CSC: Tender for the work of conversion of overhead 11KV Dhat feeder to underground network under the jurisdiction of Sub Division-IV, Division-VII, Curchorem.						11.00		11		
14	Tender No. 40(20-21)/CSC: Tender for the work of conversion of overhead 11KV Panchawadi feeder to underground network under the jurisdiction of Sub Division-IV, Division-VII, Curchorem.						12.00	2	10		
15	Tender No. 07(2021-22)/CSC: Tender for the Work of conversion of existing 33KV MES single circuit line to double circuit line emanating from 220/33KV Cuncoim substation to 33/11KV KRC substation under Div. IV, Margao						3.40	3.4			
16	Tender No. 10(2021-22)/CSC: Work of Supply, Erection, Testing and Commissioning 11KV 3Core, XLPE armoured Cable of size 300 Sq. mm. for conversion of existing overhead 11KV Morjim Feeder to underground system under the jurisdiction of Sub-Division-III, Agarwaada, Div XVII - Mapusa.						18.00	10	8		
17	Tender No. 12(2021-22)/CSC: Supply, Laying, Testing and Commissioning of 33KV, 3 Core, 400 Sq.mm. XLPE cable double circuits (Velim-I & Velim-II) from 220/33KV Cuncoim substation to 33/11KV Velim substation						26.00		15	11	
18	Tender No. 34(20-21)/CSC: Tender for the work of conversion of 11KV overhead network of Borim feeder to 11KV underground system along the road side from 33/11KV Shiroda Sub-Station in Shiroda Constituency under Sub Division-II, Division-X, Ponda.						10.00		10.00		
19	Tender No. 35(20-21)/CSC: Tender for the work of conversion of 11KV overhead network of Nirankal feeder to 11KV underground system along the road side from 33/11KV Bethora Sub-Station in Shiroda Constituency under Sub Division-II, Division-X, Ponda.						3.50	1.5	2		
	Total	D	-	-	-	-	-	177.24	37.40	117.84	22.00
REVAMPED Distribution Projects											
1	Smart Meter and AMI							80.00		70.56	100.8
2	SCADA upgradation, cabling connection, infra devellpement, modernization	E						750.00		170	73.43
3	Training and Placement							100.00			40
	Total	E						930.00	-	240.56	214.23
Other Schemes											
1	Salgao 3/63 MVA 220X33 kv S/s at Salgao & Associated D/C Lines							274.20		125	200
2	Verna 220/110/33 kv							200.00		100	200
3	Upgradation of PONDA EHV S/s project							29.20	5	25	20
4	Tuem Project							45.00	20	22	
5	Over Head to Underground Cuncholim Conocona							-			
6	Keldom S/s (220/33 63 MVA T/F)							-			
	Total	F						548.40	25.00	272.00	420.00
	Sub-Total	G=A+B+C	211.04	165.65	245.31	458.09	201.71	5.00	2,561.99	174.20	1,147.95
	DEPOSIT WORKS	H	0	0	36.08	22.9	18.9	0	-	-	-
	GRAND TOTAL	I=G+H	211.04	165.65	281.39	480.99	220.61	5.00	2,561.99	174.20	1,147.95

IQ 2024-25
TION PLAN

Total Capex of Spill + New Works	CAPITALISATION											
	FY 2022-23	FY 2023-24	FY 2024-25	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2022-23	FY 2023-24	FY 2024-25
80.07	41.24	38.83	-	3.16	10.50	8.12	60.90	12.00	-	4.80	32.83	-
211.25	142.04	69.21	-	68.94	14.68	59.45	103.74	20.20	-	-	43.00	-
20.00	5.00	10.00	5.00	1.32	0.70	-	-	-	-	5.00	10.00	5.00
18.00	6.00	6.00	6.00	9.63	39.44	43.33	-	-	-	6.00	6.00	6.00
45.77	33.77	6.00	6.00	15.00	6.00	12.84	26.30	-	-	5.00	6.00	6.00
43.00	2.00	26.00	15.00	0.37	-	-	-	-	-	2.00	5.00	21.00
32.74	11.74	21.00	-	-	3.35	0.22	10.74	14.00	-	1.00	7.00	-
-	-	-	-	-	-	-	-	-	-	-	-	-
20.00	10.00	5.00	5.00	2.64	-	-	-	-	-	-	-	-
279.60	162.10	117.50	-	0.24	4.57	2.63	54.54	229.50	-	-	-	-
2.00	2.00	-	-	25.08	-	38.50	18.00	-	-	-	-	-
-	-	-	-	0.37	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
99.00	79.00	20.00	-	-	-	89.00	20.00	-	-	-	-	-
851.43	494.89	319.54	37.00	127.14	79.39	165.19	363.42	295.80	-	23.80	109.83	38.00

27.73	-	15.00	12.73									27.73
4.72	-	4.72	-									4.72
33.52	-	20.00	13.52									33.52
10.50	-	9.00	1.50								9.00	1.50
7.44	-	5.00	2.44									7.44
9.81	-	6.00	3.81									9.81
35.00	-	15.00	20.00									35.00
24.00	16.00	8.00	-								24.00	
10.00	-	7.00	3.00								7.00	3.00
14.00	5.00	9.00	-								14.00	
23.00	-	15.00	8.00								15.00	8.00
199.72	21.00	113.72	65.00	-	-	-	-	-	-	-	73.72	148.71
47.00	-	25.00	22.00									47
37.00	-	20.00	17.00									37
29.00	-	20.00	9.00									29
28.00	-	8.00	20.00									28
52.00	25.00	27.00	-								52	
55.00	-	25.00	30.00									55
33.00	-	20.00	13.00									33
25.00	5.00	20.00	-								25	
65.00	-	30.00	35.00									65
49.00	-	25.00	24.00									49
32.00	12.00	20.00	-								32	
44.00	12.00	32.00	-								44	
34.00	-	14.00	20.00									34
530.00	54.00	286.00	190.00	-	-	-	-	-	-	-	153.00	377.00

13	Tender No. 39(20-21)/CSC: Tender for the work of conversion of overhead 11KV Dhat feeder to underground network under the jurisdiction of Sub Division-IV, Division-VII, Curchorem.										
14	Tender No. 40(20-21)/CSC: Tender for the work of conversion of overhead 11KV Panchawadi feeder to underground network under the jurisdiction of Sub Division-IV, Division-VII, Curchorem.										
15	Tender No. 07(2021-22)/CSC: Tender for the Work of conversion of existing 33KV MES single circuit line to double circuit line emanating from 220/33KV Cuncolim substation to 33/11KV KRC substation under Div. IV, Margao										
16	Tender No. 10(2021-22)/CSC: Work of Supply, Erection, Testing and Commissioning 11KV 3Core, XLPE armoured Cable of size 300 Sq. mm. for conversion of existing overhead 11KV Morjim Feeder to underground system under the jurisdiction of Sub-Division-III, Agarwada, Div XVII - Mapusa.										
17	Tender No. 12(2021-22)/CSC: Supply, Laying, Testing and Commissioning of 33KV, 3 Core, 400 Sq.mm. XLPE cable double circuits (Velim-I & Velim-II) from 220/33KV Cuncolim substation to 33/11KV Velim substation										
18	Tender No. 34(20-21)/CSC: Tender for the work of conversion of 11KV overhead network of Borim feeder to 11KV underground system along the road side from 33/11KV Shiroda Sub-Station in Shiroda Constituency under Sub Division-II, Division-X, Ponda.										
19	Tender No. 35(20-21)/CSC: Tender for the work of conversion of 11KV overhead network of Nirankal feeder to 11KV underground system along the road side from 33/11KV Bethora Sub-Station in Shiroda Constituency under Sub Division-II, Division-X, Ponda.										
Total											
REVAMPED Distriution Projects											
1	Smart Meter and AMI										
2	SCADA upgradation, cabling connection, infra development, mordernization										
3	Training and Placement										
Total											
Other Schemes											
1	Saligao 3/63 MVA 220X33 kV S/s at Saligao & Associated D/C Lines										
2	Verna 220/110/33 kV										
3	Upgradation of PONDA EHV S/s project										
4	Tuem Project										
5	Over Head to Underground Cuncholim Conocona										
6	Xeldom S/s (220/33 63 MVA T/F)										
Total											
Sub-Total											
Sub-Total											
DEPOSIT WORKS											
GRAND TOTAL											

Notes:

1. All schemes should necessarily be in the same serial order.
2. Support with appropriate paper work i.e. Detailed Project Reports and other documents, as necessary.
3. Codes for selecting Nature of work.
 - a. EHV Schemes
 - b. Distribution schemes
 - (i) System augmentation
 - (ii) System improvement
 - (iii) Schemes for distribution loss reduction
 - c. Metering schemes
 - d. Capacitor schemes
 - e. SCADA / DSM etc schemes
 - f. Miscellaneous schemes

1e period starting from previous year to the end year of control period)

Name of Scheme	Nature of Project (Select appropriate code from below)	Year of Start	Capitalisation incurred in FY 2021-22				FY 2022-23			
			Debt	Equity	Grants	Total	Debt	Equity	Grants	Total
Schedule Tribe Development Scheme (P)				8.12		8.12		65.7		65.7
Machinery and Equipments (Plan) Motor Vehicles				0.00		0.00		0		0.00
Infrastructure development through Electricity Duty (Plan)				0.00	59.45	59.45		0.00	103.74	103.74
Erection and Augmentation of 33/11 KV S/S line (Plan)				0.00	0.00	0.00		5.00	0.00	5.00
Normal Development Schemes (Plan)				43.33	0.00	43.33		6.00	0.00	6.00
System Improvement Schemes (Plan)				12.84	0.00	12.84		31.30	0.00	31.30
Construction of staff quarters and office buildings (Plan)				0.00	0.00	0.00		2.00	0.00	2.00
Erection of 220/33 KV 1X50 MVA Sub- Station at Cuncolim				0.00	0.00	0.00		0.00	0.00	0.00
Erection of 220 KV line from Xeldem to Cuncolim				0.00	0.00	0.00		0.00	0.00	0.00
Strengthening of 220 KV Transmission Network				0.22	0.00	0.22		11.74	0.00	11.74
Erection of 220/33KV, 1x50 MVA Sub-Station Xeldem				0.00	0.00	0.00		0.00	0.00	0.00
Accelerated Power Development Reforms Programme				0.00	0.00	0.00		0.00	0.00	0.00
Erection of 2nd 100 MVA transformer at Xeldem 220/110 KV S/S				0.00	0.00	0.00		0.00	0.00	0.00
Erection of 220/110/33/11 KV Sub-Station at Verna (New)				0.00	0.00	0.00		0.00	0.00	0.00
Erection of 220 KV line from Ponda-Verna-Xeldem				0.00	0.00	0.00		0.00	0.00	0.00
Erection of 220/110/33/11 KV Sub-Station at Soccorro				0.00	0.00	0.00		0.00	0.00	0.00
Erection of 220 KV D/C line from Colvale to Soccorro				0.00	0.00	0.00		0.00	0.00	0.00
Erection of 110 KV D/C line from Soccorro to Kadamba				0.00	0.00	0.00		0.00	0.00	0.00
APDRP(State Schemes)				0.00	0.00	0.00		0.00	0.00	0.00
Restructured Accelerated Power Development and Reforms Programme Part A				0.00	0.00	0.00		0.00	0.00	0.00
Research training and human research development				0.00	0.00	0.00		0.00	0.00	0.00
Underground Cabling				2.63	0.00	2.63		54.54	0.00	54.54
(R-APDRP) during Eleventh Plan period				0.00	0.00	0.00		0.00	0.00	0.00
R-APDRP Part B / IPDS				15.40	23.10	38.50		7.20	10.80	18.00
EHV new Transmission / Sub-Station / Capacitor banks schemes				0.00	0.00	0.00		0.00	0.00	0.00
Smartgrid Development of existing network				0.00	0.00	0.00		0.00	0.00	0.00
Sub-transmission and distribution improvement scheme				0.00	0.00	0.00		89.00	0.00	89.00
				0.00	0.00	0.00		0.00	0.00	0.00
33/11 KV Gas Insulated Sub-Stations				0.00	0.00	0.00		0.00	0.00	0.00
Underground Cabling of Anjuna Feeder (World Bank Funding)				0.00	0.00	0.00		0.00	0.00	0.00
Additional Central Assistance to Tribal Sub-Scheme				0.00	0.00	0.00		0.00	0.00	0.00
Public Lighting Scheme				0.10	0.00	0.10		0.20	0.00	0.20
Total				82.64	82.55	165.19		272.68	114.54	387.22
New Schemes										
Projects with Administrative approval										
Estimate for the work of providing U/G cabling network for ring feeding 11KV Barazan feeder emanating from 1 x 6.3MVA Xelpem S/S under the jurisdiction of S/D-III, Sanguem, Div-VII, Curchohem in Sanguem Constituency.								0.00	0.00	0.00
Estimate for the work of Design, Supply, Erection, Testing and Commissioning of new Outdoor Gas Insulated Hybrid Switchgears of 220KV Incomer line bays KP-I and TP-II at 220/110/33KV Ponda Sub-Station.								0.00	0.00	0.00
Estimate for conversion of HT O/H lines to U/G network feeder & part of 11KV Xeldem feeder & Rivorna feeder in order to provide un-interrupted power supply to consumers connected of Bansai feeder under Curchohem Constituency.								0.00	0.00	0.00
Estimate for the work of conversion of existing 11 KV overhead lines to underground system, coming under the jurisdiction of Sub Division-III, Division XIV Verna of areas under Cortalim Constituency and Nuvem Constituency.								0.00	0.00	0.00
Estimate for the work of S.E.T.C. of 1 no. of 50MVA, 110KV/ 33KV Power transformer at 110KV/ 33KV Verna S/S.								0.00	0.00	0.00

Estimate for re-conductoring of existing O/H ACSR Racon Conductor to HTLS Conductor of 33KV double circuit line from 110/33KV Kadamba S/S to 33/11KV Bambolim S/S.									0.00	0.00	0.00
Estimate for the work of conversion of existing 11KV O/H network to U/G cabling network of 11KV Bhati feeder emanating from 1 x 3.15 MVA, 33/11KV Waddem S/S under the jurisdiction of S/D-III Sanguem, Div-VII, Curchorem in Sanguem Constituency.									0.00	0.00	0.00
Estimate for the work of conversion of existing 11KV O/H network to U/G cabling network of 11KV Sanguem feeder emanating from 1 x 6.3MVA, 33/11KV Xelpem S/S under the jurisdiction of S/D-III, Div-VII, Curchorem in Sanguem Constituency.									0.00	0.00	0.00
Estimate for the work of conversion of existing 11KV overhead network to underground cabling network of 11KV Ponsamol feeder emanating from 1x6.3MVA, Xelpem Sub-Station under the jurisdiction of Sub Division-III, Sanguem, Division-VII, Curchorem in Sanguem Constituency.									0.00	0.00	0.00
Estimate for the work of supply, erection, testing & commissioning of 11KV, 3Core XLPE armoured cable of size 300sq.mm. for conversion of existing O/H 11KV Mandrem feeder emanating from 33/11KV Tuem S/S to U/G System under the jurisdiction of S/D-III, Agarwada, Pernem, Div-XVII, Mapusa in Mandrem Constituency.									0.00	0.00	0.00
Estimate for the work of supply, erection, testing & commissioning of 11KV, 3Core XLPE armoured cable of size 300sq.mm. for conversion of existing O/H 11KV Sodiem feeder emanating from 33/11KV Mapusa S/S to U/G System under the jurisdiction of S/D-III, Agarwada, Pernem, Div-XVII, Mapusa.									0.00	0.00	0.00
Estimate for the work of improvement of 11KV HT network of Undir & Durbhat feeder in Village Wadi Talaulim, Durbhat, Bandora, part of Curti & part of Borim inhabited by the Scheduled Tribes population under Tribal Sub-Plan by converting 11KV HT O/H lines to U/G cable under the jurisdiction of S/D-I, Div-X, Ponda									0.00	0.00	0.00
Estimate for the work of conversion of 11KV HT electrical network of Khadpabandh, Ponda-I, Bazar and part of Durbhat, Farmagudi & Curti feeders by converting 11KV HT O/H lines to U/G cable, under the jurisdiction of S/D-I, Div-X, Curti-Ponda.									0.00	0.00	0.00
Total									0.00	0.00	0.00
Projects Approved by EFC											
Conversion of existing O/H 11KV HT network to underground (U/G) cabling for Vasco Town under the Jurisdiction of Sub Division-I(U), Vasco.									0.00	0.00	0.00
Work of conversion of O/H HT network to underground HT network of 33KV Xeldem - Xelpem feeder in order to provide uninterrupted m power supply to Salaulim water works and Domestic consumers of Bhati, Uguem, Kalay V.P. areas and Sanguem Municipal areas in Sanguem Constituency.									0.00	0.00	0.00
Work of conversion of existing overhead ACSR Racon conductor to HTLS conductor of 33 KV Nessai-1 and Nessai-11 feeder from 220/33 KV Xeldem Sub-Station to 33/11KV KRC Sub-Station and Benaulim Sub-Station.									0.00	0.00	0.00
Work of conversion of existing overhead ACSR Racon conductor to HTLS conductor of 33 KV Nessai-111 and Nessai-IV feeder from 220/33 KV Xeldem Sub-Station to 33/11KV KRC Sub-Station and Benaulim Sub-Station.									0.00	0.00	0.00
Work of supply, erection, testing and commissioning of 33/11KV, 2x 10 MVA, Indoor type Sub-Station (Electrical and Civil Works) at Mandrem under Sub Division-III Agarwada, Div XVII Mapusa.									0.00	0.00	0.00
Conversion of existing O/H 11 kv Balli feeder into underground cabling system emerging from 33/11 kv Cuncolim Substation under the jurisdiction of Elect. O&M Sub. Div-IV, Div-XVI, Cuncolim.									0.00	0.00	0.00
Work of conversion of O/H HT network to underground HT network in Chinchinim, Dharmapur & Sarzora area of Velim Constituency under the jurisdiction of Subdivision-II Chinchinim, Division-XVI Margao, in South Goa District.									0.00	0.00	0.00
Worth of Decign, Supply, Erection & Commissioning of 33 kV, 2x3 Core, 400 Sq.mm XLPE Cable from Cable from Ponda Sub-Station to Banastarim for a distance of 185 kms and 1x3 Core 185 Sq.mm XLPE Cable for a distance of 1.95 kms for providing reliable supply to kundaim, Marcel area and Industries of Kundaim Industrial Estate.									0.00	0.00	0.00

Work of conversion of Existing 11 KV (HT) overhead lines to underground cabling network for 11 KV Mandop feeder, 11 KV MES feeder, 11 KV Navelim feeder, emanating from 33/11 KRC Substation and provision for additional 11 KV Navelim Express feeder under Subdivision III, Navelim, Division IV, Margao Goa under Infrastructure Development Fund.									0.00	0.00	0.00
Work of upgrading of 220 KV PXR line by replacement of existing ACSR Drake Conductor with HTLS ACCC DRAKE Conductor from Ponda 220KV Ponda Sub-Station to 220KV Xeldem Sub-Station and replacement of polymer suspension insulator of 220KV AP-II Circuit from Ponda S/S to Kardi point.									0.00	0.00	0.00
Work of conversion of the existing overhead 11 KV line of Bicholim City, Assonora, Bordem and Bicholim IDC feeder emanating from 33/11 kV Bicholim Sub-station to underground cable system in the jurisdiction of Sub Division-I(U), Bicholim-Goa.									0.00	0.00	0.00
Work of conversion of existing LT O/H line of 11KV Kakoda Feeder & 11 KV Town-II feeder into underground cabling system in Curchorem Constituency.									0.00	0.00	0.00
Work of conversion of existing 33KV SC overhead Virdi II feeder to Double Circuit line with HTLS Conductor from 220 KV Amona Sub Station, under Sub Division – I(U), Bicholim.									0.00	0.00	0.00
Total									0.00	0.00	0.00
Projects tendered (To start next year)											
Tender No. 19(2020-21)/CSC: Tender for the Work of conversion of 11KV overhead network of Torla feeder to 11KV underground system along the road side from 33/11KV Shiroda substation under Sub Division II, Div. X, Ponda in Shiroda constituency									0.00	0.00	0.00
Tender No. 22(2020-21)/CSC: Work of conversion of 11KV S/C OH St. Cruz feeder to UG network by laying 11KV, 3Core 300sq.mm. aluminium armoured XLPE cable for a distance of 14.5 Kms along with associated equipments.									0.00	6.00	6.00
Tender No. 23(2020-21)/CSC: Work for conversion of 11KV SC OH Diwar feeder, Diwar and Choroa section in the jurisdiction of Sub Division-I, Division-I, Panaji.									0.00	0.00	0.00
Tender No. 24(2020-21)/CSC: Work of Supply, Laying, Testing & Commissioning of 33KV Core 400 sq.mm. XLPE U/G cable from 220/33KV Amona S/S for providing alternate power supply to 33/11KV Sankhali S/S.									0.00	0.00	0.00
Tender No. 25(2020-21)/CSC: Work of Supply and Laying of 33KV, 3C X 400sq.mm. XLPE Aluminium cable from Sonshi to Amona S/S.									0.00	0.00	0.00
Tender No. 26 (2020-21)/CSC: Work of conversion of 11KV S/C O/H Mercedes feeder to UG network by laying 11KV, 3Core 300sq.mm. Aluminium Armoured XLPE cable for a distance of 13Kms along with associated equipments.									0.00	5.00	5.00
Tender No. 27(2020-21)/CSC: Work of conversion of existing 11KV overhead Industry feeder, 11KV cable Industry feeder and 33KV Unichem feeder to underground system and providing new 11KV feeder at Pilerne Industrial Estate, Pilerne under Sub Division-II, Porvorim.									0.00	0.00	0.00
Tender No. 29(2020-21)/CSC: Work of conversion of overhead 11KV Industry-IV feeder to 11KV underground system along the road from 33/11KV Kundai Sub-Station in Priol Constituency under Sub Division-III, Division-X, Ponda.									0.00	0.00	0.00
Tender No. 30(2020-21)/CSC: Work of conversion of overhead 11KV of Shiroda feeder to 11KV underground system along the road side from 33/11KV Bethora Sub-Station in Shiroda Constituency under Sub Division-II, Division-X, Ponda.									0.00	0.00	0.00
Tender No. 33(20-21)/CSC: Tender for the work of conversion of 11KV Industry-III/III feeder to 11KV underground system along the road from 33/11KV Kundai Sub-Station in Priol Constituency under Sub Division-III, Division-X, Ponda.									0.00	0.00	0.00
Tender No. 37(20-21)/CSC: Tender for the work of conversion of overhead 11KV Sulcorna feeder to underground network from 33/11KVQuinamol, Rivona Sub-Station to Devrem transformer center under the jurisdiction of Sub Division-II, Division-VII, Curchorem.									0.00	0.00	0.00
Tender No. 38(20-21)/CSC: Tender for the work of conversion of overhead 11KV Mollem feeder to underground network under the jurisdiction of Sub Division-IV, Division-VII, Curchorem.									0.00	0.00	0.00

Tender No. 39(20-21)/CSC: Tender for the work of conversion of overhead 11KV Dhat feeder to underground network under the jurisdiction of Sub Division-IV, Division-VII, Curchorem.									0.00	0.00	0.00
Tender No. 40(20-21)/CSC: Tender for the work of conversion of overhead 11KV Panchawadi feeder to underground network under the jurisdiction of Sub Division-IV, Division-VII, Curchorem.									0.00	0.00	0.00
Tender No. 07(2021-22)/CSC: Tender for the Work of conversion of existing 33KV MES single circuit line to double circuit line emanating from 220/33KV Cuncolim substation to 33/11KV KRC substation under Div. IV, Margao									3.40	0.00	3.40
Tender No. 10(2021-22)/CSC: Work of Supply, Erection, Testing and Commissioning 11KV 3Core, XLPE armoured Cable of size 300 Sq. mm. for conversion of existing overhead 11KV Morjim Feeder to underground system under the jurisdiction of Sub-Division-III, Agarwada, Div XVII - Mapusa.									0.00	0.00	0.00
Tender No. 12(2021-22)/CSC: Supply, Laying, Testing and Commissioning of 33KV, 3 Core, 400 Sq.mm. XLPE cable double circuits (Velim-I & Velim-II) from 220/33KV Cuncolim substation to 33/11KV Velim substation									0.00	0.00	0.00
Tender No. 34(20-21)/CSC: Tender for the work of conversion of 11KV overhead network of Borim feeder to 11KV underground system along the road side from 33/11KV Shiroda Sub-Station in Shiroda Constituency under Sub Division-II, Division-X, Ponda.									0.00	0.00	0.00
Tender No. 35(20-21)/CSC: Tender for the work of conversion of 11KV overhead network of Nirankal feeder to 11KV underground system along the road side from 33/11KV Bethora Sub-Station in Shiroda Constituency under Sub Division-II, Division-X, Ponda.									0.00	0.00	0.00
Total									3.40	11.00	14.40
REVAMPED Distriution Projects											
Smart Meter and AMI									0.00	0.00	0.00
SCADA upgradation, cabling connection, infra development, mordernization									0.00	0.00	0.00
Training and Placement									0.00	0.00	0.00
Total									0.00	0.00	0.00
Other Schemes											
Saligao 3/63 MVA 220X33 kV S/s at Saligao & Associated D/C Lines									0.00	0.00	0.00
Verna 220/110/33 kV									0.00	0.00	0.00
Upgradation of PONDA EHV S/s project									0.00	0.00	0.00
Tuem Project									0.00	0.00	0.00
Over Head to Underground Cuncholim Conocona									0.00	0.00	0.00
Xeldom S/s (220/33 63 MVA T/F)									0.00	0.00	0.00
Total									0.00	0.00	0.00
Sub-Total									3.40	11.00	14.40
Sub-Total									82.64	82.55	165.19
DEPOSIT WORKS											
GRAND TOTAL									82.64	82.55	165.19
									276.08	125.54	401.62

Notes:

1. All schemes should necessarily be in the same serial order.
2. Support with appropriate paper work i.e. Detailed Project Reports and other documents, as necessary.
3. Codes for selecting Nature of work.
 - a. EHV Schemes
 - b. Distribution schemes
 - (i) System augmentation
 - (ii) System improvement
 - (iii) Schemes for distribution loss reduction
- c. Metering schemes
- d. Capacitor schemes
- e. SCADA / DSM etc schemes
- f. Miscellaneous schemes

Name of Scheme	Nature of Project (Select appropriate code from below)	Year of Start	FY 2023-24			
			Debt	Equity	Grants	Total
Schedule Tribe Development Scheme (P)				44.83		44.83
Machinery and Equipments (Plan) Motor Vehicles				0		0.00
Infrastructure development through Electricity Duty (Plan)				0.00	63.20	63.20
Erection and Augmentation of 33/11 KV S/S line (Plan)				10.00	0.00	10.00
Normal Development Schemes (Plan)				6.00	0.00	6.00
System Improvement Schemes (Plan)				6.00	0.00	6.00
Construction of staff quarters and office buildings (Plan)				5.00	0.00	5.00
Erection of 220/33 KV 1X50 MVA Sub- Station at Cuncolim				0.00	0.00	0.00
Erection of 220 KV line from Xeldem to Cuncolim				0.00	0.00	0.00
Strengthening of 220 KV Transmission Network				21.00	0.00	21.00
Erection of 220/33KV, 1x50 MVA Sub-Station Xeldem				0.00	0.00	0.00
Accelerated Power Development Reforms Programme				0.00	0.00	0.00
Erection of 2nd 100 MVA transformer at Xeldem 220/110 KV S/S				0.00	0.00	0.00
Erection of 220/110/33/11 KV Sub-Station at Verna (New)				0.00	0.00	0.00
Erection of 220 KV line from Ponda-Verna-Xeldem				0.00	0.00	0.00
Erection of 220/110/33/11 KV Sub-Station at Socorro				0.00	0.00	0.00
Erection of 220 KV D/C line from Colvale to Socorro				0.00	0.00	0.00
Erection of 110 KV D/C line from Socorro to Kadamba				0.00	0.00	0.00
APDRP(State Schemes)				0.00	0.00	0.00
Restructured Accelerated Power Development and Reforms Programme Part A				0.00	0.00	0.00
Research training and human research development				0.00	0.00	0.00
Underground Cabling				229.50	0.00	229.50
(R-APDRP) during Eleventh Plan period				0.00	0.00	0.00
R-APDRP Part B / IPDS				0.00	0.00	0.00
EHV new Transmission / Sub-Station / Capacitor banks schemes				0.00	0.00	0.00
Smartgrid Development of existing network				0.00	0.00	0.00
Sub-transmission and distribution improvement scheme				20.00	0.00	20.00
				0.00	0.00	0.00
33/11 KV Gas Insulated Sub-Stations				0.00	0.00	0.00
Underground Cabling of Anjuna Feeder (World Bank Funding)				0.00	0.00	0.00
Additional Central Assistance to Tribal Sub-Scheme				0.00	0.00	0.00
Public Lighting Scheme				0.10	0.00	0.10
Total				342.43	63.2	405.63
New Schemes						
Projects with Administrative approval						
Estimate for the work of providing U/G cabling network for ring feeding 11KV Barazan feeder emanating from 1 x 6.3MVA Xelpem S/S under the jurisdiction of S/D-III, Sanguem, Div-VII, Curcholem in Sanguem Constituency.				0.00	0.00	0.00
Estimate for the work of Design, Supply, Erection, Testing and Commissioning of new Outdoor Gas Insulated Hybrid Switchgears of 220KV Incomer line bays KP-I and TP-II at 220/110/33KV Ponda Sub-Station.				0.00	4.72	4.72
Estimate for conversion of HT O/H lines to U/G network feeder & part of 11KV Xeldem feeder & Rivorna feeder in order to provide un-interrupted power supply to consumers connected of Bansai feeder under Curcholem Constituency.				0.00	0.00	0.00
Estimate for the work of conversion of existing 11 KV overhead lines to underground system, coming under the jurisdiction of Sub Division-III, Division XIV Verna of areas under Cortalim Constituency and Nuvem Constituency.				0.00	0.00	0.00
Estimate for the work of S.E.T.C. of 1 no. of 50MVA, 110KV/ 33KV Power transformer at 110KV/ 33KV Verna S/S.				9.00	0.00	9.00

Estimate for re-conductoring of existing O/H ACSR Racon Conductor to HTLS Conductor of 33KV double circuit line from 110/33KV Kadamba S/S to 33/11KV Bambolim S/S.					0.00	0.00	0.00
Estimate for the work of conversion of existing 11KV O/H network to U/G cabling network of 11KV Bhati feeder emanating from 1 x 3.15 MVA, 33/11KV Waddem S/S under the jurisdiction of S/D-III Sanguem, Div-VII, Curchorem in Sanguem Constituency.					0.00	0.00	0.00
Estimate for the work of conversion of existing 11KV O/H network to U/G cabling network of 11KV Sanguem feeder emanating from 1 x 6.3MVA, 33/11KV Xelpem S/S under the jurisdiction of S/D-III, Div-VII, Curchorem in Sanguem Constituency.					0.00	0.00	0.00
Estimate for the work of conversion of existing 11KV overhead network to underground cabling network of 11KV Ponsamol feeder emanating from 1x6.3MVA, Xelpem Sub-Station under the jurisdiction of Sub Division-III, Sanguem, Division-VII, Curchorem in Sanguem Constituency.					0.00	0.00	0.00
Estimate for the work of supply, erection, testing & commissioning of 11KV, 3Core XLPE armoured cable of size 300sq.mm. for conversion of existing O/H 11KV Mandrem feeder emanating from 33/11KV Tuem S/S to U/G System under the jurisdiction of S/D-III, Agarwada, Pernem, Div-XVII, Mapusa in Mandrem Constituency.					24.00	0.00	24.00
Estimate for the work of supply, erection, testing & commissioning of 11KV, 3Core XLPE armoured cable of size 300sq.mm. for conversion of existing O/H 11KV Sodiem feeder emanating from 33/11KV Mapusa S/S to U/G System under the jurisdiction of S/D-III, Agarwada, Pernem, Div-XVII, Mapusa.					7.00	0.00	7.00
Estimate for the work of improvement of 11KV HT network of Undir & Durbhat feeder in Village Wadi Talulim, Durbhat, Bandora, part of Curti & part of Borim inhabited by the Scheduled Tribes population under Tribal Sub-Plan by converting 11KV HT O/H lines to U/G cable under the jurisdiction of S/D-I, Div-X, Ponda					14.00	0.00	14.00
Estimate for the work of conversion of 11KV HT electrical network of Khadpabandh, Ponda-I, Bazar and part of Durbhat, Farmagudi & Curti feeders by converting 11KV HT O/H lines to U/G cable, under the jurisdiction of S/D-I, Div-X, Curti-Ponda.					15.00	0.00	15.00
Total					69.00	4.72	73.72
Projects Approved by EFC							
Conversion of existing O/H 11KV HT network to underground (U/G) cabling for Vasco Town under the Jurisdiction of Sub Division-I(U), Vasco.					0.00	0.00	0.00
Work of conversion of O/H HT network to underground HT network of 33KV Xeldem - Xelpem feeder in order to provide uninterrupted m power supply to Salaulim water works and Domestic consumers of Bhati, Uguem, Kalay V.P. areas and Sanguem Municipal areas in Sanguem Constituency.					0.00	0.00	0.00
Work of conversion of existing overhead ACSR Racon conductor to HTLS conductor of 33 KV Nessai-1 and Nessai-11 feeder from 220/33 KV Xeldem Sub-Station to 33/11KV KRC Sub-Station and Benaulim Sub-Station.					0.00	0.00	0.00
Work of conversion of existing overhead ACSR Racon conductor to HTLS conductor of 33 KV Nessai-111 and Nessai-IV feeder from 220/33 KV Xeldem Sub-Station to 33/11KV KRC Sub-Station and Benaulim Sub-Station.					0.00	0.00	0.00
Work of supply, erection, testing and commissioning of 33/11KV, 2x 10 MVA, Indoor type Sub-Station (Electrical and Civil Works) at Mandrem under Sub Division-III Agarwada, Div XVII Mapusa.					0.00	52.00	52.00
Conversion of existing O/H 11 kv Balli feeder into underground cabling system emerging from 33/11 kv Cuncolim Substation under the jurisdiction of Elect. O&M Sub. Div-IV, Div-XVI, Cuncolim.					0.00	0.00	0.00
Work of conversion of O/H HT network to underground HT network in Chinchinum, Dharmapur & Sarzora area of Velim Constituency under the jurisdiction of Subdivision-II Chinchinim, Division-XVI Margao, in South Goa District.					0.00	0.00	0.00
Worth of Decign, Supply, Erection & Commissioning of 33 kV, 2x3 Core, 400 Sq.mm XLPE Cable from Cable from Ponda Sub-Station to Banastarim for a distance of 185 kms and 1x3 Core 185 Sq.mm XLPE Cable for a distance of 1.95 kms for providing reliable supply to kundaim, Marcel area and Industries of Kundaim Industrial Estate.					0.00	25.00	25.00

Work of conversion of Existing 11 KV (HT) overhead lines to underground cabling network for 11 KV Mandop feeder, 11 KV MES feeder, 11 KV Navelim feeder, emanating from 33/11 KRC Substation and provision for additional 11 KV Navelim Express feeder under Subdivision III, Navelim, Division IV, Margao Goa under Infrastructure Development Fund.					0.00	0.00	0.00
Work of upgrading of 220 KV PXR line by replacement of existing ACSR Drake Conductor with HTLS ACCC DRAKE Conductor from Ponda 220KV Ponda Sub-Station to 220KV Xeldem Sub-Station and replacement of polymer suspension insulator of 220KV AP-II Circuit from Ponda S/S to Kardi point.					0.00	0.00	0.00
Work of conversion of the existing overhead 11 KV line of Bicholim City, Assonora, Bordem and Bicholim IDC feeder emanating from 33/11 kV Bicholim Sub-station to underground cable system in the jurisdiction of Sub Division-I(U), Bicholim-Goa.					32.00	0.00	32.00
Work of conversion of existing LT O/H line of 11KV Kakoda Feeder & 11 KV Town-II feeder into underground cabling system in Curchorem Constituency.					0.00	44.00	44.00
Work of conversion of existing 33KV SC overhead Virdi II feeder to Double Circuit line with HTLS Conductor from 220 KV Amona Sub Station, under Sub Division – I(U), Bicholim.					0.00	0.00	0.00
Total					32.00	121.00	153.00
Projects tendered (To start next year)							
Tender No. 19(2020-21)/CSC: Tender for the Work of conversion of 11KV overhead network of Torla feeder to 11KV underground system along the road side from 33/11KV Shiroda substation under Sub Division II, Div. X, Ponda in Shiroda constituency					0.00	4.00	4.00
Tender No. 22(2020-21)/CSC: Work of conversion of 11KV S/C OH St. Cruz feeder to UG network by laying 11KV, 3Core 300sq.mm. aluminium armoured XLPE cable for a distance of 14.5 Kms along with associated equipments.					0.00	2.00	2.00
Tender No. 23(2020-21)/CSC: Work for conversion of 11KV SC OH Diwar feeder, Diwar and Choroa section in the jurisdiction of Sub Division-I, Division-I, Panaji.					0.00	12.00	12.00
Tender No. 24(2020-21)/CSC: Work of Supply, Laying, Testing & Commissioning of 33KV Core 400 sq.mm. XLPE U/G cable from 220/33KV Amona S/S for providing alternate power supply to 33/11KV Sankhali S/S.					0.00	9.00	9.00
Tender No. 25(2020-21)/CSC: Work of Supply and Laying of 33KV, 3C X 400sq.mm. XLPE Aluminium cable from Sonshi to Amona S/S.					0.00	2.30	2.30
Tender No. 26 (2020-21)/CSC: Work of conversion of 11KV S/C O/H Mercedes feeder to UG network by laying 11KV, 3Core 300sq.mm. Aluminium Armoured XLPE cable for a distance of 13Kms along with associated equipments.					0.00	2.00	2.00
Tender No. 27(2020-21)/CSC: Work of conversion of existing 11KV overhead Industry feeder, 11KV cable Industry feeder and 33KV Unichem feeder to underground system and providing new 11KV feeder at Pilerne Industrial Estate, Pilerne under Sub Division-II, Porvorim.					0.00	8.00	8.00
Tender No. 29(2020-21)/CSC: Work of conversion of overhead 11KV Industry-IV feeder to 11KV underground system along the road from 33/11KV Kundai Sub-Station in Priol Constituency under Sub Division-III, Division-X, Ponda.					0.00	2.30	2.30
Tender No. 30(2020-21)/CSC: Work of conversion of overhead 11KV of Shiroda feeder to 11KV underground system along the road side from 33/11KV Bethora Sub-Station in Shiroda Constituency under Sub Division-II, Division-X, Ponda.					0.00	2.74	2.74
Tender No. 33(20-21)/CSC: Tender for the work of conversion of 11KV Industry-III/III feeder to 11KV underground system along the road from 33/11KV Kundai Sub-Station in Priol Constituency under Sub Division-III, Division-X, Ponda.					0.00	5.00	5.00
Tender No. 37(20-21)/CSC: Tender for the work of conversion of overhead 11KV Sulcorna feeder to underground network from 33/11KVQuinamol, Rivona Sub-Station to Devrem transformer center under the jurisdiction of Sub Division-II, Division-VII, Curchorem.					0.00	0.00	0.00
Tender No. 38(20-21)/CSC: Tender for the work of conversion of overhead 11KV Mollem feeder to underground network under the jurisdiction of Sub Division-IV, Division-VII, Curchorem.					0.00	14.00	14.00

Tender No. 39(20-21)/CSC: Tender for the work of conversion of overhead 11KV Dhat feeder to underground network under the jurisdiction of Sub Division-IV, Division-VII, Curchorem.				0.00	11.00	11.00
Tender No. 40(20-21)/CSC: Tender for the work of conversion of overhead 11KV Panchawadi feeder to underground network under the jurisdiction of Sub Division-IV, Division-VII, Curchorem.				0.00	12.00	12.00
Tender No. 07(2021-22)/CSC: Tender for the Work of conversion of existing 33KV MES single circuit line to double circuit line emanating from 220/33KV Cuncolim substation to 33/11KV KRC substation under Div. IV, Margao				0.00	0.00	0.00
Tender No. 10(2021-22)/CSC: Work of Supply, Erection, Testing and Commissioning 11KV 3Core, XLPE armoured Cable of size 300 Sq. mm. for conversion of existing overhead 11KV Morjim Feeder to underground system under the jurisdiction of Sub-Division-III, Agarwada, Div XVII - Mapusa.				0.00	18.00	18.00
Tender No. 12(2021-22)/CSC: Supply, Laying, Testing and Commissioning of 33KV, 3 Core, 400 Sq.mm. XLPE cable double circuits (Velim-I & Velim-II) from 220/33KV Cuncolim substation to 33/11KV Velim substation				0.00	15.00	15.00
Tender No. 34(20-21)/CSC: Tender for the work of conversion of 11KV overhead network of Borim feeder to 11KV underground system along the road side from 33/11KV Shiroda Sub-Station in Shiroda Constituency under Sub Division-II, Division-X, Ponda.				0.00	10.00	10.00
Tender No. 35(20-21)/CSC: Tender for the work of conversion of 11KV overhead network of Nirankal feeder to 11KV underground system along the road side from 33/11KV Bethora Sub-Station in Shiroda Constituency under Sub Division-II, Division-X, Ponda.				0.00	3.50	3.50
Total				0.00	132.84	132.84
REVAMPED Distriution Projects						
Smart Meter and AMI				59.98	10.58	70.56
SCADA upgradation, cabling connection, infra development, mordernization				68.00	102.00	170.00
Training and Placement				0.00	0.00	0.00
Total				127.98	112.58	240.56
Other Schemes						
Saligao 3/63 MVA 220X33 kV S/s at Saligao & Associated D/C Lines				0.00	0.00	0.00
Verna 220/110/33 kV				0.00	0.00	0.00
Upgradation of PONDA EHV S/s project				20.00	0.00	20.00
Tuem Project				42.00	0.00	42.00
Over Head to Underground Cuncholim Conocona				0.00	0.00	0.00
Xeldom S/s (220/33 63 MVA T/F)				0.00	0.00	0.00
Total				62.00	0.00	62.00
Sub-Total				290.98	371.14	662.12
Sub-Total				633.41	434.34	1,067.75
DEPOSIT WORKS						
GRAND TOTAL				633.41	434.34	1,067.75

Notes:

1. All schemes should necessarily be in the same serial order.
2. Support with appropriate paper work i.e. Detailed Project Reports and other documents, as necessary.
3. Codes for selecting Nature of work.
 - a. EHV Schemes
 - b. Distribution schemes
 - (i) System augmentation
 - (ii) System improvement
 - (iii) Schemes for distribution loss reduction
 - c. Metering schemes
 - d. Capacitor schemes
 - e. SCADA / DSM etc schemes
 - f. Miscellaneous schemes

Done Done

S.No	Consumer Category	FY 2022-23				
		No of Consumers	Consumption (MU)	Amount of subsidy due from GDP (Rs. Crore)	Amount of subsidy Paid by GDP (Rs. Crore)	Balance Subsidy (Rs. Crore)
1	Domestic					
	11 kV Voltage Level					
	Tariff HTD/Domestic	4	0.38	-0.01	-0.01	0.00
	Tariff-HTTS/Temporary Supply (HT Domestic)	0	0.00		0.00	0.00
	LT Voltage Level					
	Tariff LTD/Domestic and Non-Commercial	563341	1338.53	28.39	28.39	0.00
	0-100 units	216137	484.47	7.06	7.06	0.00
	101-200 units	154240	315.46	6.21	6.21	0.00
	201 to 300 units	93463	181.19	4.13	4.13	0.00
	301 to 400 units	44941	106.12	2.93	2.93	0.00
	Above 400 units	54560	251.29	8.05	8.05	0.00
	Tariff LTD/Low Income Group	903	0.90	0.00	0.00	0.00
	Tariff-LT/Temporary Domestic	1755	1.03	-0.04	-0.04	0.00
	0-100 Units	1755	0.46	-0.04	-0.04	0.00
	101 to 200 Units	0	0.00	0.00	0.00	0.00
	201 to 300 Units	0	0.00	0.00	0.00	0.00
	301 to 400 Units	0	0.00	0.00	0.00	0.00
	Above 400 Units	0	0.00	0.00	0.00	0.00
	Sub-Total	566004	1346.94	28.34	28.34	0.00
2	Commercial					
	33 kV & 11 kV Voltage Level					
	Tariff HT-Commercial	318	166.40	-34.05	-34.05	0.00
	LT Voltage Level					
	Tariff-LTC/Commercial	108066	498.95	-16.55	-16.55	0.00
	0-20 kW/Commercial Consumers					
	1-100 Units	60769	75.94	-0.35	-0.35	0.00
	101-200 units	15266	46.92	0.03	0.03	0.00
	201-400 Units	13173	58.34	1.51	1.51	0.00
	Above 400 units	15593	182.79	60.64	60.64	0.00
	>20-90kw Commercial Consumers					
	1-100 Units	397	3.77	-2.31	-2.31	0.00
	101-200 units	111	3.59	-1.84	-1.84	0.00
	201-400 Units	210	6.83	-3.85	-3.85	0.00
	Above 400 units	2606	118.78	-70.36	-70.36	0.00
	>90 kW Commercial consumer					
	0 - 100 units	0	0.00	0.00	0.00	0.00
	101 - 200 units	0	0.00	0.00	0.00	0.00
	201-400 units	0	0.00	0.00	0.00	0.00
	Above 400 units	0	0.00	0.00	0.00	0.00
	Tariff-LT/Temporary Commercial	3248	2.94	7.41	7.41	0.00
	0-20 kW/Commercial Consumers					
	0-100 Units	3248	2.94	7.41	7.41	0.00
	101 - 200 Units	0	0.00	0.00	0.00	0.00
	201 - 400 Units	0	0.00	0.00	0.00	0.00
	Above 400 Units	0	0.00	0.00	0.00	0.00
	>20-90kw and above Commercial Consumers					
	0 - 100 units	0	0.00	0.00	0.00	0.00
	101 - 200 units	0	0.00	0.00	0.00	0.00
	201-400 units	0	0.00	0.00	0.00	0.00
	Above 400 units	0	0.00	0.00	0.00	0.00
	Sub-Total	111647	672.44	-50.11	-50.11	0.00
3	Public Lighting					
	LT Voltage Level					
	Tariff-LTPL/Public Lighting	6284	47.56	-3.28	-3.28	0.00
	Unmetered LTPU					
4	Agricultural Pumpsets					
	HT Voltage Level (33 kV & 11 kV)					
	HT-Agriculture					
	Tariff-HTAG/Agriculture (Pump Sets/Irrigation) (A)	43	6.32	-0.21	-0.21	0.00
	(B)	3	14.47	-1.02	-1.02	0.00
	LT Voltage Level					
	LT-Agriculture					
	Tariff-LTAG/Agriculture (Pump Sets/Irrigation) (A)	12742	18.50	-0.64	-0.64	0.00
	Tariff-LTAG/Agriculture Allied (B)	295	1.44	-0.18	-0.18	0.00
	Sub-Total	13084	40.73	-2.05	-2.05	0.00
5	Small Power					
	LT Voltage Level					
	LTI-Industry	5851	91.06	-6.19	-6.19	0.00
	0-500 Units	4032	17.11	-1.09	-1.09	-4.01
	Above 500 units	1820	73.95	-5.10	-5.10	79.04
	Tariff-LTP/Mixed (Hotel Industries)	119	4.04	0.19	0.19	3.96
	Sub-Total	5971	95.10	-6.09	-6.00	101.10
6	Medium Supply 11kV, Large Supply 33 kV & Bulk Supply 110 kV					
	33 kV / 11 kV & 110 kV Voltage Level					
	Tariff HTI/Industrial	807	1695.31	-81.48	-81.48	0.00
	33 kV/11kV	801	1446.26	-81.55	-81.55	0.00
	110kV	6	247.03	0.47	0.47	0.00
	H.T.Industrial (Ferro Metallurgical/ Steel Melting/ Power Intensive)	29	500.17	7.32	7.32	0.00
	H.T. MES/Defence Establishments	14	31.87	-5.27	-5.27	0.00
	Sub-Total	846	2227.35	-89.42	-89.42	0.00
8	Bulk Supply					
	33 kV Voltage Level					
	Single Point Supply	1	6.41	-0.59	-0.59	0.00
	Residential Complexes	0	0.00	0.00	0.00	0.00
	Commercial Complexes	1	6.41	-0.59	-0.59	0.00
	Industrial Complexes	0	0.00	0.00	0.00	0.00
	Sub-Total	1	6.41	-0.59	-0.59	0.00
9	Other Categories					
	33 kV Voltage Level					
	Electric Vehicle Charging Station	0	0.00	0.00	0.00	0.00
	11 kV Voltage Level					
	Tariff-LT Hoarding and SignBoard	67	0.31	-0.18	-0.18	0.00
	Electric Vehicle Charging Station	2	0.00	0.00	0.00	0.00
	Grand Total	703904	4436.74	-123.27	-123.27	0.00

Working Capital Requirements

For Wheeling Business			Control Period Projections	
S. No.	Particulars	Ref. Form No.	Projections	
			FY 2022-23	FY 2023-24
A)	O&M Expenses for Wire Business			
i)	R&M Expenses		49.16	49.16
ii)	A&G Expenses		16.87	17.87
iii)	Employee Cost		163.48	174.21
iv)	Total O&M Expenses		229.52	241.23
v)	O&M Expenses for wire business for 1 month		19.13	20.10
B	Maintenance Spares (@ 40% of R&M Expenses)		1.64	1.64
C	Receivables equivalent to two (2) month of the expected revenue from charges for use of Distribution Wires at the prevailing tariffs.	Fixed Charges	47.34	56.86
D	Less: Amount, if any, held as security deposits from Distribution System Users		9.96	12.64
E	Total Working Capital (A (v)+B+C-D)		58.15	65.96
F	Rate of Interest **		9.00%	9.00%
G	Interest on Working Capital		5.23	5.94

**The Interest rate for this purpose shall be the rate as specified in Regulations

For Retail Supply Business			Control Period Projections	
S. No.	Particulars	Ref. Form No.	Projections	
			FY 2022-23	FY 2023-24
A)	O&M Expenses for Retail Supply Business			
i)	R&M Expenses		5.46	5.46
ii)	A&G Expenses		16.87	17.87
iii)	Employee Cost		245.23	261.31
iv)	Total O&M Expenses		267.56	284.64
v)	O&M Expenses for retail supply business for 1 month		22.30	23.72
B	Maintenance Spares (@40% of R&M Expenses for Retail Supply Business)		0.18	0.18
C	Receivables equivalent to 2 months of average of total revenue from sale of energy, approved by Commission in the ARR	Energy Charges	360.63	375.10
D	Less: Consumer Security Deposit		89.63	113.72
E	Less: One month of power procurement cost		185.85	167.83
F	Total Working Capital (A (v) + B + C - D - E)		107.62	117.46
G	Rate of Interest **		9.00%	9.00%
H	Interest on Working Capital		9.69	10.57

**The Interest rate for this purpose shall be the rate as specified in MYT Regulation

	FY 2021-22		FY 2022-23		FY 2023-24	
	Fixed Charge	Variable Charge	Fixed Charge	Variable Charge	Fixed Charge	Variable Charge
Revenue			284.07	1879.69	341.14	1909.46

Fixed Assets and Depreciation For True Up year a

S. No	Particulars	Contribution from Subsidies/ Grants/ Beneficiaries' Contribution / Consumers Contribution (B)	Value of Asset eligible for depreciation (C=A-B)	FY 2021-22						Amount (₹ crore) (A)	Contribution from Subsidies/ Grants/ Beneficiaries' Contribution / Consumers Contribution (B)	Value of Asset eligible for depreciation (C=A-B)	FY 2022-23						Control Period		
				Fixed Assets, excluding Consumer Contribution /Grants/Subsidies									Fixed Assets, excluding Consumer Contribution /Grants/Subsidies						Amount (₹ crore) (A)	Contribution from Subsidies/ Grants/ Beneficiaries' Contribution / Consumers Contribution (B)	Value of Asset eligible for depreciation (C=A-B)
				At the start of the Year	Addition during the Year (D=C)	Deduction	Total Depreciable base	At the end of the Year	Depreciation				At the start of the Year	Addition during the Year (D=C)	Deduction	Total Depreciable base	At the end of the Year	Depreciation			
1	Land	0.00	0.00	5.31	0.00			5.31	0.00	1.81	0.57	1.24	5.31	1.24			6.56	0.00	4.81	2.27	2.55
2	Building	3.18	2.77	10.41	2.77			13.18	0.21	4.49	1.40	3.09	13.18	3.09			16.27	0.27	11.94	5.62	6.32
3	R.C.C. Tank	0.00	0.00	0.74	0.00			0.74	0.01	0.25	0.08	0.17	0.74	0.17			0.91	0.01	0.67	0.31	0.35
4	Plant & Machinery	0.49	0.42	85.26	0.42			85.69	3.08	29.20	9.13	20.08	85.69	20.08			105.76	3.45	77.64	36.53	41.11
5	Transformer above 100KVA	11.45	9.96	112.74	9.96			122.70	4.24	41.82	13.07	28.75	122.70	28.75			151.45	4.93	111.18	52.31	58.87
6	Transformer below 100KVA	0.78	0.89	64.56	0.89			65.24	2.34	22.25	6.95	15.28	65.24	15.28			80.53	2.62	59.11	27.81	31.30
7	Static Machine Tools	0.00	0.00	1.84	0.00			1.84	0.11	0.63	0.20	0.43	1.84	0.43			2.27	0.12	1.66	0.78	0.88
8	Self Propelled vehicles	0.00	0.00	2.65	0.00			2.65	0.48	0.90	0.28	0.62	2.65	0.62			3.27	0.53	2.40	1.13	1.27
9	Switch gear & S/S Equipment	22.29	19.40	56.87	19.40			76.27	2.40	25.99	8.13	17.87	76.27	17.87			94.14	3.07	69.11	32.51	36.59
10	Meters	3.02	2.63	58.95	2.63			61.58	5.42	20.99	6.56	14.43	61.58	14.43			76.01	6.19	55.80	26.25	29.55
11	Office furniture	0.00	0.00	1.06	0.00			1.06	0.02	0.36	0.11	0.25	1.06	0.25			1.31	0.07	0.96	0.45	0.51
12	Office Equipments	0.00	0.00	1.53	0.00			1.53	0.09	0.52	0.16	0.36	1.53	0.36			1.89	0.10	1.39	0.65	0.74
13	LT & HT Overhead Lines	3.75	3.26	371.96	3.26			375.22	13.45	127.86	39.97	87.91	375.22	87.91			463.13	15.08	339.99	159.95	180.03
14	Lightning Arrestors																				
a	Pole Type	0.04	0.04	4.66	0.04			4.70	0.28	1.60	0.50	1.10	4.70	1.10			5.80	0.31	4.25	2.00	2.25
b	Station Type																				
15	Batteries	0.45	0.40	0.34	0.40			0.74	0.10	0.25	0.08	0.17	0.74	0.17			0.91	0.15	0.67	0.31	0.35
16	Street light fixtures	0.13	0.11	42.70	0.11			42.82	2.57	14.59	4.56	10.03	42.82	10.03			52.85	2.87	38.80	18.25	20.54
17	Service lines	0.26	0.23	12.68	0.23			12.91	0.46	4.40	1.38	3.03	12.91	3.03			15.94	0.52	11.70	5.51	6.20
18	Under Ground Lines	20.27	17.64	158.75	17.64			176.39	4.31	60.12	18.79	41.32	176.39	41.32			217.71	5.06	159.82	75.19	84.63
19	Sub-stations	0.00	0.00	14.34	0.00			14.34	0.52	4.89	1.53	3.36	14.34	3.36			17.70	0.58	12.99	6.11	6.88
20	Testing Equipments	0.00	0.00	24.14	0.00			24.14	1.45	8.23	2.57	5.66	24.14	5.66			29.80	1.62	21.88	10.29	11.58
21	IT Equipments	1.10	0.95	59.88	0.95			60.84	3.62	20.73	6.48	14.25	60.84	14.25			75.09	10.19	55.12	25.93	29.19
22	Distribution accessories	0.00	0.00	28.52	0.00			28.52	1.03	9.72	3.04	6.68	28.52	6.68			35.20	1.15	25.84	12.16	13.88
23	Others Contingency																				
	TOTAL	88.33	58.49	1119.93	58.49	0.00	0.00	1178.42	46.17	401.82	125.54	276.08	1178.42	276.08	0.00	0.00	1454.50	58.92	1067.75	502.34	565.41
	Total as per Audited Account (for True up year only)																				

Fixed Assets and Depreciation For True Up year a

(₹ crore)

S. No	Particulars	FY 2023-24					Depreciation
		Fixed Assets, excluding Consumer Contribution /Grants/Subsidies					
		At the start of the Year	Addition during the Year (D=C)	Deduction	Total Depreciable base	At the end of the Year	
1	Land	6.56	2.55			9.11	0.00
2	Building	16.27	6.32			22.60	0.35
3	R.C.C. Tank	0.91	0.35			1.27	0.02
4	Plant & Machinery	105.76	41.11			146.88	4.55
5	Transformer above 100KVA	151.45	58.87			210.32	6.51
6	Transformer below 100KVA	80.53	31.30			111.83	3.46
7	Static Machine Tools	2.27	0.88			3.15	0.16
8	Self Propelled vehicles	3.27	1.27			4.55	0.70
9	Switch gear & S/S Equipment	94.14	36.59			130.73	4.05
10	Meters	76.01	29.55			105.56	8.17
11	Office furniture	1.31	0.51			1.83	0.09
12	Office Equipments	1.89	0.74			2.63	0.14
13	LT & HT Overhead Lines	463.13	180.03			643.17	19.91
14	Lightning Arrestors						
a	Pole Type	5.80	2.25			8.05	0.42
b	Station Type						
15	Batteries	0.91	0.35			1.26	0.20
16	Street light fixtures	52.85	20.54			73.39	3.79
17	Service lines	15.94	6.20			22.14	0.69
18	Under Ground Lines	217.71	84.63			302.34	6.68
19	Sub stations	17.70	6.88			24.58	0.76
20	Testing Equipments	29.80	11.58			41.39	2.14
21	IT Equipments	75.09	29.19			104.28	13.45
22	Distribution accessories	35.20	13.68			48.88	1.51
23	Others Contingency						
	TOTAL	1454.50	565.41	0.00	0.00	2019.91	77.75
	Total as per Audited Account (for True up year only)						

Fixed Assets and Depreciation For True Up year a

S. No	Particulars
1	Land
2	Building
3	R.C.C. Tank
4	Plant & Machinery
5	Transformer above 100KVA
6	Transformer below 100KVA
7	Static Machine Tools
8	Self Propelled vehicles
9	Switch gear & S/S Equipment
10	Meters
11	Office furniture
12	Office Equipments
13	LT & HT Overhead Lines
14	Lighting Arrestors
a	Pole Type
b	Station Type
15	Batteries
16	Street light fixtures
17	Service lines
18	Under Ground Lines
19	Sub stations
20	Testing Equipments
21	IT Equipments
22	Distribution accessories
23	Others Contingency
	TOTAL
	Total as per Audited Account (for True up year only)

Fixed Assets and Depreciation For True Up year a

S. No	Particulars
1	Land
2	Building
3	R.C.C. Tank
4	Plant & Machinery
5	Transformer above 100KVA
6	Transformer below 100KVA
7	Static Machine Tools
8	Self Propelled vehicles
9	Switch gear & S/S Equipment
10	Meters
11	Office furniture
12	Office Equipments
13	LT & HT Overhead Lines
14	Lighting Arrestors
a	Pole Type
b	Station Type
15	Batteries
16	Street light fixtures
17	Service lines
18	Under Ground Lines
19	Sub stations
20	Testing Equipments
21	IT Equipments
22	Distribution accessories
23	Others Contingency
	TOTAL
	Total as per Audited Account (for True up year only)

Fixed Assets and Depreciation For True Up year a

S. No	Particulars
1	Land
2	Building
3	R.C.C. Tank
4	Plant & Machinery
5	Transformer above 100KVA
6	Transformer below 100KVA
7	Static Machine Tools
8	Self Propelled vehicles
9	Switch gear & S/S Equipment
10	Meters
11	Office furniture
12	Office Equipments
13	LT & HT Overhead Lines
14	Lighting Arrestors
a	Pole Type
b	Station Type
15	Batteries
16	Street light fixtures
17	Service lines
18	Under Ground Lines
19	Sub stations
20	Testing Equipments
21	IT Equipments
22	Distribution accessories
23	Others Contingency
	TOTAL
	Total as per Audited Account (for True up year only)

Form F15

Fixed Assets and Depreciation For True Up year a

S. No	Particulars
1	Land
2	Building
3	R.C.C. Tank
4	Plant & Machinery
5	Transformer above 100KVA
6	Transformer below 100KVA
7	Static Machine Tools
8	Self Propelled vehicles
9	Switch gear & S/S Equipment
10	Meters
11	Office furniture
12	Office Equipments
13	LT & HT Overhead Lines
14	Lightning Arrestors
a	Pole Type
b	Station Type
15	Batteries
16	Street light fixtures
17	Service lines
18	Under Ground Lines
19	Sub stations
20	Testing Equipments
21	IT Equipments
22	Distribution accessories
23	Others Contingency
TOTAL	
Total as per Audited Account (for True up year only)	

(Rs. Crore)

Additions to Gross Fixed Assets for Normative Loan, Equity & Depreciation Purpose

Sr. No.	Particulars	Audited	Provisional Actual	Provisional Actual	Provisional Actual	Provisional Actual	Provisional Actual
		FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22
1	2	3	4	5	6	7	8
1	Additions to GFA	101.44	27.55	42.01	127.18	51.90	165.19
2	Less: 60% (FY 2017-18 & FY 2018-19) and 75% (FY 2019-20 to FY 2021-22) Grant Component of APDRP Part-B / IPDS scheme	19.79	0.24	6.81	16.78	2.74	28.88
3	Less: Revamped Scheme (15% Grant Prepaid Meter; 100% for DBM, billing modules etc; 60% for SCADA)						
4	Less: Schemes out of ED Fund	29.91	5.57	18.48	68.94	14.68	59.45
5	Net Additions to GFA	51.74	21.74	16.72	41.46	34.48	76.86
6	Decapitalisation of Assets				2.68	5.63	-
7	Net capital base considered for the Loan and ROE				38.78	28.85	76.86

Form F16

Return on Equity

(₹ crore)

S. No	Particulars	FY 2020-21	FY 2021-22	Control Period	
		Actual	Estimated	Projection	
				FY 2022-23	FY 2023-24
1	Opening Balance of Equity	314.37	323.03	346.08	428.91
2	Net Additions during the Year	8.65	23.06	82.82	169.62
3	Closing Balance of Equity	323.03	346.08	428.91	598.53
4	Average Equity	318.70	334.55	387.50	513.72
5	Average Equity (Wires Business)	286.83	301.10	348.75	462.35
6	Average Equity (Retail Supply Business)	31.87	33.46	38.75	51.37
7	Rate of Return on Equity for Wire Business %	15.50%	15.50%	15.50%	15.50%
8	RoE Wire Business	44.46	46.67	54.06	71.66
9	Rate of Return on Equity for Retail Supply Business %	16.00%	16.00%	16.00%	16.00%
10	RoE on Retail Supply business	5.10	5.35	6.20	8.22
11	RoE (Wire and Retail Supply business)	49.56	52.02	60.26	79.88

Operations and Maintenance Expenses Summary

Sr. No.	Particulars	(FY 2022-23)		
		Tariff Order	Provisonal	Deviation
		(a)	(b)	(c) = (b) - (a)
1	O&M Expenses			
1.1	Employee Expenses	344.56	408.71	64.15
1.2	R&M Expenses	55.33	54.62	-0.71
1.3	A&G Expenses	55.33	33.74	-21.59
2	O&M Expense capitalised			
3	Total Operation & Maintenance Expenses (net of capitalisation)	455.22	497.08	41.86

(Rs. Crore)

Projections	Remarks
(FY 2023-24)	
Projected	
435.52	
54.62	
35.73	
525.87	

Sr. No.	Particulars	Approved O&M Expenses				3-Year Average	MYT Control Period	
		FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22		FY 2022-23	FY 2023-24
		(a)	(b)	(c)		(d) = [(a)+(b)+(c)]/3	Projected	Projected
1	Employee Expenses	270.41	294.08	300.81	311.98	302.29	333.14	378.27
2	A&G Expenses	10.81	27.10	28.24	31.02	28.79	31.72	35.57
3	R & M Expenses	45.60	42.55	73.65	86.58	67.59	54.51	82.44
4	Total O&M Expenses	326.82	363.73	402.7	429.58	398.67	419.37	496.29

Sr. No.	Particulars	Actual O&M Expenses				3-Year Average	MYT Control Period	
		FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22		FY 2022-23	FY 2023-24
		(a)	(b)	(c)		(d) = [(a)+(b)+(c)]/3	(e)	Projected
1	Employee Expenses	325.73	340.39	332.21	353.55	342.05	383.55	435.52
2	A&G Expenses	27.42	26.91	26.20	39.79	30.97	31.87	35.73
3	R & M Expenses	26.32	32.98	12.48	60.77	35.41	30.59	45.06
4	Total O&M Expenses	379.47	400.28	370.89	454.10	408.42	446.01	516.31

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

Where,

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

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

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

'K' is a constant (expressed in %).

CPI inflation – is the average increase in Consumer Price Index (CPI) for immediately preceding

WPI inflation – is the average increase in the Wholesale Price Index (CPI) for immediately prec

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

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

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

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

X_n is an efficiency factor for nth Year. Value of X_n shall be determined by the Commission in t

G_n is a growth factor for the nth Year. Value of G_n shall be determined by the Commission fo

Method 1: Projecting upto Base Year FY 2022-23 using Approved data of Past Years

R&M _n = K x GF _{An-1} x (1+WPI _{inflation})	FY 2021-22	FY 2022-23	FY 2023-24
Particulars	FY 2022-23	FY 2023-24	FY 2024-25
WPI Inflation	8.13%	8.13%	8.13%
K	4.87%	4.87%	4.87%
GF _{An-1}	1443.85	1566.39	1968.01
R&M_n	75.99	82.44	103.58

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

Particulars	FY 2022-23	FY 2023-24	FY 2024-25
EMP _{n-1}	333.14	354.99	378.27
G _n	0.63%	0.63%	0.63%
CPI Inflation	5.89%	5.89%	5.89%
EMP_n	354.99	378.27	403.09

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

Particulars	FY 2022-23	FY 2023-24	FY 2024-25
A&G _{n-1}	31.72	33.59	35.57
CPI Inflation	5.89%	5.89%	5.89%
A&G_n	33.59	35.57	37.67

Escalation rate working	FY 11-12	FY 12-13	FY 13-14
WPI based on Office of Economic Advisor, Gol	100.00	106.90	112.46
YoY		6.90%	5.20%
5 years average			
3 years average			

Particulars	FY 11-12	FY 12-13	FY 13-14
CPI based on Industrial Workers, All India	194.83	215.17	236.00
YoY		10.44%	9.68%
5 years average			
3 years average			

Particulars	Audited		
	2011-12	2012-13	2013-14
Number of employees	6210	6200	4,910
Number of consumers ('000)			
Number of employees per '000 consumers			
Past Employee Cost (Rs. Crs)			
Projected Employee Cost (Rs. Crs)	155.04	154.63	170
Employee Expense per Employee (Rs Cr)	0.02	0.02	0.03
GN			
Last 3 yrs audited CAGR	18%		
Last 3 yrs CAGR (considering FY 16-17 since FY 17-18 has 7th Pay commission impact)	-2.50%		
Last 5 yrs CAGR (considering FY 17-18)	-100.00%		
Last 3 yrs CAGR	-100.00%		
Last 5 yrs CAGR (considering FY 16-17 since FY 17-18 has 7th Pay commission impact)	5%		

Audited Figures

Rs. Crs

Particulars	FY 2018-19	FY 2019-20	FY 2020-21
Employee exp	270.41	294.08	300.81
R&M exp	45.60	42.55	73.65
A&G exp	10.81	27.10	28.24

CPI Inflation 4.98%

Employee Expenses

FY 2020-21 317.34

FY 2021-22 333.14

FY 2022-23 (Base Year) 333.14

A&G Expenses

FY 2020-21 30.22

FY 2021-22 31.72

FY 2022-23 (Base Year) 31.72

R&M Expenses

	FY 2018-19	FY 2019-20	FY 2020-21
R&M exp	45.60	42.55	73.65
Opening GFA	1,236.61	1,274.13	1,398.63
K factor	3.69%	3.34%	5.27%

Avg of K factor 4.87%

for three (3) Years before the base Year;
 ending three (3) Years before the base Year;

the Multi Year Tariff Order based on Licensee's filing, benchmarking, approved cost by
 for each Year in the Multi Year Tariff Order for meeting the additional manpower require

FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21
113.88	109.72	111.62	114.88	119.79	121.80	123.38
1.26%	-3.65%	1.73%	2.92%	4.28%	1.68%	1.29%
					1.39%	2.38%
				2.98%	2.96%	2.42%

FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21
250.83	265.00	275.92	284.42	299.92	322.50	338.69
6.29%	5.65%	4.12%	3.08%	5.45%	7.53%	5.02%
					5.17%	5.04%
				4.22%	5.35%	6.00%

		Actual	Actual			
2014-15	2015-16	2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
5845	6011	6775	6202	6705	7197	7579
599	585	579	619	619		
	10					
206	238.5	217	351		328	
0.04	0.04	0.03	0.06	-	0.05	-
				8.11%	7.34%	5.31%

FY 2019-20

FY 2021-22	Average
311.98	302.29
86.58	67.59
31.02	28.79

FY 2021-22	
86.58	
1443.8536	
6.00%	

the Commission in past and any other factor the Commission feels appropriate;
 ement based on Licensee’s filings, benchmarking, approved cost by the Commission in past and any other factor t

FY 21-22	FY 22-23
139.41	153.50
13.00%	10.11%
4.63%	6.07%
5.32%	8.13%

FY 21-22	FY 22-23
356.06	373.10
5.13%	4.79%
5.24%	5.58%
5.89%	4.98%

FY 2021-22	FY 2022-23
5883	5920

0.00%	0.63%
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hat the Commission feels appropriate:

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

Where,

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

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

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

'K' is a constant (expressed in %).

CPI inflation – is the average increase in Consumer Price Index (CPI) for immediately preceding

WPI inflation – is the average increase in the Wholesale Price Index (CPI) for immediately prec

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

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

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

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

X_n is an efficiency factor for nth Year. Value of X_n shall be determined by the Commission in t

G_n is a growth factor for the nth Year. Value of G_n shall be determined by the Commission fo

Method 1: Projecting upto Base Year FY 2021-22 using provisional Accounts

$R\&M_n = K \times GF_{An-1} \times (1+WPI_{inflation})$	FY 2021-22	FY 2022-23	FY 2023-24
Particulars	FY 2022-23	FY 2023-24	FY 2024-25
WPI Inflation	5.32%	5.32%	5.32%
K	2.73%	2.73%	2.73%
GF _{An-1}	1443.85	1566.39	1968.01
R&M_n	41.54	45.06	56.61

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

Particulars	FY 2022-23	FY 2023-24	FY 2024-25
EMP _{n-1}	383.55	408.71	435.52
G _n	0.63%	0.63%	0.63%
CPI Inflation	5.89%	5.89%	5.89%
EMP_n	408.71	435.52	464.08

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

Particulars	FY 2022-23	FY 2023-24	FY 2024-25
A&G _{n-1}	31.87	33.74	35.73
CPI Inflation	5.89%	5.89%	5.89%
A&G_n	33.74	35.73	37.84

Escalation rate working	FY 11-12	FY 12-13	FY 13-14
WPI based on Office of Economic Advisor, Gol	100.00	106.90	112.46
YoY		6.90%	5.20%
5 years average			
3 years average			

Particulars	FY 11-12	FY 12-13	FY 13-14
CPI based on Industrial Workers, All India	194.83	215.17	236.00
YoY		10.44%	9.68%
5 years average			
3 years average			

Particulars	Audited		
	2011-12	2012-13	2013-14
Number of employees	6210	6200	4,910
Number of consumers ('000)			
Number of employees per '000 consumers			
Past Employee Cost (Rs. Crs)			
Projected Employee Cost (Rs. Crs)	155.04	154.63	170
Employee Expense per Employee (Rs Cr)	0.02	0.02	0.03
GN			
Last 3 yrs audited CAGR	18%		
Last 3 yrs CAGR (considering FY 16-17 since FY 17-18 has 7th Pay commission impact)	-2.50%		
Last 5 yrs CAGR (considering FY 17-18)	-100.00%		
Last 3 yrs CAGR	-100.00%		
Last 5 yrs CAGR (considering FY 16-17 since FY 17-18 has 7th Pay commission impact)	5%		

Audited Figures

Rs. Crs

Particulars	FY 2018-19	FY 2019-20	FY 2020-21
Employee exp	325.73	340.39	332.21
R&M exp	27.42	26.91	26.20
A&G exp	26.32	32.98	12.48

CPI Inflation 5.89%

Employee Expenses

FY 2020-21 362.21
FY 2021-22 383.55
FY 2022-23 (Base Year) 383.55

A&G Expenses

FY 2020-21 30.09
FY 2021-22 31.87
FY 2022-23 (Base Year) 31.87

R&M Expenses

	FY 2018-19	FY 2019-20	FY 2020-21
R&M exp	27.42	26.91	26.20
Opening GFA	1,236.61	1,274.13	1,398.63
K factor	2.22%	2.11%	1.87%

Avg of K factor (as per JERC Approved) 2.73%

for three (3) Years before the base Year;
 ending three (3) Years before the base Year;

the Multi Year Tariff Order based on Licensee's filing, benchmarking, approved cost by
 for each Year in the Multi Year Tariff Order for meeting the additional manpower require

FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21
113.88	109.72	111.62	114.88	119.79	121.80	123.38
1.26%	-3.65%	1.73%	2.92%	4.28%	1.68%	1.29%
					1.39%	2.38%
				2.98%	2.96%	2.42%

FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21
250.83	265.00	275.92	284.42	299.92	322.50	338.69
6.29%	5.65%	4.12%	3.08%	5.45%	7.53%	5.02%
					5.17%	5.04%
				4.22%	5.35%	6.00%

		Actual	Actual			
2014-15	2015-16	2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
5845	6011	6775	6202	6705	7197	7579
599	585	579	619	619		
	10					
206	238.5	217	351		328	
0.04	0.04	0.03	0.06	-	0.05	-
				8.11%	7.34%	5.31%

FY 2019-20

FY 2021-22	Average
353.55	342.05
60.77	37.96
39.79	28.42

FY 2021-22
60.77
1,443.85
4.21%

the Commission in past and any other factor the Commission feels appropriate;
 ment based on Licensee’s filings, benchmarking, approved cost by the Commission in past and any other factor t

Method 2: Projecting the based on the approved figures of FY 2021-22

Particulars	FY 2022-23
WPI Inflation	5.32%
K	2.73%
GFA _n -1	1443.85
R&M_n	41.54

Particulars	FY 2022-23
EMP _n -1 (approved in FY 2021-22)	311.98
G _n	0.63%
CPI Inflation	5.89%
EMP_n	332.44

Particulars	FY 2022-23
A&G _n -1 (As approved in FY 2021-22)	31.02
CPI Inflation	5.89%
A&G_n	32.85

FY 21-22	FY 22-23	FY 23-24
139.41	153.50	153.50
13.00%	10.11%	0.00%
4.63%	6.07%	5.21%
5.32%	5.32%	5.32%

FY 21-22	FY 22-23	FY 23-24
356.06	373.10	373.10
5.13%	4.79%	0.00%
5.24%	5.58%	4.49%
5.89%	5.89%	5.89%

FY 2021-22	FY 2022-23
5883	5920

0.00%	0.63%
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hat the Commission feels appropriate:

Form F18(A)

Employee Expenses

(₹ Lakhs)

S.No	Particulars	Control Period			
		Actual (H1)	Projection	Estimated	Projections
		FY 2022-23 H1	FY 2022-23 H2	FY 2022-23	FY 2023-24
A	Employee Cost (Other than covered in 'C'&'D')				
1	Salaries	159.83	120.00	279.83	298.18
2	Dearness Allowance (DA)	18.13	13.62	31.75	33.83
3	Other Allowances+ HRA	32.38	24.31	56.69	60.41
4	Interim Relief / Wage Revision				
5	Overtime				
6	Bonus				
7	Generation Incentive				
8	Any Other Item (specify)				
	Sub Total				
B	Other Costs				
1	Medical Expenses Reimbursement	2.89	2.17	5.05	5.38
2	Travelling Allowance(Conveyance Allowance)	7.56	5.68	13.23	14.10
3	Leave Travel Assistance				
4	Payment Under Workman's Compensation Act				
5	Electricity Concession to Employees				
6	Other Staff Welfare Expenses				
7	Any Other Item (specify)				
	Sub Total				
C	1 Apprentice and Other Training Expenses				
D	Contribution to Terminal Benefits				
1	Earned Leave Encashment				
2	Provident Fund Contribution(NPS)	12.65	9.50	22.15	23.61
3	Provision for PF Fund				
4	Pension				
5	Gratuity				
6	Ex-gratia				
7	Any Other Item (specify)				
	Sub Total				
E	Grand Total (A+B+C+D)	233.44	175.27	408.71	435.52
F	Employee Expenses Capitalized				
G	Net Employee Expenses (E)-(F)	233.44	175.27	408.71	435.52

Form F18(B)

Employee Strength

S.No.	Particulars	FY 2021-22		Control Period			
		Actuals		Estimated		Projections	
				FY 2022-23		FY 2023-24	
		Working Strength At The Beginning Of The Year	Sanctioned Strength At The Beginning Of The Year	Working Strength At The Beginning Of The Year	Sanctioned Strength At The Beginning Of The Year	Working Strength At The Beginning Of The Year	Sanctioned Strength At The Beginning Of The Year
	Technical						
1	Class I	10	36	7	36	15	36
2	Class II	164	193	158	193	185	193
3	Class III	4616	5621	4647	5621	4931	5621
4	Class IV						
	Non - Technical						
1	Class I	3	3	3	3	3	3
2	Class II	2	3	2	3	2	3
3	Class III	1088	1433	1103	1433	1145	1433
4	Class IV						
	Total	5883	7289	5920	7289	6281	7289

Form F20

Repair & Maintenance Expenditure

S.No.	Particulars	Control Period			
		Actual (H1)(upto Sept,22)	Projection	Estimated (H2)	Projections
		FY 2022-23			FY 2023-24
1	Plant and Machinery	22.40	16.80	39.20	39.20
	- 220 kV Sub-Station				
	- 110 kV Sub-Station				
	- 33kV Sub-Station				
	- 11kV Sub-Station				
	- Switchgear and cable connections				
	- Others	0.09	0.07	0.16	
2	Building	1.45	1.09	2.53	2.53
3	Civil Works				
4	Hydraulic Works				
5	Lines, Cables, Networks etc.				
	- 220 kV Sub-Station				
	- 110 kV Sub-Station				
	- 33kV Lines				
	- 11kV Lines				
	- LT Lines				
	- Others				
6	Vehicles	7.25	5.44	12.68	12.68
7	Furniture and Fixtures				
8	Office Equipments				
9	Station Supplies				
10	Metering Equipments				
11	Any Other Item	0.02	0.02	0.04	
A	Gross R&M Expenses	31.21	23.41	54.62	54.62
B	R&M Expenses Capitalised				
12	Net R&M Expenses	31.21	23.41	54.62	54.62

Administration & General Expenses

(₹ cr)

S.No	Particulars		Control Period				
			FY 2022-23		FY 2023-24		
			Actual(H1)(upto Sept.22)	Projection H2	Estimated	Projected	
A.	1	Lease/ Rent	0.46	0.65	1.11	1.17	
	2	Insurance					
	3	Revenue Stamp Expenses Account					
	4	Telephone, Postage, Telegram & Telex Charges					
	5	Incentive & Award to Employees/Outsiders					
	6	Consultancy Charges					
	7	Technical Fees					
	8	Other Professional Charges	0.45	0.63	1.08	1.15	
	9	Conveyance and Travelling Expenses	0.19	0.27	0.46	0.48	
	10	License and Registration Fees					
	11	Vehicle Expenses (Other Than Trucks and Delivery Vans)	Vehicles Running Expenses Petrol and Oil Hiring of Vehicles				
	12	Security / Service Charges Paid to Outside Agencies					
	Sub Total 'A' (1 to 12)		1.10	1.55	2.65	2.80	
B. Other Charges	1	Fee and Subscription for Books and Periodicals					
	2	Printing and Stationery Expenses					
	3	Advertisement Expenses (Other than Purchase Related) Exhibition & Demo.	0.12	0.17	0.29	0.33	
	4	Contributions/Donations to Outside Institutes / Associations					
	5	Electricity Charges of Offices					
	6	Water Charges					
	7	Entertainment Charges					
	8	Miscellaneous Expenses (specify details)					
		Office expenses	10.55	14.84	25.39	26.89	
		Other Charges	2.09	2.94	5.03	5.33	
	minor works	0.16	0.23	0.39	0.41		
	Sub-Total 'B' (1 To 8)		12.92	18.18	31.10	32.95	
C.	Legal Fee/Charges						
D.	Auditor's Fee						
E. Material Related Expenses	1	Freight on Capital Equipments					
	2	Purchase Related Advertisement Expenses					
	3	Vehicle Running Expenses Truck / Delivery Van					
	4	Vehicle Hiring Expenses Truck / Delivery Van					
	5	Other Freight					
	6	Transit Insurance					
	7	Octroi					
	8	Incidental Stores Expenses					
	9	Fabrication Charges					
	minor works						
	Sub Total 'E' (1 To 9)		0.00	0.00	0.00	0.00	
F.	Direction And Supervision Charges						
G.	Annual license fee and tariff determination fee payable to JERC						
	Grand Total (A To G)	Total Charges	14.02	19.72	33.74	35.73	
H.	Total Charges Chargeable To	Capital Works (-) Revenue Expenses					

Form F21

Income from Investments and Non-Tariff Income

(₹ crore)

S. No.	Particulars	Projection			
		FY 2022-23 Actual (H1)	FY 2022-23 Projection (H2)	FY 2022-23 Estimated	FY 2023-24 Estimated
1	Meter/metering equipment/service line rentals				
2	Service Charges				
3	Customer Charges				
4	Revenue from Late Payment Surcharge*				
5	Miscellaneous Charges				
6	Incentives from CGSs				
7	Miscellaneous Receipts	3.89	17.7	21.59	22.01
8	Interest on advances to suppliers/contractors				
9	Interest on Staff Loans and Advances				
10	Income from Trading				
11	Income from Staff Welfare Activities				
12	Excess found on Physical Verification				
13	Interest on Investments, Fixed and Call Deposits and Bank Balances				
14	Prior Period Income				
15	Income from Open Access Charges (Application fee, Cross Subsidy Surcharge, Additional Surcharge, Transmission and/or Wheeling Charges, Scheduling Charges etc.				
16	Sale Proceeds of dead stock, waste paper etc	2.53	5.24	7.77	7.92
16	Any other Income not included above				
	Total	6.42	22.94	29.36	29.93

Note:

*Net revenue from late payment surcharge (late payment surcharge less financing cost of late payment surcharge)

	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23
NTI As Approved	6.79	24.4	25.34	26.32	26.32
		259.35%	3.85%	3.87%	0.00%
				1.93%	

Form F22

Consumer Security Deposit

(₹ crore)

S. No.	Category	FY 2021-22		FY 2022-23 (April 2022 to Sep 2022)	
		Actual		Estimated	
		Security Deposit Collected(Rs.)	Security Deposit Refunded(Rs.)	Security Deposit Collected(Rs.)	Security Deposit Refunded(Rs.)
A	PERMANENT SUPPLY				
1	Domestic				
	11 kV Voltage Level				
	Tariff HTD/Domestic	0	0	0	0
	LT Voltage Level				
	Tariff LTD/Domestic and Non-Commercial	-76698588.2	-116583.17	-54759949	-124180.19
	Tariff LTD/Low Income Group	-100		-6582	-23
	Sub-Total	-76698688.2	-116583.17	-54766531	-124203.19
2	Commerical				
	33 kV Voltage Level				
	Tariff HT-Commercial	0	0	0	0
	11 kV Voltage Level				
	Tariff HT-Commercial	-275000	0	-1980000	0
	LT Voltage Level				
	Tariff-LTC/Commercial	-59726191	-17758	-44764718.65	-63835

	Sub-Total	-60001191	-17758	-46744718.65	-63835
3	Public Lighting				
	LT Voltage Level				
	Tariff-LTPL/Public Lighting	-186005	0	-91992	0
4	Agricultural Pumpsets				
	HT Voltage Level (33 kV)				
	HT-Agriculture				
	<i>Tariff-HTAG/Agriculture (Pump Sets/Irrigation) (A)</i>	0	0	0	0
	<i>Tariff-HTAG/Agriculture (Allied Activities) (B)</i>	0	0	0	0
	HT Voltage Level (11 kV)				
	HT-Agriculture				
	<i>Tariff-HTAG/Agriculture (Pump Sets/Irrigation) (A)</i>	0	0	0	0
	<i>Tariff-HTAG/Agriculture (Allied Activities) (B)</i>	0	0	0	0
	LT Voltage Level				
	LT-Agriculture				
	<i>Tariff-LTAG/Agriculture (Pump Sets/Irrigation) (A)</i>	-1859466	0	-924957	-4750
	<i>Tariff-LTAG/Agriculture Allied (B)</i>	-303106	0	-56277	0
	Sub-Total	-2162572	0	-981234	-4750
5	Small Power				
	LT Voltage Level				
	LTI-Industry	-5782018	0	-2720011	-1700

	Tariff-LTP/Mixed (Hotel Industries)	-21958	0	-113463	-1737
	Sub-Total	-5803976	0	-2833474	-3437
6	Medium Supply				
	11 kV Voltage Level				
	Tariff HTI/Industrial (Connected at 11 kV)	-4115000	0	-4413000	0
	H.T. MES/Defence Establishments	0	0	0	0
	Sub-Total	-4115000	0	-4413000	0
7	Large Supply				
	33 kV Voltage Level				
	Tariff HTI/Industrial (Connected at 33 kV)	-4502050	0	-800000	0
	H.T.Industrial (Ferro Metallurgical/ Steel Melting/ Power Intensive)	-15100	0	0	0
	Sub-Total	-4517150	0	-800000	0
8	Bulk Supply				
	110 kV Voltage Level				
	Tariff HTI/Industrial (Connected at 110 kV)	0	0	0	0
	11 kV Voltage Level				
	Single Point Supply				
	<i>Residential Complexes</i>	0	0	0	0
	<i>Commercial Complexes</i>	0	0	0	0
	<i>Industrial Complexes</i>	0	0	0	0
	Sub-Total	0	0	0	0

9	Other Categories				
	33 kV Voltage Level				
	Electric Vehicle Charging Station	0	0	0	0
	11 kV Voltage Level				
	Tariff-LT Hoarding and SignBoard	-342298	0	-13858	0
	Electric Vehicle Charging Station	0	0	0	0
	Grand Total	-342298	0	-13858	0

B	TEMPORARY SUPPLY				
1	Domestic				
	11 kV Voltage Level				
	Tariff-HTTS/Temporary Supply (HT Domestic)	0	0	0	0
	LT Voltage Level				
	Tariff-LT/Temporary Domestic	-6402584	-176478	-4266796	-175152.67
	Sub-Total	-6402584	-176478	-4266796	-175152.67
2	Commerical				
	11 kV Voltage Level				
	Tariff-HTTS/Temporary Supply (HT Commercial)	-123049	0	0	0
	LT Voltage Level				
	Tariff-LT/Temporary Commercial	-42925764.12	-4640802.99	-18497394	-3171820
	Sub-Total	-43048813.12	-4640802.99	-18497394	-3171820
	Grand Total	-203278277.3	-4951622.16	-133408997.7	-3543197.86

Information regarding Security Deposits from Consumers

(Rs. Crs)

Sr. No.	Particulars	Actual	Actual	Actual	Projection	Estimated
		FY 2020-21	FY 2021-22	FY 2022-23 (H1)	FY 2022-23 (H2)	FY 2022-23
1	1	2		3	4	5
1	Opening Security Deposit	45.87	51.21	86.60	99.59	86.60
2	Add: Deposits during the Year	13.04	43.31	13.34	13.34	26.68
3	Less: Deposits refunded	7.70	7.92	0.35	0.35	0.71
4	Closing Security Deposit	51.21	86.60	99.59	112.58	112.58
5	Bank Rate	4.65%	4.25%	4.25%	4.25%	4.25%
6	Interest on Security Deposit *	2.26	2.93	3.96	4.51	4.23

Provisions of Interest on Security Deposits from Consumers

Rs.Crs

Sr. No.	Particulars	Actual	Actual	Actual	Projection	Estimated
		FY 2020-21	FY 2021-22	FY 2022-23 (H1)	FY 2022-23 (H2)	FY 2022-23
1	2	3		4	5	6
1	Opening Security Deposit	45.87	51.21	86.60	99.59	86.60
2	Add: Deposits during the Year	13.04	43.31	13.34	13.34	26.68
3	Less: Deposits refunded	7.70	7.92	0.35	0.35	0.71
4	Less: Deposits in form of BG/FDR	-	-	-	-	-
5	Closing Security Deposit	51.21	86.60	99.59	112.58	112.58
6	Bank Rate	4.65%	4.25%	4.25%	4.25%	4.25%
7	Interest on Security Deposit *	2.26	2.93	3.96	4.51	4.23
8	Cumulative Interest on Security Deposit including Past Years	24.13	27.06	28.09	32.59	31.29
9	Interest on Security Deposit Paid	20.42	5.50			5.36
10	Balance Interest on Security Deposit to be Paid during control Period	3.71	1.13	2.16	6.67	0.00

Revenue from Current Tariff in ensuing year

Revenue for FY 2022-23 at the Tariff Approved in FY 2022-23 with Sales in RuVn/ Lx. KVnH Billing (Projection for October 2022 to March 2023) [H2]

Table with columns: Sl. No., Category, No. of consumers, Fixed Charges, Demand Charge, Energy Charges, Fuel surcharge, sanctioned load in kW, Contract Demand, Sales in MJ, Revenue from Fixed Charges, Revenue from Demand Charges, Revenue from Fuel surcharge, Total, Average Billing Rate, Ratio of Billing Rate to Average Cost of Supply, FY 2022-23 (H1) Revenue, Total Revenue, Approved Revenue to Order FY 2022-23, and Subsidy Provided by the Government.

Revenue from Current Tariff in ensuing year																				
	Above 500 units	1876	Rs./HP/Month	40		Rs./kWh	3.95		105374.32		76.27		5.05		30.09		95.14			
	Tariff-LTV/Mod (Special Industries)	122	Rs./kW/Month	54		Rs./kWh	5.25		2567.94		4.36		0.15		2.19		2.34		5.62	
	Sub-Total	6150.17							108238.63		0.00		97.96		5.55		38.26		47.81	
6																				
Medium Supply 11kV, Large Supply 33kV & Bulk Supply 110 kV																				
	33 kV / 11 kV & 110 kV Voltage Level																			
	Tariff HT/Industrial	833							606553		3738.82		382		853		1033.24		5.94	
	33 kV/11kV	826				Rs./kVA/Month	250	Rs./kWh	4.80		121254.67		3485.29		0.07	154.38		731.97		888.35
	110kV	61				Rs./kVA/Month	250	Rs./kWh	4.70		83300.66		233.34		1.05	25.50		139.30		164.89
	H.T. Industrial (Ferro Metallurgical/ Steel Melting/ Power Intensive)	24				Rs./kVA/Month	250	Rs./kWh	4.80		116495.07		512.94		1.00	94.95		247.20		282.15
	H.T. MES/Defence Establishments	15				Rs./kVA/Month	200	Rs./kWh	4.90		9223.22		33.43		0.95	2.21		37.20		19.41
	Sub-Total	871.59							732273.60		2284.99		218.13		1115.68		1334.88		5.84	
6																				
Medium Supply																				
	11 kV Voltage Level																			
	Tariff HT/Industrial (Connected at 11kV)																			
	H.T. Industrial (Ferro Metallurgical/ Steel Melting/ Power Intensive)																			
	H.T. MES/Defence Establishments																			
	Sub-Total																			
7																				
Large Supply																				
	33 kV Voltage Level																			
	Tariff HT/Industrial (Connected at 33 kV)																			
	H.T. Industrial (Ferro Metallurgical/ Steel Melting/ Power Intensive)																			
	H.T. MES/Defence Establishments	0																		
	Sub-Total																			
8																				
Bulk Supply																				
	110 kV Voltage Level																			
	Tariff HT/Industrial (Connected at 110 kV)																			
	33 kV Voltage Level																			
	Single Point Supply	1							2,500		6.68		0.64		0.00	3.21		0.00	3.87	
	Residential Complexes	1				Rs./kVA/Month	150	Rs./kWh	3.55		0.00		0.00		0.00					
	Commercial Complexes	1				Rs./kVA/Month	220	Rs./kWh	4.80		2500		6.68		1.00	0.64		3.21		3.87
	Industrial Complexes					Rs./kVA/Month	220	Rs./kWh	4.40				0.00		0.00					
	Sub-Total	1.00							2500.00		6.68		0.66		0.00	3.21		0.00	3.87	
9																				
Other Categories																				
	33 kV Voltage Level																			
	Electric Vehicle Charging Station																			
	11 kV Voltage Level																			
	Tariff H.T Hoarding and SignBoard	69				Rs./kVA/Month	70		10.00		571.83		0.34		0.05		0.34		0.39	
	Electric Vehicle Charging Station																			
	Grand Total	704515							2591180.81		889939.08		4561.91		341.14		0.00	1909.46		2250.60

Revenue from Current Tariff in ensuing year

Revenue from Current Tariff in ensuing year																
Revenue for FY 2022-23 at the Tariff Approved in FY 2022-23 with Sales in (kVAh) i.e. kVAh Billing																
Sl. No.	Category	No. of consumers	Components of tariff							Relevant sales & load/demand data				Full year revenue (Rs. Crore)		Ratio of Average Billing Rate to Average Cost of Supply @ Rs./kWh (%)
			Fixed Charges (specify part name and units)	Demand Charge	Demand Charge	Energy Charge (specify part name and units)	Energy Charge	Fuel surcharge per unit, if any	Sanctioned Load in kW	Contract Demand in kVA/MVA	Sales in MU	pF Considered	Revenue from Fixed Charges	Revenue from Demand Charges	Revenue from Energy Charges	
1	Domestic															
11 KV Voltage Level																
	Tariff HTS/Domestic	4		Rs./kVA/Month	125.00	Rs./kWh	5.30			400	0.89	0.96	0.06		0.21	7.07
	Tariff HTS/Temporary Supply (HT Domestic)	0		Rs./kVA/Month	187.50	Rs./kWh	7.95				0.90	0.00				0.00
1T Voltage Level																
	Tariff LTQ/Domestic and Non-Commercial	56341.11								1881661.05	1385.41		49.68	0.00	415.50	465.18
	0-100 units	256137	Rs./kVA/Month	22.00		Rs./kWh	1.75			574336.87			15.16		87.75	102.91
	101-200 units	1542468	Rs./kVA/Month	22.00		Rs./kWh	2.40			414534.13			10.94		84.89	95.83
	201 to 300 units	51842	Rs./kVA/Month	22.00		Rs./kWh	3.20			250525.01			8.50		51.89	70.47
	301 to 400 units	44941	Rs./kVA/Month	22.00		Rs./kWh	4.40			194553.40			5.14		48.33	53.46
	Above 400 units	14560	Rs./kVA/Month	22.00		Rs./kWh	5.40			973421.85			260.09		132.65	142.56
	Tariff LTQ/Low Income Group	901	Rs./kVA/Month	22.00		-	-			71.00		0.93	0.00		0.00	0.02
	Tariff LT/Temporary Domestic	1751								2060.03	1.06	0.98	0.28		0.36	1.40
	0-100 Units	1751	Rs./kVA/Month	33.00		Rs./kWh	2.83			2060.03	1.06	0.98	0.28		0.36	1.40
	101 to 200 Units	0	Rs./kVA/Month	33.00		Rs./kWh	3.90			0.00	0.00	0.00			0.00	
	201 to 300 Units	0	Rs./kVA/Month	33.00		Rs./kWh	4.95			0.00	0.00	0.00			0.00	
	301 to 400 Units	0	Rs./kVA/Month	33.00		Rs./kWh	6.60			0.00	0.00	0.00			0.00	
	Above 400 Units	0	Rs./kVA/Month	33.00		Rs./kWh	7.65			0.00	0.00	0.00			0.00	
	Sub-Total	56609.61								1882792.08	400.00	1387.78	49.82	0.00	416.00	465.82
2	Commercial															
22 KV & 11 KV Voltage Level																
	Tariff HT-Commercial	315		Rs./kVA/Month	385.00	Rs./kWh	6.00			13369.25	170.89	0.99	44.83		103.79	148.63
22 KV Voltage Level																
	Tariff HT-Commercial	16														
11 KV Voltage Level																
	Tariff HT-Commercial	16		Rs./kVA/Month	427.50	Rs./kWh	9.00			7082.75	6.33	0.90	0.00		6.33	6.33
1T Voltage Level																
	Tariff LTC/Commercial	108,066.20								426,255.38	511.84		26.86		291.36	308.21
	0-20 kV/Commercial Consumers															
	0-100 units	60769	Rs./kVA/Month	45.00		Rs./kWh	4.00			118479	76.22	6.29		11.29	17.58	
	101-200 units	51298	Rs./kVA/Month	45.00		Rs./kWh	4.85			37491	46.33	7.02		24.41	25.21	
	201-400 units	13173	Rs./kVA/Month	45.00		Rs./kWh	5.50			44406	40.09	7.40		33.05	35.43	
	Above 400 units	15594	Rs./kVA/Month	45.00		Rs./kWh	6.00			95900	186.23	9.40		112.84	118.20	
	>20-90kV Commercial Consumers															
	0-100 units	399	Rs./kVA/Month	70.00		Rs./kWh	4.00			14227	3.88	1.20		1.55	2.75	
	101-200 units	112	Rs./kVA/Month	70.00		Rs./kWh	4.85			3202	3.28	0.33		1.29	2.18	
	201-400 units	210	Rs./kVA/Month	70.00		Rs./kWh	5.50			7025	7.64	0.59		3.82	4.48	
	Above 400 units	2698	Rs./kVA/Month	70.00		Rs./kWh	6.00			102959	122.34	8.55		73.40	82.05	
	>90 kV Commercial Consumers															
	0-100 units	0								0	0.00	0.00			0.00	
	101-200 units	0								0	0.00	0.00			0.00	
	201-400 units	0								0	0.00	0.00			0.00	
	Above 400 units	0								0	0.00	0.00			0.00	
	Tariff LT/Temporary Commercial	1243								5464	3.03	0.44		0.00	0.44	1.44
	0-100 kV/Commercial Consumers															
	0-100 Units	1348	Rs./kVA/Month	67.50		Rs./kWh	6.00			5385		0.44			0.44	
	101-200 units	0	Rs./kVA/Month	67.50		Rs./kWh	7.28			0		0.00			0.00	
	201-400 units	0	Rs./kVA/Month	67.50		Rs./kWh	8.25			0		0.00			0.00	
	Above 400 Units	0	Rs./kVA/Month	67.50		Rs./kWh	9.00			0		0.00			0.00	
	>20-90kV and above Commercial Consumers															
	0-100 units	0	Rs./kVA/Month	105.00		Rs./kWh	6.00			0		0.00			0.00	
	101-200 units	0	Rs./kVA/Month	105.00		Rs./kWh	7.28			0		0.00			0.00	
	201-400 units	0	Rs./kVA/Month	105.00		Rs./kWh	8.25			0		0.00			0.00	
	Above 400 units	0	Rs./kVA/Month	105.00		Rs./kWh	9.00			0		0.00			0.00	
	Sub-Total	111660.96								431722.21	136172.06	692.11	72.13		391.48	463.61
3	Public Lighting															
1T Voltage Level																
	Tariff LTPL/Public Lighting Unmetered LTPL	6284	Rs./kVA/Month	72.00		Rs./kWh	5.80			10060.51	50.69	0.87		29.05	29.92	5.97
4	Agricultural Pumps															
HT Voltage Level (33 kV & 11 kV)																
	Tariff HTAG/Agriculture (Pump Sets/Irrigation) (A)	43		Rs./kWh/Month	42.00	Rs./kWh	1.70			13488.00	6.51	0.81	0.68		1.37	2.04
	Tariff HTAG/Agriculture (Allied Activities) (B)	1		Rs./kWh/Month	77.00	Rs./kWh	2.15			3185.49	34.98	1.00	0.29		3.19	3.34
HT Voltage Level (33 kV)																
	Tariff HTAG/Agriculture (Pump Sets/Irrigation) (A)	0														
	Tariff HTAG/Agriculture (Allied Activities) (B)	0														
HT Voltage Level (11 kV)																
	Tariff HTAG/Agriculture (Pump Sets/Irrigation) (A)	0														
	Tariff HTAG/Agriculture (Allied Activities) (B)	0														
1T Voltage Level																
	Tariff LTAG/Agriculture (Pump Sets/Irrigation) (A)	13121	Rs./kWh/Month	20.00		Rs./kWh	1.60			63571.51	59.09	1.53		3.05	4.57	2.40
	Tariff LTAG/Agriculture (Allied Activities) (B)	304	Rs./kWh/Month	27.00		Rs./kWh	2.00			3214.07	1.48	0.10		0.30	0.48	2.73
	Sub-Total	13474.72								66785.58	16593.48	41.99	2.60		7.90	10.50
5	Small Power															
1T Voltage Level																
	LTD/Industry	8038.83								195673.27	94	1.0		37	46.67	4.83
	0-500 Units	4153	Rs./kWh/Month	41.00		Rs./kWh	3.50			90297.16	17.63	4.44		6.17	10.61	

Form F23

Revenue from Current Tariff in ensuing year													
Above 500 units	1874	R ₁ /HP/Month	41.00			R ₂ /kWh	4.05	105374.12	76.17	5.18	30.85	36.03	
Tariff LTV/Minid (Power Intensive)	123	R ₁ /W/Month	55.00			R ₂ /kWh	5.60	2567.34	4.34	0.17	2.33	2.50	6.03
Sub-Total	6150.17							106238.63	0.00	97.96	5.80	39.35	49.14
Medium Supply 11kV, Large Supply 33 kV & Bulk Supply 110kV													
13 kV / 11 kV & 110 kV Voltage Level													
Tariff HT/Industrial	833							606553	1739	186	869	104.67	6.07
33 kV/11kV	620			R ₁ /VA/Month	255.00	R ₂ /kWh	4.90	121204.63	1485.38	0.97	159.50	187.22	906.71
33 kV	6			R ₁ /VA/Month	255.00	R ₂ /kWh	4.80	83300.60	333.34	1.00	79.10	111.84	217.96
H.T.Industrial (Ferro Metallurgical/ Steel Melting/ Power Intensive)	24			R ₁ /VA/Month	255.00	R ₂ /kWh	4.90	116489.07	512.94	1.00	35.65	252.15	287.80
H.T. MES/Defence Establishments	15			R ₁ /VA/Month	300.00	R ₂ /kWh	4.90	9223.22	33.43	0.95	2.21	17.20	19.41
Sub-Total	871.59							732273.60	2284.99	223.87	1138.41	1361.87	5.96
1 Medium Supply													
11 kV Voltage Level													
Tariff HT/Industrial (Connected at 11 kV)													
H.T.Industrial (Ferro Metallurgical/ Steel Melting/ Power Intensive)													
H.T. MES/Defence Establishments													
Sub-Total													
2 Large Supply													
33 kV Voltage Level													
Tariff HT/Industrial (Connected at 33 kV)													
H.T.Industrial (Ferro Metallurgical/ Steel Melting/ Power Intensive)													
H.T. MES/Defence Establishments	0												
Sub-Total													
3 Bulk Supply													
110 kV Voltage Level													
Tariff HT/Industrial (Connected at 110 kV)													
11 kV Voltage Level													
Single Point Supply	1							2,500	6.68	0.72	0.00	3.54	0.00
Residential Complex				R ₁ /VA/Month	120.00	R ₂ /kWh	3.30						4.28
Commercial Complexes	1			R ₁ /VA/Month	240.00	R ₂ /kWh	5.30	2500	6.68	1.00	0.72	3.54	4.28
Industrial Complexes				R ₁ /VA/Month	240.00	R ₂ /kWh	4.90						
Sub-Total	1.00							2500.00	6.68	0.72	0.00	3.54	0.00
3 Other Categories													
33 kV Voltage Level													
Electric Vehicle Charging Station													
11 kV Voltage Level													
Tariff LT Boarding and Signboard	69	R ₁ /VA/Month	77.00			R ₂ /kWh	11.00	371.8251	0.34	0.05	0.37	0.43	12.55
Electric Vehicle Charging Station													
Grand Total	7045.15							2591180.81	889949.08	4561.91	359.45	0.00	2026.11

Form F27

Details of Charges for Deviation

Month	FY 2021-22						FY 2022-23					
	Energy Over-drawn	Energy Under-drawn	Charges for Deviation Payable	Charges for Deviation Receivable	Net of Charges for Deviation Payable and Receivable	Additional UI Charges	Energy Over-drawn	Energy Under-drawn	Charges for Deviation Payable	Charges for Deviation Receivable	Net of Charges for Deviation Payable and Receivable	Additional UI Charges
	MU	MU	₹ crore	₹ crore	₹ crore	₹ crore	MU	MU	₹ crore	₹ crore	₹ crore	₹ crore
April	2.28	5.49	0.99	1.34	-0.35	0.00	19.12	0.00	22.04	0.00	22.04	22.04
May	1.06	8.07	0.38	1.04	-0.67	0.00	7.14	0.47	4.82	0.09	4.74	4.74
June	0.72	1.96	0.30	0.30	0.00	0.00	4.50	0.00	3.61	0.00	3.61	3.61
July	0.88	3.07	0.29	0.70	-0.40	0.00	8.85	0.00	5.32	0.00	5.32	5.32
August	1.88	1.18	1.20	0.56	0.64	0.64	3.02	0.00	1.83	0.00	1.83	1.83
September	1.13	0.67	0.56	0.17	0.39	0.39	2.34	0.31	1.48	0.08	1.40	1.40
October	3.56	2.51	2.91	0.71	0.00	0.00						
November	2.35	3.81	1.49	0.98	0.00	0.00						
December	4.77	0.00	2.01	0.00	0.00	0.00						
January	5.43	0.00	1.94	0.00	0.00	0.00						
February	5.78	0.01	2.69	0.00	0.00	0.00						
March	21.64	0.00	22.03	0.00	0.00	0.00						
Total	51.47	26.77	36.79	5.80	-0.39	1.03	44.98	0.78	39.09	0.17	38.93	38.93

FY 2024-25			
At the end of year	Additions during the year	Withdrawal from service	At the end of year

Form F29

Revenue Arrears and Age-wise Analysis

Previous Year		Current Year	Control Period
Actual	Actual	Estimated	Projection
FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24

S.No.	Particulars	FY 2020-21 (May to April)					Age-wise Analysis (Months)				
		Arrears at the beginning of the year (May 20 Opening Balance)	Billed during the year (May 20 to April 21 current demand)	Realised during the year (May 20 to April 21 collection)	Arrears at the end of year (April 21 closing balance)	Percentage increase (+) Decrease (-)	Upto 6 Months	6-12 Months	12-24 Months	24-36 Months	More than 3years
		Crore	Crore	Crore	Crore		Crore	Crore	Crore	Crore	Crore
1	Sale of power within State	448.78	1815.29	1799.30	520.47						
2	Sale of power inter state										
3	Electricity duty	24.72	181.14	187.33	18.62						
4	Provision of unbilled revenue										
5	Dues from permanently disconnected consumers having arrears more than 10 lacs										
6	Miscellaneous receipts from consumers										
7	Less provision for doubtful dues from consumers										
8	Total (1+2+3+4+5+6-7)										
9	Details of litigation/disputes having dues more than Rs.10 lacs										
10	Steps proposed to be taken to improve collection and to reduce the revenue arrears'										

NOTE: This format should be filled for Previous Two Years, Current Year and each year of the Control Period for the MYT Filing

S.No.	Particulars	FY 2021-22 (May to April)					Age-wise Analysis (Months)				
		Arrears at the beginning of the year (May 21 Opening Balance)	Billed during the year (May 21 to April 22 current demand)	Realised during the year (May 21 to April 22 collection)	Arrears at the end of year (April 22 closing balance)	Percentage increase (+) Decrease (-)	Upto 6 Months	6-12 Months	12-24 Months	24-36 Months	More than 3years
		Crore	Crore	Crore	Crore		Crore	Crore	Crore	Crore	Crore
1	Sale of power within State	520.48	2019.13	1946.29	594.13						
2	Sale of power inter state										
3	Electricity duty	18.62	196.60	193.46	21.75						
4	Provision of unbilled revenue										
5	Dues from permanently disconnected consumers having arrears more than 10 lacs				72.67						
6	Miscellaneous receipts from consumers										
7	Less provision for doubtful dues from consumers										
8	Total (1+2+3+4+5+6-7)										
9	Details of litigation/disputes having dues more than Rs.10 lacs										
10	Steps proposed to be taken to improve collection and to reduce the revenue arrears'										

NOTE: This format should be filled for Previous Two Years, Current Year and each year of the Control Period for the MYT Filing

FY 2022-23 (May to Oct)					Age-wise Analysis (Months)				
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3	Electricity duty		21.75	108.87	108.04	22.22						
4	Provision of unbilled revenue											
5	Dues from permanently disconnected consumers having arrears more than 10 lacs		72.67			74.65						
6	Miscellaneous receipts from consumers											
7	Less provision for doubtful dues from consumers											
8	Total (1+2+3+4+5+6-7)											
9	Details of litigation/disputes having dues more than Rs.10 lacs											
10	Steps proposed to be taken to improve collection and to reduce the revenue arrears'											

NOTE:This format should be filled for Previous Two Years, Current Year and each year of the Control Period for the MYT Filing

S.No.	Particulars	FY 2023-24 (May to April)					Age-wise Analysis (Months)				
		Arrears at the beginning of the year	Billed during the year	Realised during the year	Arrears at the end of year	Percentage increase (+) Decrease (-)	Upto 6 Months	6-12 Months	12-24 Months	24-36 Months	More than 3years
		Crore	Crore	Crore	Crore		Crore	Crore	Crore	Crore	Crore
1	Sale of power within State										
2	Sale of power inter state										
3	Electricity duty										
4	Provision of unbilled revenue										
5	Dues from permanently disconnected consumers having arrears more than 10 lacs										
6	Miscellaneous receipts from consumers										
7	Less provision for doubtful dues from consumers										
8	Total (1+2+3+4+5+6-7)										
9	Details of litigation/disputes having dues more than Rs.10 lacs										
10	Steps proposed to be taken to improve collection and to reduce the revenue arrears'										

NOTE:This format should be filled for Previous Two Years, Current Year and each year of the Control Period for the MYT Filing

Revenue Arrears of Government/ Local Bodies and Agewise Analysis

		Previous Year		Current Year	Control Period						
		Actual	Actual	Estimated	Projection						
		FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24						
		FY 2020-21 (May to April)					Age-wise Analysis (Months)				
S.No.	Particulars	Arrears at the beginning of the year(May 20 Opening Balance)	Billed during the year(May 20 to April 21current demand)	Realised during the year(May 20 to April 21 collection)	Arrears at the end of year(April 21 closing balance)	Percentage increase (+) Decrease (-)	Upto 6 Months	6-12 Months	12-24 Months	24-36 Months	More than 3years
	Crore	Crore	Crore	Crore	Crore	Crore	Crore	Crore	Crore	Crore	Crore
1	Sale of power to the Government departments										
a	Fixed Charge	7.23	55.86	22.93	40.20						
b	Demand Charge										
c	Energy Charge	73.17	126.22	116.52	95.39						
d	FPPCA Charge	4.99	13.07	11.81	6.31						
e	Sundry Charges	-4.18	-2.49	1.55	-8.13						
f	Meter Rent	0.13	0.34	0.37	0.11						
g	DPC on energy	18.46	27.09	11.49	35.02						
2.1	Electricity duty	1.86	1.83	2.08	1.77						
2.2	DPC on Electricity Duty	0.72	0.58	0.50	0.94						
3	Provision of unbilled revenue										
4	Dues from permanently disconnected consumers having arrears more than 10 lacs										
5	Dues from permanently disconnected consumers having arrears less than 10 lacs										
6	Miscellaneous receipts from Govt.										
7	Less provision for doubtful dues from Govt.										
8	Total (1+2+3+4+5+6-7)										
9	Details of litigation/disputes having dues more than Rs.10 lacs										
10	Steps proposed to be taken to improve collection and to reduce the revenue arrears'										
	Note: Formats should be separately provided for Government and Local Bodies										

NOTE: This format should be filled for Previous Two Years, Current Year and each year of the Control Period for the MYT Filing

		FY 2021-22 (May to April)					Age-wise Analysis (Months)				
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9	Details of litigation/disputes having dues more than Rs.10 lacs											
10	Steps proposed to be taken to improve collection and to reduce the revenue arrears'											
	Note: Formats should be separately provided for Government and Local Bodies											

NOTE: This format should be filled for Previous Two Years, Current Year and each year of the Control Period for the MYT Filing

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Sr. No.	Category of Consumer	Fixed Charge (Rs/kW, Rs/kVA Rs/BHP Rs/Month/ Connection)	Energy Charge (Rs/kWh)	Fixed Charge (Rs/kW, Rs/kVA Rs/BHP Rs/Month/ Connection)	Energy Charge (Rs/kWh)	Fixed Charge(%)	Energy Charge (%)	Fixed Charge (Rs/kW, Rs/kVA Rs/BHP Rs/Month/ Connection)	Energy Charge (Rs/kWh)
		Existing Tariff for FY 2023-24		Proposed Tariff for FY 2023-24		(% Increase in Proposed Tariff hike to Existing Tariff)		Difference in Proposed & Existing Tariff	
A	Low Tension Supply								
1	Tariff LTD/Domestic and Non-Commercial								
1(a)	0-100 units	20.00	1.60	22.00	1.75	10.00%	9.37%	2.00	0.15
1(b)	101-200 units	20.00	2.35	22.00	2.60	10.00%	10.64%	2.00	0.25
1(c)	201 to 300 units	20.00	2.95	22.00	3.30	10.00%	11.86%	2.00	0.35
1(d)	301 to 400 units	20.00	3.90	22.00	4.40	10.00%	12.82%	2.00	0.50
1(e)	Above 400 units	20.00	4.50	22.00	5.10	10.00%	13.33%	2.00	0.60
2	Tariff LTD/Low Income Group	20.00		22.00		10.00%	10.50%	2.00	NA
3	Tariff-LTC/Commercial								
	<u>0-20 KW/Commercial Consumers</u>								
	1-100 Units	40.00	3.55	45.00	4.00	12.50%	12.68%	5.00	0.45
	101-200 units	40.00	4.35	45.00	4.85	12.50%	11.49%	5.00	0.50
	201-400 Units	40.00	4.85	45.00	5.50	12.50%	13.40%	5.00	0.65
	Above 400 units	40.00	5.25	45.00	6.00	12.50%	14.29%	5.00	0.75
	<u>>20-90Kw Commercial Consumers</u>								
	1-100 Units	60.00	3.55	70.00	4.00	16.67%	12.68%	10.00	0.45
	101-200 units	60.00	4.35	70.00	4.85	16.67%	11.49%	10.00	0.50
	201-400 Units	60.00	4.85	70.00	5.50	16.67%	13.40%	10.00	0.65
	Above 400 units	60.00	5.25	70.00	6.00	16.67%	14.29%	10.00	0.75
4	LTI-Industry								
	0-500 Units	40.00	3.40	41.00	3.50	2.50%	2.94%	1.00	0.10
	Above 500 units	40.00	3.95	41.00	4.05	2.50%	2.53%	1.00	0.10
5	Tariff-LTP/Mixed (Hotel Industries)	50.00	5.25	55.00	5.60	10.00%	6.67%	5.00	0.35
6	LT-Agriculture								
	Tariff-LTAG/Agriculture (Pump Sets/Irrigation) (A)	18.00	1.50	20.00	1.60	11.11%	6.67%	2.00	0.10
	Tariff-LTAG/Agriculture Allied (B)	25.00	1.75	27.00	2.00	8.00%	14.29%	2.00	0.25
7	Tariff-LTPL/Public Lighting	70.00	5.65	72.00	5.80	2.86%	2.65%	2.00	0.15
8	Tariff-LT Hoarding and SignBoard	70.00	10.00	77.00	11.00	10.00%	10.00%	7.00	1.00

Sr. No.	Category of Consumer	Fixed Charge (Rs/kW, Rs/kVA Rs/BHP Rs/Month/ Connection)	Energy Charge (Rs/kWh)	Fixed Charge (Rs/kW, Rs/kVA Rs/BHP Rs/Month/ Connection)	Energy Charge (Rs/kWh)	Fixed Charge(%)	Energy Charge (%)	Fixed Charge (Rs/kW, Rs/kVA Rs/BHP Rs/Month/ Connection)	Energy Charge (Rs/kWh)
		Existing Tariff for FY 2023-24		Proposed Tariff for FY 2023-24		(% Increase in Proposed Tariff hike to Existing Tariff		Difference in Proposed & Existing Tariff	
C	Temporary Supply								
15	Tariff-LT/Temporary Domestic								
	<i>0-100 Units</i>	30.00	2.40	33.00	2.63	10.00%	9.37%	3.00	0.23
	<i>101 to 200 Units</i>	30.00	3.53	33.00	3.90	10.00%	10.64%	3.00	0.38
	<i>201 to300 Units</i>	30.00	4.43	33.00	4.95	10.00%	11.86%	3.00	0.52
	<i>301 to 400Units</i>	30.00	5.85	33.00	6.60	10.00%	12.82%	3.00	0.75
	<i>Above400 Units</i>	30.00	6.75	33.00	7.65	10.00%	13.33%	3.00	0.90
16	Tariff-LT/Temporary Commercial								
	<u>0-20 KW/Commercial Consumers</u>								
	<i>0-100 Units</i>	60.00	5.33	67.50	6.00	12.50%	12.68%	7.50	0.68
	<i>101 - 200 Units</i>	60.00	6.53	67.50	7.28	12.50%	11.49%	7.50	0.75
	<i>201 - 400 Units</i>	60.00	7.28	67.50	8.25	12.50%	13.40%	7.50	0.98
	<i>Above 400 Units</i>	60.00	7.88	67.50	9.00	12.50%	14.29%	7.50	1.13
	<u>>20-90Kw and above Commercial Consumers</u>								
	<i>0 - 100 units</i>	90.00	5.33	105.00	6.00	16.67%	12.68%	15.00	0.68
	<i>101 - 200 units</i>	90.00	6.53	105.00	7.28	16.67%	11.49%	15.00	0.75
	<i>201-400 units</i>	90.00	7.28	105.00	8.25	16.67%	13.40%	15.00	0.98
	<i>Above 400 units</i>	90.00	7.88	105.00	9.00	16.67%	14.29%	15.00	1.13
17	Tariff-HTTS/Temporary Supply								
	<i>HT Domestic</i>	165.00	6.90	187.50	7.95	13.64%	15.22%	22.50	1.05
	<i>HT Commercial</i>	375.00	7.88	427.50	9.00	14.00%	14.29%	52.50	1.13
		-	-						
D	Single Point Supply								
18	Residential Complexes	110.00	3.55	120.00	3.90	9.09%	9.86%	10.00	0.35
19	Commercial Complexes	220.00	4.80	240.00	5.30	9.09%	10.42%	20.00	0.50
20	Industrial Complexes	220.00	4.40	240.00	4.90	9.09%	11.36%	20.00	0.50
E	Other Categories								
21	Electric Vehicle Charging Station	-	3.50		3.70		5.71%	-	0.20

राजनाथ सिंह
RAJNATH SINGH



सत्यमेव जयते

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आज़ादी का
अमृत महोत्सव

282-F 2022
रक्षा मंत्री
भारत
DEFENCE MINISTER
INDIA

28 February, 2022

Subject: Modification of Electricity Tariff Slabs for Armed Forces

Dear Pramod Sawant Ji,

Pls process

I am writing this letter to apprise you about the issues in the prevailing electricity tariff being charged to the Armed Forces and to emphasize the need for creation of a separate electricity tariff slab for the Armed Forces.

The Military Stations/ Cantonments have single and married living accommodations for the Armed Forces Personnel and their families. The other accommodations are for offices and training purposes. There is no commercial activity involved by which revenues are generated from the local population. However, the electricity tariff rates charged to Military Stations/ Cantonments are at Bulk consumer rates normally at par with Non-Domestic users, as a result, the Armed Forces are paying higher tariffs which have a direct bearing on their Revenue Budget.

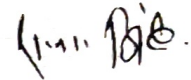
3. The Military Engineer Services (MES) is responsible for supplying electricity to all Military Stations/ Cantonments in the Country. For this purpose, the MES purchases electricity from the State DISCOMS (Distribution Companies) at High Tension (HT) voltages which is further distributed to all consumers through Low Tension (LT) network after step down process at respective MES Main Receiving Stations (MRS). The metering is done at MRS by installing HT electric meter, hence even the transmission/ line losses of HT 11 KV distribution network is borne by the MES. In addition, the complete management of power after MRS which includes step down transformer, metering and billing is done by the MES establishment.

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4. It is observed that if the Defence consumers had been occupying accommodation in civil areas, they would have been in the category of Individual Domestic Consumers and accordingly would have been charged at lower tariff rates. Hence, in order to address this anomaly, it is important that a special tariff slab at par or lower than that applicable to domestic consumers be created for the Indian Armed Forces. This will assist the Armed Forces to utilize the Defence Revenue Budget for reinforcing the security related infrastructure of the Country.

5. I would, therefore, request you that necessary instructions may be issued to the State Electricity Regulatory Commissions to consider the aforementioned proposal for creation of a separate tariff slab for the Armed Forces at par or lower than that applicable to the domestic consumers to boost the morale of the Armed Forces Personnel.

Yours sincerely,



(Rajnath Singh)

Shri Pramod Sawant,
Chief Minister,
Goa,
Chief Minister Office, House No. 12/182 Khorlim- Mapusa,
Panaji-403507



Manpower Assessment

Electricity department-Goa



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1. INTRODUCTION

MANPOWER ASSESSMENT FOR ELECTRICITY DEPARTMENT

GOVERNMENT OF GOA

1. As per the instructions of the Honorable Minister for Power, the Chief Electrical Engineer constituted a team to assess the manpower requirement of the Electricity Department. The constitution of the team is as follow:
 - a. Superintending Engineer, Circle I.
 - b. Superintending Engineer, Circle II
 - c. Superintending Engineer, Planning
 - d. Director, Administration.
 - e. Deputy Director, Administration.

2. The team had several meetings to finalize the exact manpower requirement for all levels of employees in the Departments. The team finalized certain criteria for finalization of manpower requirements for each post in the Department. Sub Divisional and Divisional Data was obtained from SAP with regards to the criteria's finalized against each post and the post wise manpower requirements were finalized.

3. The criteria for finalizing the number of posts in the Department at Sub-Divisional levels are as mentioned below:

Serial No.	Name of the Post	Selection criteria
1	Assistant Engineer (O&M)	1 per subdivision
2	Assistant Engineer (Comm)	1 per subdivision
3	Junior Engineer (O&M)	1 JE (O&M) for 2500 Consumers, 15 Sq. Km Area and 30 number of DTCs.



Serial No.	Name of the Post	Selection criteria
4	Junior Engineer (HT)	1 JE (HT) for 100 Sq. Km Area, 2 Nos. 33/11 KV substation, 23 Km of 33kV OH feeders and 53 Km of 11KV feeders
5	Linemen/Wiremen	3 Nos. per JE (O&M)
6	Assistant Linemen	5 Nos. per JE (O&M)
7	Line Helpers.	8 Nos. per JE(O&M)
8	Station Operators	5 Nos. per substation
9	Meter readers for each sub-division	1 Nos. of meter reader 4200 consumers in Urban Area, 2800 consumers in Semi-urban and 2000 consumers in Rural areas.
10	Head Clerk.	1 per subdivision.
11	UDC	2 Nos. of UDC per subdivision. (1 Nos. for O&M and 1 Nos. for Commercial).
12	LDC	4 Nos. of LDC per subdivision for O&M.
13	LDC / ADEO	1 No. of LDC / ADEO per subdivision for 4000 consumers for commercial works.
14	Peon	2 Nos. of Peons per subdivision.

4. Similarly, the criteria for finalizing the number of posts in the Department at Divisional levels are as mentioned below:

Serial No.	Name of the Post	Selection criteria
1	Assistant Engineer	3 Nos. of Assistant Engineers (for Tech, Billing, HT and Estimate respectively.
2	Junior Engineer (Tech)	2 Nos. per division
3	Head Clerk.	1 Nos. per division



Serial No.	Name of the Post	Selection criteria
4	UDC	4 Nos. per division
5	LDC	9 Nos. per division
6	Peon	2 Nos. per division

5. The requirements of manpower at each sub-division and division were identified based on the above criteria's. The sanctioned strength against each of the post were compared with new requirements and deficiency / additional staff identified. **(+ INDICATES ADDITIONAL STAFF AND – INDICATES DEFICIENCY)**



2. DIVISION WISE DETAILS

1. Division - I: Panjim

1.1 Division I Panaji has their office within the premises of the Head office Panaji, which looks after entire Panaji City Under the guidance of Executive Engineer, Division 1 consists of 4 sub-divisions namely, S.D 1-Corlim, S.D 2-Panaji, S.D 3-Bambolim and S.D 4-Taleigao.

1.2 The summary of the detail manpower assessment sub-division and division as given as below: -

Sub-Division office Division-I			
DESIGNATION	Existing Strength	Sanctioned Strength	Actual Requirement
Assistant Engineer (O&M)	4	4	0
Assistant Engineer (COM)	3	4	-1
Junior Engineer (TECH)	4	8	-4
Junior Engineer (O&M)	18	21	-3
Junior Engineer (HT)	4	4	0
Head Clerk (SD)	4	4	0
Lineman Wireman	68	85	-17
Assistant Lineman	109	85	24
Line Helper	192	192	0
Upper Division Clerk (SD)	4	4	0
Lower Division Clerk (O&M)	16	16	0
Asst. Data Entry Operator/ Lower Division Clerk (COM)	16	22	-6
Station Operator	32	40	-8
PEON (SD)	2	8	-6
Meter Reader	63	29	34

Division - office			
DESIGNATION	Existing Strength	Sanctioned Strength	Actual Requirement
Executive Engineer	1	1	0
Assistant Engineer (TECH/HT BILLING/ESTIMATES)	2	4	-2
Junior Engineer (TECH)	3	2	1
Head Clerk (D)	1	1	0
Upper Divisional Clerk (D)	4	4	0
Lower Divisional Clerk (D)	15	15	0
PEON (D)	2	2	0



2. Division -II (Stores) Margao

2.1 Division II is the Stores & Workshop of the department which purchases and stores the material for the whole electricity department. Located in Aquem Power House, this division caters with the supply of materials for the department.

2.2 The summary of the detail manpower assessment sub-division and division as given as below: -

Sub-Division office Division-II			
DESIGNATION	Existing Strength	Sanctioned Strength	Actual Requirement
Assistant Engineer (TECH)	2	6	-4
Junior Engineer	2	7	-5
Head Clerk	1	2	-1
Upper Division Clerk	2	3	-1
Lower Division Clerk	6	20	-14
PEON (D)	0	3	-3
Divisional Accountant	0	0	0
Lineman Wireman	7	12	-5
Assistant Lineman	19	20	-1
Line Helper	30	45	-15
Watchman	6	11	-5
LV Driver	3	5	-2
HV Driver	1	1	0
Contact LH	5	0	5

Division office			
DESIGNATION	Existing Strength	Sanctioned Strength	Actual Requirement
Executive Engineer	1	1	0
Assistant Engineer	2	2	0
Accountant	1	1	0
Head Clerk	1	1	0
Junior Engineer	4	4	0
Draftsman	1	1	0
Junior Stenographer	1	1	0
Upper Divisional Clerk	1	1	0
Lower Divisional Clerk	14	14	0
Peon	2	2	0
L.V Driver	0	0	0
Line Helper	1	0	1



3. DIVISION-III-Ponda

3.1 The division III Curti Ponda works under the Executive Engineer and comprises of construction, station maintenance, EHV Lines maintenance, Shift duty and SLDC.

DESIGNATION	Existing Strength	Sanctioned Strength	Actual Requirement
Assistant Engineer (O&M)	9	5	4
Assistant Engineer (COM)	0	5	-5
Junior Engineer (O&M)	18	10	8
Junior Engineer (HT)	0	10	-10
Head Clerk (D)	0	1	-1
Lineman Wireman	18	30	-12
Assistant Lineman	22	40	-18
Line Helper	55	50	5
Contract Line Helper	2	0	2
Lower Divisional Clerk (O&M)	0	20	-20
Assistant Data Entry Operator / Lower Divisional Clerk (COM)	0	10	-10
Station Operator	7	25	-18
PEON (SD)	0	10	-10
Meter Reader	0	0	0
Driver	7	20	-13
Watchman		10	-10

Division office			
DESIGNATION	Existing Strength	Sanctioned Strength	Actual Requirement
Executive Engineer	1	1	0
Assistant Engineer (TECH/HT BILLING/PROCUREMENT/POWER PURCHASE)	5	5	0
Junior Engineer (TECH)	0	2	-2
Head Clerk (D)	1	1	0
Upper Division Clerk (D)	3	3	0
Lower Division Clerk (D)	7	9	-2
PEON (D)	0	2	-2
Divisional Accountant	0	1	-1



4. Division -IV Margao

4.1 Division IV Margao located in the Aquem power house, works under the supervision of Executive Engineer, it Consist of 4 sub-division which looks after operation, maintenance, and billing.

Sub-Division office Division-IV			
DESIGNATION	Existing Strength	Sanctioned Strength	Actual Requirement
Assistant Engineer (O&M)	4	4	0
Assistant Engineer (COM)	3	4	-1
Junior Engineer (TECH)	0	4	-4
Junior Engineer (O&M)	15	15	0
Junior Engineer (HT)	3	4	-1
Head Clerk (SD)	4	4	0
Lineman Wireman	61	75	-14
Assistant Lineman	126	134	-8
Line Helper	168	229	-61
Upper Division Clerk (SD)	8	7	1
Lower Division Clerk (O&M)	36	38	-2
Assistant Data Entry Operator / Lower Division Clerk (COM)	17	24	-7
Station Operator	25	31	-6
PEON (SD)	1	4	-3
Meter Reader	48	51	-3
Store Clerk	1	4	-3
Fitter	1	0	1
Telephone Operator	4	4	0
Heavy vehicle driver	1	4	-3
Lower vehicle driver	19	16	3

Division office			
DESIGNATION	Existing Strength	Sanctioned Strength	Actual Requirement
Executive Engineer	1	1	0
Assistant Engineer (TECH/HT BILLING/ESTIMATES)	2	4	2
Junior Engineer (TECH)	1	3	2
Head Clerk (D)	1	1	0
Upper Division Clerk (D)	3	4	1
Lower Division Clerk (D)	15	14	-1
PEON (D)	2	2	0
Assistant Data Entry Operator	3	2	-1
Assistant Lineman	1	0	-1
Line Helper	2	0	-2



Electricity Department-Goa

Manpower Assessment

DESIGNATION	Existing Strength	Sanctioned Strength	Actual Requirement
Sweeper	1	1	0
Jr Steno	0	1	1



5. DIVISION-V Bicholim

5.1 The division V Bicholim consists of 3 sub divisions namely Sub-Div-I Bicholim, Sub-Div- 2 Sanquelim and Sub-Div- 3 Valpoi.

Sub-Division office Division-V			
DESIGNATION	Existing Strength	Sanctioned Strength	Actual Requirement
Assistant Engineer (O&M)	3	3	0
Assistant Engineer (COM)	3	3	0
Junior Engineer (O&M)	18	23	-5
Junior Engineer (HT)	0	3	-3
Head Clerk (SD)	2	2	0
Lineman Wireman	73	77	-4
Assistant Lineman	118	158	-40
Line Helper	201	214	-13
Upper Division Clerk (SD)	6	5	1
Lower Division Clerk (O&M)	2	20	-18
Assistant Data Entry Operator / Lower Division Clerk (COM)	21	10	11
Station Operator	17	18	-1
PEON (SD)	1	3	-2
Meter Reader	34	34	0
Heavy Vehicle Driver	1	3	-2
Light Vehicle Driver	15	12	3
Contract Line Helper	42	0	42
Contract Meter Reader	14	0	14

Division office			
DESIGNATION	Existing Strength	Sanctioned Strength	Actual Requirement
Executive Engineer	1	1	0
Assistant Engineer (TECH/HT BILLING/ESTIMATES/TENDER/QUOTATIONS/RTI/DDO)	3	3	0
Junior Engineer (TECH)	2	2	0
Head Clerk (D)	1	1	0
Upper Division Clerk (D)	4	4	0
Lower Division Clerk (D)	12	13	-1
PEON (D)	1	1	0
Telephone Operator	1	1	0
Sweeper	1	1	0
Store Clerk	1	1	0
Junior Steno	1	1	0
ADEO	2	2	0

6. DIVISION-VI Mapusa



6.1 Division VI Mapusa is in heart of Mapusa city and consists of 4 sub divisions namely sub div-1 Mapusa Urban, Sub Div. 2 Porvorim, Sub Div. 3 Mapusa Rural and Sub Div. 4 Candolim.

Sub-Division office Division-VI			
DESIGNATION	Existing Strength	Sanctioned Strength	Actual Requirement
Assistant Engineer (O&M)	4	4	0
Assistant Engineer (COM)	4	4	0
Junior Engineer (O&M)	14	23	-9
Junior Engineer (HT)	0	7	-7
Head Clerk (SD)	4	4	0
Lineman Wireman	71	79	-8
Assistant lineman	95	116	-21
Line Helper	215	233	-18
Upper Division Clerk (SD)	11	8	3
Lower Division Clerk (O&M)	38	42	-4
Assistant Data Entry Operator / Lower Division Clerk (COM)	11	16	-5
Station Operator	20	28	-8
PEON (SD)	2	8	-6
Meter Reader	39	59	-20
Telephone Operator	3	4	-1
Store Clerk	2	4	-2
HV Driver	1	8	-7
LV Driver	23	20	3
Station operator	20	20	0
Watchman	2	4	-2

Division office			
DESIGNATION	Existing Strength	Sanctioned Strength	Actual Requirement
Executive Engineer	1	1	0
Assistant Engineer (TECH/HT BILLING/ESTIMATES)	3	3	0
Junior Engineer (TECH)	3	2	1
Head Clerk (D)	1	1	0
Upper Division Clerk (D)	4	3	1
Lower Division Clerk (D)	14	9	5
Assistant Data Entry Operator	1	1	0
PEON (D)	1	2	-1
Junior Stenographer	1	1	0
Line Helper	5	0	5
Assistant Data Entry Operator	1	1	0
Telephone Operator	3	1	2

7. DIVISION-VII Curchorem



7.1 Curchorem division office is supervised by the Executive Engineer and this division consists of four sub divisions namely Sub Div. 1- Curchorem, Sub Div. 2- Quepem, Sub Div. 3- Sanguem and Sub Div. 4- Pontemol. This division have vast forest and hilly area.

Sub-Division office Division-VII			
DESIGNATION	Existing Strength	Sanctioned Strength	Actual Requirement
Assistant Engineer (O&M)	4	4	0
Assistant Engineer (COM)	1	3	-2
Junior Engineer (TECH)	0	8	-8
Junior Engineer (O&M)	21	22	-1
Junior Engineer (HT)	0	7	-7
Head Clerk (SD)	2	3	-1
Lineman Wireman	82	82	0
Assistant Lineman	121	122	-1
Line Helper	207	168	39
Upper Division Clerk (SD)	6	8	-2
Lower Division Clerk (O&M)	19	22	-3
Assistant Data Entry Operator / Lower Division Clerk (COM)	9	12	-3
Station Operator	20	25	-5
PEON (SD)	0	4	-4
T.O	2	4	-2
LV DRIVER	21	8	13
Store Clerk	1	4	-3
Watchman	2	4	-2
Meter Reader	30	31	-1

Division office			
DESIGNATION	Existing Strength	Sanctioned Strength	Actual Requirement
Executive Engineer	1	1	0
Assistant Engineer (TECH/HT BILLING/ESTIMATES)	2	4	-2
Junior Engineer (TECH)	1	2	-1
Head Clerk (D)	1	1	0
Upper Division Clerk (D)	4	4	0
Lower Division Clerk (D)	17	16	1
PEON (D)	2	3	-1
Assistant Data Entry Operator / LDC (COM) 1 PER HT	0	0	0
Junior Stenographer	1	1	0
HV Driver	3	0	3
Meter Reader	2	0	2

8. DIVISION -VIII (MRT).



8.1 Division VIII MRT is in Aquem Power house and works under the supervision of the Executive Engineer. This division caters for the testing of meters before its installation irrespective of its type (single phase, three phase or HT meters) and supplier (department or consumer).

Sub-Division office Division-VIII			
DESIGNATION	Existing Strength	Sanctioned Strength	Actual Requirement
Assistant Engineer (Elect)	3	4	-1
Junior Engineer (Elect)	4	4	0
Foreman (Elect)	0	4	-4
Lineman/Wireman	12	11	1
Lower Division Clerk	1	1	0
Meter Mechanic	2	15	-13
Meter Tester	6	18	-12
Asst. Lineman	10	8	2
Line Helper	9	28	-19
Driver L/V	2	3	-1

Division office			
DESIGNATION	Existing Strength	Sanctioned Strength	Actual Requirement
Executive Engineer (Elect)	1	1	0
Asst. Engineer (Elect)	2	4	-2
Junior Engineer (Elect)	8	6	2
Divisional Accountant	1	1	0
Foreman (Elect)	0	1	-1
Lineman/Wireman	2	7	-5
Head Clerk	1	1	0
Upper Division Clerk	2	3	-1
Lower Division Clerk	8	8	0
Meter Tester	3	3	0
Draftman Gr.III	0	1	-1
Junior Stenographer	1	1	0
Asst. Lineman	16	18	-2
Line Helper	5	5	0
Peon	0	3	-3
Driver L/V	1	4	-3
Watchman	0	1	-1

9. DIVISION -IX Thivim

Sub-Division office Division-IX



DESIGNATION	Existing Strength	Sanctioned Strength	Actual Requirement
Assistant Engineers (O&M)	2	2	0
Assistant Engineer (Shift)	4	8	-4
Junior Engineer (TECH)	2	2	0
Junior Engineer (O&M)	0	2	-2
Junior Engineer (Shift)	4	8	-4
Head Clerk (SD)	0	0	0
Lineman Wireman	20	26	-6
Assistant Lineman	16	32	-16
Line Helper	31	40	-9
Upper Division Clerk (SD)	0	2	-2
Lower Division Clerk (O&M)	2	2	0
Assistant Data Entry Operator / Lower Division Clerk (COM)	2	2	0
Station Operator	13	16	-3
PEON (SD)	1	2	-1
Meter Reader	0	0	0

9.1 Thivim division also is headed by Executive Engineer and consists of 3 sub divisions. This division mainly consists and caters for the 220 KV EHV Sub Station at Thivim.

Division office			
DESIGNATION	Existing Strength	Sanctioned Strength	Actual Requirement
Executive Engineer	1	1	0
Assistant Engineer (TECH/HT BILLING/ESTIMATES)	2	3	-1
Junior Engineer (TECH)	1	1	0
Head Clerk (D)	1	1	0
Upper Division Clerk (D)	3	4	-1
Lower Division Clerk (D)	6	6	0
PEON (D)	1	1	0



10. DIVISION -X Ponda

10.1 Ponda division is under the supervision of Executive Engineer and consists of 3 sub divisions.

Sub-Division office Division-X			
DESIGNATION	Existing Strength	Sanctioned Strength	Actual Requirement
Assistant Engineers (O&M)	3	3	0
Assistant Engineer (COM)	3	3	0
Junior Engineer (O&M)	12	16	-4
Junior Engineer (HT)	0	3	-3
Head Clerk (SD)	2	3	-1
Lineman Wireman	77	77	0
Assistant Lineman	92	134	-42
Line Helper	155	191	-36
Upper Division Clerk (SD)	6	6	0
Lower Division Clerk (O&M) s	6	24	-18
Assistant Data Entry Operator / Lower Division Clerk (COM)	30	18	12
Station Operator	28	35	-7
PEON (SD)	1	6	-5
Meter Reader	26	28	-2

Division office			
DESIGNATION	Existing Strength	Sanctioned Strength	Actual Requirement
Executive Engineer	1	1	0
Assistant Engineer (TECH/HT BILLING/ESTIMATES)	3	3	0
Junior Engineer (TECH)	2	2	0
Head Clerk (D)	1	1	0
Upper Division Clerk (D)	1	3	-2
Lower Division Clerk (D)	17	9	8
PEON (D)	1	2	-1
Assistant Data Entry Operator	1	0	1
Telephone Operator	1	0	1
Assistant Lineman	1	0	1
Junior Stenographer	1	1	0



11. DIVISION -XI Vasco

11.1 Vasco Division office is situated in the newly constructed Vidyut Bhawan, Vasco. The division is headed by the Executive Engineer and consists of 3 sub divisions namely Sub Div 1 Vasco (U), sub div 2 Vasco (R) and sub div 3 Vasco (M).

Sub-Division office Division-XI			
DESIGNATION	Existing Strength	Sanctioned Strength	Actual Requirement
Assistant Engineers (O&M)	3	3	0
Assistant Engineer (COM)	3	3	0
Junior Engineer (TECH)	10	6	7
Junior Engineer (O&M)	1	11	-10
Junior Engineer (HT)	3	3	0
Head Clerk (SD)	3	3	0
Lineman Wireman	48	55	-7
Assistant Lineman	88	89	-1
Lien Helper	180	181	-1
Upper Division Clerk (SD)	7	6	1
Lower Division Clerk (O&M)	19	23	-4
Assistant Data Entry Operator / Lower Division Clerk (COM)	7	11	-4
Station Operator	12	14	-2
PEON (SD)	1	1	0
Meter Readers	31	35	-4

Division office			
DESIGNATION	Existing Strength	Sanctioned Strength	Actual Requirement
Executive Engineer	1	1	0
Assistant Engineer (TECH/HT BILLING/ESTIMATES)	2	3	-1
Junior Engineer (TECH)	1	2	-1
Head Clerk (D) p	1	1	0
Upper Division Clerk (D)	1	3	-2
Lower Division Clerk (D)	15	14	1
PEON (D)	2	3	-1
Meter Reader	1	0	1
Assistant Data Entry Operator	6	0	6
HV Driver	1	2	-1
Telephone Operator	1	0	1
Peon	2	2	0



12. Division-XII Xeldem

12.1 Division XII Xeldem works under leadership of Executive Engineer and mainly looks after sub-station and their corresponding establishment work.

Sub-Division office Division-XII			
DESIGNATION	Existing Strength	Sanctioned Strength	Actual Requirement
Assistant Engineer (O&M)	5	9	-4
Junior Engineer (O&M)	7	6	1
Lineman Wireman	15	14	1
Assistant Lineman	21	23	-2
Line Helper	20	20	0
Lower Division Clerk (O&M)	2	2	0
Station Operator	12	8	4
PEON (SD)	0	4	-4
L.V Driver	9	10	-1

Division office			
DESIGNATION	Existing Strength	Sanctioned Strength	Actual Requirement
Executive Engineer	1	1	0
Assistant Engineer (TECH/HT BILLING/ESTIMATES)	1	3	-2
Junior Engineer (TECH)e	2	2	0
Head Clerk (D)	1	1	0
Upper Division Clerk (D)	4	3	1
Lower Division Clerk (D)	4	9	-5
PEON (D)	2	2	0
Junior Stenographer	1	1	0
L.V Driver	0	1	-1



13. Division-XIII Kadamba Plateau.

13.1 This division also works under the supervision of Executive Engineer and is situated within the premises of the substation at Kadamba plateau.

Sub-Division office Division-XIII			
DESIGNATION	Existing Strength	Sanctioned Strength	Actual Requirement
Assistant Engineer (O&M)	1	1	1
Junior Engineer (O&M)	1	1	1
Junior Engineer (Shift)	4	4	5
Lineman Wireman	10	13	13
Assistant Lineman	10	14	14
Line Helper	12	20	20
Station Operator	4	4	5
PEON (SD)	0	2	0

Division office			
DESIGNATION	Existing Strength	Sanctioned Strength	Actual Requirement
Executive Engineer	1	1	0
Assistant Engineer (TECH/HT BILLING/ESTIMATES)	3	4	-1
Junior Engineer (TECH)	1	1	0
Head Clerk (D)	1	1	0
Upper Division Clerk (D)	3	3	0
Lower Division Clerk (D)	4	5	-1
PEON (D)	1	2	-1



14. Division-XIV Verna.

14.1 Division XIV is also under the stewardship of Executive Engineer and is located within the premises of substation at Verna. This division consists of 3 sub divisions.

Sub-Division office Division-XIV			
DESIGNATION	Existing Strength	Sanctioned Strength	Actual Requirement
Assistant Engineers (O&M)	2	2	0
Assistant Engineer (COM)	1	1	0
Junior Engineer (O&M)	9	8	1
Junior Engineer (HT)	0	5	-5
Head Clerk (SD)	1	1	0
Lineman Wireman	21	27	-6
Assistant Lineman	52	59	-7
Line Helper	113	136	-23
Upper Division Clerk (SD)	2	2	0
Lower Division Clerk (O&M)	9	8	1
Assistant Data Entry Operator / LDC (COM)	8	9	-1
Station Operator	8	10	-2
PEON (SD) e	6	0	6
Meter Reader	6	9	-3
No. of L V driver	4	4	0
Number of Store Clerk	1	1	0
Number of T/O	1	2	-1
Watchman	0	2	-2
No. of HV Driver	0	0	0
Sweeper	0	2	-2

Division office			
DESIGNATION	Existing Strength	Sanctioned Strength	Actual Requirement
Executive Engineer	1	1	0
Assistant Engineer (TECH/HT BILLING/ESTIMATES)	1	2	-1
Junior Engineer (TECH)	1	1	0
Head Clerk (D)	1	1	0
Upper Division Clerk (D)	4	4	0
Lower Division Clerk (D)	9	10	-1
PEON (D)	0	1	-1
Junior Stenographers	1	1	0
Assistant Data Entry Operator	3	3	0
Telephone Operator	1	1	0
Sweeper	0	1	-1

**15. Division-XV Civil.**

15.1 Division XV is also under the guidance of Executive Engineer and is located within the premises of substation at Patto-Panaji, this division majorly looks after civil work of the department and consists of 2 sub divisions.

Sub-Division office Division-XV			
DESIGNATION	Existing Strength	Sanctioned Strength	Actual Requirement
Assistant Engineer (Civil)	3	3	0
Junior Engineer (Civil)	6	11	-5
Head Clerk (SD)	0	1	-1
Lineman Wireman	0	2	-2
Line Helper	9	6	3
Upper Division Clerk (SD)	0	1	-1
Lower Division Clerk	3	2	1
PEON (SD)	0	1	-1
Mason	2	6	-4
Jr. Steno	0	1	-1
LV Driver	0	4	-4

Division office			
DESIGNATION	Existing Strength	Sanctioned Strength	Actual Requirement
Executive Engineer	1	1	0
Assistant Engineer (Civil)	1	1	0
Assistant Engineer (Plg.)	1	1	0
Junior Engineer (Civil)	4	5	-1
Head Clerk	1	1	0
Upper Division Clerk	2	2	0
Junior Stenographer	1	1	0
Lower Division Clerk	2	4	-2
Peon	1	1	0



16. Division-XVI Margao.

16.1 Division XV is also under the guidance of Executive Engineer and is in Aquem-Margao. This division have 4 sub-division sub-division-I Benaulim, sub-division-II Chinchinim, sub-div-III Canacona & sub-division-IV Cuncolim.

Sub-Division office Division-XVI			
DESIGNATION	Existing Strength	Sanctioned Strength	Actual Requirement
Assistant Engineer (O&M)	4	4	0
Assistant Engineer (COM)	3	4	-1
Junior Engineer (TECH)	1	2	-1
Junior Engineer (O&M)	14	17	-3
Junior Engineer (HT)	0	4	-4
Head Clerk (SD)	4	4	0
Lineman Wireman	72	83	-11
Assistant Lineman	151	166	-15
Line Helper	220	238	-18
Upper Division Clerk (SD)	8	6	2
Lower Division Clerk (O&M)	5	20	-15
Assistant Data Entry Operator / Lower Division Clerk (COM)	38	21	17
Station Operator	24	30	-6
PEON (SD)	1	3	-2
Meter Reader	40	41	-1
Store Clerk	2	0	2
Driver LV	11	14	-3
Watchman	1	0	1

Division office			
DESIGNATION	Existing Strength	Sanctioned Strength	Actual Requirement
Executive Engineer	1	1	0
Assistant Engineer (TECH/HT BILLING/ESTIMATES)	3	3	0
Junior Engineer (TECH)	3	3	0
Head Clerk (D)	1	1	0
Upper Division Clerk (D)	3	5	-2
Assistant Lineman	3	0	3
Line Helper	9	0	9
Lower Division Clerk (D)	12	13	-1
Assistant Data Entry Operator / Lower Division Clerk (COM)	4	5	-1
PEON (D)	1	3	-2
Jr Steno	1	1	0

17. Division-XVII Mapusa



17.1 Division XV is also under the guidance of Executive Engineer and is in Mapusa City. This division have 3 sub-division sub-division-I Pednem, sub-division-II Mapusa, sub-div-III Agarwada

Sub-Division office Division-XVII			
DESIGNATION	Existing Strength	Sanctioned Strength	Actual Requirement
Assistant Engineers (O&M)	3	3	0
Assistant Engineer (COM)	2	3	-1
Junior Engineer (O&M)	10	16	-6
Junior Engineer (HT)	2	3	-1
Junior Engineer (Tech)	2	3	-1
Head Clerk (SD)	3	3	0
Lineman Wireman	48	76	-28
Assistant Lineman	92	132	-40
Line Helper	195	189	6
Upper Division Clerk (SD)	6	6	0
Lower Division Clerk (O&M)	6	24	-18
Assistant Data Entry Operator / Lower Division Clerk (COM)	12	16	-4
Station Operator	15	25	-10
PEON (SD)	0	6	-6
Meter Reader	26	32	-6
Driver HV	1	2	-1
Driver LV	3	9	-6
Store clerk	1	0	1
Telephone Operator	1	3	-2

Division office			
DESIGNATION	Existing Strength	Sanctioned Strength	Actual Requirement
Executive Engineer	1	1	0
Assistant Engineer (TECH/HT BILLING/ESTIMATES)	3	3	0
Junior Engineer (TECH)	2	2	0
Head Clerk (D)	1	1	0
Upper Division Clerk (D)	2	3	-1
Lower Division Clerk (D)	8	9	-1
PEON (D)	2	2	0
Jr Steno	1	1	0



18. Division-XVIII Civil

18.1 Division XVIII is also under the guidance of Executive Engineer. This is division office which looks after corresponding establishment work of Civil section.

Division office-XVII			
DESIGNATION	Existing Strength	Sanctioned Strength	Actual Requirement
Executive Engineer	1	1	0
Assistant Engineer (Civil)	3	3	0
Head Clerk	1	1	0
Upper Division Clerk	1	1	0
Lower Division Clerk	5	5	0
Line Helper	8	8	0
Telephone Operator	1	1	0
Welder	1	1	0
Peon	1	1	0
Junior Engineer (Civil)	8	8	0



19. SE-Circle-I

19.1 SE I (South) Office is situated in Electricity Department, Power House Aquem Margao-Goa. This office works under supervision of Superintending Engineer SE-I (S) administrates and monitors all the ongoing works which comes under south district of Goa. The Superintending Engineer SE-I (S) is authorised person in the said office.

DESIGNATION	Existing Strength	Sanctioned Strength	Actual Requirement
Superintending Engineer - 1	1	1	0
Executive Engineer	1	1	0
Assistant Engineer (TECH)	3	5	-2
Head Clerk	1	1	0
Upper Division Clerk	2	2	0
Lower Division Clerk	8	8	0
Junior Stenographer	1	1	0
Peon	1	2	-1
Sweeper	2	2	0



20. SE-Circle-II (North)

20.1 SE I (South) Office is situated in Electricity Department, Power House Aquem Margao-Goa. This office works under supervision of Superintending Engineer SE-I (S) administrates and monitors all the ongoing works which comes under south district of Goa. The Superintending Engineer SE-I (S) is authorised person in the said office.

DESIGNATION	Existing Strength	Sanctioned Strength	Actual Requirement
SE - II (North)	1	1	0
EE	1	1	0
AE (TECH)	4	5	-1
HC	1	1	0
UDC	1	2	-1
LDC	6	10	-4
Jr.Stenographer	1	1	0
Assistant Account Officer	1	1	0
Peon	1	2	-1
Driver	1	1	0



21. Office of The Chief Electrical Engineer

21.1 The Head office is known as Vidyut Bhavan and Office of The Chief Electrical Engineer, Electricity Department of Goa situated in Capital of Goa, Panaji City, this office works on all the administrative related work of all the division pertaining for any approval of major works, recruitment process and all the administrative services required for the department.

Designation	Existing Strength	Sanctioned Strength	Actual Requirement
Chief Electrical Engineer	0	1	-1
Executive Engineer	9	9	0
Superintending Engineer-Planning	1	1	0
Superintending Engineer-Com	1	1	0
Assistant Engineer (TECH)	16	17	-1
Assistant Engineer (CIVIL)	1	1	0
Junior Engineer Tech	8	8	0
Head Clerk	4	4	0
Upper Division Clerk	10	10	0
Lower Divisional Clerk	36	36	0
Jr. Stenographer	5	5	0
Blue Printer	1	1	0
Watchman	1	1	0
Sweeper	1	1	0
LV Driver	1	1	0



3. SUMMARY OF MANPOWER IN SUB-DIVISION OFFICE.

DESIGNATION	Existing Strength	Sanctioned Strength	Actual Requirement
Assistant Engineer (O&M)	34	34	0
Assistant Engineer (COM)	27	33	-6
Assistant Engineer (Civil)	3	3	0
Junior Engineer (TECH)	8	29	-21
Junior Engineer (O&M)	158	191	-33
Junior Engineer (HT)	12	53	-41
Head Clerk (SD)	31	36	-5
Lineman Wireman	703	823	-120
Assistant Lineman	1122	1310	-188
Line Helper	1558	1664	-106
Upper Divisional Clerk (SD)	66	64	2
Lower Division Clerk (O&M)	170	284	-114
Assistant Data Enter Operator/ Lower Division Clerk (COM)	180	183	-3
Station Operator	237	309	-72
PEON (SD)	16	62	-46
Meter Reader	343	348	-5
LV Driver	87	94	-7
HV driver	4	17	-13
Telephone Operator	8	11	-3



4. SUMMARY OF MANPOWER IN DIVISION WISE OFFICE

DESIGNATION	Existing Strength	Sanctioned Strength	Actual Requirement
Chief Electrical Engineer	0	1	-1
Superintending Engineer	4	4	0
Executive Engineer	28	28	0
Assistant Engineer (TECH/HT BILLING/ESTIMATES)	41	55	-14
Junior Engineer (TECH)	39	42	-3
Head Clerk (D)	24	24	0
Upper Division Clerk (D)	68	77	-9
Lower Division Clerk (D)	234	236	-2
Assistant Data Entry Operator	20	13	7
PEON (D)	24	39	-15
Divisional Accountant	18	20	-2



5. ISSUES

1. The FMS services for Operation and Maintenance of the Department's IT infrastructure and the IT cell formulated for hand holding of various IT activities carried out by the Department are presently outsourced. The Services are expiring in the year 2022. It is proposed to formulate Department's IT cell consisting of 24 Nos. of Junior Engineers. These Junior Engineers will be responsible for all activities presently being carried out under FMS and IT cell.
2. There are no promotional avenues for the Station Operators located at various substations. It is proposed to create new post of Foremen so that the Station Operators are elevated based the promotional criteria.

Note:

The report is prepared by taking into consideration of the Staff maintaining the lines and section offices are distributed for Round the Clock shifts.



REC Limited | आर ई सी लिमिटेड

(भारत सरकार का उद्यम) / (A Government of India Enterprise)
Regd. Office: Core-4, SCOPE Complex, 7, Lodhi Road, New Delhi - 110003
Corporate Office: REC World Headquarters, Plot No. 1-4, Near IFFCO Chowk Metro Station, Sector-29, Gurugram - 122001 (Haryana)
Tel: +91 124 444 1300 | **Website:** www.recindia.com
CIN : L40101DL1969GOI005095 | **GST No.:** 06AAACR4512R3Z3

REC/RDSS/Goa/GED/2022-23/29

Date: 10th October, 2022

The Secretary (Power)

Govt. of Goa,
Chamber no. 208,
3rd floor, Secretariat Porvorim,
Goa-403521

Sub: Approval of Action plan and DPR of Goa Electricity Department (GED) for the State of Goa under Revamped Distribution Sector Scheme (RDSS).

Sir,

1. This is to inform that Monitoring Committee for RDSS constituted under Chairmanship of Secretary (Power), Govt. of India, in its 12th meeting held on 29.08.2022, has approved the Action Plan and Loss Reduction DPR of Goa Electricity Department (GED) under Revamped Distribution Sector Scheme (RDSS) as per below mentioned details:
 - a. Results Evaluation Matrix for GED as enclosed at **Annexure-A** along with pre-qualifying criteria.
 - b. DPR for Prepaid Smart metering works with total Project Cost of Rs. 467.42 Crore with Gross Budgetary Support (GBS) of Rs. 93.46 Crore including incentive for Phase-I as per details in **Annexure-B**.
 - c. DPR for Infrastructure works – Loss reduction works with total Project Cost of Rs. 243.43 Crore with GBS of Rs. 146.06 Crore as per details in **Annexure-C**.
 - d. PMA charges of Rs. 1.75 Crore for Prepaid Smart Metering works and Rs. 3.65 Cr for Infrastructure works - Loss reduction with GBS of Rs. 1.05 Crore and Rs. 2.19 Crore respectively as per details in **Annexure-D**.

2. Funding Pattern:

- a. The funding Pattern for the State of Goa is given below:

Item Description	GBS % (Max)
Prepaid Smart metering solution including at consumer, DT, and feeder level including integration of existing infrastructure	15% of the approved cost of metering including the operational cost, provided that it is not more than Rs. 900 per meter for consumer metering only
Distribution Infrastructure works	60% the approved cost of Distribution infrastructure works
PMA Charges for Metering and Infrastructure works	60% of the approved cost of PMA works

- b. The project cost approved by the Monitoring Committee or actual cost incurred whichever is less, shall be the eligible cost for determining the grant under the scheme for Infrastructure works and PMA Components. Any cost overrun after approval of the

Regional Offices: Bengaluru, Bhopal, Bhubaneswar, Chennai, Dehradun, Guwahati, Hyderabad, Jaipur, Jammu, Kolkata, Lucknow, Mumbai, Panchkula, Patna, Raipur, Ranchi, Shimla, Thiruvananthapuram & Vijaywada

State Offices : Vadodara

Training Centre : REC Institute of Power Management & Training (RECIPMT), Hyderabad

project (by Monitoring Committee) due to any reason whatsoever shall not be eligible for any grant and shall be borne by the GED/respective State Government.

- c. The release of GBS by Government of India will be subject to prescribed scheme guidelines and would be contingent to award of prepaid smart metering works & its satisfactory progress.

3. The terms and conditions of the sanction are as given below:

- a. GED to ensure implementation of the scheme in accordance with all the prescribed scheme guidelines and SBDs including appointment of PMA through Tendering.
- b. The sanction is subject to implementation of SOP by GED enclosed as **Annexure-E**.

c. **Prepaid Smart Metering works:**

- i. Funding under Metering component will be available only to Prepaid smart meters operating in prepayment mode for consumers, and in accordance with the uniform approach indicated by the Central Government, with implementation in OPEX/TOTEX mode.
- ii. GED to submit the plan and timelines for completing Smart Metering works being undertaken through State funding to REC. GED to ensure that MoP timelines for completing Smart Metering (both Consumer and System metering) are adhered to and all consumers in the State/GED area are covered under Smart Metering within these timelines as per scheme guidelines.
- iii. Smart Meters to be installed in prepaid mode only through OPEX/TOTEX arrangement, to avail GoI Grant under the scheme.
- iv. A feeder and DT level automated online energy accounting system shall be put in place.
- v. All feeders are to be metered with communicable & AMI/AMR meters by 31st December 2022, and shall be integrated with the National Feeder Monitoring System (NFMS) proposed to be put in place shortly.
- vi. GED to complete 100% DT metering in Phase-I areas by March 2023 and in remaining areas by December 2023 to facilitate energy accounting as per guidelines.
- vii. GED while implementing the prepaid smart metering projects, shall ensure that the remotely readable metering at DT level; Consumer indexing; integration of feeder level data; and the consumer billing database under the AMI contracts are prioritised to be completed latest by March 2023.

d. **Infrastructure works & PMA Charges:**

- i. Agricultural Feeder segregation should be considered on priority under the loss reduction part of DPR.
- ii. All feeders segregated for Agriculture should be solarized under the PM- KUSUM scheme of MNRE or any other similar scheme of State Government.
- iii. PMA charges over and above the permitted amount shall be borne by the GED/ State government.
- iv. Also, services of PMA shall be retained up to completion of the project, without any financial implications beyond that already provided.
- v. Delineation of DPRs of Infrastructure works sanctioned at Department level to District level within 15 days of the issuance of sanction letter.

- vi. GED to carry out feeder level analysis to identify high loss feeders for reduction of losses through appropriate measures proposed in the DPR. The details of such feeders to be included in the DPR. Feeder level analysis should however be completed as early as possible but within three months of sanction.
- vii. GED to ensure that feeder-wise and Sub-station-wise details of loss reduction works are submitted in prescribed formats within 30 days of issuance of sanction letter.

The detailed terms & conditions of sanction letter is enclosed as **Annexure-F**.

4. Result Evaluation Matrix and pre-qualifying criteria:

- a. The AT&C losses and ACS-ARR Gap trajectories approved by Monitoring Committee are as given below:

Parameter	Units	Max marks	Base Year*	Baseline values	Targets			
					FY 2022	FY 2023	FY 2024	FY 2025
ACS-ARR Gap (Cash basis)	Rs./ kWh	35	FY-21	1.00	0.80	0.60	0.40	0.00
ACS-ARR Gap (subsidy received basis, excluding regulatory income & UDAY grants)			FY-21	0.76	0.48	0.40	0.28	0.00
*For tracking purpose only								
AT&C loss	%	25	FY-21	13.00%	12.50%	12.00%	11.00%	10.25%

- b. GED to mandatorily meet the pre-qualifying criteria and achieve the specified marks in the Evaluation Matrix based on which DPR for Modernisation & System Augmentation shall be sanctioned and grant for both loss reduction works (other than the advance for DPR for Loss Reduction) and for the Modernisation & System Augmentation works will be released.
- c. GED to ensure timely adoption of all suitable measures to meet the prequalifying criteria and to score at least 60% marks on the agreed Result Evaluation Matrix.
- d. If by the end of year 2025-26, the GED is not eligible for release of any grant, the initial advance of 10% of the grant component of the cost of DPR for Loss Reduction will have to be refunded by the GED.

5. Fund Management:

- a. As per the direction of the Department of Expenditure, Ministry of Finance, Govt. of India, Letter No. 26(118)/EMC Cell/2016 Dated 24.02.2022; funds will be released to the States/PIAs through Treasury Single Account (TSA) mechanism governed by the RBI w.e.f. 01.04.2022 and no separate Account in any scheduled commercial Bank will be opened and no diversion/parking of funds shall be permissible under the

- scheme, such that, the funds from GED shall be released through PFMS to its vendors/contractors.
- b. GED shall submit utilization certificates (UC) for the funds released during the financial year in prescribed format latest by 30th April of succeeding year in addition to the UC along with every claim.
 - c. For release of funds under the Scheme, GED has to ensure updation of baseline data, physical & financial progress, Quality Monitoring, Fund Management, Asset identification through Geo-tagging, outcomes and achievements for evaluation under Result Evaluation Framework, closure, etc on the digital platform to be developed by the Nodal Agencies.
 - d. For works other than metering works under Part A, counterpart funding will be provided by the GED/ State Government. If GED takes loan for counterpart funding, such loan will be taken from REC and PFC only. Further, counterpart funding from bilateral/multilateral funding agencies can also be leveraged for which the Government of India would extend benefits of reduced Government Guarantee fee.
 - e. In case loan component of the project cost is funded by the NBFCs under MoP, then in order to secure the loan, the existing TPA (Tri-partite Agreement) arrangement among Government of India, the State Government and the RBI shall be suitably amended to provide that the loan servicing payments in case of default can be recovered through RBI.
6. A Scheme Implementation Agreement will be signed between the Government of Goa, Goa Electricity Department (GED) and Nodal Agency on behalf of Central Government within 30 days of issuance of sanction letter (enclosed as **Annexure-G**).
 7. It is requested to kindly acknowledge and accept the sanction letter as per the acceptance letter enclosed as **Annexure-H**.

Yours Sincerely,



(Valli Natarajan)
Executive Director

Enclosed: As Above.

Copy to:

1. Chief Electrical Engineer, Electricity Department, Govt. of Goa, Vidyut Bhavan, 3rd floor, Panaji-403001, Goa
2. ED (SOP), REC
3. CPM, REC, RO-Mumbai.

Result Evaluation Framework (GED-Goa)

S. No	Result Parameter	Units	Maximum Marks	Base Year	Baseline Values	FY'22	FY'23	FY'24	FY'25
A	Financial Stability (60% weightage) (for FY 21-22 65% weightage)								
1a	ACS-ARR Gap (subsidy received basis excluding regulatory income & UDAY grants)	Rs./ kWh	35	FY-21 [FY20]	0.76 [0.81]	0.48	0.40	0.28	0.00
1b	ACS-ARR Gap (Cash basis)	Rs./ kWh	0	FY-21	1.00 [0.75]	0.80	0.60	0.40	0.00
2	AT&C loss	%	25	FY-21 [FY20]	13.00% [15.01%]	12.50%	12.00%	11.00%	10.25%
3	Progress in putting Govt. Offices on smart prepaid meters	%	10	FY-21	0%	0%	0%	100%	100%
4	No. of creditor days	Days Payable	5	FY-21 [FY20]	0 [0]	0	0	0	0
5	No. of debtor days	Days receivable	10	FY-21 [FY20]	84 [60]	80	55	40	30
6	Implementation of Automatic Pass through of Fuel Cost Adjustment Charges	Yes/No	15	FY-21	Yes	Yes	Yes	Yes	Yes
	Sub-Total		100						
B	Outcomes of Infra works (20% weightage) (for FY 21-22 25% weightage)								
1	Hours of supply (Rural)	Avg. Hours/Day	15	FY-21	23.43	23.43	23.50	23.55	23.60
2	Hours of supply (Urban)	Avg. Hours/Day	15	FY-21	23.51	23.51	23.55	23.60	23.70
3	Publishing of Energy Accounts as per the BEE guidelines	%	15	FY-21	30%	30%	100%	100%	100%
4	SAIFI (Rural)	Nos/ Year	10	FY 21	422	398	300	180	120
5	SAIFI (Urban)	Nos/ Year	10	FY 21	344	305	250	125	75
6	DT Failure Rate	%	15	FY-21	2.35%	2.25%	2.10%	2.00%	1.95%

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S. No	Result Parameter	Units	Maximum Marks	Base Year	Baseline Values	FY'22	FY'23	FY'24	FY'25
7	Data availability in the National Feeder Monitoring System / NPP	%	20	FY-21	50%	50%	100%	100%	100%
	Sub-Total		100						
C	Infrastructure Works (10% weightage) (for FY 21-22 0% weightage)								
1	Metering								
a	Consumer Smart Prepaid Metering [Target: 7,41,160 nos.]	%	15	FY-21	0%	0%	0%	75%	100%
b	Smart DT Metering [Target: 8,369 nos.]	%	15	FY-21	0%	0%	0%	100%	100%
c	Smart Feeder Metering [Target: 827 nos.]	%	20	FY-21	0%	0%	100%	100%	100%
2	33 KV feeders OH & UG cable New/ Replacement [Target: 91.45 Kms]	%	10	FY-21	0%	0%	0%	50%	100%
3	11 KV feeders UG cable New/ Replacement [Target: 24.15 Route KM]	%	15	FY-21	0%	0%	0%	50%	100%
4	LT Lines UG cable New/ Replacement [Target: 252 Route KM]	%	15	FY-21	0%	0%	0%	50%	100%
5	Replacement of Old/Frayed Distribution Transformer along with LV Panel [Target: 309 nos.]	%	10	FY-21	0%	0%	0%	50%	100%
	Sub-Total		100						
D	Policy and Structural Reforms (10% weightage)								
1	Alignment to Rights of Consumer rules 2020 8 Key parameters: 1) Release of Connections 2) Testing of Meters 3) Replacement of Meters 4) Issuance of no dues Certificates 5) Provision for payment of claims on deviation from SoPs 6) Assessment of Rooftop Solar Feasibility	no. of parameters	25	FY-21	4	4	5	6	8

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S. No	Result Parameter	Units	Maximum Marks	Base Year	Baseline Values	FY'22	FY'23	FY'24	FY'25
	7) Connection of rooftop solar after installation 8) Regulations for ensuring predetermined demand charges for up to 150kW (To Check existing status)								
2	Existence of minimum 3-Tier Consumer Grievance Redressal Forum	no. of tiers	20	FY-21	2	2	2	3	3
3	Setting up of Energy Management Cell including demand forecasting and scheduling tools	-	20	Yes/No	NA	NA	NA	Creation of Energy Management Cell	Submission of energy balance report to Nodal Agency
4	ERP Implementation	name & nos. of modules	15	FY-21	1 PM	1 PM	2 (PM, HR)	5 PM, HR, PS, SD, Finance	5 PM, HR, PS, SD, Finance
5	Tariff Reforms - ToD (for no. of categories)	No. of categories	5	FY-21	8	8	8	10	10
6	% of total consumers covered under upgraded Billing System (with prepaid functionality)	%	5	FY-21	0%	0%	0%	70%	100%
7	Non-Manual Meter Readings: % of total bills generated through non-manual/ automated interventions	%	5	FY-21	0%	0%	0%	50%	100%
8	Digital Payments: % of online transaction w.r.t total transactions	%	5	FY-21	32%	35%	50%	75%	90%
	Sub-Total		100						

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Pre-Qualification Criteria

The following pre-qualifying criteria must be mandatorily met by the DISCOM before it is evaluated on the basis of the Evaluation Matrix:

- (i) DISCOMs would publish quarterly un-audited accounts within 60 days of the end of each quarter during first two years of operation of the scheme (i.e. for FY 2021-22 and FY 2022-23) and thereafter audited quarterly accounts within 45 days from 3rd year onwards.

[FY 2021-22 and FY 2022-23: Un-audited accounts for 1st Quarter ending June to be published by 31st August, for 2nd Quarter ending September by 30th November and so on.

FY 2023-24 and FY 2024-25: Un-audited accounts for 1st Quarter ending June to be published by 15th August, for 2nd Quarter ending September by 15th November and so on.

First evaluation would take place in FY 2022-23 for the performance in FY 2021-22. Accordingly, the un-audited quarterly accounts for FY 2021-22 for all four quarters should have been published as per above mentioned timelines. Further, un-audited accounts for quarter ending June and September of FY 2022-23 should also have been published as per above mentioned timelines.]

- (ii) Further, DISCOMs would publish audited annual accounts by end of December of the following year during first two years of operation of the scheme (i.e. for FY 2021-22 and FY 2022-23) and thereafter audited annual accounts by end of September of the following year from 3rd year onwards.

[FY 2021-22 and FY 2022-23: Audited annual accounts to be published by 31st December 2022 and 31st December 2023 respectively.

FY 2023-24 and FY 2024-25: Audited annual accounts to be published by 30th September 2024 and 30th September, 2025 respectively.

First evaluation would take place in FY 2022-23 for the performance in FY 2021-22. Accordingly, it would be ensured that the audited annual accounts for FY 2021-22 are published by December 2022.]

- (iii) DISCOMs will have ensured that no new Regulatory Assets have been created in latest tariff determination cycle.

[First evaluation would take place in FY 2022-23 and accordingly while evaluating results in this year, tariff order effective from 1st April 2022 will be considered and compared with previous tariff order for creation of any new regulatory assets. Similarly, while evaluating results in FY 2023-24, tariff order effective from 1st April 2023 will be considered and compared with 2022 order.]

- (iv) State Government to ensure 100% payment of subsidy for the previous year and advance payment of subsidy up to current period in line with section 65 of EA2003 and wipe out the remaining subsidy amount by the end of the project period.

[First evaluation would take place in FY 2022-23 and accordingly while evaluating results in this year, 100% payment of subsidy for FY 2021-22 will have to be ensured along with advance payment of subsidy for FY 2022-23 up to date of submission of results to the nodal agency. Further, it would also be ensured (by way of trajectory which would form part of REF, that the remaining subsidy of the previous years, if any, would be wiped out by the end of project period i.e. 2025-26.)

- (v) All Government Departments/ Attached Offices/ Local Bodies/ Autonomous Bodies/ Boards/Corporations have made 100% payment of current electricity dues for the year under evaluation.

[First evaluation would take place in FY 2022-23 for the performance in FY 2021-22 and accordingly

Annexure-B

Smart Metering works under RDSS (GED- Goa)

S. No	Type of Smart meter	Per unit cost of meter (in Rs.)	Phase-I (By Dec'23)		Phase-II (By March'25)		Total Meters	Estimated project cost (Rs. Cr)
			Nos	in %	Nos	in %		
1	Prepaid Smart Metering	₹ 6,000.00	5,18,812	70%	2,22,348	30%	7,41,160	₹ 444.70
2	Smart DT Metering	₹ 23,000.00	8,369	100%	0	0%	8,369	₹ 19.25
3	Smart Feeder Metering (including boundary meters)	₹ 42,000.00	827	100%	0	0%	827	₹ 3.47
Total			5,28,008	70.37%	2,22,348	29.63%	7,50,356	₹ 467.42
Total GBS excluding incentive for Phase – I*								₹ 70.11
Incentive for Phase – I**								₹ 23.35
Total GBS including Incentive of Phase - I								₹ 93.46
PMA @ 2.5% of GBS excluding incentive for Phase- I								₹ 1.75

*15% of the approved cost of the metering including the operational cost, provided that it is not more than Rs. 900 per meter for consumer metering only.

**Maximum incentive GBS for deployment of prepaid Smart meters by December, 2023- 7.5% of the cost per consumer meter including operational cost or Rs. 450 per consumer meter, whichever is lower

Details of Infrastructure works under Loss Reduction (GED- Goa)

S. No.	Major Component	Unit	Quantity	Unit Rate	Estimated Cost
				(Rs.)	(Rs. Crores)
1	2	3	4	5	6 = (4 x 5)
A	Replacement of Old/Frayed Distribution Transformer (DTR) along with LV Panel				
1	200 KVA DTR	Nos.	187	10,13,124	18.95
2	400 KVA DTR	Nos.	88	14,89,119	13.10
3	630 KVA DTR	Nos.	34	18,30,659	6.22
	Total				38.27
B	New Distribution Transformer (DTR) along with LV Panel				
1	200 KVA DTR	Nos.	98	9,81,541	9.62
2	400 KVA DTR	Nos.	32	14,57,645	4.66
3	630 KVA DTR	Nos.	20	17,99,184	3.60
	Total				17.88
C	Reconductoring of Old/ Frayed 33 KV Feeders Conductor				
1	Re-conductoring from existing Conductor to ACSR Wolf Conductor (Double Circuit Line) on 13 Mtr Rail Pole	Kms	91.45	16,01,800	14.65
D	11 kV Under Ground Cabling works				
1	Additional 11kV Under ground line for load bifurcation, 3Cx300 sq. mm XLPE cable	RKM	24.15	31,35,184	7.57
2	Conversion of 11kV Overhead network(old/frayed) to UG Cable - 3Cx300 sq. mm XLPE cable	RKM	45	36,35,631	16.36
	Total				23.93
E	Conversion of old/frayed LV Overhead line to UG Cable				
1	LV Underground Conversion from Overhead to 3.5C x 240 sqmm XLPE Cable	RKM	34	32,36,351	11.00
2	LV Underground Conversion from Overhead to 3.5C x 185 sqmm XLPE Cable	RKM	75.6	32,57,953	24.63

S. No.	Major Component	Unit	Quantity	Unit Rate	Estimated Cost
				(Rs.)	(Rs. Crores)
1	2	3	4	5	6 = (4 x 5)
3	LV Underground Conversion from Overhead to 3.5C x 120 sqmm XLPE Cable	RKM	50.4	27,77,575	14.00
4	LV Underground Conversion from Overhead to 3.5C x 95 sqmm XLPE Cable	RKM	92	26,30,901	24.20
5	LV Panel (400KVA) for Proposed LV Line	Nos.	53	4,17,788	2.21
6	LV Panel (200KVA) for Proposed LV Line	Nos.	180	3,16,245	5.69
	Total				81.74
F	RMUs for 11kV UG Cable work				
1	2LBS+1CB Ring Main Unit	Nos.	454	6,20,958	28.19
2	3LBS+1CB Ring Main Unit	Nos.	5	7,47,737	0.37
	Total				28.56
G	IT/OT Works				
1	ERP Solutions, FMS/OPEX Charges	Nos.	1	38,38,39,285	38.38
	TOTAL Project Cost under Loss Reduction				243.43
	Total GBS @ 60%				146.06
	PMA Charges @ 1.5% of the Project Cost (Loss reduction works)				3.65

Revised

PMA charges (GED- Goa)

(In Rs. Crores)

S. No.	Particulars	Total Project Cost	GBS*	PMA Charges**	GBS for PMA Charges***
1	Smart Metering Works	467.42	70.11	1.75	1.05
2	Infrastructure Works – Loss Reduction	243.43	146.06	3.65	2.19
	Total	710.85	216.17	5.40	3.24

*Excluding incentives in case of Smart Metering works of Phase-I.

** 2.5% of GBS for Smart Metering (excluding incentive) and 1.5% of total project cost for Infrastructure works

*** 60% of PMA Charges



Standard Operating Procedures(SOPs) for States/DISCOMs to ensure compliance of Pre-qualifying criteria under Revamped Distribution Sector Scheme (RDSS)

1. Introduction

1.1. Transformation of the power distribution sector is crucial to the viability and sustainability of the Indian power sector. With the objective of expediting reforms in the power distribution sector, Government of India has launched the Revamped Distribution Sector Scheme (RDSS). This is aimed at improving the financial condition and operational efficiencies of state-owned DISCOMs. It is also recognized that the strict compliance of the pre-qualification criteria of the RDSS is a bed rock for success of the scheme and therefore, it is of utmost importance that all the stakeholders work in tandem to meet the broad objectives of the scheme and adhere to the guidelines/instructions issued as part of the scheme.

1.2. RDSS is a result linked evaluation scheme. It is mandatory for DISCOMs to meet the pre-qualifying criteria every year before the funds can be released under the scheme. It is imperative for DISCOMs to follow certain procedures and method to be able to become eligible for the funds under RDSS. It was observed that many of the DISCOMs are not consistent in their approach to adhere to the mainly following PQ criteria:

- 1) **State Government to ensure 100% payment of subsidy** for the previous year and advance payment of subsidy up to current period in line with section 65 of EA2003 and wipe out the remaining subsidy amount by the end of the project period.
- 2) **No. of days Payables to Creditors including Gencos** for the year under evaluation is equal to or less than the projected trajectory as per results evaluation framework.
- 3) DISCOMs will have ensured that **no new Regulatory Assets** have been created in latest tariff determination cycle.

- 4) **All Government Departments/ Attached Offices/ Local Bodies/ Autonomous Bodies/ Boards/Corporations have made 100% payment of current electricity dues for the year under evaluation.**

1.3. In this regard, these Standard Operating Procedures (SOPs) for States/DISCOMs are being issued under RDSS which will help Ministry of Power, Nodal Agencies, State Governments and DISCOMs achieve and monitor the targets set for themselves under the scheme in time bound manner. States and DISCOMs are required to make changes in their policies and procedures to align with the SOPs prepared on the following areas:

PQ criteria	SOP	Relevant Clause
State Government to ensure 100% payment of subsidy for the previous year and advance payment of subsidy up to current period in line with section 65 of EA2003 and wipe out the remaining subsidy amount by the end of the project period	100% timely payment of Subsidy on the basis of correct subsidy accounting mechanism	3.1
No. of days Payables to Creditors including Gencos for the year under evaluation is equal to or less than the projected trajectory as per results evaluation framework.	Linkage of no. of days Payables for power purchase with LPS Rules Automatic pass through of fuel adjustment cost to achieve financial sustainability through elimination of ACS-ARR gap	3.2 3.3
DISCOMs will have ensured that no new Regulatory Assets have been created in latest tariff determination cycle.	No new creation of regulatory assets and treatment of outstanding regulatory assets	3.4
All Government Departments/Attached Offices/ Local Bodies/Autonomous Bodies/ Boards/Corporations have made 100% payment of current electricity dues for the year under evaluation	Mechanism to ensure 100% payment of Government department dues	3.5

2. Salient features

- 2.1. The purpose of these Standard Operating Procedures (SOPs) is to ensure that States/DISCOMs adopt practices that will improve their operational and financial performances so that they achieve full compliance of pre-qualification criteria of RDSS scheme.
- 2.2. The parameters covered under the SOP are based on the major areas of concern for the States/DISCOMs that directly and indirectly impact in achieving the prequalifying conditions of RDSS.
- 2.3. These identified parameters are based on the outcome of regular review and monitoring of States/DISCOMs under RDSS with respect to prequalification compliance and trajectory of targets mentioned in REF.
- 2.4. The framework adopted in this SOP is necessary for true and full compliance of each of the parameters with respect to prequalification of RDSS along with defined responsibilities of relevant stakeholder.
- 2.5. The Standard Operating Procedures (SOPs) sets down the process that shall be followed by all States/UTs for accessing funds under the RDSS or any other scheme of the Ministries of Power and NRE or any loans from PFC and REC.

3. Standard Operating Procedures (SOPs)

3.1. *100% timely payment of Subsidy with correct subsidy accounting mechanism*

Comprehensive and accurate subsidy accounting systems are critical for a sustainable power distribution sector. Proper measurement of energy flow to various voltage levels would allow determination of revenue leakages as well as help in proper accounting of subsidies. States/DISCOMs shall follow following steps to enable proper energy and subsidy accounting:

3.1.1 Tariff determination and Subsidy declaration

- i. DISCOM(s) to mandatorily file Tariff Petition for the next financial year along with true-up petition of the penultimate year within prescribed timelines so

that the Tariff Order is implemented with effect from beginning of the next financial year

- ii. Tariff petitions to mandatorily ask SERC to determine tariff on full cost basis without considering any tariff subsidy from the State Government. If required, the State may issue directions under Section 108 of the Electricity Act to the concerned SERC/JERC to implement such a system w.e.f. FY 2022-23. States, where tariff orders have been issued for the year FY 2022-23 without full cost tariff, shall ensure that revised tariff petition is filed immediately.
- iii. State Government to declare tariff subsidy, as it deems appropriate for each of such consumer categories separately on per unit basis for energy charges and/or per kW basis (only applicable for fixed charges subsidy envisaged, if any) as per Format 1 enclosed in Annexure-I.

3.1.2. Measurement of energy supplied to Subsidized categories

- iv. No electricity connection should be released without metering as per extant law and accordingly assessment of energy supplied to subsidized category of consumers to be computed on measured energy through proper metering only. In case of agriculture category, where consumer level metering has not been adopted, energy may be measured at DT level through proper metering of DTs.
- v. In case of dedicated agriculture feeder supplying energy to agricultural consumers, energy measured at feeder level through proper metering shall be considered. [The consumption reflected in feeders shall be adjusted for normative T&D losses as determined by SERC for determination of subsidy.]
- vi. For mixed feeder, till such time feeders are segregated, total energy shall be measured at feeder level and energy consumed by non-agricultural consumers shall be deducted to arrive at energy consumption of agricultural

consumers. [The consumption shall be adjusted for normative T&D losses as determined by SERC for determination of subsidy.]

- vii. In no case, shall the assessment of energy on the basis of contracted load, per HP basis, flat tariff, lumpsum or any other such parameter be considered for computing energy supplied to subsidized consumers for assessment of subsidy amount.
- viii. Further, all DISCOMs shall migrate from flat rate billing to energy per unit rate billing for consumers other than agricultural category, within a period of six months from the date of issue of this SOP.

3.1.3. Subsidy billing and collection by DISCOMs

- ix. DISCOMs to assess consumer category-wise tariff subsidy to be provided by the State Government in advance based on the sales forecast and per unit subsidy rates announced by the State Government.
- x. DISCOMs to share the quarterly subsidy disbursement plan with the State Government and intimate the State Government to release the subsidy amount in advance for each quarter.
- xi. State Government to release the assessed subsidy amount in advance to DISCOM(s) for every quarter within the first 15 days of the quarter.
- xii. At the end of every quarter, DISCOM(s) to compute actual subsidy due based on energy supplied to separately for each subsidized category of consumers (assessed on the basis of actual measurements- through energy meters) and per unit subsidy applicable to respective category of consumers as declared by State Governments as per clause 3.1.1 and 3.1.2 and provide accounts to the State Government about the subsidy disbursed and balance with it.
- xiii. Till all the subsidized consumers are metered as per clause 3.1.2. for unmetered flat rate based subsidized consumption, DISCOMs to assess subsidy requirement with the following formula:

*Subsidy amount = [(Full cost tariff determined by the SERC/JERC * measured energy consumption as per clause 3.1.2) – (no. of unmetered flat rate based subsidized consumers * flat rate tariff)]*

- xiv. DISCOM(s) to raise bill of subsidy due to Finance Department of State Government on quarterly basis net of advanced subsidy paid for the quarter with a copy to the concerned SERC/JERC and Nodal Agencies. This exercise shall be complete along with necessary billing and collection details within 60 days of end of the relevant quarter.
- xv. Finance department to ensure the balance payment of reconciled subsidy of the last quarter within 15 days of receipt of the subsidy bill from the DISCOM for the last quarter. The advance subsidy payment of the next quarter shall be paid as per clause 3.1.3 (xii) and it shall not be linked with the settlement of the subsidy bill of the previous quarter (refer Format 2 of Annexure-I).
- xvi. DISCOM(s) to mention both per unit full cost tariff and subsidy provided by the State Government on the consumer bills.
- xvii. On completion of installation of 100% smart prepaid metering as per RDSS timelines, State/DISCOMs may aim to move from quarterly subsidy billing and reconciliation exercise from Quarterly to Monthly basis.
- xviii. An annual reconciliation activity shall be carried out at the end of financial year by the DISCOMs and the State Finance Department for all the claims during the year, which shall be completed within a period of 2 months of the expiry of the relevant financial year.

3.1.4. Reporting related

- xix. DISCOM(s) to submit complete subsidy accounting report as per the process mentioned in the clause 3.1.1, 3.1.2 and 3.1.3 to the respective Nodal Agencies within 60 days of end of each quarter
- xx. DISCOM(s) to report the annual energy audit and periodic energy accounting and communicate the same to the Bureau of Energy efficiency and respective Nodal Agencies.

Illustration

Computation of Advance Subsidy (1st Quarter – April to June)

Sr. No.	Category	Forecasted Energy Supply (Kwh)	Subsidy Rate (Rs/Kwh)	Subsidy Amount (Rs.)
1	Domestic	3000	2	6000
2	Agriculture	6000	4	24000
3	Small Industries	1000	2	2000
	Total	10000		32000

DISCOMs to raise the advance subsidy bill to State finance department by 31st of March as per above illustration. State Government to release the advance subsidy by 15th of April.

At the end of quarter, DISCOM to raise subsidy bill for the quarter based on actual energy supplied to the subsidized consumers as per following illustration.

Computation of Quarterly Subsidy as per actual energy supplied

Sr. No.	Category	Energy Supplied (Kwh)	Subsidy Rate (Rs./Kwh)	Subsidy Amount (Rs.)
1	Domestic	2800	2	5600
2	Agriculture	6500	4	26000
3	Small Industries	1000	2	2000
4	Total	10000		33600
5	Advance Received			32000
6	Net Amount of Payable Subsidy (4-5)			1600

DISCOM has to raise the net subsidy bill of Rs1600 to state finance department by 31st July. State Government to pay the balance subsidy amount by 15th August.

3.2. Linkage of no. of days Payables for power purchase with LPS Rules

Delay in payment to power generating companies by the DISCOMs creates major bottleneck in the entire value chain which leads to situations like fuel shortage,

power shortage, working capital challenges and load shedding. RDSS mandates to liquidate all the Genco Over Dues by the DISCOMs and in this regard following SOP to be followed:

- i. Revamped Distribution Sector Scheme (RDSS) has a parameter under the Pre-Qualification criteria to ensure timely payment of dues to the Creditors including Gencos wherein is a trajectory for “No. of days Payables to Creditors including Gencos”. With notification of Electricity (Late Payment Surcharge and Related Matters) Rules, 2022, the already finalized trajectories shall automatically get replaced with the ones finalized under Electricity (Late Payment Surcharge and Related Matters) Rules, 2022.
- ii. Nodal Agencies to get these changes reflected in the RDSS Results Evaluation Framework and sign supplementary agreements with the DISCOMs and States accordingly by 15th July 2022.
- iii. States/ DISCOMs whose proposals are yet to be approved under the RDSS shall also align their trajectories in accordance with these rules.
- iv. DISCOMs to make the payment of dues to a generating company or Transmission Company or a trading company as per the Electricity (Late Payment Surcharge and Related Matters) Rules 2022 issued by the Ministry of Power. Report in this regard to be submitted to Nodal Agency on regular basis as per Format 3 of Annexure-I.
- v. DISCOMs to submit updated status of the Genco Dues as per the quarterly accounts (prepared by the DISCOMs as per prescribed formats under RDSS) to the respective Nodal Agencies within 60days of every quarter. This shall be reconciled with the information provided by Gencos on PRAAPTI Portal.

Note– The Central Government has notified the Electricity (Late Payment Surcharge and Related Matters) Rules, 2022 on 03rd June 2022. It is applicable to outstanding dues of generating companies, inter-state transmission licensees and electricity trading licensees.

3.3. Automatic pass through of fuel adjustment cost to achieve financial sustainability through elimination of ACS-ARR gap

One of the main reasons for financial stress for DISCOMs is the widening ACS-ARR gap. There are multiple reasons which contribute to such a gap. However, States/Regulators/DISCOMs have to work in tandem to bridge this gap and bring it to zero. This is one of the most critical evaluation criteria of RDSS. Amongst other, measures to be adopted by States/DISCOMs for elimination of ACS-ARR gap, following steps need to be taken:

- i. All States/DISCOMs to create a mechanism for automatic pass through of fuel cost adjustment on monthly/quarterly basis in retail tariffs without the need for any prior approval
- ii. All such changes shall be reconciled at the true-up stage by the DISCOMs
- iii. DISCOMs to ensure that the ACS-ARR gap follows a downwards trajectory on quarter-to-quarter basis and it must not increase again after meeting the target set under REF of RDSS

3.4. No new creation of regulatory assets and treatment of outstanding regulatory assets

Uncovered revenue gap recognized by the State Regulatory Commission but not considered for tariff determination to avoid revision in retail tariff creates liquidity issues for DISCOMs. Creation of the so-called absolutely undesirable regulatory assets is one of the factors for widening ACS-ARR gap which subsequently impacts the financial sustainability of the DISCOMs. It is paramount to address issues related to regulatory assets to achieve financial viability of DISCOMs and is one of the focus areas of RDSS scheme. In fact, there is no provision for anything like Regulatory Assets in law and therefore creation of any such assets shall not be permissible. In this regard, following SOP to be followed:

- i. States/DISCOMs to ensure any regulatory assets/uncovered revenue gap created in the past are liquidated in seven years in accordance with the Tariff policy by Ministry of Power dated 28th January 2016
- ii. States/DISCOMs to ensure that no new Regulatory Assets/uncovered revenue gaps are created in future as per the Tariff Policy
- iii. States/DISCOMs, which are part of RDSS, to include liquidation of existing regulatory assets/uncovered revenue gap under financial sustainability category with adequate weightage in the Result Evaluation Framework.
- iv. States/DISCOMs, which are not part of RDSS, to outline a road map for liquidation of regulatory asset and convey to Ministry of Power.
- v. DISCOMs to submit implementation status of liquidation of Regulatory Asset annually to Nodal Agencies and Ministry of Power as per Format 4 in Annexure-I.

3.5. Mechanism for 100% payment of Government department dues

Pending Government department dues which also include dues of Urban and Rural local bodies has become one of the major reasons of the financial distress of the DISCOMs. This forces the DISCOMs to seek incremental working capital loans(beyond what is admissible by SERC's) to manage their cash-flows for meeting their payment obligations and creates a vicious cycle of debt and cash-flow management. RDSS focuses on liquidation of Government department dues in a timely manner. Following SOPs to be followed:

- i. All the Government Departments should be put on pre-paid metering in the first phase of the smart metering program as committed in the REF of RDSS
- ii. DISCOM(s) to ensure that total electricity consumption details are recorded for all Urban Local Bodies (ULBs) and Rural Local Bodies (RLBs) as per the energy meters and periodic electricity bills are raised to respective ULBs and RLBs.
- iii. States/DISCOMs to ensure that a centralized system/mechanism at State/ DISCOM level is established for payment of electricity bills of Government

- departments including ULBs & RLBs till the time prepaid meters are installed in all Government departments.
- iv. In case of non-payment within 30 days of bills being raised by the DISCOMs, DISCOMs shall raise the cumulative electricity dues of all ULBs and RLBs to the Finance Department of the State.
 - v. Finance Department should make the payment to the DISCOM(s) within 30 days of raising the consolidated bill duly adjusting the same against the devolution of grants to ULBs/RLBs.
 - vi. DISCOMs to submit monthly report on number of Government Department put on prepaid, status of dues of Government Departments including ULBs and RLBs to Nodal Agencies and Ministry of Power as per Format 5 of Annexure-I.

4. Adoption and review

- 4.1. The SOP as mentioned above shall come into effect from the date of release. All States/DISCOMs shall submit adherence report on above SOPs to Nodal Agencies on periodic basis in the Formats attached in Annexure-I.
- 4.2. The SOP will be reviewed and amended if required, to reflect necessary updates and improvements.
- 4.3. DISCOMs have to ensure implementation of the above SOPs at the earliest to access funds under RDSS.
- 4.4. Nodal agencies shall be responsible for a strict follow-up and compliance of these SOPs.

Format 4: Treatment of Regulatory assets (Annual submission)

Parameter	Unit	Accumulated as on 31 st March of the previous financial Year
Outstanding RA/Uncovered Revenue gap	Rs. Cr.	
RA/Uncovered revenue gap liquidated	Rs. Cr.	
Balance RA/Uncovered revenue gap	Rs. Cr.	
RA/Uncovered revenue gap created (if any, however it is not allowed as per the guidelines)	Rs. Cr.	

Format 5: Payment of Government department dues (Monthly submission)

Parameter	Unit	Cumulative till Previous Month	Reporting Month ¹ <MMM-YY>
Percentage of prepaid metering in Government departments	%		
Outstanding Government department dues	Rs. Cr.		
Total payment received from Government department	Rs. Cr.	<payment against dues till previous month>	<payment against dues of reporting month>
Outstanding dues of all ULBs and RLBs	Rs. Cr.		
Total Payment received from ULBs and RLBs	Rs. Cr.	<payment against dues till previous month>	<payment against dues of reporting month>
Bills raised to the Finance Department of the State as mentioned in clause 3.5 (iv)	Rs. Cr.		
Payment received from Finance Department of the State against the bill raised	Rs. Cr.		

¹ Reporting Month or Year is the Month or Year for which the information is provided

General Terms and Conditions Applicable for Availing Financial Assistance under Revamped Distribution Sector Scheme

Name of State : Goa
Name of the Discom : Goa Electricity Department

The terms and conditions of financial assistance as set out here under shall be binding on the DISCOM and State Government in accordance with the Scheme Implementation Agreement to be executed amongst REC, State Government & State Discom.

A. Project Financing & Fund Management:

1. The funding pattern under the scheme is as given below:

Part	Item Description	GBS % (Max)
Part A	Component I: Prepaid Smart metering solution including at consumer, DT, and feeder level including integration of existing infrastructure.	15% / 22.5% of meter lifecycle cost as the case may be (limited up to Rs.900 or Rs.1350 respectively per meter for Consumer metering only)
	Component II: Distribution Infrastructure works including SCADA, DMS, AB cables, feeder segregation etc.	60% or 90% of project cost as the case may be

2. The project cost approved by the Monitoring Committee or actual cost incurred whichever is less, shall be the eligible cost for determining the grant under the scheme for Component II and III of Part A. Any cost overrun after approval of the project (by Monitoring Committee) due to any reason whatsoever shall not be eligible for any grant and shall be borne by the DISCOM/respective State Government.

3. **Part A: Component I- Metering:**

3.1. The operation and maintenance cost of the meter over the life of the meter as per the SBD shall be included in the project cost.

3.2. 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 through PPP, to facilitate reduction of Distribution losses and enable automatic measurement of energy flows and energy accounting as well as auditing in line with the BEE regulations which will help in identifying high loss packets.

3.3. Funding under Metering component of Part A 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. Pre-paid smart metering works carried out after 1st January, 2020 will be eligible for funding, if they were carried out in TOTEX mode, after obtaining approval from Monitoring Committee in this regard

3.4. In areas which do not have communication network, installation of prepayment meters, may be taken up.

General Terms and Conditions Applicable for Availing Financial Assistance under Revamped Distribution Sector Scheme

- 3.5. The financial support for Metering Component under Part A of the scheme shall be as under:
- 3.5.1. Other than Special Category States: 15% of the project cost of the metering works including the operational cost, limited upto Rs. 900 per meter for consumer metering only would be provided as grant by Government of India. Further, an incentive @ 7.5% of the cost per consumer meter worked out for the whole project or Rs. 450 per consumer meter, whichever is lower, would be for prepaid Smart meters installed within the targeted timeline of first phase mission i.e. by December, 2023.
- 3.5.2. Special Category States (All North Eastern States including Sikkim, Himachal Pradesh & Uttarakhand and union Territories of Jammu & Kashmir, Ladakh, Andaman & Nicobar Islands & Lakshadweep): 22.5% of the project cost of the metering works including the operational cost, limited upto Rs. 1350 per meter for consumer metering only would be provided as grant by Government of India. Further, an incentive @ 11.25% of the cost per consumer meter worked out for the whole project or Rs. 675 per consumer meter, whichever is lower, would be for prepaid Smart meters installed within the targeted timeline of first phase mission i.e. by December, 2023.
4. Part A: Component II- Distribution Infrastructure works:
- 4.1. The eligible project cost shall include Central taxes and all fees like forest clearance, highway and railway crossing fee etc. The project cost shall however not include the cost of land, cost of buildings other than sub stations and anti-theft police stations, service lines to new consumers, compensation towards ROW (except forest clearance, highway and railway crossing fee), office equipment & fixtures, spares (other than mandatory spares prescribed by manufacturer), T&P, road cutting charges, vehicles and salaries and establishment expenditure. Further, the project cost shall be reduced to the extent of any Liquidated Damages actually levied, but the encashment of performance security or bid security (EMD) shall not reduce the project cost.
- 4.2. Feeders having significant agricultural load (30% or more) may be considered for separation under the loss reduction part of DPR and the same should also be proposed for solarization under the PM- KUSUM scheme of MNRE or any other scheme of Government.
- 4.3. Discom to submit feeder wise analysis of high loss feeders being taken up on priority under loss reduction works, within the 3 months of sanction to Nodal Agency.
- 4.4. The financial support for Part A: Component II under the scheme shall be as under:
- 4.4.1. Other than Special Category States:
- 60% of project cost of works other than metering works under Part A and approved cost of PMA would be provided as grant by Government of India.
 - 40% of project cost of works and approved cost of PMA shall be arranged through own sources of State Government/ Utility or may avail loan from REC & PFC. funding from bilateral/multilateral funding agencies can also be leveraged for which the Government of India would extend benefits of reduced Government Guarantee fee.

General Terms and Conditions Applicable for Availing Financial Assistance under Revamped Distribution Sector Scheme

4.4.2. Special Category States (All North Eastern States including Sikkim, Himachal Pradesh & Uttarakhand and union Territories of Jammu & Kashmir, Ladakh, Andaman & Nicobar Islands & Lakshadweep)

- a) 90% of project cost of works and approved cost of PMA would be provided as grant by Government of India.
- b) 10% of project cost of works and PMA works shall be arranged through own sources of State Government/ Utility or may avail loan from REC & PFC. funding from bilateral/multilateral funding agencies can also be leveraged for which the Government of India would extend benefits of reduced Government Guarantee fee.

5. Part A: Component III- Project Management:

5.1. 2.5% of the GBS of metering component and 1.5% of project cost of Distribution infrastructure works component, shall be allowed as PMA charges under the Scheme. PMA charges, over and above the permitted amount shall be borne by the respective DISCOM / State government.

5.2. 60% of the PMA charges allowed under the scheme for metering and Distribution infrastructure work components would be provided as grant by Government of India for other than Special Category States. For Special Category States, Government of India grant would be 90% of the allowed PMA charges.

5.3. Services of PMA shall be retained up to physical completion of the project, without any financial implications beyond that already provided

6. Release of grant to Discom by REC:

6.1. Release of grant for Metering:

- a) Grant for metering works, will be due when a meter is successfully installed and commissioned, and essential services and data related to it are provided for a period of one month to the DISCOM. It will be essential that a consumer meter is recharged at least once, for the release of grant pertaining to it to become due.
- b) The DISCOM may submit claim for release of grant in a phased manner when grant becomes due against 5% of the total meters planned to be installed, or such number of meters or such period that the Nodal Agencies deem practical and convenient. After the first release, subsequent releases shall be subject to submission of utilization certificate of the previous releases.

6.2. Release of grant for Distribution Infrastructure works:

6.2.1. **Phase I- 10% of the grant for Loss reduction part of Project** (5% on sanction and further 5% on award of works)

- a) Approval of the project by the Monitoring Committee
- b) Execution of Scheme Implementation agreement

6.2.2. **Phase II**

General Terms and Conditions Applicable for Availing Financial Assistance under Revamped Distribution Sector Scheme

Cumulative release of 30% of the grant for Loss reduction part of project in FY 2022-23:

- a) Qualification as per the Results Evaluation Framework of the Action Plan for FY 2021-22.
- b) Submission of a certificate regarding utilization of grant already released in the Format prescribed by Ministry of Finance;
- c) Submission of a certificate regarding receipts and expenditure on the project certified by a Chartered Accountant ;
- d) Submission of physical and financial (grant and counterpart funding) progress report;
- e) Sanction letter for counter-part funding / DISCOM's own resources / State Government funding for Distribution Infrastructure Works.
- f) Award of prepaid Smart Metering works to be covered in the first phase to be completed by December 2023, as per the clause 3.2.2.2 of scheme guidelines.

30% of the grant for Modernization & System Augmentation part of project in FY 2022-23 (10 % on sanction and 20% on award of works.)

- a) Approval of the project by the Monitoring Committee
- b) Execution of Scheme Implementation agreement
- c) Award of prepaid Smart Metering works to be covered in the first phase to be completed by December 2023, as per the clause 3.2.2.2 of scheme guidelines.

6.2.3. Phase III: Cumulative release of 60% of grant component of the project cost of DPRs in FY 2023-24:

- a) Qualification as per the Results Evaluation Framework of the Action Plan for FY 2022-23.
- b) Submission of a certificate regarding utilization of grant already released in the Format prescribed by Ministry of Finance;
- c) Submission of a certificate regarding receipts and expenditure on the project certified by a Chartered Accountant;
- d) Submission of physical and financial (grant and counterpart funding) progress report;
- e) Sanction letter for counter-part funding / DISCOM's own resources / State Government funding for Distribution Infrastructure Works.

6.2.4. Phase IV: Cumulative release of 95% of grant component of the project cost of DPRs in FY 2024-25:

- a) Qualification as per the Results Evaluation Framework of the Action Plan for FY 2023-24.
- b) Submission of a certificate regarding utilization of grant already released;
- c) Submission of a certificate regarding receipts and expenditure on the project certified by a Chartered Accountant;
- d) Submission of physical and financial (grant and counterpart funding) progress report;
- e) Sanction letter for counter-part funding / DISCOM's own resources / State Government funding for Distribution Infrastructure Works.

General Terms and Conditions Applicable for Availing Financial Assistance under Revamped Distribution Sector Scheme

6.2.5. Cumulative release of 100% of grant component of the project cost of DPRs in FY 2024-25:

- a) Submission of project completion report as per clause 4.9.1 of scheme guidelines.

Discoms shall comply the amendments/supplemental to conditionalities prescribed for release of particular installment, if any, issued by MoP/REC in future.

7. If DISCOM achieves the targets as per Action Plan of any previous FY in a subsequent year, then it shall be eligible for release of grant pertaining to that FY.
8. All payment (to contractors & others) shall be made directly from the dedicated bank account as per the established procedure through e-banking only (CINB-Corporate Internet Banking). The nature of the account shall be savings bank account without CLTD (Corporate Liquid Term Deposit) facility or as per the latest policies/guidelines/directives of Nodal agency/ Ministry of Finance directions from time to time in this regard.
9. All project related payments to the contractors/agencies by Discom shall be done directly from the dedicated bank account and in no case Discom shall open any other bank account under RDSS. MoP/Nodal Agency shall have the view right of the Discom account
10. Any interest earned on grant shall be remitted to Ministry of Power's bank account at least once in a quarter regularly.
11. Since grant under the scheme is Central Government money and DISCOMs are only the custodian of this money, income tax is not payable on interest earned on this money. DISCOMs shall take necessary steps to seek exemption from Income Tax Department regarding deduction of Tax at Source by the bank on interest accrued on un-utilized fund under the scheme. However, in case of deduction of TDS by bank, the Utilities shall claim refund of the deducted amount from Income Tax Department directly while filing annual tax return and remit it to Ministry of Power's account.
12. The Discom shall ensure that funds released under the scheme are utilized for the purpose for which it is released and will not be diverted for any other purposes whatsoever. In case of any breach or deviation further release of funds shall be stopped.
13. The grant release from Nodal Agencies to the DISCOMs shall be done through PFMS and the DISCOMs shall use PFMS for fund flows under the scheme. Grant received under the scheme are to be registered / mapped in PFMS. The DISCOMs shall enter details like receipts, expenditures, etc in Public Fund Management System (PFMS) portal. In case of non-entering desired details in PFMS portal, banks may not consider release of funds to Contractors.
14. DISCOM shall submit utilization certificates (UC) for the funds released during the financial year in prescribed format latest by 30th April of succeeding year in addition to the UC along with every claim.

General Terms and Conditions Applicable for Availing Financial Assistance under Revamped Distribution Sector Scheme

15. Prescribed formats for submission of Utilization Certificate, submission of certificate regarding receipts and expenditure on the project certified by Chartered Accountant and for submission of physical and financial progress report shall be circulated by Nodal Agency.
16. The DISCOM will ensure audit of the scheme accounts relating to receipts of funds from GoI / Nodal agency and expenditure incurred by the DISCOM against such receipts during the financial year by an independent Chartered Accountant and furnish a report to the Nodal agency latest by 30th June of the succeeding year.
17. The works and finances would be open to audit by the office of the Comptroller & Auditor General of India (C&AG) as well as Internal Audit Wing, Office of Controller of Accounts, MoP
18. **Recall of Grant:**
 - 18.1. If by the end of year 2025-26, a DISCOM is not eligible for release of any grant, the initial advance of 10% of the grant component of the cost of DPR for Loss Reduction will have to be refunded by the DISCOM.
 - 18.2. The Monitoring Committee is empowered to recall the grant released to the DISCOMs at any stage of the scheme, in case the sanctioned works are left incomplete, or the assets could not be put to use, or funds are utilized for purposes other than those prescribed in the scheme/ as approved by the Monitoring Committee in accordance with the prescribed guidelines.
 - 18.3. Any unrecovered/due amounts from earlier schemes of Ministry of Power, GOI shall also be allowed to be adjusted against releases in the current scheme.
19. In case loan component of the project cost is funded by the NBFCs under MoP, then in order to secure the loan, the existing TPA (Tri-partite Agreement) arrangement among Government of India, the State Government and the RBI shall be suitably amended to provide that the loan servicing payments in case of default can be recovered through RBI.

B. Project Implementation by Discom:

20. Mode of Implementation:
 - 20.1. **Metering:** These projects shall be implemented in TOTEX mode (Total expenditure includes both capital and operational expenditure) with the following options:
 - a) 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
 - b) 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.
 - 20.2. **Distribution infrastructure works:** The projects shall be implemented normally on turnkey basis. However, certain works may be taken up on partial turnkey basis or departmentally with the approval of DRC and consent of Nodal Agency, subject to, overall guidance of the Monitoring Committee.

General Terms and Conditions Applicable for Availing Financial Assistance under Revamped Distribution Sector Scheme

21. The scheme shall be implemented in accordance with the Ministry of Power's Office Memorandum No. 20/9/2019-IPDS dated 20th July, 2021, Scheme Implementation Agreement and operational guidelines issued including amendments/supplemental if any.
22. Discom to follow Standard bidding Document (SBD) as issued by Nodal Agencies for selection of AMI service provider, for Distribution infrastructure works, SCADA and PMA.
23. The DISCOMs may make minor changes in the SBD, while retaining its basic structure and essence, provided that the approval of the Nodal Agency is taken for the changes, subject to, overall guidance the Monitoring Committee
24. Prepaid smart Metering projects taken up by DISCOMs through MOU route with CPSUs or their JVs and Subsidiaries shall also be permitted subject to their being implemented in TOTEX mode as per proposed model circulated by Ministry of Power vide letter No. 14/07/2021- UR&S-II-(E-260509) dated 19.01.2022.
25. Keeping in view the aims and objectives of Atma Nirbhar Bharat Abhiyan, Ministry of Power has issued Public Procurement (Preference to Make in India) for Purchase Preference (linked with local content) Order in respect of Power Sector on 28.7.2020. This order is in line with the DPIIT Notification No. P-45021/2/2017-PP(BE-II) dated 4th June,2020. This order along-with amendments, if any, from time to time, shall be followed by the DISCOMs in the implementation of the scheme. However, in case a DISCOM is availing funds through multi-lateral financial institutions, applicable DEA directives may be followed.
26. Discom may appoint one or more PMA for project management. Existing PMA of DDUGJY or Saubhagya or IPDS or PMDP or any other Central/State Govt scheme of power sector may be used for preparation of DPR and Action Plan, and the expenses incurred will be eligible under the scheme. For all other works including bid process, monitoring of implementation, project completion, result evaluation and related works, a new PMA will have to be appointed as per the SBD as circulated by the Nodal agency. DISCOMs desirous of appointing CPSUs or their JVs and subsidiaries as PMA on nomination shall be required to obtain a specific approval from the Ministry of Power through concerned Nodal Agency. Any such proposal would be sent by the DISCOM along with the imperative need along with a detailed justification.
27. The sunset date for the scheme will be 31.03.2026, the works executed beyond which will not be eligible for release of Central Government grant.
28. Discom to ensure updation of MIS web portal to be developed by the Nodal Agencies for submission of Action Plan & DPRs, capturing baseline data, physical & financial progress, quality reports, outcomes and achievements for evaluation under Result Evaluation Framework, closure, etc.

C. Result Evaluation Framework:

29. Discom to meet the pre-qualifying criteria and achieve the specified marks in the Evaluation Matrix based on which DPR for Modernisation & System Augmentation shall be sanctioned and grant for both loss reduction works (other than the advance for DPR for Loss Reduction) and for the Modernisation & System Augmentation works will be released.
30. For qualifying in the Evaluation Matrix, a DISCOM needs to score a minimum of 60 marks.

D. Monitoring & Evaluation

31. This scheme would be reviewed by the District Electricity Committees, to be notified by the State Government in compliance to the notification of Government of India dated 16th Sept, 2021.

General Terms and Conditions Applicable for Availing Financial Assistance under Revamped Distribution Sector Scheme

32. The DISCOM shall be responsible & accountable for assuring quality in the scheme works. Accordingly, DISCOM shall formulate a comprehensive Quality Assurance (QA) and Inspection Plan with an objective to build quality infrastructure under the project. The QA and Inspection Plan shall be an integral Part of the contract agreement with turnkey contractor or equipment supplier/vendor and erection agency as the case may be in case of partial turnkey and departmental execution of works. Documentation with regard to Quality Assurance & Inspection Plan shall be maintained by DISCOM and kept in proper order for scrutiny during the course of project execution and for future reference. The DISCOM has to ensure that the quality of material/equipment supplied at site and field execution of works under the project is in accordance with Quality Assurance & Inspection Plan. DISCOM may use the MQP (Manufacturing Quality Plan) and FQP (Field Quality Plan) used in DDUGJY and IPDS schemes by suitably modifying as per requirement of this scheme.
33. In addition to the in-house quality checks and processes followed by the DISCOM, the nodal agency (REC/PFC) shall carry out concurrent inspection of works through Third Party Quality Monitoring Agency (TPQMA).

D Interpretation

The decision of Chairman & Managing Director of REC Ltd. in all matters including interpretation of any clause relating to the Operational Guidelines, Sanction letter and Scheme Implementation Agreement shall be final and binding on the Borrower.

[This MoA is to be executed on Non-Judicial Stamp Paper of Rs 200/-]
IMPLEMENTATION AGREEMENT AMONGST
_____ Limited, the Nodal Agency on behalf of Ministry of Power,
Government of India
AND
State Power
Department

For Implementation of Revamped Distribution Sector Scheme

This BIPARTITE MEMORANDUM OF AGREEMENT (hereinafter referred to as the “**Implementation Agreement**”) is made this day of20....

BY AND AMONGST

_____ Limited, A Government of India Undertaking, having its Registered Office at _____ (hereinafter referred to as “**Nodal Agency**” or “_____”) part on behalf of Ministry of Power, Government of India, which expression shall unless it be repugnant to the subject or context thereof, include its successors and assigns, of the **FIRST PART**;

AND

State Power Department of (hereinafter referred to as “**Power Department**”) which expression shall unless it be repugnant to the subject or context thereof, include its successors and assigns, of the **SECOND PART**

The Nodal Agency and the State Government are hereinafter also referred to collectively as the “**Parties**” and individually as the “**Party**”.

WHEREAS the Government of India has launched **Revamped Distribution Sector Scheme** (hereinafter referred to as “**RDSS**”) as a Central Sector Scheme to improve the operational efficiencies and financial sustainability, by providing financial assistance to POWER DEPARTMENTs for strengthening of supply infrastructure. The POWER DEPARTMENT can take up projects relating to installation of prepaid smart meters for all consumers along with associated AMI, communicable meters for DTs & Feeders to enable automated Energy Audit and Accounting, SCADA, DMS & RT-DAS, Enterprise Resource planning (ERP) and other ICT initiatives, and Distribution infrastructure works as required for strengthening and modernizing the system as well as measures for loss reduction with the end objective of reducing losses and ensuring 24 x 7 power supply, Public Charging Infrastructure for Electric Vehicles (EVs), Disaster Resilient Infrastructure works (hereinafter referred to as the “**Project**”) on the terms & conditions contained in the **Order No. F. No. 20/9/2019-IPDS dated 20.07.2021 issued by Ministry of Power and RDSS guidelines and any amendments thereto issued by the nodal agency.**

NOW IT IS HEREBY AGREED BY AND BETWEEN THE PARTIES HERETO as follows:

1. This Agreement signed between (a) _____ Limited, the Nodal Agency on behalf of Ministry of Power, Government of India and (b) State Government for implementation of Revamped Distribution Sector Scheme shall be implemented by the Power Department in letter and spirit. Government of India will monitor implementation of the precedent conditions agreed to upon in this Agreement before releasing funds through Nodal Agency.
2. This Agreement shall be read in accordance with the provisions of **Order No. F. No. 20/9/2019-IPDS dated 20.07.2021 issued by Ministry of Power and RDSS guidelines and any amendments thereto issued by the nodal agency.** The said RDSS Guidelines shall form an integral part of this agreement as **Annexure – 'A'** as if fully set forth hereunder and all the terms and conditions set out in the said Revamped Distribution Sector Scheme Guidelines shall be binding on the Parties hereto.
3. The parties have agreed that the individual project(s), as proposed by POWER DEPARTMENT and sanctioned by the Monitoring Committee (MC) /nodal agency, under Revamped Distribution Sector Scheme (RDSS), commencing from the financial year 2021-22 shall be deemed to have been covered under this agreement. The terms and conditions of sanction by the MC/nodal agency for a particular project, as contained in the sanction letter (including the supplementals, modifications if any) issued by the nodal agency, shall also form part and parcel of this agreement.
4. POWER DEPARTMENT has to formulate, plan, design, develop and implement the projects in accordance with the Standard Bidding Documents for various components as circulated by Nodal agencies and in line with the Central Vigilance Commission (CVC) guidelines. Also, guidelines, SBD's, specifications and construction standards shall be adopted wherever applicable.
5. POWER DEPARTMENT agrees that in the event the projects are not implemented satisfactorily in line with the sanction terms and conditions, left incomplete or the assets could not be put to use, or funds are utilized for purposes other than those prescribed in the scheme/ as approved by the Monitoring Committee in accordance with the prescribed guidelines then Monitoring Committee is empowered to recall the grant released to the POWER DEPARTMENTS at any stage of the scheme.
6. POWER DEPARTMENT agrees that performance in the Reforms Based Results Linked Revamped Distribution scheme would also form integral part of the financing norms of PFC, REC, Banks/FIs and MDBs for any project in the Distribution Sector even beyond those related to funding under this scheme.
7. POWER DEPARTMENT agrees that if due to adverse performance in the Reforms Based Results Linked Revamped Distribution scheme, funds does not get released then any advance amount released shall be refunded to the Government of India.

8. PROJECT FINANCING

i) For Smart Metering works:

The financial support under the scheme shall be as under:

- a) 15% of sanction cost limited up to Rs.900 per meter for Consumer metering would be provided as grant by Government of India (22.5% for special category limited to Rs.1350)
- b) The implementation of the metering scheme is proposed through PPP on TOTEX mode. State Government/POWER DEPARTMENT may also provide budgetary support in TOTEX mode.
- c) An incentive of 7.5% (11.25% for special category) of the cost per consumer meter worked out for the whole project or Rs. 450 per consumer meter (Rs.675 for special category), whichever is lower, would be provided for prepaid Smart meters installed within the targeted timeline of first phase mission i.e. by December, 2023. The decision of Monitoring Committee shall be final while calculating Additional grant applicable to any project under the Scheme.
- d) The consumer meters shall mandatorily be prepaid meters to be eligible for availing grant under the scheme.
- e) Power Departments shall ensure Feeder/DT metering in accordance with the requirements of the scheme/ directions of MOP

ii) For Distribution Infrastructure works:

- a) The sanction of DPR for Modernisation & System Augmentation and release of grant for both loss reduction works (other than the advance) and for the Modernisation & System Augmentation works will be based on the POWER DEPARTMENT meeting the pre-qualifying criteria and achieving the specified marks in the Evaluation Matrix. Also, Monitoring Committee will issue sanctions of loss reduction works contingent to sanctions of metering works being already in place; or, Smart metering works being already implemented by the POWER DEPARTMENTS in line with the SBD for Smart prepaid metering in TOTEX mode; or together, as the case may be.
- b) The financial support under the scheme shall be as under:
 - ❖ The grant shall be restricted to 60% (90% for special category) of sanction cost or award cost or executed cost (excluding State & local taxes) whichever is lower (*this lowered cost herein after shall be referred to as 'Sanction cost'*). The state & local taxes are not admissible under RDSS and to be borne by the State Government/Power Department
 - ❖ 40% (10% for special category) of sanction cost shall be either loan from Financial Institutions (REC/PFC or MDBs) or own funds of State Government. REC/PFC shall consider offering loans at competitive interest rates for the RDSS scheme.

- iii) Cost overruns beyond sanction cost, if any, and PMA charges beyond allowed GOI grant shall be borne by the State Government/Power Department.
- iv) To be eligible for grant, State Government/Power Department has to follow the SBD circulated by the nodal agency or obtain specific approval of Nodal agency for deviations.
- v) State Government to arrange for contribution in case POWER DEPARTMENT fails to arrange the same;

- vi) State Government to furnish guarantee for the loan component under the scheme in case the POWER DEPARTMENT is not able to provide any other mode of security.
- vii) Directives of Ministry of Power in this regard if any, would be followed.

9. Funds

- i) The release of the fund shall be as per the clause 5.2 of the operational guidelines of RDSS. The terms & conditions of release of funds for a particular project as contained in operational guidelines issued, shall also form part of the present agreement. The guidelines shall include supplementals and modifications issued, if any. The releases will be subject to the deductions as agreed amongst Nodal Agencies and Power Department as per RDSS guidelines or statutory requirements.
- ii) Power Department commits to refund grant component released to Utility in case of non-compliance of RDSS guidelines/ this agreement or poor progress resulting to short-closure/ cancellation.
- iii) MoP/ Monitoring Committee is empowered to recall the grant released to the POWER DEPARTMENTS at any stage of the scheme, in case the sanctioned works are left incomplete or the assets could not be put to use or funds are utilized for purposes other than those prescribed in the scheme/ as approved by the Monitoring Committee in accordance with the prescribed guidelines. Further, if by the end of year 2025-26, a POWER DEPARTMENT is unable to get any fund released due to adverse performance, the initial advance of 10% will have to be refunded by the POWER DEPARTMENT. Any unrecovered/due amounts from earlier schemes of Ministry of Power, GOI shall also be allowed to be adjusted against releases in the current scheme till 2025-26.
- iv) In order to secure the loan of NBFCs under MoP, the existing TPA (Tri-partite Agreement) arrangement among Government of India, the State Government and the RBI shall be suitably amended to provide that the loan servicing payments in case of default can be recovered through RBI.
- v) POWER DEPARTMENTS shall maintain books of accounts both for receipt of funds from Nodal Agency and release to contractors for each of the project.
- vi) POWER DEPARTMENT shall ensure that fund shall not be invested in any other bank/branch, whether for short term or medium term, including fixed deposits.

10. Opening of Bank Account

- i) As per the direction of the Department of Expenditure, Ministry of Finance, Govt. of India, Letter No. 26(118)/EMC Cell/2016 Dated 24.02.2022; funds will be released to the States/PIAs through Treasury Single Account (TSA) mechanism governed by the RBI w.e.f. 01.04.2022 and no separate Account in any scheduled commercial Bank will be opened and no diversion/parking of funds shall be permissible under the scheme, such that, the funds from DISCOMs shall be released through PFMS to its vendors/contractors.
- ii) Thus, Power Department is required to open a Treasury Single Account (TSA) with the RBI as sub-Agency through REC Limited designated as Central Nodal Agency (CAN) for the Scheme and the same shall require to map under PFMS Portal as well.

- iii) Power Department shall also have to register digital signatures of all the Authorized Signatories as declared in the TSA Form at First & Second Level both and all the future payment to its contractors shall be released through PFMS Portal only.

11. Distribution Reforms Committee

- i) State Government shall setup a Distribution Reforms Committee (DRC), headed by the Chief Secretary, Secretary in charge of the Energy/Power Department of the State as the convener and consisting of Secretary (Finance), Secretary (Land Revenue) and Secretary (Forest and Environment) as its members. The roles and responsibilities of Distribution Reforms Committee (DRC) are mentioned in clause 7.4 of the operational guidelines of RDSS.

12. DISTRICT ELECTRICITY COMMITTEE (DEC):

- i) State Government shall also setup a District Electricity Committee (DEC) as per the Ministry of Power letter no. 42/17/2011-RE [206787] dated 26.09.2021. The Committee shall meet periodically at District headquarters at least once in 3 months to review and coordinate overall development of power supply infrastructure in the district in accordance with the schemes of Government.
- ii) State Government shall also facilitate participation of Public Representatives in the inauguration events etc.

13. PROJECT MANAGEMENT

- i) Project Management Agency (PMA) shall be appointed by Power Department to assist them in project management to ensure timely implementation of the project. PMA charges, restricted to 2.5% of the GBS of component I - metering and 1.5% of project cost of component II - Distribution infrastructure works, shall be sanctioned as a separate component of the scheme. PMA charges, over and above the permitted amount shall be borne by the respective POWER DEPARTMENT.
- ii) State Government shall ensure Reforms support in the form of consultancy for Power Departments and payments thereof.
- iii) Power Department shall ensure establishment of a dedicated project implementation cell at district level and a centralized cell at Head office level.

14. CONSTRUCTION / IMPLEMENTATION

- i) Power Department shall make all possible efforts to complete the project(s) within the approved time frame starting from the date of award of project. State Government to provide required land for substations and facilitate in obtaining other statutory clearances (ROW, forest etc.);
- ii) Power Department to ensure following Public Procurement (Preference to Make in India) for Purchase Preference (linked with local content) Order in respect of Power Sector dated 28.7.2020 or its latest amendments thereof. DEA directives to be followed in case funds are availed through multi-lateral financial institutions.
- iii) Power Department shall suitably incorporate the provisions towards levy of Liquidated Damages in their agreements with contractors for delay in completion of the project(s) and also other relevant contractual provisions pertaining to the procurement of goods and

works. Out of the amount recovered towards Liquidated Damages, if any, by State Government/Power Department under this provision, the amount proportionate to subsidy shall be remitted to MoP account.

- iv) During implementation of projects, Power Department shall be solely responsible & accountable for assuring quality in RDSS works. State Government/Power Department shall formulate a comprehensive Quality Assurance (QA) and Inspection Plan with an objective to build Quality Infrastructure under RDSS works. The QA and Inspection Plan shall be an integral Part of the contract agreement with turnkey contractor or equipment supplier/vendor and erection agency as the case may be in case of partial turnkey and departmental execution of works.
- v) Power Department shall also ensure that the quality of material/equipment supplied at site and field execution of works under the project is in accordance with Quality Assurance & Inspection Plan.
- vi) Power Department to ensure submission of updated monthly physical and financial progress of the project to the Nodal Agency including its updation on the web portal.
- vii) State Government/Power Department shall ensure submission of geotagged photographs of the assets created under the scheme and same shall be uploaded in the portal while submitting the progress and claims. The detailed methodology shall be provided by the Nodal agency.
- viii) Power Department shall ensure that there is no duplication / overlapping of works with any other Government of India and State scheme.
- ix) Appropriate third party/parties will be appointed by MOP / Nodal Agencies to assess / verify the achievements of POWER DEPARTMENTS with respect to the action plan finalized on periodical basis using the Result Evaluation Framework.
- x) The projects shall be awarded and implemented within the time frame as per guidelines on turn-key basis through e-tendering in accordance with the prescribed Procurement Policy, Standard Bidding Document and Technical Specifications / amendments thereof.
- xi) For metering, Standardization Testing and Quality Certification (STQC) & Cyber security aspects have to be mandatorily included in the contract, while following Government of India's stipulations related to source of procurement.

15. UTILISATION CERTIFICATE

- i) Power Department shall submit Utilization Certificate (UC) for the funds released during the Financial year and utilization thereof in prescribed format, latest by 30th April of succeeding year. The UC shall provide the physical progress/achievements also apart from financial utilization. Utilisation Certificate is also mandatory to be submitted for every disbursement. The prescribed format for UC shall be furnished by the Nodal agency.

16. ARBITRATION

- i) Any differences or dispute among the parties arising out of or in connection with this project shall be discussed and settled amicably amongst the parties. In the event of non-settlement of the difference or dispute within sixty (60) days, the same shall be referred to the Secretary to the Government of India in the Ministry of Power, as the sole arbitrator whose decision shall be final and binding on the parties to this Agreement.

17. FORCE MAJEURE

- i) The parties shall ensure due compliance with the terms of this Agreement. However, no party shall be liable for any claim for any loss or damage whatsoever arising out of failure to carry out the terms of the Agreement to the extent that such a failure is due to force majeure events such as fire, rebellion, mutiny, civil commotion, riot, strike, lock-out, forces of nature, accident, act of God and any other reason beyond the control of concerned party. But any party claiming the benefit of this clause shall satisfy the other party of the existence of such an event and give written notice of 30 days to the other party to this effect. The services covered under this Agreement shall be started as soon as practicable by the parties concerned after such eventuality has come to an end or ceased to exist.

18. IMPLEMENTATION OF THE AGREEMENT

- i) All discretions to be exercised and directions, approvals, consents and notices to be given and actions to be taken under these presents, unless otherwise expressly provided herein, shall be exercised and given by the signatories to this Agreement or by the Authorized representative(s) that each party may nominate in this behalf and notify in writing to the other party by Registered Post. Any other nomination of Authorized representative(s) and/or changes in designation shall be informed likewise in writing to/by Power Department and REC within one month of signing of the Agreement. Any changes in designations/ registered office address shall be intimated in writing to all concerned parties.
- ii) In case of any inconsistency between the Terms and Conditions of this Agreement and the provisions of RDSS Guidelines, the latter shall prevail.
- iii) Any dispute arising out of this Agreement/interpretation of any clause may be referred to Secretary (Power), Govt. of India whose decision shall be final and binding on all parties.

19. NOTICE

- i) All notices required or referred to under this Agreement, shall be in writing and signed by the respective authorized signatories of the parties mentioned herein above, unless otherwise notified. Each such notice shall be deemed to have been duly given if delivered or served by registered/speed post of Department of Posts to the respective heads on the addresses mentioned in the recital.

20. VALIDITY & TERMINATION

- i) This agreement shall remain valid until all liabilities and obligations of the Power Department pertaining to the RDSS scheme implementation are discharged to the satisfaction of the Nodal Agency/Ministry of Power.
- ii) This agreement shall remain valid unless terminated with consent of all the Parties.

21. JURISDICTION

The competent Courts of Delhi shall have exclusive jurisdiction in all matters relating to or arising out under these presents.

IN WITNESS WHEREOF the parties have executed these presents through their Authorized Representatives at _____.

For **Power Department** _____

OR

State Agency _____

_____)

Fax No.

For **Nodal Agency**

Acceptance Letter

(From Government of)

No.

Dated:

.....

The Chairman & Managing Director,
Rural Electrification Corporation Limited,
Core 4, Scope Complex,
Lodhi Road,
New Delhi-110003

(Through CPM, REC Regional Office.....)

Sub: Acceptance of the terms and conditions of the sanction of the financial assistance accorded by REC for implementation of project in Discom of..... State under RDSS scheme

Sir,

This is with reference to your letter No..... dated: conveying approval of Result Evaluation Matrix and sanction of project cost of Rs..... (incl. PMA charges) for implementation of prepaid Smart metering works & Rs..... (incl. PMA charges) for implementation of Infrastructure works under Loss reduction in..... discom ofState under RDSS scheme.

2. The Government of accepts the above on the terms and condition as set out in your letter No: dated:

Yours faithfully,

(Authorized Officer)
State Government