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**BEFORE**  
**JOINT ELECTRICITY REGULATORY COMMISSION GURGAON**

**PETITION**  
**FOR**  
**APPROVAL OF**  
**TRUE-UP FOR FY 2015-16, ANNUAL PERFORMANCE REVIEW OF FY 2019-20, AND**  
**REVISION OF AGGREGATE REVENUE REQUIREMENT & TARIFF DETERMINATION PROPOSAL**  
**FOR FY 2020-21**

**BY**



**ELECTRICITY DEPARTMENT**  
*Government of GOA*

**NOVEMBER 2019**

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

Filing No.....

Case No.....

IN THE MATTER OF:      Petition for approval of True-up of FY 2015-16 APR for FY 2019-20, Revision of ARR and Tariff Determination Proposal for FY 2020-21.

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 True-up of FY 2015-16, APR for FY 2019-20, Revision of ARR and Tariff Determination Proposal for FY 2020-21 for the Electricity Department of Goa under section 45, 46, 61, 62, 64 and 86 of the Electricity Act, 2003.

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

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AND

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

.....Petitioner

**AFFIDAVIT VERIFYING THE PETITION**

I, Mrs. **Reshma Mathew**, wife of of Shri. **Joseph Mathew** aged **60** 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 True-up of FY 2015-16, APR for FY 2019-20, Revision of ARR and Tariff Determination Proposal for FY 2020-21.
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:**

**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 \_\_\_\_\_ **day of November 2019** 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, GURGAON**

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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 TRUE-UP OF FY 2015-16, APR FOR FY 2019-20, REVISION OF ARR AND TARIFF DETERMINATION PROPOSAL FOR FY 2020-21.

The Petitioner respectfully submits as under: -

1. The Petitioner, The 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 Regulation 9 of JERC (Generation, Transmission and Distribution Multi Year Tariff) Regulations, 2018 (MYT Regulations, 2018)
3. EDG hereby submits the present Petition for approval of True-up of FY 2015-16 based on the principles outlined in the Tariff Regulations 2009, APR for FY 2019-20, Revision of ARR and Tariff Determination Proposal for FY 2020-21 based on the principles outlined in the JERC MYT Regulations 2018, notified by the Hon'ble Commission.
4. EDG hereby submits that the documents of Budgetary Support assurance from Government of Goa for FY 2020-21 and FY 2015-16 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 True-up of FY 2015-16, APR for FY 2019-20, Revision of ARR and Tariff Determination Proposal for FY 2020-21.

Prayers to the 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 True Up exercise for FY 2015-16 based on the principles specified by JERC in (Terms and Conditions of Tariff) Regulations 2009 and parameters approved in Tariff Order dated 6<sup>th</sup> April 2015.
- C. Broadly, in formulating the APR for FY 2019-20, the principles specified by the Joint Electricity Regulatory Commission in Multi Year Tariff (MYT) Regulations, 2018 has been considered as the basis.
- D. Formulating Aggregate Revenue Requirement for FY 2020-21 based on the principles specified by JERC in MYT Regulations 2018 and as per MYT Order approved dated 20<sup>th</sup> May 2019.
- E. 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 True-up of FY 2015-16 as per Tariff Regulations 2009, APR for FY 2019-20, Revision of ARR and Tariff Determination for FY 2020-21 which is in line with the principles laid by Joint Electricity Regulatory Commission contained in MYT Regulations 2018 ;
- b) Approve the total recovery and revenue gap of Final True up of FY 2015-16, Annual Performance Review for FY 2019-20 and Aggregate Revenue Requirement for FY 2020-21 and other claims as proposed by EDG.
- c) Approve the Revenue Gap for FY 2015-16 amounting to Rs. 129.74 Crore as per True up, Revenue gap for FY 2019-20 of Rs.270.43 Crore as per APR and standalone Revenue Gap at revenue from existing tariff amounting to Rs.243.90 Crore for FY 2020-21 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 approve any proposed changes in Tariff Schedule (rationalisation of tariff categories & changes in applicability clauses), miscellaneous charges and general terms and condition of the tariff order for FY 2020-21.
- e) Approve the revenue at revised tariff for FY 2020-21 and the cumulative gap of Rs. 296.78 Crore till FY 2020-21. Cumulative gap till FY 2020-21 is proposed to be met partially through tariff hike and from the budgetary support by Govt. 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 True-up of FY 2015-16, APR for FY 2019-20, Revision of ARR and Tariff Determination Proposal for 2020-21 for the expenses to be incurred by EDG for serving its consumers;
- g) To allow cost related to past interest on security deposit into ARR of FY 2020-21.
- h) Grant approval for the schedule of tariff, charges for services and schedule of charges as made in the petition for FY 2020-21.
- i) Grant any other relief as the Hon'ble Commission may consider appropriate.
- j) 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.
- k) 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.
- l) 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: 29th November 2019

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**LIST OF ABBREVIATIONS**

<b>S. No</b>	<b>Abbreviations</b>	<b>Descriptions</b>
1.	A&G	Administrative and General
2.	AAD	Advance against Depreciation
3.	APPCL	Arunachal Pradesh Power Corporation Limited
4.	APR	Annual Performance review
5.	ARR	Aggregate Revenue Requirement
6.	APTEL	Appellate Tribunal for Electricity
7.	CAG	Comptroller and Auditor General
8.	CAGR	Compound Annual Growth Rate
9.	CAPEX	Capital Expenditure
10.	CEA	Central Electricity Authority
11.	CERC	Central Electricity Regulatory Commission
12.	CGS	Central Generating Station
13.	CPI	Consumer Price Index
14.	CWIP	Capital work in progress
15.	Discom	Distribution Companies
16.	DSM	Demand Side Management
17.	EA Act	The Electricity Act 2003
18.	ED	Electricity Duty
19.	EDG	Electricity Department, Government of Goa
20.	EHT	Extra High Tension
21.	EHV	Extra High Voltage
22.	FOR	Forum of Regulators
23.	FPPCA	fuel and power purchase cost adjustment
24.	FY	Financial Year
25.	GFA	Gross Fixed Assets
26.	GoI	Government of India
27.	GST	Goods and Services Tax
28.	HP	Horse Power
29.	HRA	House Rent Allowance
30.	HT	High Tension
31.	HV	High Voltage
32.	HVDC	High Voltage Direct Current
33.	IEX	Indian Energy Exchange Limited
34.	IPDS	Integrated Power Development Scheme
35.	IPP	Independent Power Producer
36.	JERC	Joint Electricity Regulatory Commission
37.	KV	Kilo Volt
38.	kVA	Kilo Volt Ampere
39.	kVAh	Kilo Volt Ampere Hour
40.	kW	Kilo Watt
41.	kWh	Kilo Watt Hour

<b>S. No</b>	<b>Abbreviations</b>	<b>Descriptions</b>
42.	LC	Letter of Credit
43.	LGBR	Load Generation Balance Report
44.	LT	Low Tension
45.	MCLR	Marginal Cost of funds based Lending Rate
46.	MDI	Maximum Demand Indicator
47.	MU	Million Units (Million kWh)
48.	MVA	Mega Volt Ampere
49.	MW	Mega Watt
50.	MYT	Multi Year Tariff
51.	NFA	Net Fixed Assets
52.	NPCIL	Nuclear Power Corporation of India Limited
53.	NTPC	National Thermal Power Corporation
54.	NVVNL	NTPC Vidyut Vyapar Nigam Limited
55.	O&M	Operation & Maintenance
56.	PGCIL	Power Grid Corporation of India
57.	PLF	Plant Load Factor
58.	PLR	Prime Lending Rate
59.	POC	Point of Connection
60.	PPA	Power Purchase Agreement
61.	R&M	Repair and Maintenance
62.	R-APDRP	Restructured Accelerated Power Development and Reforms Programme
63.	RBI	Reserve Bank of India
64.	REC	Renewable Energy Certificate
65.	RPO	Renewable Purchase Obligation
66.	Rs	Rupees
67.	SBI	State Bank of India
68.	SECI	Solar Energy Corporation of India
69.	SEM	Special Energy Meter
70.	SLDC	State Load Dispatch Centre
71.	SPS	Single Point of Supply
72.	SR	Southern Region
73.	SRPC	Southern Regional Power Committee
74.	STOA	Short Term Open Access
75.	T&D	Transmission and Distribution
76.	TOD	Time of Day
77.	UI	Unscheduled Interchange Charges
78.	UT	Union Territory
79.	VCoS	Voltage Wise Cost of Supply
80.	w.e.f	With effect from
81.	WR	Western Region
82.	WRPC	Western Regional Power Committee
83.	WPI	Wholesale Price Index

## **CHAPTER 1. INTRODUCTION**

### **1.1 Preamble**

1.1.1 The Hon'ble Commission had notified the Joint Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2009, Multi Year Distribution Tariff Regulations 2014 and Multi Year Distribution Tariff Regulations 2018. In line with the same, EDG submits this petition for Truing up for FY 2015-16 as per the provisions of the Tariff Regulations, 2009 and APR for FY 2019-20, revision of ARR and tariff determination Proposal for FY 2020-21.

### **1.2 Background: Electricity Department of Goa**

1.2.1 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. The majority of the power requirement for the State of Goa is met through its share from Central Sector Power Stations of the National Thermal Power Corporation as allocated by the Central Government.

1.2.2 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.

1.2.3 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.

1.2.4 The Electricity Department of Goa caters to around 6.4 Lacs consumers with an annual

energy consumption of approx. 3800 MUs. The Consumers of the Electricity Department of Goa are classified as under:

- Domestic (31% of consumption)
- Commercial (14% of consumption)
- Industrial (52% of consumption)
- Agriculture (1% of consumption)
- Temporary (1% of consumption)
- Defence Establishments (1% of consumption)

1.2.5 The peak demand of Goa for FY 2018-19 was around 657 MW during April 18. The Energy Deficit and the peak deficit as per CEA LGBR report, for FY 2017-18 for the State of Goa were 0.0% (NIL) and 0.2% (1 MW) respectively. The total firm allocation of power from central sector is approx. 537 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.

### **1.3 Filing in the current Petition**

1.3.1 EDG hereby submits that that the audit of the accounts for FY 2015-16 is completed and certificate from CAG is awaited and it is expected that the CAG certificate for the same will be submitted prior to the date of Public Hearing. Also accounts preparation for FY 2016-17 are under progress and audit will be initiated once account preparation gets completed. True-up petition for FY 2016-17 will be submitted along with next tariff petition after finalising and audited the account for the year.

1.3.2 The financial statement of FY 2017-18 and FY 2018-19 are yet to be prepared and therefore EDG submits that in the current petition, the figures (if any) used for the FY 2016-17, FY 2017-18 and FY 2018-19 are as per the approved figures by the Commission for the respective years.

1.3.3 EDG also submits that for APR of the year 2019-20, for H1 provisional actual figures and for H2 projected figures have been considered. EDG also submits that the Revenue for the year 2019-20 has been calculated as per the existing Tariff approved by the Hon'ble Commission.

1.3.4 EDG further submits that for FY 2020-21 the ARR has been projected considering the sales, number of Consumers and connected load figures as approved by the Hon'ble Commission vide its order dated 20<sup>th</sup> May, 2019.

## **CHAPTER 2. OVERALL APPROACH FOR PRESENT FILING**

The Hon'ble Commission had notified the Joint Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2009 in 9<sup>th</sup> February 2010 and JERC (Multi Year Distribution Tariff) Regulations, 2014. The Hon'ble Commission has notified the JERC (Multi Year Distribution Tariff) (First Amendment) Regulations, 2015 on 10<sup>th</sup> August, 2015. Also, the Hon'ble Commission has notified the JERC (Generation, Transmission and Distribution Multi Year Tariff) Regulations, 2018 on 10<sup>th</sup> August, 2018.

In line with the same, EDG has been filing the True-up 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 Truing up for FY 2015-16**

2.1.1 As specified in the Tariff Regulations, the Hon'ble Commission shall undertake the truing-up exercise for the previous year based on audited accounts. EDG submits that audit of the accounts for FY 2015-16 has been completed, however, the issuance of CAG certificate is in process and yet to be issued and the same will be submitted prior to the date of public hearing. Accordingly, EDG is submitting the true-up petition for the FY 2015-16. The said accounts are enclosed as **Annexure 3** of this Petition.

### **2.2 Truing up for FY 2016-17, FY 2017-18 and FY 2018-19**

2.2.1 EDG submits that preparation of accounts of FY 2016-17 are under progress and accounts for FY 2017-18 and FY 2018-19 are yet to be prepared, the same shall be submitted for CAG audit once account preparation gets completed. EDG shall approach the Hon'ble Commission for truing-up for these year at a later date when audited accounts are available. However, in the current petition, the figures (if any) used for the FY 2016-17, FY 2017-18 and FY 2018-19 are as per the approved figures by the Commission for the respective years..

### **2.3 Annual Performance Review for FY 2019-20**

2.3.1 EDG is filing this Annual Performance Review petition for the year FY 2019-20 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 order dated 20<sup>th</sup> May, 2019.

### **2.4 Determination of Tariff for FY 2020-21**

2.4.1 The Hon'ble Commission has issued Business Plan order of EDG on 16<sup>th</sup> November 2018 for the MYT control period FY 2019-20 to FY 2021-22. Further, the Hon'ble Commission has issued the ARR for the MYT control period FY 2019-20 to FY 2021-22 vide order dated 20<sup>th</sup> May 2019. In which Capex, capitalisation, power purchase requirement and

sales have been approved by the Hon'ble Commission for the base year FY 2018-19 and MYT period FY 2019-20 to FY 2021-22. Based on the same, EDG is filing determination of tariff proposal for FY 2020-21 and accordingly the effective revenue gap is determined and submitted.

## **2.5 Applicable Provision of Law**

2.5.1 The relevant clause of the Regulations to carrying out the true-up of the relevant years is reproduced as under:

### ***"8. Review and Truing Up***

*(1) The Commission shall undertake a review along with the next Tariff Order of the expenses and revenues approved by the Commission in the Tariff Order. While doing so, the Commission shall consider variations between approvals and revised estimates/pre-actuals of sale of electricity, income and expenditure for the relevant year and permit necessary adjustments/ changes in case such variations are for adequate and justifiable reasons. Such an exercise shall be called 'Review'.*

*(2) (i) After audited accounts of a year are made available, the Commission shall undertake similar exercise as above with reference to the final actual figures as per the audited accounts. This exercise with reference to audited accounts shall be called 'Truing Up'.*

*(ii) The Truing Up for any year will ordinarily not be considered after more than one year of 'Review'.*

*(3) The revenue gap of the ensuing year shall be adjusted as a result of review and truing up exercises.*

*(4) While approving such expenses/revenues to be adjusted in the future years as arising out of the Review and / or Truing up exercises, the Commission may allow the carrying costs as determined by the Commission of such expenses/revenues. Carrying costs shall be limited to the interest rate approved for working capital borrowings.*

*(5) For any revision in approvals, the licensee would be required to satisfy the Commission that the revision is necessary due to conditions beyond its control.*

*(6) In case additional supply is required to be made to any particular category, the licensee may, any time during the year make an application to the Commission for its approval. The application will demonstrate the need for such change of consumer mix and additional supply of power and also indicate the manner in which the licensee proposes to meet the cost for such change of consumer mix and additional supply of power.*

*(7) The Commission may consider granting approval to such proposals provided the cost of additional supply is ordinarily met by the beneficiary category.”*

## **2.6 Petition Structure**

2.6.1 The Petition includes the following Chapters:

- a) Section 1 contains Introduction and background
- b) Section 2 contains overall approach to filing of the Petition
- c) Section 3 contains True-up for FY 2015-16
- d) Section 4 contains True-up for FY 2016-17, FY 2017-18 and FY 2018-19
- e) Section 5 contains Annual Performance Review of FY 2019-20
- f) Section 6 contains ARR for FY 2020-21
- g) Section 7 contains Proposal to meet Revenue Gap
- h) Section 8 contains Tariff Philosophy
- i) Section 9 contains Tariff Proposal for FY 2020-21
- j) Section 10 contains Segregation of Wheeling and Supply Business
- k) Section 11 contains Determination of charges related to Open Access
- l) Section 12 contains EDG’s compliance to Commission’s Directives
- m) Section 13 contains EDG’s prayers to the Hon’ble Commission

## **CHAPTER 3. TRUING UP OF FY 2015-16**

### **3.1 Preamble**

3.1.1 This section outlines the performance of Goa Electricity Department (EDG) for FY 2015-16. EDG submits that the Hon'ble Joint Electricity Regulatory Commission vide its order dated 18<sup>th</sup> April 2016 has not undertaken the review for FY 2015-16. In the Order issued by JERC for Determination of ARR for the MYT control period FY 2019-20 to FY 2021-22 and determination of Tariff for FY 2019-20 dated 20<sup>th</sup> May 2019, the Hon'ble Commission has directed that the true up till FY 2018-19 should be done. However, it is submitted that due to unavoidable circumstances, EDG is submitting True-up of FY 2015-16 only and therefore request the Hon'ble Commission to condone the delay of submission of True up till FY 2018-19. Submission of true up for FY 2016-17 to FY 2018-19 shall be done once accounts are prepared and audited.

3.1.2 Accordingly, the final truing up of FY 2015-16 is submitted by comparing actual audited figures for the year with those approved by Hon'ble Commission for FY 2015-16 vide ARR order dated 6<sup>th</sup> April 2015. The balance sheet for FY 2015-16 is enclosed as **Annexure 3** of this petition. The certificate from CAG is awaited and it is expected that the CAG certificate for the same will be submitted prior to the date of Public Hearing.

3.1.3 This chapter summarizes each of the components of ARR for FY 2015-16 thereby working out the revenue gap for the respective financial years.

### **3.2 Energy Sales**

3.2.1 The total actual sales of EDG for FY 2015-16 are 3,421 MU's. The category wise actual and approved sales for FY 2015-16 are shown in the table below.

**Table 3-1: Energy Sales (MUs) for FY 2015-16**

Sr.No	Category of Consumer	FY 15-16	
		Approved by Commission	Audited
	<b>A. LOW TENSION SUPPLY</b>	<b>1,327</b>	<b>1,556</b>
1	(a) LTD/Domestic	764	1,058
	(b) LTD/L.I.G.	2	4
	(c) LTD Domestic Mixed	8	13
2	LTC/Commercial	281	332
3	(a) LTP/Motive Power	188	89
	(b) LTP Mixed (Hotel Industries)	5	7
	(c) LTP Ice Manufacturing	8	3
4	LTAG/Agriculture	25	19
5	(a) LTPL ( Public lighting )	40	29
6	LTPWW/Public Water works	6	2
	<b>B. HIGH TENSION SUPPLY</b>	<b>1,868</b>	<b>1,845</b>
7	HT ( Mixed )	136	122
8	HTI (Industrial) Ferro Metallurgical/ Steel Melting/Power Intensive.	576	757
9	HTI Industrial	637	613
10	HTAG ( Agriculture)	6	5
11	EHTI ( Industrial )	175	144
12	HT P.W.W. & Sewage system	144	125
13	HT. M.E.'s Defence Estt.	27	26
14	HTI ( Steel Rolling )	-	33
15	HTI / IT High Tech	21	2
16	HTI/Ice Manufacturing	2	2
17	Sale from EDG to GSPL (Div. VII)		17
18	HTI Hotel Industry	143	-
	<b>C. TEMPORARY SUPPLY</b>	<b>38</b>	<b>19</b>
19	(a) L.T. Temporary	38	19
	(b) H.T. Temporary	-	-
	(C) Hoardings/Signboards	0	0
	<b>Total</b>	<b>3,233</b>	<b>3,421</b>

3.2.2 It is requested to Hon'ble Commission to approve the actual sales of FY 2015-16 as stated in the table above.

### 3.3 Intra-state & Inter State Transmission & Distribution Loss

3.3.1 EDG submits that the actual Intra State T&D Loss and Inter State Loss are 15.36% and 4.23% respectively for FY 2015-16 as compared to that approved by Hon'ble Commission at 11.50% and 5.21% respectively for power procured through generating stations in western region and southern region. It is requested to approve the actual T&D Loss level as mentioned in this para.

3.3.2 EDG while computing Energy balance for entire FY 2015-16 has considered actual of UI overdrawal/ under drawal, purchase of traders, sale to exchange etc.

**Table 3-2: Energy Balance for FY 2015-16**

Sr. No.	Item	FY 15-16 Approved (MUs)	FY 15-16 Audited (MUs)
1	<b>Energy Input at Goa Periphery</b>	3,653	3,840
2	<b>Total Power Scheduled/ Purchased at Goa Periphery</b>		
	Total Schedule Billed Drawal - CGS	3,548	3,430
	Add: Overdrawal		191
	Add: Purchase from traders	77	179
	Add: Power purchase from NVVN		
	Less: Underdrawal		24
	Less: Power diverted to Exchange		
	Less: Banking Power		
	Add : Renewable Power	27	48
	<b>Total</b>	<b>3,652</b>	<b>3,823</b>
3	<b>PGCIL Losses - MUs</b>	185	162
	<b>PGCIL Losses - % *</b>	5.21%	4.23%
4	<b>Total Power Purchased within Goa State</b>		
	Add: Co-generation	186.4	202
	Add: Independent Power Producers (IPP)	-	
	<b>Total</b>	<b>186</b>	<b>202</b>
5	<b>Total Power Purchase availability after PGCIL Losses</b>	<b>3,654</b>	<b>4,042</b>
	Less: Retail Sales to Consumers	3,233	3,421
	Distribution Losses - MUs	420	621
6	<b>Distribution Losses - %</b>	<b>11.50%</b>	<b>15.36%</b>

3.3.3 The Hon'ble Commission is requested to approve the Energy Balance for the year FY 2015-16 as provided in the above table. The energy requirement and source wise power purchase details along with actual cost are discussed in subsequent section. The details of approved vis-à-vis actual loss are depicted in the table below:

**Table 3-3: Intra-state & Inter State Transmission & Distribution Loss for FY 2015-16**

Particulars	FY 15-16 (Approved)	FY 15-16 (Audited)
Intra State T&D Loss	11.50%	15.36%
Inter State Loss	5.21%	4.23%

### 3.4 Power Purchase Quantum & Cost for FY 2015-16

3.4.1 EDG meets its total energy requirement from its allocation from the Central Generating Stations (CGS) and Co-generating Company like Goa Energy Pvt Ltd., Goa Sponge & Power Ltd. and Sesa Goa, energy requirement also meets through NVVNL and traders.

3.4.2 The transmission charges comprises of transmission charges to Western Region, Southern Region, KPTCL and other Transmission Licensees.

3.4.3 The Power Purchase costs also includes ED, Cess, Incentive etc. and supplementary charges considered on actual basis. During FY 2015-16, EDG has procured actual renewable power of 47.52 MUs and REC certificate has been purchased for 45 Mus of Solar and 75 Mus of Non Solar for RPO obligation. The details with regards to fulfil of the RPO till FY 2018-19 has been provided in the subsequent chapter of this Petition.

3.4.4 The table below shows the summary of Power Purchase from various sources along with their costs for FY 2015-16 including Transmission Charges, UI charges and purchase from traders.

**Table 3-4: Power Purchase Quantum & Cost for FY 2015-16**

Sr. No.	Source	FY 15-16 (Approved)		FY 15-16 (Audited)	
		Quantum (MUs)	Cost (Rs. Crore)	Quantum (MUs)	Cost (Rs. Crore)
1	NTPC	3,228.44	726.39	3,261.64	705.49
2	NPCIL	320.01	81.37	168.40	45.40
3	Co-Generation	185.95	44.63	202.28	48.21
	Goa Energy Private Limited	124.27	29.82	102.45	24.70
	Goa Sponge & Power Limited	6.68	1.60	5.06	1.21
	Sesa Goa	55.00	13.20	94.77	22.30
4	Renewable Energy	27	30.71	47.52	55.44
5	IPP				
6	Short term tied up	62.26	23.02		
7	Traders	14.89	5.51	178.69	65.82
8	Overdrawal			166.39	56.51
9	Transmission and Other Charges		136.70	-	157.84
	<b>Total</b>	<b>3,838.55</b>	<b>1,048.34</b>	<b>4,024.92</b>	<b>1,134.70</b>
	<b>Power purchase cost per unit</b>		<b>2.73</b>		<b>2.82</b>

3.4.5 EDG submits that the Regional Energy Accounts (REA) and Regional Transmission Accounts (RTA) for the period has already been provided in soft format along with the past petition for verification and scrutiny of the Commission.

3.4.6 EDG submits that actual overall power purchase cost per unit is arrived at Rs. 2.82/KWh against approved power purchase cost of Rs. 2.73/KWh in Tariff Order dated 6<sup>th</sup> April 2015. Cost of the over-drawal of Power of Rs.56.51 Crore during FY 2015-16 is the reason due to which overall power purchase cost per unit has increased to Rs.2.82/KWh.

3.4.7 EDG request the Hon'ble Commission to approve the power purchase cost including the transmission charges for FY 2015-16.

### 3.5 Capital Work in Progress, GFA and Depreciation

3.5.1 GFA: The Opening Balance of GFA for FY 2015-16 comes to around Rs. 956.82 Crore as per annual accounts of respective years. The following table shows the opening balance, additions, deductions and closing balance of GFA for FY 2015-16.

**Table 3-5: GFA for FY 2015-16 – Rs. Crore**

Particulars	FY 15-16 (Approved)	FY 15-16 (Audited)
Opening Value of Assets at the beginning of the year	581.37	956.82
Additions during the year	307.50	162.91
Value of assets sold/disposed off	-	2.28
<b>Gross Fixed Assets at the end of year</b>	<b>888.87</b>	<b>1,117.45</b>

3.5.2 As seen from the above table, the approved opening value of GFA vide order dated 6<sup>th</sup> April, 2015 is lower than the actual opening GFA, as the Hon'ble Commission had not considered the opening value of Assets while approving Gross Fixed Assets component as audited accounts were pending. In the current petition, for True Up for FY 2015-16, EDG is submitting the above mentioned GFA figures based on the Audited Accounts and Fixed Asset Register for FY 2015-16 as directed by the Hon'ble Commission and request the Hon'ble Commission to approve the same.

3.5.3 CAPEX and Capitalisation: EDG submits that to relieve the overloaded infrastructure and to cater to the load and increasing demand from HT and LT consumers, EDG had undertaken the CAPEX of Rs. 134.89 Crore and capitalisation of Rs. 162.91 Crore for FY 2015-16 as per the audited accounts. The detailed capital investment plan (scheme wise) in line with Regulations 21 of JERC for the State of Goa and UTs (Terms and conditions for determination of Tariff), Regulation 2009 has been submitted with format 5 of the submission.

3.5.4 EDG request the Hon'ble Commission to allow the actual expenditure and capitalisation so as to ensure the creation of infrastructure for adherence to Standard of Performance and Supply Code Regulations

3.5.5 Depreciation: "As per Regulation 26 of JERC Tariff Regulations, 2009 depreciation for the assets shall be calculated annually at the rates specified by CERC from time to time. The same have been applied on different asset categories.

3.5.6 EDG would like to submit that the depreciation arrived in annual accounts for FY 2015-16 is based on the rates specified by Hon'ble Commission in its Tariff Regulations.

3.5.7 The rates of depreciation for various assets are used as tabulated below:

**Table 3-6: Rate of Depreciation applicable for various assets**

Description of Assets	Rate of Depreciation
Land and Land Rights	-
Building	3.34%
Plant and Machinery	5.28%
Lines and Cables	5.28%
Office Equipment	6.33%
IT Equipment	15.00%
Vehicles	9.50%
Furniture and Fixtures	6.33%
Testing and measuring equipment	5.28%
SCADA Centre	5.28%

3.5.8 The following table shows the depreciation arrived by EDG for FY 2015-16 based on the approved depreciation rates specified by the Hon'ble Commission for different asset class. Depreciation of Rs. 48.21 Crore is reflecting in the annual audited accounts. However in below table EDG has claimed Depreciation excluding amount of depreciation on the assets created through Electricity duty and grants. The detail working of the amount of Rs. 42.61 Crore is provided in Tariff format 12 of this petition.

**Table 3-7 : Depreciation for FY 2015-16 – Rs. Crore**

Particulars	FY 15-16 (Approved)	FY 15-16 (Audited)
Opening Value of Assets at the beginning of the year	581.37	956.82
Additions during the year	307.50	162.91
Value of assets sold/disposed off	-	2.28
<b>Gross Fixed Assets at the end of year</b>	<b>888.87</b>	<b>1,117.45</b>
Rate of depreciation	5.28%	4.11%
<b>Depreciation</b>	<b>38.81</b>	<b>42.61</b>

3.5.9 EDG submitted that, from the above table it can be observed that average rate of depreciation over GFA was 5.28% approved by the Hon'ble Commission. However as per audited accounts, average depreciation rate is 4.11%.

3.5.10 The Hon'ble Commission is requested to approve depreciation of Rs. 42.61 Crore for FY 2015-16 as submitted in the table above.

### 3.6 Operation & Maintenance Expenses

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

- Employee expenses comprise of salaries, dearness allowance, bonus, terminal benefits in the form of pension & gratuity, leave encashment and staff welfare expenses

- Administrative expenses mainly comprise of rents, telephone and other communication expenses, professional charges, conveyance and travelling allowances and other debits.
- Repairs and Maintenance Expenses go towards the day to day upkeep of the distribution network of the Company and form an integral part of the Company's efforts towards reliable and quality power supply as also in the reduction of losses in the system.

3.6.2 Regulation 27 (3) of JERC for the State of Goa and Union Territories (Terms and Conditions for Determination of Tariff) Regulations, 2009 provides for O&M Expense for a distribution licensee. The relevant regulation is re-produced hereunder:

*"27 (3) O&M expenses for distribution functions shall be determined by the Commission as follows:*

- a) O&M expenses as approved by the Commission for the first time for a year shall be considered as base O&M expenses for determination of O&M expenses for subsequent years;*
- b) Base O&M expenses as above shall be adjusted according to variation in the rate of WPI per annum to determine the O&M expenses for subsequent year, where WPI is the Wholesale Price Index on April 1 of the relevant year....."*

3.6.3 Employee Expenses: EDG has computed the Employee expense for FY 2015-16 based on the actual employee expenses incurred during the entire year.

3.6.4 The details of the employee cost are outlined in the following table for the approval of the Hon'ble Commission:

**Table 3-8: Employee Expenses for FY 2015-16 – Rs. Crore**

Particulars	FY 15-16 (Approved)	FY 15-16 (Audited)
Salaries& Allowances	161.53	238.50
Terminal Benefits		
Other Salary payments		
<b>Total</b>	<b>161.53</b>	<b>238.50</b>
Less: Add/Deduct share of others		-
<b>Total</b>	<b>161.53</b>	<b>238.50</b>
Less: Amount capitalized		-
<b>Net amount</b>	<b>161.53</b>	<b>238.50</b>
Add: Pension/ DA and other Provision		-
<b>Total Employee Expenses</b>	<b>161.53</b>	<b>238.50</b>

3.6.5 EDG submits that employee cost as approved by the Hon'ble Commission for FY 2015-16 was Rs. 161.53 Crore whereas the actual expenditure for FY 2015-16 is Rs. 238.50 Crore, resulting in increase of 47.65% over approved cost. However, employee Cost for FY 2014-15 were Rs.205.70 Crore. Therefore considering the FY 2014-15 audited employee cost, resultant increase of ~16% in employee cost for FY 2015-16. Employee cost for FY

2015-16 is on higher side, which is due to increase in dearness allowance, HRA and travel allowance, out of the same dearness allowance is uncontrollable factor, further it is submitted that dearness allowance amount is approximately 35% to 40% of the total employee cost.

3.6.6 It is submitted that employee cost needs to be considered as uncontrollable and therefore, EDG request the Hon'ble Commission to approve the actual employee cost during FY 2015-16 reflecting in annual accounts.

3.6.7 Repairs & Maintenance Expenses: The repairs and maintenance cost has been claimed as per expenses actually incurred during FY 2015-16 which is reflecting in annual accounts of that financial year.

**Table 3-9: R&M Expenses for FY 2015-16 – Rs. Crore**

Particulars	FY 15-16 (Approved)	FY 15-16 (Audited)
Plant & machinery	12.68	16.28
Buildings (Electricity Residential & Non-Residential)		
Hydraulic works & civil works		
Line cable & network		
Vehicles		
Furniture & fixtures		
Office equipments		
Minor R&M Works		
<b>Total</b>		
Add/Deduct share of others (To be specified)		
<b>Total expenses</b>	<b>12.68</b>	<b>16.28</b>
<b>Less : Capitalized</b>		
<b>Net expenses</b>	<b>12.68</b>	<b>16.28</b>
Add: prior period		
<b>Total R&amp;M expenses</b>	<b>12.68</b>	<b>16.28</b>

3.6.8 It is submitted that EDG has been undertaking various Repairs and Maintenance activities as a step towards improvement of systems, reduction in breakdowns, and reduction in response time and increasing preventive maintenance.

3.6.9 Proportion of R&M expense over average GFA was at 1.72% for FY 2015-16 as per figures approved in ARR order dated 6<sup>th</sup> April 2015. However above stated R&M expense as per audited accounts for FY 2015-16 are at 1.57% of average GFA.

3.6.10 EDG further submits that R&M expenses are necessary for maintenance of infrastructure and for ensuring proper Standard of Performance of the Electricity Department Goa and therefore request the Hon'ble Commission to approve Rs.16.28 Crore for FY 2015-16 as

R&M expenses.

3.6.11 Administration & General expenses: The administrative expense mainly comprise of rents, professional charges, office expenses, etc. The expenses incurred by the EDG for FY 2015-16 are shown in the table below.

**Table 3-10: A&G Expenses for FY 2015-16 – Rs. Crore**

Particulars	FY 15-16 (Approved)	FY 15-16 (Audited)
Travelling Expenses	22.40	25.30
Office Expenses		
Petrol,Oil,Lubricant (P.O.L)		
Rent,Rates & Taxes		
Advertisement & Publicity		
Professional & Special Services		
Other Charges		
Overtime Allowance		
Minor Works		
Audit of Accounts and Professional Fees		
<b>Total</b>		
Less : share of others (To be specified)		
<b>Total expenses</b>	<b>22.40</b>	<b>25.30</b>
<b>Less : Capitalized</b>		
<b>Net expenses</b>	<b>22.40</b>	<b>25.30</b>
Add: prior period		
<b>Total A&amp;G expenses</b>	<b>22.40</b>	<b>25.30</b>

3.6.12 The Hon'ble Commission is requested to approve the actual A&G expenses of Rs. 25.30 Crore for FY 2015-16. It is submitted that actual and audited A&G Cost for FY 2012-13 was Rs.22.27 Crore, FY 2013-14 was Rs. 18.54 Crore and FY 2014-15 was Rs. 22.40 Crore. Hence EDG submits that, in line with A&G cost for FY 2012-13, FY 2013-14 & FY 2014-15, A&G expenses for FY 2015-16 seem justified and Hon'ble Commission is requested to approve the same.

3.6.13 O&M Expenses Summary: Based on the foregoing paragraphs, the O&M expenses for the year FY 2015-16 vis-a-vis the approved level by the Hon'ble Commission is shown in the table below:

**Table 3-11: O&M Expenses for FY 2015-16 – Rs. Crore**

Particulars	FY 15-16 (Approved)	FY 15-16 (Audited)
Employee Expenses	161.53	238.50
A&G Expenses	10.03	25.30
R&M Expenses	12.68	16.28
<b>O&amp;M Expenses (Rs Crore)</b>	<b>184.24</b>	<b>280.09</b>

3.6.14 The Hon'ble Commission is requested to approve the O&M Expenses of Rs. 280.09 Crore for FY 2015-16 as shown in the table above. The details of O&M expense for FY 2015-16 are provided in the Formats 13, 15 & 16 of the Tariff Filing Formats.

### 3.7 Interest & Finance Charge

3.7.1 The Regulation 25 of JERC for the State of Goa and Union Territories (Terms and Conditions for Determination of Tariff) Regulations, 2009 provides for Interest and Finance Charges on Loan. EDG has submitted that the majority of capital assets are created out of the equity contribution from Government of Goa. As per Regulation 23 (1) of JERC, (Terms and Conditions for Determination of Tariff) Regulations, 2009 in case if equity employed is more than 30%, equity excess of 30% shall be considered as loan and accordingly Interest on loan shall be calculated. The relevant regulation is reproduced as under:-

#### ***"23. Debt-Equity Ratio***

*(1) For the purpose of determination of tariff, debt-equity ratio in case of existing, ongoing as well as new projects commencing after the date of notification of these Regulations shall be 70:30. Where equity employed is more than 30%, the amount of equity for the purpose of tariff shall be limited to 30% and the balance amount shall be considered as loan. Where actual equity employed is less than 30%, the actual debt and equity shall be considered for determination of tariff."*

3.7.2 EDG has claimed the interest expenses based on normative loan calculation whereby 70% of the opening GFA and the capitalisation during the year has been considered as normative debt. The Interest expense arrived is based on normative loan considered to the extent of capitalization during the year after deducting the Electricity duty fund available as grant. Working of the addition of normative loan during FY 2015-16 is shown as below:-

**Table 3-12 : Working of Normative loan addition during FY 2015-16 – Rs. Crore**

S.No.	Particulars	FY 2015-16
A	Additions to GFA	162.91
B	Less: 60% Grant Component of APDRP Part-B / IPDS scheme	19.21
C	Less: Schemes out of ED Fund	22.00
D	<b>Net Additions to GFA</b>	<b>121.70</b>
E	<b>Normative Loan addition during the year (70% X D)</b>	<b>85.19</b>

3.7.3 Opening balance of normative loan for FY 2015-16 considered as per the approved

closing balance of normative loan during trueing up for FY 2014-15. Accordingly the Interest expenses vis-a-vis approved by the Hon'ble Commission for FY 2015-16 shown below.

**Table 3-13 : Interest on normative loan for FY 2015-16 – Rs. Crore**

Particulars	FY 15-16 (Approved)	FY 15-16 (Audited)
Opening Normative Loan	314.67	188.87
Add: Normative Loan during the year	215.25	85.19
Less: Normative Repayment	38.81	18.89
<b>Closing Normative Loan</b>	<b>491.11</b>	<b>255.17</b>
Average Normative Loan	402.89	222.02
Rate of Interest (@SBI PLR rate)	7.99%	14.60%
<b>Interest on Normative Loan</b>	<b>32.19</b>	<b>32.42</b>

3.7.4 As seen from the above table, EDG has submitted Interest on normative loan which is marginally higher than approved in order by Hon'ble Commission. Main reason for the higher actual amount than approved amount is that rate of Interest is now considered as per SBI PLR rate available at the beginning of FY 2015-16 as per Regulation 25(2) of JERC (Terms and Conditions for Determination of Tariff) Regulations, 2009, however at the time of ARR EDG had submitted provisional Interest. The relevant regulation is reproduced as under:-

***“ 25. Interest and Finance Charges on Loan***

.....

*(2) Interest and finance charges on loan capital for new investments shall be computed on the loans, duly taking into account the rate of interest and the schedule of repayment as per the terms and conditions of relevant agreements. The rate of interest shall, however, be restricted to the prevailing Prime Lending Rate of the State Bank of India.”*

3.7.5 Secondly normative loan was approved by the Commission in true-up of FY 2013-14 and FY 2014-15. Accordingly, the opening balance of normative loan for FY 2015-16 (i.e. approved closing balance of FY 2014-15 approved by Commission) is lower than the one approved. However due to higher prevailing SBI PLR rate considered for FY 2015-16, Interest on normative loan computed above is marginally higher than the amount approved by Hon'ble Commission. In view of this, EDG requests the Hon'ble Commission to consider the same.

3.7.6 EDG submits that addition of normative loan is calculated at 70% of the capitalisation added during FY 2015-16 excluding capitalisation through grant, and electricity duty. Repayment of normative loan has been considered as 1/10<sup>th</sup> of the opening of normative loan, which is in line with JERC (Terms and Conditions of Tariff) Regulations

2009.

- 3.7.7 Other than Interest on normative loan, EDG has claimed other Interest and Finance charges in the table highlighted below, it is submitted that certain financial charges are incurred by the department which are related to bank charges, LC charges, etc. the same also is in line with audited accounts.

**Table 3-14 : Other Interest and Finance Charges for FY 2015-16 – Rs. Crore**

Particulars	FY 15-16 (Approved)	FY 15-16 (Audited)
Opening Normative Loan	314.67	188.87
Add: Normative Loan during the year	215.25	85.19
Less: Normative Repayment	38.81	18.89
<b>Closing Normative Loan</b>	<b>491.11</b>	<b>255.17</b>
Average Normative Loan	402.89	222.02
Rate of Interest (@SBI PLR rate)	7.99%	14.60%
<b>Interest on Normative Loan</b>	<b>32.19</b>	<b>32.42</b>
Other Finance Charges	1.30	1.54
<b>Total Interest &amp; Finance Charges</b>	<b>33.49</b>	<b>33.96</b>

- 3.7.8 The Hon'ble Commission is requested to approve the Interest & Finance Charges of Rs. 33.96 Crore (Rs. 32.42 Crore+ Rs. 1.54 Crore) for FY 2015-16. The details of Interest & Finance charges are provided in Format 10A of the Tariff Filing Formats

### 3.8 Interest on Working Capital

- 3.8.1 Regulation No. 29 of JERC for the State of Goa and Union Territories (Terms and Conditions for Determination of Tariff) Regulations, 2009, stipulates the procedure for calculation of normative Working Capital and Interest on Working Capital as applicable to Goa Electricity Department. This is as shown below:

*“(1) For generation and transmission business, the working capital shall be as per CERC norms.*

*(2) Subject to prudence check, the working capital for distribution business shall be the sum of one month requirement for meeting:*

- (a) Power purchase cost.*
- (b) Employees cost.*
- (c) Administration & general expenses and*
- (d) Repair & Maintenance expenses.*

*(3) Subject to prudence check, the working capital for integrated utility shall be sum of one month requirement for meeting:*

- (a) Power purchase cost*
- (b) Employees cost*

(c) Administration & general expenses

(d) Repair & Maintenance expenses.

(e) Sum of two month requirement for meeting Fuel cost

(4) The rate of interest on working capital shall be equal to the short term Prime Lending Rate of State Bank of India on the 1st April of the relevant financial year. The interest on working capital shall be payable on normative basis notwithstanding that the generating company / licensee has not taken working capital loan from any outside agency or has exceeded the working capital loan amount worked out on the normative figures.”

3.8.2 The EDG hereby submits that it has adopted the same methodology adopted by the Hon’ble Commission in its True up order for FY 2014-15 for arriving at the working capital requirement whereby it has excluded the average security deposits available with EDG from the working capital requirement though the same has not been specified in the Regulations.

**Table 3-15 : Interest on working capital for FY 2015-16 – Rs. Crore**

Particulars	FY 15-16 (Approved)	FY 15-16 (Audited)
Power Purchase Cost for one month*	87.36	94.56
Employee Cost for one month	13.46	19.88
A&G Expenses for one month	0.84	2.11
R&M Expenses for one month	1.06	1.36
<b>Total Working Capital for one month</b>	<b>102.72</b>	<b>117.90</b>
Closing Security Deposit (amount already with EDG)	86.83	24.43
<b>Total Working Capital considered for one month (5-6)</b>	<b>15.89</b>	<b>93.47</b>
SBI PLR Rate	14.75%	14.60%
<b>Interest on Working Capital</b>	<b>2.34</b>	<b>13.65</b>

3.8.3 Interest on Working Capital is computed in accordance with Regulation 29 of JERC for the State of Goa and Union Territories (Terms and Conditions for Determination of Tariff) Regulations, 2009. The Hon’ble Commission is requested to approve the Interest on Working Capital of Rs. 13.65 Crore for FY 2015-16 as presented in the table above.

### 3.9 Interest on Security Deposits

3.9.1 Regulation 25 of JERC (for the State of Goa and Union Territories (Terms and Conditions for Determination of Tariff) Regulations, 2009 provides for Interest on Security Deposit, if any, made by the consumer with the licensee. The provision of interest on security deposits is to be made at the bank rate as per Regulation 25 (4) of JERC (Terms and Conditions for Determination of Tariff) Regulations, 2009. The prevailing Bank rate is considered at 9.85% for FY 2015-16 as notified by Reserve Bank of India. The extract of the relevant regulation is reproduced as under:

**“25. Interest and Finance Charges on Loan**

.....

(4) Interest charges on security deposits, if any, made by the consumers with a generating company/licensee, shall be equivalent to the bank rate or at the rate, if any, specified by the Commission whichever is higher.”

**Table 3-16 : Interest on Security deposit for FY 2015-16– Rs. Crore**

Particulars	FY 15-16 (Approved)	FY 15-16 (Audited)
Opening Security Deposit	86.83	23.61
Add: Deposits during the Year	1.14	4.67
Less: Deposits refunded		3.03
<b>Closing Security Deposit</b>	<b>87.97</b>	<b>25.25</b>
<b>Average Security Deposit</b>	<b>87.40</b>	<b>24.43</b>
<b>Bank Rate</b>	<b>8.50%</b>	<b>9.85%</b>
<b>Interest on Security Deposit</b>	<b>7.43</b>	<b>2.41</b>
<b>Interest on Security Deposit Paid during the year</b>		-

3.9.2 However, since the actual interest were not been paid to consumers for the respective Financial year, the amount is not claimed in the year in which it has been accrued but has been claimed in the year in which it has been paid to the consumers. EDG has requested the Hon’ble Commission for separate treatment for balance security deposit in the subsequent chapter.

3.9.3 The Hon’ble Commission is requested to approve the Interest on Security Deposit as NIL for FY 2015-16.

### **3.10 Return on Capital Base/ Net Fixed Assets**

3.10.1 EDG being an integrated Utility, it is entitled to return on capital base under the provisions of Schedule VI of the repealed Electricity (Supply) Act, 1948 vide provision under Regulation 23 (2) of JERC (Terms and Conditions for Determination of Tariff) Regulations, 2009. Thus, in line with the same, EDG has calculated the return on capital base at 3%. The summary of the Return on Net Fixed Assets as claimed by EDG, as approved by the Commission and as calculated for FY 2015-16 is tabulated below:

**Table 3-17 : Return on Capital Base/net Fixed Assets for FY 2015-16 – Rs. Crore**

Particulars	FY 15-16 (Approved)	FY 15-16 (Audited)
Gross block at beginning of the year	581.37	956.82
Less accumulated depreciation	53.99	297.09
<b>Net fixed assets at beginning of the year</b>	<b>527.38</b>	<b>659.73</b>
Rate of Return on capital base	3.00%	3.00%
<b>Reasonable Return</b>	<b>15.82</b>	<b>19.79</b>

3.10.2 EDG hereby submits Return on capital base/Net Fixed Assets figures as above. As seen from the table above, the actual return of NFA is higher than the amount approved, as the Hon'ble commission has not considered the opening GFA for FY 2011-12 due to non-availability of the fixed assets register and audited accounts. However, now audited accounts till FY 2014-15 is already submitted and accounts for FY 2015-16 are being submitted in this petition.

3.10.3 In view of above, the Hon'ble Commission is requested to kindly allow the above Return on Net Fixed Assets of Rs.19.79 Crore for FY 2015-16.

### 3.11 Provision for Doubtful debts

3.11.1 As specified in Regulation 28 of JERC Tariff Regulations 2009 (to be read with the format):

*“The Commission may, after the generating company/licensee gets the receivables audited, allow a provision for bad debts up to 1% of receivables in the revenue requirement of the generating company/licensee. (Information to be furnished in format 18)”.*

3.11.2 EDG has provided for the bad and doubtful debt for FY 2015-16 in audited accounts as under:-

**Table 3-18: Provisions for Bad debts for FY 2015-16 – Rs. Crore**

Particulars	FY 15-16 (Approved)	FY 15-16 (Audited)
Provision for bad and doubtful debts	-	3.61

3.11.3 The Hon'ble Commission has stated in the tariff order that bad and doubtful debts actually written off, limited to 1% as per the regulation 28 of JERC (Terms and Conditions for Determination of Tariff) Regulations, 2009, also it would be considered only after the availability of audited accounts and would be taken up at the time of the true-up of the ARR. Accordingly, based on the audited accounts, EDG has made provision for bad and doubtful debt in the books of account for FY 2015-16. However EDG has not claimed the provision for bad and doubtful debt in ARR for FY 2015-16 since it is not actually written off in the books of accounts. The extract of relevant regulation is reproduced as under:

**“ 28. Bad and Doubtful Debts**

*The Commission may, after the generating company / licensee gets the receivables audited, allow a provision for bad debts up to 1% of receivables in the revenue requirement of the generating company / licensee.”*

3.11.4 In view of above, the Hon'ble Commission is requested to kindly approve the provision

of Bad and doubtful debt as NIL for FY 2015-16.

### 3.12 Non-Tariff Income

3.12.1 The Non-Tariff Income comprises metering, late payment charges, interest on staff loans, income from trading, reconnection fee, UI sales/ Sales to Exchanges and miscellaneous income among others. The Non-Tariff Income approved by the Hon'ble Commission in the ARR for FY 2015-16 was Rs. 6.74 Crore.

3.12.2 The details of Non-Tariff Income for FY 2015-16 are provided in Format 20 of the Tariff Filing Formats.

3.12.3 The summary of total Non-Tariff Income is tabulated below:

**Table 3-19: Non-Tariff Income for FY 2015-16– Rs. Crore**

Particulars	FY 15-16 (Approved)	FY 15-16 (Audited)
Sale Proceeds of dead stock, waste paper etc		
Receipt from State Electrical Inspectorate		
Misc. Receipts/income	6.74	24.19
Meter/service rent		
Deferred Income (Electricity Development fund)		
Income from trading		
<b>Total income</b>	<b>6.74</b>	<b>24.19</b>
Add: prior period income		
<b>Total Non-tariff income</b>	<b>6.74</b>	<b>24.19</b>

3.12.4 In view of above, the Hon'ble Commission is requested to kindly allow Non-Tariff Income of Rs. 24.19 Crore for FY 2015-16.

### 3.13 Aggregate Revenue Requirement for FY 2015-16

3.13.1 In view of the various parameters of the ARR discussed in above different section, the Aggregate Revenue Requirement for FY 2015-16 as approved by the Hon'ble Commission and as per the true-up Petition claimed by EDG are outlined in the following table:

**Table 3-20: Calculation of ARR for FY 2015-16 – Rs. Crore**

Particulars	FY 15-16 (Approved by Commission)	FY 15-16 (Claimed in True-Up)
Cost of power purchase including Provision for RPO	1,048.34	1,134.70
Employee costs	161.53	238.50
R&M expenses	12.68	16.28
Administration and general expenses	10.03	25.30
Depreciation	38.81	42.61
Interest and Finance Charges	33.49	33.96
Interest on Working Capital	2.34	13.65
Interest on Security Deposit	7.43	-
Return on Equity	15.82	19.79
Provision for Bad Debts	-	-
<b>Total Revenue Requirement</b>	<b>1,330.47</b>	<b>1,524.80</b>
Less: Non Tariff Income	6.74	24.19
<b>Aggregate Revenue Requirement</b>	<b>1,323.73</b>	<b>1,500.61</b>

3.13.2 EDG hereby requests the Hon'ble Commission to approve the ARR of Rs. 1,500.61 Crore for FY 2015-16 as submitted above.

### **3.14 Revenue from Sale of Power at approved Tariff**

3.14.1 The Revenue from Tariff for FY 2015-16 approved by the Hon'ble Commission in ARR order dated 6<sup>th</sup> April 2015 was Rs. 1322.62 Crore.

3.14.2 The actual revenue earned from tariffs for FY 2015-16 is shown in the table below

**Table 3-21: Revenue from Tariff for FY 2015-16**

Particulars	FY 15-16 (Approved)		FY 15-16 (Audited)	
	Sales (MUs)	Total Revenue (Rs Crore)	Sales (MUs)	Total Revenue (Rs Crore)
<b>A. LOW TENSION SUPPLY</b>	<b>1,327</b>	<b>392.54</b>	<b>1,556</b>	<b>446.64</b>
(a) LTD/Domestic	764	170.39	1,058	221.72
(b) LTD/L.I.G.	2	0.42	4	0.64
(c) LTD Domestic Mixed	8	2.82	13	4.52
(d) LTC/Commercial	281	123.22	332	160.41
(e) LTP/Motive Power	188	73.08	89	35.48
(f) LTP Mixed (Hotel Industries)	5	2.41	7	3.20
(g) LTP Ice Manufacturing	8		3	1.17
(h) LTAG/Agriculture	25	4.14	19	2.40
(a) LTP ( Public lighting )	40	16.06	29	17.50
LTPWW/Public Water works	6		2	0.40
<b>B. HIGH TENSION SUPPLY</b>	<b>1,868</b>	<b>898.96</b>	<b>1,845</b>	<b>904.15</b>
HT ( Mixed )	136	8.40	122	67.72
HTI (Industrial) Ferro Metallurgical/ Steel Melting/Power Intensive.	576	262.50	757	371.88
HTI Industrial	637	615.35	604	284.75
HTI Hotel Industry	143		-	-
HTAG ( Agriculture )	6	1.19	5	1.79
EHTI ( Industrial )	175		144	64.91
HT P.W.W. & Sewage system	144		125	76.10
HT. M.E.'s Defence Estt.	27	11.52	26	12.40
HTI ( Steel Rolling )	0		33	14.38
HTI / IT High Tech	21		2	0.99
HTI/Ice Manufacturing	2		2	0.48
Sale from EDG to GSPL (Div. VII)			17	2.62
(b) Sale from EDG to GEPL (Div. V)			7	4.90
(c) Sale from EDG to REL (Div. XIV)			2	1.22
<b>C. TEMPORARY SUPPLY</b>	<b>38</b>	<b>31.12</b>	<b>19</b>	<b>20.08</b>
(a) L.T. Temporary	38	30.90	19	19.94
(b) H.T. Temporary			-	-
Hoarding/Sign Board	0	0.22	0	0.14
<b>Total</b>	<b>3,233</b>	<b>1,322.62</b>	<b>3,421</b>	<b>1,370.88</b>

3.14.3 In view of above, the Hon'ble Commission is requested to kindly allow Revenue of Rs. 1,370.88 Crore for FY 2015-16.

### 3.15 Revenue Gap for FY 2015-16

3.15.1 EDG in its submission of the 'Tariff Proposal for FY 2015-16 has submitted that the entire revenue gap for FY 2015-16 has to be met partially by increasing tariff and the balance gap to be treated as Regulatory Assets. Commission vide its order dated 6<sup>th</sup> April 2015 has considered 14% hike on the existing tariff for FY 2015-16 to meet the revenue gap for FY 2015-16. However, the Hon'ble Commission has approved the revenue gap of Rs.1.11 Crore for FY 2015-16.

3.15.2 The revenue gap of Rs. 129.74 Crore is arrived at for FY 2015-16 under True Up exercise and it is proposed to be carried forward as there was no proposal submitted by EDG for meeting gap through budgetary support for FY 2015-16

**Table 3-22: Revenue Gap for FY 2015-16 – Rs. Crore**

<b>Particulars</b>	<b>FY 15-16 (Approved)</b>	<b>FY 15-16 (Audited)</b>
Aggregate Revenue Requirement	1,323.73	1,500.61
Revenue from Tariff including FPPCA	1,322.62	1,370.88
<b>Revenue Gap</b>	<b>1.11</b>	<b>129.74</b>
Less : Budgetary Support from Govt.	-	-
<b>Net Final revenue Gap to be carry forward</b>	<b>1.11</b>	<b>129.74</b>

3.15.3 In view of above, the Hon'ble Commission is requested to kindly allow Revenue Gap of Rs. 129.74 Crore for FY 2015-16.

## **CHAPTER 4. TRUE-UP OF ARR FOR FY 2016-17, FY 2017-18 AND FY 2018-19**

### **4.1 Preamble**

- 4.1.1 This section outlines the submission on the performance of EDG for FY 2016-17, FY 2017-18 and FY 2018-19.
- 4.1.2 It is submitted that the True-up of FY 2016-17, True-up of FY 2017-18 and FY 2018-19 has to be carried out as per Regulations 8 of JERC MYT regulations 2014. However, EDG submits that the preparation of the financial statement for FY 2016-17, FY 2017-18 and FY 2018-19 is in the process of finalisation and accordingly the audit will be undertaken subsequently.
- 4.1.3 The Hon'ble Commission in its previous Order/(s) had stressed upon the requirement of the audited accounts to bring in more accuracy in the estimates to be approved. Also, the applicable JERC Tariff Regulations also requires the licensee to file the true up Petition along with the audited accounts.
- 4.1.4 In the last tariff order dated 20<sup>th</sup> May 2019, the Hon'ble Commission has directed EDG to file the True-up Petitions from FY 2015-16 to FY 2018-19 along with the next APR Petition. However, due to uncontrollable factors, the audit of the FY 2016-17 to FY 2018-19 is not yet completed and hence EDG seeks condonation for delay in filing the true-up petition and request the Hon'ble Commission to allow EDG to file the true-up petition for FY 2016-17, FY 2017-18 and FY 2018-19 in subsequent Petition.
- 4.1.5 Therefore in absence of the audited accounts and considering the earlier approach adopted by the Hon'ble Commission in the past tariff orders, the summary of the cost for FY 2016-17, FY 2017-18 and FY 2018-19 as approved by the Hon'ble Commission in the Tariff Order dated 18<sup>th</sup> April 2016, 23<sup>rd</sup> May 2017 and 28<sup>th</sup> March 2018 respectively has been summarised in the following table:

**Table 4-1: ARR approved by JERC in Tariff Order for FY 2016-17, FY 2017-18 and FY 2018-19**

Sr. No.	Particulars	Approved as per Order dtd 18.04.16	Approved by the Commission Order dtd 23.05.17	Approved by the Commission Order dtd 28.03.2018
		FY16-17	FY17-18	FY18-19
1	Cost of power purchase	1245.03	1,330.98	1,329.68
2	Provision for RPO Compliance	8.55	9.38	
3	Employee costs	239.21	254.24	270.41
4	Administration and General expenses	9.48	10.12	10.81
5	R&M expenses	27.86	30.57	45.60
6	Depreciation	49.22	64.16	91.59
7	Int and Finance Charges	57.63	74.04	107.19
8	Interest on Working Capital	8.36	9.90	10.68
9	Return on Equity	44.74	58.33	83.27
10	Provision for Bad Debt	-	-	-
11	Interest on Consumer Security Deposit	6.82	6.93	7.02
12	Provision for DSM Expenses	3.98	3.41	3.03
<b>13</b>	<b>Total Revenue Requirement</b>	<b>1,700.88</b>	<b>1,852.06</b>	<b>1,959.28</b>
14	Less: Non Tariff Income	6.74	6.74	6.74
<b>15</b>	<b>Net Revenue Requirement</b>	<b>1,694.13</b>	<b>1,845.32</b>	<b>1,952.54</b>

4.1.6 The Hon'ble Commission had approved Rs.183.02 Crore, Rs.281.65 Crore and Rs. 317.62 Crore revenue gap for the FY 2016-17, FY 2017-18 and FY 2018-19 respectively in tariff order dated 18<sup>th</sup> April 2016, 23<sup>rd</sup> May 2017 and 28<sup>th</sup> March 2018. However, EDG request the Hon'ble Commission that the assessment of the actual gap may be considered at the time of the true-up petition.

## CHAPTER 5. ANNUAL PERFORMANCE REVIEW FOR FY 2019-20

### 5.1 Background to FY 2019-20 Petition

5.1.1 EDG in this chapter submits the performance of each parameter of ARR as against the values approved by the Hon'ble Commission. This chapter summarizes each of the components of ARR for FY 2019-20 and requests the Hon'ble Commission to review the performance for FY 2019-20. The Annual Performance Review for FY 2019-20 is based on actual data/ information for first 6 months (First Half – H1) and estimation/projections for second 6 months (Second Half – H2). The projections for the second 6 months are arrived at by expected escalation over performance of first half data/ information.

### 5.2 Performance Review for FY 2019-20

5.2.1 Regulation 11 of the Joint Electricity Regulatory Commission for the State of Goa and Union Territories (Generation, Transmission and Distribution Multi Year Tariff) Regulations, 2018 states that,

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

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

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

5.2.2 The Hon'ble Commission had issued the Tariff Order for FY 2019-20 on 20<sup>th</sup> May 2019. For the purpose of ease of reference; the summary of approved ARR vis-a-vis submitted by EDG for FY 2019-20 submitted in the previous filing is reproduced hereunder:

**Table 5-1: ARR approved by JERC for FY 2019-20 - Rs. Crore**

Sr. No.	Particulars	Submitted by EDG	Approved in Order dated 20.05.2019
1	Power Purchase Cost	1,573.92	1,555.16
2	Employee costs	373.03	294.08
3	R&M expenses	34.93	42.55
4	A&G expenses	28.33	27.10
5	Depreciation	39.99	76.93
6	Interest and Loan	44.45	105.67
7	Return on Equity	66.35	98.70
8	Interest on Consumer Security Deposit	19.53	6.74
9	Interest on Working Capital	29.16	29.70
10	Provision for DSM Expense	3.03	-
11	Income Tax	-	-
<b>12</b>	<b>Total Revenue Requirement</b>	<b>2,212.73</b>	<b>2,236.63</b>
13	Less: Non-Tariff Income	24.40	24.40
<b>14</b>	<b>Net Revenue Requirement</b>	<b>2,188.33</b>	<b>2,212.23</b>

5.2.3 EDG would now discuss each of the elements of review in detail for H1 and H2 and revised estimates for FY 2019-20 for determination of ARR and its gap for FY 2019-20.

### 5.3 Energy Sales

5.3.1 The sales for FY 2019-20 H1 is 1949.56 MUs. It is submitted that the Hon'ble Commission has analysed past sales trend and approved the estimates for sales for FY 2019-20 in Multi Year Tariff Order dated 20<sup>th</sup> May 2019. Hence for the purpose of APR of FY 2019-20, EDG has considered estimates of sales of FY 2019-20 H2 based on the proportion of sales of H2 over H1 for FY 2018-19.

5.3.2 The following table shows the overall sales considered by EDG for APR of FY 2019-20 vis-à-vis Sales approved in tariff order for FY 2019-20.

**Table 5-2: Sales for FY 2019-20 (MUs)**

Category	Approved in Order dated 20.05.2019	FY19-20 H1	FY19-20 H2	FY19-20 Estimated
<b>A. LOW TENSION SUPPLY</b>	<b>1,827.37</b>	<b>902.33</b>	<b>833.74</b>	<b>1,736.06</b>
LTD/Domestic	1,206.08	616.11	557.42	1,173.53
LT-LIG/Low Income Group	1.76	0.68	0.56	1.25
LTC/Commercial	491.97	219.95	210.14	430.09
LTI/Industrial	101.12	42.15	41.09	83.24
LT Mixed/ LT-P Hotel Industries	5.62	2.29	2.20	4.49
Low Tension-AG/LT-AGP (Pump Sets/Irrigation)	17.03	9.80	8.92	18.71
Low Tension-AG/LT-AGA (Allied Activities)	0.89	0.45	0.47	0.93
Public Lighting	2.66	10.82	12.87	23.69
Hoardings/Signboards	0.24	0.08	0.06	0.14
<b>B. HIGH TENSION SUPPLY</b>	<b>2,126.12</b>	<b>1,035.26</b>	<b>1,041.13</b>	<b>2,076.39</b>
HTD Domestic	0.29	0.14	0.13	0.28
HTC Commercial	119.05	57.69	55.88	113.57
HTI Industrial	1,527.76	724.37	718.23	1,442.60
High Tension-Ferro/SM/PI/SR	442.64	233.94	247.90	481.83
High Tension-AG/HT-AGP (Pump Sets/Irrigation)	4.85	2.63	2.90	5.53
High Tension-AG/HT-AG (Allied Activities)	4.52	3.18	3.48	6.67
Military Engineering Services/defense Establishments	27.01	13.32	12.60	25.92
<b>C. TEMPORARY SUPPLY</b>	<b>20.81</b>	<b>9.07</b>	<b>10.18</b>	<b>19.24</b>
LT Temporary	20.51	8.06	8.59	16.65
HT Temporary	0.30	1.01	1.58	2.59
<b>D. SINGLE POINT SUPPLY</b>	<b>5.46</b>	<b>2.90</b>	<b>2.70</b>	<b>5.60</b>
Residential Complexes				-
Commercial Complexes	5.46	2.90	2.70	5.60
Industrial Complexes				-
<b>Total</b>	<b>3,979.76</b>	<b>1,949.56</b>	<b>1,887.74</b>	<b>3,837.30</b>

5.3.3 EDG submits that the sales considered for FY 2019-20 is 3837.30 MUs against the sales of 3,979.76 MU's as approved by Hon'ble Commission in above mentioned Multi Year Tariff Order.

5.3.4 The Hon'ble Commission is requested to kindly approve the sales figures considered in the table above for FY 2019-20 APR. The figures of Number of Consumers, Connected Load and Sales for FY 2019-20 are provided in Format 1 of Tariff Filing Formats.

#### 5.4 Number of Consumers

5.4.1 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. In Business Plan order for FY 2019-20 to FY 2021-22 issued by Hon'ble Commission dated 16<sup>th</sup> November 2018, after detailed analysis of past trend of number of consumers, Hon'ble Commission has approved number of consumer for FY 2019-20 and accordingly approved number of consumers for MYT Control period. For FY 2019-20 H1, EDG is submitting actual number of consumers in format 26 of this petition. Accordingly for FY 2019-20 H2 EDG has considered same number of consumers as actual number of consumers considered in FY 2019-20 H1. The table below shows category

wise number of consumers considered for FY 2019-20 projection vis-à-vis number of consumer approved by Hon'ble Commission in tariff order for FY 2019-20.

**Table 5-3: Number of Consumers for FY 2019-20 (Nos)**

Category	Approved in Order dated 20.05.2019	FY19-20 Projection
<b>A. LOW TENSION SUPPLY</b>	<b>6,50,229</b>	<b>6,37,577</b>
LTD/Domestic	5,30,554	5,16,572
LT-LIG/Low Income Group	1,835	1,396
LTC/Commercial	99,524	98,688
LTI/Industrial	5,963	5,821
LT Mixed/ LT-P Hotel Industries	147	126
Low Tension-AG/LT-AGP (Pump Sets/Irrigation)	11,736	11,663
Low Tension-AG/LT-AGA (Allied Activities)	192	206
Public Lighting	215	3,058
Hoardings/Signboards	63	47
<b>B. HIGH TENSION SUPPLY</b>	<b>1,119</b>	<b>1,074</b>
HTD Domestic	3	3
HTC Commercial	229	239
HTI Industrial	802	748
High Tension-Ferro/SM/PI/SR	29	27
High Tension-AG/HT-AGP (Pump Sets/Irrigation)	41	41
High Tension-AG/HT-AG (Allied Activities)	3	3
Military Engineering Services/defense Establishments	12	13
<b>C. TEMPORARY SUPPLY</b>	<b>5,182</b>	<b>3,565</b>
LT Temporary	5,181	3,557
HT Temporary	1	8
<b>D. Single Point Supply</b>	<b>1</b>	<b>1</b>
<b>Total</b>	<b>6,56,531</b>	<b>6,42,217</b>

5.4.2 The Hon'ble Commission is requested to approve number of consumers for FY 2019-20 APR as given above table.

## 5.5 Connected Load

5.5.1 In line with the similar principles for the number of consumers for H1 of FY 2019-20 and for FY 2019-20 as a whole, EDG has considered connected load for FY 2019-20 H1 as per actual and the same is considered for FY 2019-20 H2 and as a whole. Category wise connected load considered for FY 2019-20 APR projection vis-à-vis connected load approved by Hon'ble Commission in tariff order for FY 2019-20 provided in the table below.

**Table 5-4: Connected Load for FY 2019-20 (KW)**

Category	Approved in Order dated 20.05.2019	FY19-20 Projected
<b>A. LOW TENSION SUPPLY</b>	<b>20,24,587</b>	<b>20,30,019</b>
LTD/Domestic	15,01,232	14,92,502
LT-LIG/Low Income Group	231	123
LTC/Commercial	3,29,846	3,41,354
LTI/Industrial	1,40,551	1,39,835
LT Mixed/ LT-P Hotel Industries	2,868	2,542
Low Tension-AG/LT-AGP (Pump Sets/Irrigation)	46,043	45,325
Low Tension-AG/LT-AGA (Allied Activities)	1,597	1,638
Public Lighting	1,600	6,137
Hoardings/Signboards	619	563
<b>B. HIGH TENSION SUPPLY</b>	<b>7,08,595</b>	<b>7,25,546</b>
HTD Domestic	300	300
HTC Commercial	72,650	80,299
HTI Industrial	5,20,370	5,21,937
High Tension-Ferro/SM/PI/SR	98,700	1,05,050
High Tension-AG/HT-AGP (Pump Sets/Irrigation)	8,240	8,835
High Tension-AG/HT-AG (Allied Activities)	1,310	2,200
Military Engineering Services/defense Establishments	7,025	6,925
<b>C. TEMPORARY SUPPLY</b>	<b>21,034</b>	<b>17,286</b>
LT Temporary	20,684	15,008
HT Temporary	350	2,278
<b>D. Single Point Supply</b>	<b>4,035</b>	<b>4,035</b>
<b>Total</b>	<b>27,58,250</b>	<b>27,76,886</b>

## 5.6 T&D Loss & Energy Requirement

5.6.1 T&D Loss H1: The Distribution Loss for the 1st half of the year FY 2019-20 (i.e. Apr 19 to Sep 19) based on the actual data available comes to 12.85%.

5.6.2 Energy Input H1: The actual measured energy input at periphery for H1 from WR and SR is provided in the table below: (Data is as per the SEM readings recorded at the Periphery of Goa)

**Table 5-5: Energy Input for WR & SR: FY 2019-20 – H1**

Particulars	WR	SR	H1
Energy Inputs at Periphery (MUs)	1,988	162	2,150

5.6.3 Energy Balance H1: The Energy Balance for the 1<sup>st</sup> half of the year FY 2019-20, based on the provisional actual figures is shown in the table below:

**Table 5-6: Energy Balance for FY 2019-20 H1 (MUs)**

Particulars	FY19-20 H1 Actual	FY19-20 H2 Projected	FY19-20 Revised Estimation
<b>Energy Input at Goa Periphery</b>	2,150	2,036	4,186
<b>Total Power Scheduled/ Purchased at Goa Periphery</b>			
Total Schedule Billed Drawal - CGS	1,912	1,773	3,685
Add: Overdrawal	38	-	38
Add: Power purchase from NVVN / Banking	13	-	13
Add: Power purchase from Traders/ Open Market	156	-	156
Add : Hydro Power	-	-	-
Less: Underdrawal	19	-	19
Add: Renewable Power	107	356	463
Less: Power diverted to Exchange	-	-	-
<b>Total</b>	<b>2,206</b>	<b>2,129</b>	<b>4,335</b>
<b>PGCIL Losses - MUs</b>	<b>56</b>	<b>93</b>	<b>149</b>
<b>PGCIL Losses - %</b>	<b>2.75%</b>	<b>4.35%</b>	<b>3.44%</b>
<b>Total Power Purchased within Goa State</b>	-	-	
Add: Co-generation	87	87	174
Add: Independent Power Producers (IPP)	-	-	-
<b>Total</b>	<b>87</b>	<b>87</b>	<b>174</b>
Total Power Purchase availability after PGCIL Losses	<b>2,237</b>	<b>2,124</b>	<b>4,361</b>
Less: Retail Sales to Consumers	1,950	1,888	3,837
<b>Distribution Losses - MUs</b>	<b>287</b>	<b>236</b>	<b>523</b>
<b>Distribution Losses - %</b>	<b>12.85%</b>	<b>11.11%</b>	<b>12.00%</b>

5.6.4 **Inter-State Transmission Losses:** PGCIL losses are on account of two regions, Western region (WR) and Southern Region (SR). EDG has considered revised Sales as detailed above and PGCIL losses are computed based on the Energy input at Goa Periphery for H1 and PGCIL Loss for H2 is worked out considering 3.26% and 9.87% for Western and Southern Region respectively as approved in MYT Order dated 20<sup>th</sup> May 2019. Accordingly, Inter-state transmission losses for FY 2019-20 H1, H2 and FY 2019-20 as a whole arrived as under.

**Table 5-7: Inter-State Transmission Losses for FY 2019-20**

Particulars	FY 19-20 (Approved)		FY19-20 H1	FY19-20 H2	FY19-20 Revised Estimate
	WR	SR	Total	Total	Total
Inter-State Transmission Loss (%)	3.26%	9.87%	2.75%	4.35%	3.44%

5.6.5 **Distribution Loss for overall FY 2019-20:** The Hon'ble Commission has approved distribution loss of 10.75% in MYT Order dated 20<sup>th</sup> May 2019. However, as per actuals of FY 2019-20 H1, Distribution Loss arrived at 12.85%. Based on actual Distribution loss level during H1, EDG has projected power purchase cost for FY 2019-20 H2 considering Distribution Loss level of 12% for FY 2019-20 as a whole. As a result, Distribution loss for FY 2019-20 H2 is arrived at 11.11%.

5.6.6 The figures of AT&C loss and Distribution Loss for FY 2019-20 are provided in Format 2 of Tariff Filing Formats.

5.6.7 EDG submits that it has projected power purchase quantum for H2 of FY 2019-20 for Central generating stations and for Co-generating plants as per capacity tied up. Further for the compliance of RPO, EDG has tied up with SECI, Tata power, NVVNL, NSL Krishnaveni and APPCL on short term basis. Power purchase for H2 is projected considering projected sales of H2 and Distribution losses assumed of 12% for FY 2019-20 as a whole. Renewable Power is projected for the quantum required in order to fulfil RPO obligation. Subsequently, overall requirement and power supply as per existing sources is compared and accordingly have reduced from the quantum of sources of conventional power for which variable cost of power is comparatively costlier in order to match the overall power requirement and power supply. Power purchase quantum projected on the following detailed assumptions.

- Percentage Allocation of firm allocation and allocation from unallocated quota from the CGS based on allocation obtained from WRPC vide letter dated 29<sup>th</sup> October 2019 and from SRPC vide letter dated 2<sup>nd</sup> November 2018 as approved in the MYT order dated 20<sup>th</sup> May 2019.
- PLF of CGS station considered for H2 are based on PLF approved by Hon'ble Commission in Business Plan order dated 16<sup>th</sup> November 2018. In which Hon'ble Commission has considered average PLF of each station of last 4-5 years depending on the status of operation of the plant during the year.
- Auxiliary consumption for CGS stations is taken as approved by Hon'ble Commission in Business Plan order dated 16<sup>th</sup> November 2018. In which Commission has assumed auxiliary consumption of 7.75%, 2.50% and 10% for thermal power plant, Gas power plant and nuclear power plant respectively.
- Inter-state transmission loss of 3.26% and 9.87% considered for power purchase through western and southern region respectively as per Business Plan Order dated 16<sup>th</sup> November 2018.
- Based on the above assumptions power purchase quantum from CGS stations have been arrived.
- While projecting the purchase from IEX/Traders, EDG considered the quantum of 156.22 MUs purchase from IEX/Traders in H1 at actuals whereas in H2 no power is projected from the IEX/traders considering the sufficient power purchase from CGS and other tied up sources for conventional power and Renewable power.
- Quantum of Solar power tied up on long term and short term basis is sufficient to fulfil Solar RPO. Whereas for fulfilling Non-Solar RPO, EDG has made projection of procuring Non Solar power of 111.40 MUs through Deep portal tendering process during FY 2019-20 H2.

5.6.8 EDG has therefore estimated the power purchase quantum for H2 of FY 2019-20 and has integrated with actual quantum of H1 to arrive at energy balance for entire year of FY

2019-20.

5.6.9 EDG while computing Energy balance for entire FY 2019-20 has considered actual of over-drawl/under-drawl during first half of FY 2019-20. Thus, on the basis of the foregoing paragraphs, the Energy Balance for the year FY 2019-20 is computed by EDG shown in the table below.

**Table 5-8: Energy Balance for FY 2019-20 (H1 + H2) - (MUs)**

Particulars	FY19-20 H1 Actual	FY19-20 H2 Projected	FY19-20 Revised Estimation
<b>Energy Input at Goa Periphery</b>	2,150	2,036	4,186
<b>Total Power Scheduled/ Purchased at Goa Periphery</b>			
Total Schedule Billed Drawal - CGS	1,912	1,773	3,685
Add: Overdrawal	38	-	38
Add: Power purchase from NVVN / Banking	13	-	13
Add: Power purchase from Traders/ Open Market	156	-	156
Add : Hydro Power	-	-	-
Less: Underdrawal	19	-	19
Add: Renewable Power	107	356	463
Less: Power diverted to Exchange	-	-	-
<b>Total</b>	<b>2,206</b>	<b>2,129</b>	<b>4,335</b>
<b>PGCIL Losses - MUs</b>	<b>56</b>	<b>93</b>	<b>149</b>
<b>PGCIL Losses - %</b>	<b>2.75%</b>	<b>4.35%</b>	<b>3.44%</b>
<b>Total Power Purchased within Goa State</b>	-	-	
Add: Co-generation	87	87	174
Add: Independent Power Producers (IPP)	-	-	-
<b>Total</b>	<b>87</b>	<b>87</b>	<b>174</b>
Total Power Purchase availability after PGCIL Losses	<b>2,237</b>	<b>2,124</b>	<b>4,361</b>
Less: Retail Sales to Consumers	1,950	1,888	3,837
<b>Distribution Losses - MUs</b>	<b>287</b>	<b>236</b>	<b>523</b>
<b>Distribution Losses - %</b>	<b>12.85%</b>	<b>11.11%</b>	<b>12.00%</b>

5.6.10 The Hon'ble Commission is requested to approve the Energy Balance for the FY 2019-20 as provided in the above table. The energy requirement and source wise power purchase details along with actual cost for H1 are discussed in subsequent section. The figures of energy Balance for FY 2019-20 (H1, H2 and overall for FY 2019-20) are provided in Format 3 of Tariff Filing Formats.

## **5.7 Power Purchase Quantum & Cost for FY 2019-20**

### **Power Purchase Cost for H1 FY 2019-20**

5.7.1 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 viz. Co-generation has been as per respective PPAs. Also Renewable Power procured from NVVNL, SECI and through Short term from Tata Power, APPCL and NSL Krishnaveni.

5.7.2 The below table shows the summary of Power Purchase from various sources along with their costs for the 1<sup>st</sup> half of FY 2019-20 including Transmission Charges, Over-drawl and purchase from traders:

**Table 5-9: Power Purchase Quantum & Cost for FY 2019-20 (H1)**

Sl. No	Particulars	Gross Purchase	Cost	Rate
		MUs	Rs. Crore	Rs./kWh
1	NTPC	1,792.44	531.50	2.97
2	NPCIL	119.51	34.21	2.86
3	Traders	156.22	62.65	4.01
4	Overdrawal	18.26	17.80	9.75
5	Co-Generation	87.16	20.93	2.40
6	Renewable	107.03	48.64	4.54
7	Transmission	-	107.25	-
8	Banking of Power	12.68	-	-
9	<b>Total</b>	<b>2,293.31</b>	<b>822.99</b>	<b>3.59</b>

5.7.3 The source wise details of Power Purchase Quantum and its cost are covered in Format 4 of the Tariff Filing Formats.

5.7.4 EDG on a real time basis has also overdrawn/ under drawn power from both WR and SR grids. Reactive charges has been adjusted in the over-drawl and under-drawl charges. The summary details of the same are provided in the table below for H1:

**Table 5-10: DSM Power (Over-drawl & Under-drawl) Charges for H1 of FY 2019-20**

Region	Over drawal		Under drawal		Net Drawal	
	Rs. Crore	MUs	Rs. Crore	MUs	Rs. Crore	MUs
Western	8.95	8.83	4.00	19.37	4.95	(10.54)
Southern	12.85	28.80	-	-	12.85	28.80
<b>Total</b>	<b>21.80</b>	<b>37.63</b>	<b>4.00</b>	<b>19.37</b>	<b>17.80</b>	<b>18.26</b>

5.7.5 Transmission Charges H1: The transmission charges for the 1<sup>st</sup> half of FY 2019-20 comprises of transmission charges for Western Region and Southern Region. The Transmission charge comes to around Rs. 107.25 Crore.

**Power Purchase Cost for H2 FY 2019-20**

5.7.6 Power Purchase Fixed Cost for H2 FY 2019-20: The Fixed charges are depend on the availability of the plant. Hence while projecting the cost for FY 2019-20 H2, the fixed charges for CGS have been taken in line with the actual fixed charges in FY 2019-20 H1 for various CGS stations. The fixed cost has been considered only for CGS stations.

5.7.7 Power Purchase Variable Cost for H2 FY 2019-20: Power purchase requirement for H2 FY 2019-20 is projected as per the availability of plants. Further cost for the same has been projected considering fixed cost. The variable cost for CGS stations for FY 2019-20 H2 has been computed considering per unit cost incurred in H1 of FY 2019-20. The variable cost per unit for Co-Generation Stations has been taken as per actuals of H1 on average basis.

**Power Purchase from Renewable Energy Sources:**

5.7.8 Solar RPO: As regards to the fulfilment of Solar RPO is concerned, In H2 of FY 2019-20, EDG would purchase renewable energy from SECI, NVVNL and APPCL STOA for the units in order to fulfil the RPO obligation. Quantum of these sources of Solar Power are sufficient in order to fulfil the RPO obligation and hence no further additional requirement of Solar Power to be procured through DEEP portal.

5.7.9 Non-Solar RPO: To meet Non-Solar RPO, EDG has planned to procure power from SECI, NSL Krishnaveni and Tata Power on short term basis and balance required quantum to meet RPO through DEEP portal at the rate of Rs. 5.12/unit which is in the range of recent rate discovered on the DEEP portal.

5.7.10 Along with the procurement of 111.40 MUs of Non-Solar through DEEP Portal in H2 of FY 2019-20, EDG will be in position to meet the Non-Solar RPO till FY 2019-20. Whereas Solar RPO is being fulfilled from the tied up Solar Power from SECI, NVVNL and APPCL.

5.7.11 EDG submits that cumulative RPO target for solar and Non-Solar till FY 2019-20 is projected to be met through purchase of Power from short term sources. Details of the Solar and Non Solar RPO Status for FY 2019-20 are given in the table below:

**Table 5-11: Solar & Non-Solar RPO Status for FY 2019-20**

Particulars	Approved in Order dated 20.05.2019	FY19-20 Estimated
<b>Sales within State (MU)</b>	<b>3,979.76</b>	<b>3,837.30</b>
T&D Losses	10.38%	10.75%
Resultant Energy Sales for calculation of RPO (after adjustment of power from hydro sources) (MU)	<b>3,566.73</b>	<b>3,837.30</b>
<b>RPO obligation (in %)</b>	<b>11.50%</b>	<b>11.50%</b>
Solar	4.70%	4.70%
Non-Solar	6.80%	6.80%
<b>RPO obligation for the year (in MU)</b>	<b>456.56</b>	<b>441.29</b>
Solar	186.59	180.35
Non-Solar	<b>269.96</b>	260.94
<b>RPO compliance (Physical Power available at Consumer Periphery after adjusting Inter-State Transmission and Intra-State T&amp;D Loss)</b>	<b>210.96</b>	<b>462.67</b>
Solar	60.66	186.83
Non-Solar	150.30	275.83
<b>RPO compliance (REC certificates to be purchased)</b>	<b>245.60</b>	-
Solar	125.94	-
Non-Solar	119.66	-

5.7.12 Transmission Charges FY 2019-20 (H2): The Transmission Charges for FY 2019-20 are considered as per POC rates. As per CERC Order (determination of PoC rates and transmission losses for the period of July to September 2019) dated 10<sup>th</sup> October 2019. Further, the transmission charge has also been considered factoring the fees and charges of SRLDC WR and SR. The computation of transmission charges consists of POC Charges, Reliability support charges and HVDC charges and is provided in the table below.

**Table 5-12: POC Transmission Charges for H2 for FY 2019-20**

Regions	POC Rates	Reliability support charges	HVDC Charges	Total Charges	Monthly Quantum	Monthly charges	Total charges for 6 months
	(Rs/Mw/month)	(Rs/Mw/month)	(Rs/Mw/month)	(Rs/Mw/month)	(MW)	(Rs. Crore)	(Rs. Crore)
SR	77565	31725	17886	127176	100.00	1.27	7.62
WR	263722	31725	11146	306593	491.57	15.07	90.42
<b>Total</b>							<b>98.04</b>

5.7.13 The total transmission charges for H2 including Wheeling and SLDC charges etc. for FY 2019-20 are given in the table below:

**Table 5-13: Total Transmission Charges for H2 FY 2019-20**

Particulars	H2 FY 2019-20 Rs. Crore
POC Transmission charge (Oct 2019 to March 2020)	98.04
Fees and Charges of SRLDC-WR	0.40
Fees and Charges of SRLDC-SR	0.08
SCADA and Reactive Charges	0.00
<b>Total</b>	<b>98.52</b>

5.7.14 Thus, the total Transmission charge for H2 of FY 2019-20 works out to be Rs.98.52 Crore.

5.7.15 Power Purchase Cost summary FY 2019-20: In line with the foregoing paragraphs, the total Power Purchase for FY 2019-20 estimated and approved in the tariff order is summarized in the table below:

**Table 5-14: Power Purchase Summary for FY 2019-20**

Sl. No	Particulars	Approved for FY 2019-20			Revised Projection for FY 2019-20		
		Gross Purchase	Cost	Rate	Gross Purchase	Cost	Rate
		MUs	Rs. Crore	Rs./kWh	MUs	Rs. Crore	Rs./kWh
1	NTPC	3,442	959	2.79	3,458.99	1,026.07	2.97
2	NPCIL	80	26	3.29	226.41	64.43	2.85
3	Traders	558	218	3.90	156.22	62.65	4.01
4	Overdrawal	-	-	-	18.26	17.80	9.75
5	Co-Generation	168	40	2.40	174.32	41.86	2.40
6	Renewable	211	116	5.51	462.67	209.03	4.52
7	Transmission	-	195	-	-	205.77	-
8	Banking of Power	-	-	-	12.68	-	-
9	<b>Total</b>	<b>4,459.12</b>	<b>1,555.16</b>	<b>3.49</b>	<b>4,509.55</b>	<b>1,627.62</b>	<b>3.61</b>

5.7.16 It is submitted that net power purchase at state periphery after losses is 4360.58 MUs with total power purchase cost of Rs. 1627.62 Crore and the average power purchase cost works out to Rs. 3.61 /kWh against approved net power purchase cost of Rs. **3.49** /kWh for FY 2019-20. Cost of Rs.17.80 Crore for over-drawl of power is incurred during H1 of FY 2019-20. Major reason for increase in power purchase cost per unit of Rs 3.61/KWh against Rs. 3.49/KWh approved by Hon'ble Commission is cost incurred due to over-drawl of power during FY 2019-20 H1.

5.7.17 The power purchase details for H1 and H2 and for FY 2019-20 (H1+H2) are provided in Tariff Filing Format 4.

5.7.18 It is requested to the Hon'ble Commission to approve the power purchase cost including transmission charges at Rs. 1627.62 Crore for FY 2019-20 as per workings and at an average cost of Rs. 3.61/kWh on net power purchase basis.

## 5.8 Operation & Maintenance Expenses

5.8.1 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

5.8.2 As per Regulation 51.3 and 51.4 of JERC MYT Regulations, 2018, the Licensee is required to submit O&M expenses which is as reproduced below.

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

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

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

*Where,*

$$R\&M_n = K \times GFAn-1 \times (WPIinflation)$$

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

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

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

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

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

*EMP<sub>n</sub> – Employee expenses of the Distribution Licensee for the nth Year;*

*A&G<sub>n</sub> – Administrative and General expenses of the Distribution Licensee for the nth Year;*

*R&M<sub>n</sub> – Repair and Maintenance expenses of the Distribution Licensee for the nth Year;*

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

*X<sub>n</sub> is an efficiency factor for nth Year. Value of X<sub>n</sub> 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<sub>n</sub> is a growth factor for the nth Year. Value of G<sub>n</sub> 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:"*

### 5.8.3 Employee Expenses for FY 2019-20:

5.8.3.1 Actual employee expense for FY 2019-20 H1 is Rs.186.83 Crore. EDG has projected normative employee cost for FY 2019-20 as a whole at Rs.320.72 Crore based on the relevant Regulations and methodology adopted by Hon'ble Commission in MYT Order dated 20<sup>th</sup> May 2019. Considering audited figures of FY 2015-16, EDG has projected the cost for FY 2018-19 as a base year using CAGR of CPI inflation rate and employee growth rate.

5.8.3.2 Calculation of employee cost for FY 2018-19 as base year is tabulated as under:-

**Table 5-15: Calculation of employee cost for FY 2018-19 as base year**

Particulars	Rs. Crore
<b>Employee expense as per Audited Accounts</b>	
FY 2013-14	170.07
FY 2014-15	205.70
FY 2015-16	238.50
<b>Average for Median Year (A)</b>	<b>204.76</b>
<b>CPI Infaltion (B)</b>	<b>4.22%</b>
<b>Employee Expenses</b>	
FY 2015-16 [C = A*(1+B)]	213.39
FY 2016-17 [D = C*(1+B)]	222.39
FY 2017-18 [E = D*(1+B)]	231.77
<b>FY 2018-19 (Base Year) [F = E*(1+B)]</b>	<b>241.54</b>
Add: 7th Pay Commission impact	69.27
<b>FY 2018-19 (Base Year) including 7th Pay Cost</b>	<b>310.81</b>

5.8.3.3 Considering above computed employee cost for FY 2018-19 as a base year, employee cost for FY 2019-20 as whole is projected. Computation of the same is as shown below.

**Table 5-16: Calculation of employee cost for FY 2019-20**

Particulars	FY 2019-20
EMPn-1 (A)	310.81
Gn (B)	-1.61%
CPI Inflation (C)	4.22%
Terminal liability if any (D) (Rs. Crore)	2.01
<b>Employee cost for FY 2019-20 (Rs. Crore)</b> (E= A*(1+B)*(1+C)+D)	<b>320.72</b>

**Table 5-17: Justification on the employee cost for FY 2019-20**

Particulars	Units	FY 2015-16	FY 2019-20	CAGR
Employee Expenses	Rs. Crore	238.50	320.72	8%
Average No. of Employee	No.	6,011	6,556	2%
Cost per Employee	Rs. Lacs	3.97	4.89	5%

5.8.3.4 From the above table it is observed that, employee expense are increased from FY 2015-16 to FY 2019-20 at a CAGR of 8%. Whereas employee cost per employee increased at CAGR of 5% during the same period. From the CPI data from FY 2015-16 to FY 2018-19, it can be observed that CPI has increased at average of 4.22%. Also, employee cost for FY 2019-20 is projected based on relevant Regulations considering audited figures of FY 2015-16. Also the resultant CAGR for the projected employee cost for FY 2019-20 arrived at 5% which is marginally higher than average of CPI inflation from FY 2015-16 to FY 2018-19 i.e. 4.22%. In view of the same, EDG request the Hon'ble Commission to approve the normative Employee cost as submitted in the petition.

**Table 5-18: Working of CAGR rate for CPI from FY 2015-16 to FY 2018-19**

Particulars	FY 15-16	FY 16-17	FY 17-18	FY 18-19
<b>CPI based on Industrial Workers, All India</b>	265	275.92	284.42	299.9167
Year on Year Growth		4.12%	3.08%	5.45%
3 Years average				4.22%

5.8.4 **Repairs & Maintenance Expenses for FY 2019-20:** EDG has been carrying out various R&M activities as a step towards improvement of systems, reduction in breakdowns, reduction in response time and increasing preventive maintenance.

5.8.4.1 EDG has actually incurred amount of Rs. 20.84 Crore in the first six months period from April-September 2019 which includes Rs. 7.86 Crore spend for the Plant and machinery. While projecting the R&M expense for H2, EDG has estimated the normative R&M expenses as per Regulation of JERC for FY 2019-20 as whole and accordingly projection for H2 FY 2019-20 is considered. Cost for FY 2019-20 is projected using audited figures of

FY 2015-16. Based on cost for FY 2015-16, cost for FY 2018-19 is projected as a base year using WPI inflation CAGR rate. Accordingly repairs and maintenance expenses projected for FY 2019- H2 is Rs.17.32 Crore.

5.8.4.2 EDG submits that projection of R&M cost for H2 is considered based on the normative cost for FY 2019-20 as a whole. As per Regulation 51 and 60 of JERC (Generation, Transmission and Distribution Multi Year Tariff) Regulations, 2018, cost for FY 2019-20 as whole is projected as per following working.

**Table 5-19: Calculation of R&M Expenses for FY 2019-20**

Particulars	FY 19-20
K Factor (A)	2.54%
GFA <sub>n-1</sub> (B)	1,461.50
WPI Inflation (C)	2.98%
R&M Cost for FY 19-20 (D) = A*B*(1+C) (Rs. Crore)	38.16

5.8.4.3 Working of the K Factor and WPI inflation considered in calculation of normative R&M cost is as shown below.

**Table 5-20: Calculation of Average WPI**

Particulars	FY 15-16	FY 16-17	FY 17-18	FY 18-19
<b>WPI based on Office of Economic Advisor, GoI</b>	109.70	111.60	114.90	119.79
YoY		1.73%	2.96%	4.26%
3 Years average				2.98%

**Table 5-21: Calculation of Average of K Factor**

Particulars	FY13-14	FY14-15	FY15-16
R&M exp	21.45	28.96	16.28
Opening GFA	816.84	883.20	956.82
K factor	2.63%	3.28%	1.70%
<b>Avg of K factor</b>	<b>2.54%</b>		

5.8.4.4 Accordingly, the R&M expenses for FY 2019-20 worked out to Rs.38.16 Crore. R&M cost is mainly on account of repairs and maintenance of 33 KV substations, 11 KV substations, LT Lines etc. Also minor R&M works are also contributing to significant part of R&M Expenses.

5.8.4.5 It is submitted that in the past few years, EDG has increased the fixed asset base to the large extent and to preserve and maintain such assets always demand appropriate cost

so that consumers gets an uninterrupted power supply. EDG has been strictly following the Standard of Performance Regulations and Supply Code which needs a proper maintenance of such assets. Though the absolute number of R&M expenses is on the higher side, the % of R&M as compare to GFA is within the limits as highlighted in the table below:

**Table 5-22: Justification of R&M Expenses for FY 2019-20**

Particulars	Units	Approved	Revised Projection
		FY 2019-20	
R&M Expenses	Rs. Crore	42.55	38.16
Average GFA	Rs. Crore	2115.73	1,376
% of GFA	%	2.01%	2.77%

5.8.4.6 The R&M cost claimed by EDG is ~2.77% of GFA which is marginally higher than the norm of 2.01% approved by the Hon'ble Commission in the MYT Order dated 20<sup>th</sup> May 2019. Accordingly, EDG request the Hon'ble Commission to approve the R&M cost as submitted in the petition.

#### 5.8.5 Administration & General expenses for FY 2019-20:

5.8.5.1 As mentioned earlier, Administrative expenses mainly comprise of rents, telephone and other communication expenses, professional charges, conveyance and travelling allowances and other debits.

5.8.5.2 A&G Expense for FY 2019-20 is projected by EDG considering the actual of FY 2019-20 H1 and A&G expense is projected for FY 2019-20 as a whole based on the relevant regulation. Actual A&G expense for FY 2019-20 H1 A&G expense is Rs.13.34 Crore and A&G expense for FY 2019-20 H2 is projected at Rs. 13.81 Crore considering total normative A&G expenses for FY 2019-20 projected as per regulations. Normative A&G expense for FY 2019-20 as a whole projected considering audited cost for FY 2015-16, which is subsequently escalated till FY 2018-19 (base year) as per CPI inflation rate.

**Table 5-23: Calculation of A&G Expense for FY 2018-19 as base year**

Particulars	Rs. Crore
<b>A&amp;G expense as per Audited Accounts</b>	
FY 2013-14	18.54
FY 2014-15	22.40
FY 2015-16	25.30
<b>Average for Median Year (A)</b>	<b>22.08</b>
<b>CPI Infaltion (B)</b>	<b>4.22%</b>
<b>A&amp;G Expenses</b>	
FY 2015-16 [C = A*(1+B)]	23.01
FY 2016-17 [D = C*(1+B)]	23.98
FY 2017-18 [E = D*(1+B)]	24.99
<b>FY 2018-19 (Base Year) [F = E*(1+B)]</b>	<b>26.05</b>

5.8.5.3 Considering above computed A&G cost for FY 2018-19 as a base year, A&G cost for FY 2019-20 based on normative principle worked out to Rs. 27.15 Crore. The Hon'ble Commission is requested to approve A&G expenses as per projections for FY 2019-20.

**Table 5-24: Calculation of A&G Expense for FY 2019-20**

Particulars	FY 2019-20
A&Gn-1 (A)	26.05
CPI Inflation (B )	4.22%
<b>A&amp;G Expense for FY 2019-20 (Rs. Crore)</b>	
<b>C= A*(1+B)</b>	<b>27.15</b>

5.8.5.4 Accordingly, EDG request the Hon'ble Commission to approve the A&G cost as submitted in above table.

5.8.6 **O&M Expenses Summary FY 2019-20:** Based on the foregoing paragraphs, the O&M expenses for the FY 2019-20 vis-a-vis the approved level by the Hon'ble Commission is shown in the table below:

**Table 5-25: O&M Expenses for FY 2019-20 - Rs. Crore.**

Sl.No.	Particulars	Approved in Order dated 20.05.2019	H1 Actual	H2 Projection	FY19-20 Revised Estimation
1	Employee Expenses	294.08	186.83	133.90	320.72
2	A&G Expenses	27.10	13.34	13.81	27.15
3	R&M Expenses	42.55	20.84	17.32	38.16
4	<b>Total O&amp;M Expenses</b>	<b>363.73</b>	<b>221.00</b>	<b>165.03</b>	<b>386.03</b>

5.8.7 The Hon'ble Commission is requested to approve the O&M Expenses as shown in the table above. The details of O&M expense for FY 2019-20 are provided in the Formats 13,

15 & 16 of the Tariff Filing Formats.

## 5.9 Capital Work in Progress, GFA and Depreciation

5.9.1 EDG submits that it has considered the capex & capitalization for FY 2019-20 as per revised projection being submitted in format 5 along with the Petition. The Capital Work in Progress (CWIP), Gross Fixed Asset (GFA) and Depreciation for FY 2019-20 are discussed hereunder.

5.9.2 EDG would like to submit that the Gross Block considered in FY 2019-20 is based on audited figure of FY 2015-16 and further addition is based on the revised projection of capitalisation submitted in the petition for FY 2016-17, FY 2017-18 and FY 2018-19 are taken while arriving at gross block for FY 2019-20.

5.9.3 EDG hereby submits a gist on the Capital Expenditure & Capitalisation for the FY 2019-20

**Table 5-26: Capital Expenditure & Capitalisation for FY 2019-20 – Rs. Crore.**

S. No.	Name of Scheme	Capex during FY19-20	Capitalisation during FY19-20
1	Schedule Tribe Development Scheme (P)	25.00	15.00
2	Infrastructure development through Electricity Duty (Plan)	240.00	159.00
3	Erection and Augmentation of 33/11 KV S/S line (Plan)	1.40	2.00
4	Normal Development Schemes (Plan)	15.00	10.00
5	System Improvement Schemes (Plan)	35.00	15.00
6	Construction of staff quarters and office buildings (Plan)	2.00	2.00
7	Strengthening of 220 KV Transmission Network	3.00	-
8	Underground Cabling	20.00	15.00
9	Public Lighting Scheme	-	-
10	APDRP(State Schemes)	1.72	1.72
11	Restructured Accelerated Power Development and Reforms Programme Part A	5.00	5.00
12	R-APDRP Part B / IPDS	45.00	30.00
13	EHV new Transmission / Sub-Station / Capacitor banks schemes	0.80	0.80
14	Erection of 220/110/33/11 KV Sub-Station at Verna (New)	30.00	-
15	Sub-transmission and distribution improvement scheme	5.00	-
	<b>Total</b>	<b>428.92</b>	<b>255.52</b>

5.9.4 As seen from the above table, the majority of the CAPEX incurred is for Infrastructure development schemes through electricity duty, RAPDRP Part B/IPDS etc. The total Capital Expenditure and Capitalization for FY 2019-20 as per estimates is Rs.428.92 Crore and Rs.255.52 Crore respectively. The detail of capital expenditure schemes for FY 2019-20 is provided in the Format 5 of Tariff Filing Formats.

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

**Table 5-27: CWIP for FY 2019-20 – Rs. Crore**

Sr. No.	Particulars	FY 2019-20
1	Opening Balance	367.98
2	Add: New Investments	428.92
3	Total	796.90
4	Less Investment Capitalized	255.52
5	Other Entries in CWIP	-
5	Closing Balance	541.38

5.9.6 The Opening Balance of GFA for FY 2019-20 has been arrived after reduction of accumulated depreciation as on 1<sup>st</sup> April 2019 which works out to be Rs. 969.46 Crore. The additions to GFA excluding grant and electricity duty fund are estimated to be around Rs. 68.98 Crore for FY 2019-20; the details of which are provided in the table below:

**Table 5-28: Details of GFA for FY 2019-20 – Rs. Crore.**

Sr. No.	Particulars	Approved	Projected
1	Opening Gross Fixed Assets	2,014.46	1,527.22
2	Add: Capitalization approved	202.54	255.52
3	Less: Capitalization through grants/Electricity duty fund		186.54
4	<b>Closing Gross Fixed Assets</b>	<b>2,217.00</b>	<b>1,596.20</b>

5.9.7 The Regulation 30.7 of the JERC MYT Regulations, 2018 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.”*

5.9.8 In line with the above Regulations, EDG has calculated the depreciation at Rs. 41.57 Crore. However as per the Regulation 30.1 of JERC MYT Regulations, 2018 clearly specify that depreciation shall not be allowed on assets funded through capital subsidies, consumer contribution or grants. Depreciation of Rs. 41.57 Crore is towards total average GFA base of Rs. 1376.10 Crore. Further, average GFA excluding grant and electricity duty works out as Rs. 1003.95 Crore. Details of the same is provided in form 12 of the tariff filing format. Hence depreciation towards GFA excluding grant and electricity duty works out as Rs. 30.33 Crore in proportion with GFA excluding grant and electricity duty to total average GFA. The table below shows the working of Depreciation considered in ARR for FY 2019-20.

**Table 5-29: Depreciation for FY 2019-20 – Rs. Crore.**

Sr. No	Particulars	Approved in Order dated 20.05.2019	FY19-20 Estimated
1	Opening Gross Fixed Assets	2,014.46	969.46
2	Add: Capitalization approved/Estimated	202.54	255.52
3	Less: Capitalization through grants/ED	-	186.54
4	<b>Closing Gross Fixed Assets</b>	<b>2,217.00</b>	<b>1,038.44</b>
5	<b>Average Gross Fixed Assets excluding Grant/Electricity Duty contribution (A)</b>	<b>2,115.73</b>	<b>1,003.95</b>
6	<b>Total Average GFA (B)</b>		<b>1,376.10</b>
7	<b>Total Depreciation (C)</b>	<b>76.93</b>	<b>41.57</b>
8	<b>Depreciation twds GFA (Excl. Grant/ED/Consumer Contribution) (A/B*C)</b>		<b>30.33</b>
9	<b>Rate of Depreciation</b>	<b>3.64%</b>	<b>3.02%</b>

5.9.9 The detail of GFA & Depreciation for FY 2019-20 is provided in the Format 7 & Format 12 of Tariff Filing Formats respectively. The Hon'ble Commission is requested to approve the depreciation for the year for FY 2019-20.

#### **5.10 Interest & Finance Charge**

5.10.1 As per Regulation 28.1 & 28.2 of the JERC MYT Regulations, 2018 specifies that:

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

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

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

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

5.10.2 EDG submits that as per Regulation 26.2 of JERC (Generation, Transmission and Distribution Multi Year Tariff) Regulations, 2018, 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:-

#### **“26 Debt to Equity Ratio**

.....

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

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

5.10.3 EDG has submitted that the majority of 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 Commission in past orders.

5.10.4 EDG doesn't have any actual loan in EDG's Books of Accounts, hence normative loan is calculated in line with above mentioned regulations. Hon'ble Commission has approved normative loan as on 31<sup>st</sup> March 2015 in final true up of FY 2014-15. The same normative loan balance has considered as opening balance for FY 2015-16, and normative loan addition is calculated at 70% of the GFA excluding grant and electricity duty fund contribution till 31<sup>st</sup> March 2019. The same balance is carry forward as opening normative loan for FY 2019-20. Further during FY 2019-20, 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 2019-20. The rate of Interest for long term Interest rate has been considered at the rate of 9.55% including 100 basis points as per one year SBI MCLR Interest rate applicable as on 1<sup>st</sup> April relevant financial year. It is requested to Hon'ble Commission to approve Interest on Loan on normative principles. The details of actual loan are provided at Tariff Filing Format 10.

5.10.5 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 5-30: Interest & Finance Charges for FY 2019-20 – Rs. Crore.**

Sl.No.	Particulars	Approved in Order dated 20.05.2019	FY19-20 Estimated
1	Opening Normative Loan	1,074.05	197.73
2	Add: Normative Loan during the year/GFA during the year	141.78	48.29
3	Less: Normative Repayment for the year	76.93	30.33
<b>4</b>	<b>Closing Normative Loan/ GFA</b>	<b>1,138.90</b>	<b>215.69</b>
5	Average Normative Loan	1,106.47	206.71
6	Rate of Interest	9.55%	9.55%
<b>7</b>	<b>Interest on Normative Loan</b>	<b>105.67</b>	<b>19.74</b>

5.10.6 The Hon'ble Commission is requested to approve the Interest & Finance Charges of Rs.19.74 Crore for FY 2019-20 as shown in the above table. The details of Interest &

Finance charges are provided in Format 10 of the Tariff Filing Formats.

### 5.11 Interest on Working Capital

5.11.1 As per Regulation 63.1 of the JERC MYT Regulations, 2018, 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.

5.11.2 Regulation 31.4 of the JERC MYT Regulations, 2018 specifies as below:

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

5.11.3 The Interest Rate is considered equivalent to the SBI base Rate available as on 10<sup>th</sup> April 2019 for FY 2019-20 which is at 8.50% plus 200 basis points which works out to be 10.50%.

5.11.4 In line with the aforesaid regulation, the Interest on Working Capital works out to Rs. 27.33 Crore for FY 2019-20 which is provided in the table below:

**Table 5-31: Interest on Working Capital for FY 2019-20 – Rs. Crore.**

Sl.No.	Particulars	Approved in Order dated 20.05.2019	FY19-20 Estimated
1	O&M Expense for 1 month	30.31	32.17
2	Maintenance spares at 40% of R&M expenses for one (1) month;	1.42	1.27
3	Receivables equivalent to two (2) months of the expected revenue from charges at the prevailing tariff	368.7	355.49
4	Less: Amount, held as security deposits	107.8	128.69
5	<b>Net Working Capital</b>	292.63	260.24
6	Rate of Interest (%)	10.15%	10.50%
7	<b>Interest on Working Capital</b>	<b>29.70</b>	<b>27.33</b>

5.11.5 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 2019-20 are provided in Format 18 of the Tariff Filing Formats.

## 5.12 Interest on Security Deposit

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

*“ The Licensee shall pay interest to the consumer at the Bank Rate declared by the Reserve Bank of India prevailing on the 1<sup>st</sup> 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.”*

5.12.2 In accordance with Regulation 28.11 of the JERC MYT Regulations, 2018 specifies that

*“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.”*

5.12.3 The provision of interest on security deposits is to be made at the bank rate. The interest rate considered is 6.25% as approved by the Hon’ble Commission in the MYT Order dated 20<sup>th</sup> May 2019.

5.12.4 In view of the above, Interest on Security Deposit is calculated at Rs. 8.04 Crore on cash security deposit amounts excluding Bank Guarantee & Fixed Deposit Receipts. The table below shows details of Interest on Security Deposit for FY 2019-20:

**Table 5-32: Interest on Security Deposit for FY 2019-20 – Rs. Crore.**

Sl.No.	Particulars	Approved in Order dated 20.05.2019	FY19-20 Estimated
1	Opening Security Deposit	91.73	108.55
2	Add: Deposit during the year	32.14	45.29
3	Less: Deposits refunded		5.01
4	Closing Security Deposit	123.87	148.83
5	<b>Average Security Deposit</b>	<b>107.8</b>	<b>128.69</b>
6	RBI Bank Rate	6.25%	6.25%
7	<b>Interest on Security Deposit</b>	6.74	<b>8.04</b>

5.12.5 EDG has worked out the Interest on Security Deposit payable to consumer based on the regulation stated above, however as per direction of Hon’ble Commission EDG has started payment of Interest on Security Deposit, based on the same, in this petition EDG

has claimed Interest on Security Deposit based on payment in respective years.

5.12.6 The Hon'ble Commission is requested to approve the Interest on Security Deposit of Rs. 7.00 Crore as claimed in ARR for FY 2019-20.

### 5.13 Return on Equity

5.13.1 Regulation 27.2 & 27.3 of the JERC MYT Regulations, 2018 specifies that:

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

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

5.13.2 In line with the above regulation and the methodology proposed in the JERC MYT Regulations, 2018, EDG has calculated the Return on Equity as outlined in the following table for FY 2019-20.

5.13.3 The opening balance of assets and accumulated depreciation are considered as per audited account of FY 2015-16 and further provisional actual numbers used to arrive at the opening balance for FY 2019-20. Opening equity has been computed by confiscating electricity duty utilised from FY 2008-09 to FY 2014-15 from the GFA as on 31<sup>st</sup> March 2016.

5.13.4 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 6

**Table 5-33: Opening Balance of Equity as on FY 2019-20 – Rs. Crore**

Sr. No.	Particulars	Amount
	<b>Calculation of Opening Balance of Equity</b>	
1	Cl. Balance of GFA as on 31st March 2015	956.82
2	Electricity Duty utilised from FY 2008-09 to FY 2010-11	63.95
3	Additional of Electricity Duty Fund from FY 2011-12 to FY 2014-15	115.16
4	Op. Balance of Equity as on 1st April 2015 = (1-2-3)*30%	233.31
5	Add: capitalisation in FY 2015-16 = 30% of GFA Excluding grants	36.51
6	Add: capitalisation in FY 2016-17 = 30% of GFA Excluding grants	25.97
7	Add: capitalisation in FY 2017-18 = 30% of GFA Excluding grants	13.66
8	Add: capitalisation in FY 2018-19 = 30% of GFA Excluding grants	9.07
9	<b>Op. Balance of Equity as on 1<sup>st</sup> April 2019</b>	<b>318.53</b>

5.13.5 The table below shows calculation of Return on equity for FY 2019-20:

**Table 5-34: Return on equity for FY 2019-20 – Rs. Crore**

Sl.No.	Particulars	Approved in Order dated 20.05.2019	FY19-20 Estimated
1	Opening Equity Amount	604.34	318.53
2	Equity Addition during year (30% of Capitalization)	60.76	20.69
3	Closing Equity Amount	665.10	339.22
4	Average Equity Amount	634.72	328.87
5	Average Equity (Wires Business)	<b>571.25</b>	<b>295.99</b>
6	Average Equity (Retail Supply Business) Business)	<b>63.47</b>	<b>32.89</b>
7	Return on Equity for Wires Business (%)	<b>15.50%</b>	<b>15.50%</b>
8	Return on Equity for Retail Supply Business (%)	<b>16.00%</b>	<b>16.00%</b>
9	<b>Return on Equity</b>	<b>98.70</b>	<b>51.14</b>

5.13.6 The Hon'ble Commission is requested to approve the Return on equity for FY 2019-20 Rs. 51.14 Crore as shown in the table above. The details of Return on equity for FY 2019-20 are provided in Format 6 of the Tariff Filing Formats.

#### **5.14 Non-Tariff Income**

5.14.1 Non-Tariff Income comprises of proceeds from sale of dead stock, waste paper, Receipt from State Electrical Inspectorate and other miscellaneous receipts. The Non-Tariff Income for the year FY 2019-20 works out to be Rs. 16.24 Crore.

5.14.2 The details of Non-Tariff Income for FY 2019-20 are provided in Format 20 of the Tariff Filing Formats.

#### **5.15 Revenue from Retail Sale of Power**

5.15.1 The provisional revenue from sale of power including FPPCA charges for H1 of FY 2019-20 is Rs. 943.75 Crore including FPPCA of Rs. 58.25 Crore. The category wise details of revenue are provided in Format 26 of the MYT Filing Formats.

5.15.2 In the MYT order dated 20<sup>th</sup> May 2019, the Hon'ble Commission has approved connected load, sales and consumer for FY 2019-20. However, as mentioned earlier EDG has projected sales, no. of consumer and connected load for FY 2019-20 and accordingly total revenue for FY 2019-20 is computed. Revenue from FPPCA charges for FY 2019-20 H2 is calculated on the sales of FY 2019-20 H2 at the FPPCA rate of Q2 of FY 2019-20 which is latest available rate of FPPCA.

5.15.3 The overall revenue from sale of power for FY 2019-20 computes to Rs. 1861.50 Crore and Hon'ble commission is requested to approve the same.

**Table 5-35: Revenue from Sale of Power for FY 2019-20**

Particulars	Approved in Order dated 20.05.2019		FY19-20 H1		FY19-20 H2		FY19-20 Estimated	
	Units (Mus)	Amt (Rs.Crore)	Units (Mus)	Amt (Rs.Crore)	Units (Mus)	Amt (Rs.Crore)	Units (Mus)	Amt (Rs.Crore)
<b>DOMESTIC</b>							-	-
<b>LT-D Domestic</b>	<b>1,206.08</b>	<b>403.37</b>	<b>616.11</b>	<b>167.25</b>	<b>557.42</b>	<b>146.50</b>	<b>1,173.53</b>	<b>313.74</b>
0-100 units	85.48	19.09	236.12	40.03	237	41	473.55	80.70
101-200 units	243.17	55.74	144.86	35.54	140	34	284.75	69.72
201-300 units	191.99	56.11	79.08	24.34	71	23	149.71	47.65
301-400 units	116.37	42.33	45.44	17.85	37	15	82.33	33.03
Above 400 units	569.07	230.09	110.60	49.48	73	33	183.20	82.63
<b>Low Income Group</b>	<b>1.76</b>	<b>0.09</b>	<b>0.68</b>	<b>0.15</b>	<b>1</b>	<b>0</b>	<b>1.25</b>	<b>0.19</b>
<b>HT-D Domestic</b>	<b>0.29</b>	<b>0.14</b>	<b>0.14</b>	<b>0.07</b>	<b>0.13</b>	<b>0.07</b>	<b>0.28</b>	<b>0.14</b>
<b>COMMERCIAL</b>	<b>611.02</b>	<b>342.56</b>	<b>278</b>	<b>159</b>	<b>266</b>	<b>156</b>	<b>544</b>	<b>316</b>
<b>LT-C Commercial</b>	<b>491.97</b>	<b>255.29</b>	<b>220</b>	<b>115</b>	<b>210</b>	<b>111</b>	<b>430</b>	<b>226</b>
0-100 units	33.95	14.94	35.95	15	36	15	71.92	30.60
101-200 units	21.95	9.91	22.19	10	22	10	43.89	20.54
201-400 units	31.76	16.83	28.19	15	27	14	55.19	28.64
Above 400 units	404.32	213.61	133.62	75	125	71	259.09	146.36
<b>HT-C Commercial</b>	<b>119.05</b>	<b>87.27</b>	<b>57.69</b>	<b>44</b>	<b>56</b>	<b>45</b>	<b>113.57</b>	<b>89.76</b>
<b>INDUSTRIAL</b>	<b>2,077.14</b>	<b>1,088.18</b>	<b>1,002.75</b>	<b>577.72</b>	<b>1,009.42</b>	<b>590.19</b>	<b>2,012.17</b>	<b>1,167.91</b>
<b>LT-I Industrial</b>	<b>101.12</b>	<b>43.38</b>	<b>42.15</b>	<b>19.82</b>	<b>41.09</b>	<b>19.60</b>	<b>83.24</b>	<b>39.41</b>
0-500 units	19.03	8.88	8.26	4	8	4	16.30	8.64
Above 500 units	82.09	34.50	33.88	15	33	15	66.94	30.77
<b>Low Tension-Mixed/LT-P (Hotel Industries)</b>	<b>5.62</b>	<b>2.78</b>	<b>2.29</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>4.49</b>	<b>2.39</b>
<b>High Tension-I/HT-I</b>	<b>1,527.76</b>	<b>817.66</b>	<b>724.37</b>	<b>416.45</b>	<b>718.23</b>	<b>431.78</b>	<b>1,442.60</b>	<b>848.24</b>
Connected at 11/33 kV	1,275.63	694.69	598.20	350	594	361	1,191.91	710.18
Connected at 110 kV	252.13	122.98	126.17	67	125	71	250.70	138.05
<b>High Tension-Ferro/SM/PI/SR</b>	<b>442.64</b>	<b>224.36</b>	<b>233.94</b>	<b>140</b>	<b>248</b>	<b>138</b>	<b>481.83</b>	<b>277.87</b>
<b>AGRICULTURE</b>	<b>27.29</b>	<b>5.43</b>	<b>16.06</b>	<b>3.12</b>	<b>15.77</b>	<b>3.12</b>	<b>31.83</b>	<b>6.24</b>
Low Tension-AG/LT-AGP (Pump Sets/Irrigation)	17.03	3.21	9.80	1.80	8.92	1.66	18.71	3.46
Low Tension-AG/LT-AGA (Allied Activities)	0.89	0.19	0.45	0.09	0.47	0.10	0.93	0.19
High Tension-AG/HT-AGP (Pump Sets/Irrigation)	4.85	1.07	2.63	0.58	2.90	0.62	5.53	1.20
High Tension-AG/HT-AG (Allied Activities)	4.52	0.95	3.18	0.65	3.48	0.74	6.67	1.39
<b>MILITARY ENGINEERING SERVICES/DEFENSE ESTABLISHMENTS</b>	<b>27.01</b>	<b>14.98</b>	<b>13.32</b>	<b>7.90</b>	<b>12.60</b>	<b>7.60</b>	<b>25.92</b>	<b>15.50</b>
<b>PUBLIC LIGHTING</b>	<b>2.66</b>	<b>1.18</b>	<b>10.82</b>	<b>15.69</b>	<b>12.87</b>	<b>5.93</b>	<b>23.69</b>	<b>21.62</b>
<b>HOARDINGS/SIGNBOARDS</b>	<b>0.24</b>	<b>0.29</b>	<b>0.08</b>	<b>0.10</b>	<b>0.06</b>	<b>0.08</b>	<b>0.14</b>	<b>0.18</b>
<b>TEMPORARY</b>	<b>20.81</b>	<b>23.28</b>	<b>9.07</b>	<b>10.40</b>	<b>10.18</b>	<b>5.90</b>	<b>19.24</b>	<b>16.30</b>
<b>LT</b>	<b>20.51</b>	<b>22.93</b>	<b>8.06</b>	<b>9.17</b>	<b>8.59</b>	<b>4.80</b>	<b>16.65</b>	<b>13.97</b>
LT Domestic	1.00	0.80	0.41	0.37	0.44	0.13	0.85	0.50
LT Commercial	19.51	22.13	7.65	8.80	8.15	4.67	15.80	13.47
<b>HT Temporary</b>	<b>0.30</b>	<b>0.34</b>	<b>1.01</b>	<b>1.23</b>	<b>1.58</b>	<b>1.10</b>	<b>2.59</b>	<b>2.33</b>
<b>Single Point Supply</b>	<b>5.46</b>	<b>3.48</b>	<b>2.90</b>	<b>1.93</b>	<b>2.70</b>	<b>1.85</b>	<b>5.60</b>	<b>3.78</b>
Residential Complexes	-	-	-	-	-	-	-	-
Commercial Complexes	5.46	3.48	2.90	1.93	2.70	1.85	5.60	3.78
Industrial Complexes	-	-	-	-	-	-	-	-
<b>TOTAL</b>	<b>3,979.76</b>	<b>1,882.97</b>	<b>1,949.56</b>	<b>943.75</b>	<b>1,887.74</b>	<b>917.75</b>	<b>3,837.30</b>	<b>1,861.50</b>

## 5.16 Aggregate Revenue Requirement for FY 2019-20

5.16.1 Based on the submissions made in the foregoing paragraphs, the net Aggregate Revenue Requirement for the year FY 2019-20 and the revenue gap is shown in the table below:

**Table 5-36: Aggregate Revenue Requirement for FY 2019-20 - Rs. Crore**

Sl.No.	Particulars	Approved in Order dated 20.05.2019	FY19-20 H1	FY19-20 H2	FY19-20 Estimated
1	Cost of Power Purchase	1,555.16	822.99	804.63	1,627.62
2	Provision for RPO Compliance				
3	Employee Expenses	294.08	186.83	133.90	320.72
4	A&G Expenses	27.10	13.34	13.81	27.15
5	R&M Expenses	42.55	20.84	17.32	38.16
6	Depreciation	76.93	15.16	15.16	30.33
7	Interest on Loan	105.67	9.87	9.87	19.74
8	Interest on Consumer Security Deposit	6.74	3.62	3.38	7.00
9	Interest on Working Capital	29.70	13.66	13.66	27.33
10	Return on Equity	98.70	25.57	25.57	51.14
11	Provision for Bad Debit		-	-	-
12	Provision for DSM Expenses	-	-	-	-
13	<b>Total Revenue Requirement</b>	<b>2,236.63</b>	<b>1,111.88</b>	<b>1,037.31</b>	<b>2,149.19</b>
14	Less: Non-Tariff Income	24.40	7.26	8.98	16.24
15	<b>Net Revenue Requirement</b>	<b>2,212.23</b>	<b>1,104.62</b>	<b>1,028.32</b>	<b>2,132.94</b>

5.16.2 The Hon'ble Commission is requested to approve the net ARR of FY 2019-20 computed at Rs. 2132.94 Crore as per revised projections.

**Table 5-37: Revenue Gap for FY 2019-20 - Rs. Crore**

Sl.No.	Particulars	Approved in Order dated 20.05.2019	FY19-20 H1	FY19-20 H2	FY19-20 Estimated
1	Net Revenue Requirement	2,212.23	1,104.62	1,028.32	2,132.94
2	Revenue from Sale of Power	1,882.97	943.75	917.75	1,861.50
3	<b>Net Gap During the Year</b>	<b>329.25</b>	<b>160.87</b>	<b>110.57</b>	<b>271.44</b>

5.16.3 EDG submits that as per above table the Revenue gap for FY 2019-20 is arrived at Rs. 271.44 Crore. However in tariff petition for FY 2019-20, gap was proposed to be meet through budgetary support. In tariff order for FY 2019-20, Hon'ble Commission has approved balance gap to be met through budgetary support. Government of Goa through its letter No. 1/16/2018-Fin/(Bud)/ dated 29th November 2018 has conveyed its consent for providing the required budgetary support to meet the revenue gap for the year as may be approved by the Commission. Hence final revenue gap after support of budgetary support will be NIL.

5.16.4 EDG request Hon'ble Commission to approve the above mentioned revenue gap for FY 2019-20.

## CHAPTER 6. ARR FOR FY 2020-21

### 6.1 Preamble

6.1.1 The Joint Electricity Regulatory Commission (JERC) has notified the Regulations, JERC (Generation, Transmission & Distribution Multi Year Tariff) Regulations, 2018 on 10<sup>th</sup> August 2018 for the determination of tariff for the MYT control period based on certain norms of operation and financial parameters.

6.1.2 The JERC (Generation, Transmission & Distribution Multi Year Tariff) Regulations, 2018 hereafter referred to as JERC MYT Regulations, 2018 clearly states for the Hon'ble Commission to determine the tariff under MYT framework with effect from 1<sup>st</sup> April 2019. The relevant section is quoted below:

*“5.1 The Commission shall determine the tariff for matters covered under clauses (a), (b), (c) and (d) of Regulation 3.1, under a Multi-Year Tariff framework with effect from April 1, 2019”*

6.1.3 The MYT Regulations, 2018 has defined control period in the following manner.

*“17. “Control Period” shall mean the period of three (3) Years from April 1, 2019 to March 31, 2022;”*

6.1.4 As seen from the above definition, the MYT tariff for the MYT control period is to be determined for the period starting from FY 2019-20 up to FY 2021-22.

6.1.5 ED-Goa therefore submits revised Aggregate Revenue Requirement and Tariff Determination for FY 2020-21 based on the parameters defined in the JERC MYT Regulations, 2018 which are proposed to be approved by the Hon'ble Commission.

### 6.2 Principles for determination of ARR

6.2.1 The Hon'ble Commission vide its order dated 20<sup>th</sup> May 2019 has determined Aggregate Revenue Requirement (ARR) for FY 2019-20 to FY 2021-22 for the MYT 2<sup>nd</sup> control period.

6.2.2 This chapter summarizes the ARR for FY 2020-21. The sales, connected load and number of consumers as approved by the Hon'ble Commission vide tariff order dated 20<sup>th</sup> May 2019 for the control period is considered for FY 2020-21.

6.2.3 The overall performance parameters proposed for FY 2020-21 is based on the methodologies discussed in subsequent paragraphs.

### 6.3 Sales, Connected load & Number of Consumers for FY 2020-21

6.3.1 EDG submits that the sales, connected load and number of consumers for FY 2020-21 is as approved by the Hon'ble Commission vide tariff order dated 20<sup>th</sup> May 2019 for the control period and is tabulated below:

**Table 6-1: Sales, Connected load and Number of Consumers for FY 2020-21**

Category	Sales (MUs)	Consumers (Nos)	Connected Load
	Submitted and Approved in Order dated 20.05.2019		
<b>A. LOW TENSION SUPPLY</b>	<b>1,926.41</b>	<b>6,69,578</b>	<b>20,99,627</b>
LTD/Domestic	1,256.86	5,47,213	15,64,434
LT-LIG/Low Income Group	1.76	1,835	231
LTC/Commercial	536.2	1,01,972	3,40,731
LTI/Industrial	104.63	5,963	1,40,551
LT Mixed/ LT-P Hotel Industries	5.78	151	2,868
Low Tension-AG/LT-AGP (Pump Sets/Irrigation)	17.37	11,970	46,964
Low Tension-AG/LT-AGA (Allied Activities)	0.91	196	1,629
Public Lighting	2.66	215	1,600
Hoardings/Signboards	0.24	63	619
<b>B. HIGH TENSION SUPPLY</b>	<b>2,226.67</b>	<b>1,192</b>	<b>7,40,970</b>
HTD Domestic	0.29	3	300
HTC Commercial	127.11	240	73,507
HTI Industrial	1,620.19	864	5,51,853
High Tension-Ferro/SM/PI/SR	442.64	29	98,700
High Tension-AG/HT-AGP (Pump Sets/Irrigation)	4.85	41	8,240
High Tension-AG/HT-AG (Allied Activities)	4.52	3	1,310
Military Engineering Services/defense Establishments	27.07	12	7,060
<b>C. TEMPORARY SUPPLY</b>	<b>20.81</b>	<b>5,183</b>	<b>21,034</b>
LT Temporary	20.51	5,181	20,684
HT Temporary	0.30	1	350
<b>D. SINGLE POINT SUPPLY</b>	<b>5.46</b>	<b>1</b>	<b>4,035</b>
Residential Complexes			
Commercial Complexes	5.46	1	4,035
Industrial Complexes			
<b>Total</b>	<b>4,179.35</b>	<b>6,75,954</b>	<b>28,65,665</b>

### 6.4 Intra state Transmission and Distribution Loss and Inter-State Transmission losses for FY 2020-21

6.4.1 EDG submits that it has been making efforts to reduce its intra state transmission losses and as per the Tariff Order dated 20<sup>th</sup> May, 2019, the Hon'ble Commission has approved 10.50% Intra-state losses for FY 2020-21. EDG has considered the same for the present filing.

6.4.2 The Hon'ble Commission has also approved inter-state transmission losses of 3.26% for the power received from western Region and 9.87% for power received from southern Region for FY 2020-21 in above mentioned tariff order and the same is considered in this petition for FY 2020-21 projections.

## 6.5 Energy Balance

6.5.1 Based on the approved Sales, distribution loss and PGCIL losses for FY 2020-21, the energy requirement is projected by the EDG, Energy balance for FY 2020-21 is shown in the following table:

**Table 6-2: Energy Balance for FY 2020-21 (MUs)**

Particulars	FY20-21 Revised Estimation
<b>Energy Input at Goa Periphery</b>	4,505.76
<b>Total Power Scheduled/ Purchased at Goa Periphery</b>	
Total Schedule Billed Drawal - CGS	3,833.34
Add: Overdrawal	-
Add: Power purchase from NVVN / Banking	-
Add: Power purchase from Traders/ Open Market	266.84
Add : Hydro Power	11.25
Less: Underdrawal	-
Add: Renewable Power	594.39
Less: Power diverted to Exchange	-
<b>Total</b>	<b>4,706</b>
<b>PGCIL Losses - MUs</b>	<b>200.06</b>
<b>PGCIL Losses - %</b>	<b>4.25%</b>
<b>Total Power Purchased within Goa State</b>	
Add: Co-generation	168.19
Add: Independent Power Producers (IPP)	-
<b>Total</b>	<b>168.19</b>
Total Power Purchase availability after PGCIL Losses	<b>4,673.95</b>
Less: Retail Sales to Consumers	4,183.39
<b>Distribution Losses - MUs</b>	<b>490.79</b>
<b>Distribution Losses - %</b>	<b>10.50%</b>

## 6.6 Purchase quantum and Cost for FY 2020-21

6.6.1 The JERC MYT regulations, 2018 specifies the following provisions with respect to cost of power purchase.

### ***"58 Cost of Power Purchase***

*58.1 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."*

6.6.2 Based on the share allocation and power availability from various plants etc. the Hon'ble Commission has approved power purchase requirement as per Sales, distribution loss,

PGCIL loss approved in MYT order dated 20<sup>th</sup> May 2019. However for CGS Plants revised allocation of power as per WRPC letter dated 29<sup>th</sup> October 2019 is considered for projection of power purchase for FY 2020-21.

6.6.3 EDG submits the detailed power procurement plan for FY 2020-21. However power procurement projected from the open market is projected as 266.84 MU against 397.34 MU as approved by the Hon'ble Commission as per the above mentioned order.

6.6.4 The approved power purchase quantum and power purchase cost approved by the Hon'ble Commission vide its order dated 20<sup>th</sup> May 2019 against the proposed by the EDG for FY 2020-21 is shown in the table below:

**Table 6-3: Power Purchase Quantum for FY 2020-21**

Sl. No	Particulars	Power Purchase at State periphery (after adjusting ISTS Losses)	Cost	Rate
		MUs	Rs. Crore	Rs./kWh
1	NTPC	3,373.38	943.63	2.80
2	NPCIL	80.25	27.76	3.46
3	Traders	258.14	100.67	3.90
4	Overdrawal	-	-	-
5	Co-Generation	168.19	40.37	2.40
6	Renewable	575.02	249.23	4.33
7	New Stations	218.98	99.19	4.53
8	Transmission	-	200.98	-
9	<b>Total</b>	<b>4,673.95</b>	<b>1,661.83</b>	<b>3.56</b>

6.6.5 Fixed Cost and Variable Cost for Central Generating Stations: - EDG has considered the fixed cost and variable cost for FY 2020-21 as approved by the Hon'ble Commission vide its order dated 20<sup>th</sup> May 2019.

6.6.6 Cost of Co-generation stations: - EDG submits that variable cost for Co-generating plants of Vedanta Plant 1 & 2 and Goa Sponge Pvt Ltd. is considered at the same variable cost as approved by the Hon'ble Commission vide its order dated 20<sup>th</sup> May 2019. Variable cost rate of Vedanta Plant 1&2 and Goa sponge Pvt Ltd is 240.04 Ps. /Unit, 239.95 Ps. /Unit and 240.74 Ps. /unit respectively for FY 2020-21.

6.6.7 Energy from Solar: - As regards to fulfilment of Solar RPO is concerned for FY 2020-21, EDG has been procuring power from the Renewable Sources such as SECI Solar and NTPC Solar to meet its RPO obligations as approved by the Hon'ble Commission vide its Order dated 20<sup>th</sup> May 2019. Additionally EDG is purchasing power from short term tender DEEP Portal-Solar at a variable cost rate of 500 Ps/unit for FY 2020-21.

6.6.8 Energy from Non-Solar: To meet non-solar RPO, EDG submits that during FY 2020-21 it procures 2 MUs from Hindustan Waste Energy Ltd at a variable cost as approved by the Hon'ble Commission vide its order dated 20<sup>th</sup> May 2019. Further, Additionally EDG is purchasing power from SECI Wind at a variable charge of 272 Ps. /Kwh and 252 Ps. /Kwh for FY 2020-21. Also from Tata power STOA, EDG is projected to purchase power at 512 Ps. /KWh and further for the quantum of deficit, EDG is projected to purchase power through DEEP portal at the rate of 512 Ps. /KWh.

**Table 6-4: RPO obligation and compliance for FY 2020-21**

Particulars	Approved in Order dated 20.05.2019	FY20-21 Estimated
<b>Sales within State (MU)</b>	<b>4,179.35</b>	<b>4,183.39</b>
Hydro Power available at State Periphery (MU)	10.88	10.88
T&D Loss (%)	10.50%	10.50%
Resultant Energy Sales for calculation of RPO (after adjustment of power from hydro sources) (MU)	4,169.61	4,173.65
<b>RPO obligation (in %)</b>	<b>14.10%</b>	<b>14.10%</b>
Solar	6.10%	6.10%
Non-Solar	8.00%	8.00%
<b>RPO obligation for the year (in MU)</b>	<b>587.92</b>	<b>588.48</b>
Solar	254.35	254.59
Non-Solar	333.57	333.89
<b>RPO compliance (Physical Power available at Consumer Periphery after adjusting Inter-State Transmission and Intra-State T&amp;D Loss)</b>	<b>480.45</b>	<b>594.39</b>
Solar	181.85	254.60
Non-Solar	298.60	339.80
<b>RPO compliance (REC certificates to be purchased)</b>	<b>107.45</b>	-
Solar	72.49	-
Non-Solar	34.96	-

Cost of New Hydro station-Kameng: - Variable cost for new hydro station Kameng for FY 2020-21 is considered same as approved by the Hon'ble Commission vide its order dated 20<sup>th</sup> May 2019. The variable cost rate considered for new hydro station Kameng is 483.56 Ps. /Unit for FY 2020-21.

6.6.9 Cost of Power procured from traders/IEX: - After meeting RPO quantum from the Renewable sources and short term renewable power during FY 2020-21, if any energy deficit at overall level with respect to power requirement, the same has been projected to meet by procuring power through traders/IEX. Variable cost rate for IEX is considered 377.28 Ps. /Unit for FY 2020-21 as approved in MYT order dated 20<sup>th</sup> May 2019.

6.6.10 PGCIL Transmission Charges: EDG projected the Transmission charges for FY 2020-21 as

Rs. 200.98 Crore. EDG has assumed a nominal 2% of escalation on the cost arrived for FY 2019-20 H2 in previous chapter.

6.6.11 The following table shows the summary of transmission charges which are arrived for FY 2020-21.

**Table 6-5: Transmission charges FY 2020-21**

<b>Particulars</b>	<b>FY 2020-21 Rs. Crore</b>
POC Transmission charge	200.00
Fees and Charges of SRLDC-WR	0.82
Fees and Charges of SRLDC-SR	0.15
SCADA and Reactive Charges	-
<b>Total</b>	<b>200.98</b>

6.6.12 As discussed in forgoing paras, following is the station wise power purchase quantum and cost for FY 2020-21.

**Table 6-6: Power purchase quantum and cost for FY 2020-21**

Source	Approved in Order dated 20.05.2019 FY 20-21		Revised Projection FY 20-21	
	Power Purchase at State periphery (after adjusting ISTS Losses) (MU)	Cost (Rs. Crore)	Power Purchase at State periphery (after adjusting ISTS Losses) (MU)	Cost (Rs. Crore)
<b>NTPC</b>				
KSTPS	1,510.99	317.63	1,504.56	317.63
VSTPS - I	250.47	64.64	256.04	64.64
VSTPS - II	103.57	23.29	100.42	23.29
VSTPS -III	90.71	23.39	87.56	23.39
VSTPS-IV	109.36	33.23	105.44	33.23
VSTPS-V	52.11	16.30	49.99	16.30
KGPP	39.25	18.97	42.88	18.97
GGPP	48.14	22.66	56.57	22.66
SIPAT- I	208.10	52.48	200.09	52.47
KSTPS-III	51.74	13.51	49.57	13.51
RSTPS	636.09	224.71	636.09	224.71
SIPAT- II	91.88	23.68	88.70	23.68
Mouda II	34.78	26.20	72.14	38.18
Mouda	51.69	36.57	55.38	36.57
Solapur	37.21	34.40	67.96	34.40
<b>Subtotal - NTPC</b>	<b>3,316.10</b>	<b>931.65</b>	<b>3,373.38</b>	<b>943.63</b>
<b>NPICIL</b>				
KAPS	-	-	-	-
TAPS	80.25	27.76	80.25	27.76
<b>Sub Total NPCIL</b>	<b>80.25</b>	<b>27.76</b>	<b>80.25</b>	<b>27.76</b>
<b>Within State Generations</b>				
Vedanta Plant-1- Co-Gen	92.90	22.30	92.90	22.30
Vedanta Plant -2- Co-Gen	69.89	16.77	69.89	16.77
Goa Sponge and private limited	5.40	1.30	5.40	1.30
<b>Sub Total - Within State Generation</b>	<b>168.19</b>	<b>40.37</b>	<b>168.19</b>	<b>40.37</b>
<b>RPO</b>				
SECI Solar	49.43	28.87	46.44	26.40
NTPC Solar	132.42	62.90	13.80	7.85
Short Term Tender DEEP portal - Solar Power			180.01	93.04
SECI Wind (Non Solar)	296.60	103.81	202.46	55.14
Other STOA - Non Solar			60.46	32.00
Hindustan waste treatment plant Goa	2.00	1.10	1.93	1.00
Short Term Tender DEEP portal - Non Solar Power			63.87	33.80
Solar net Metering			6.05	-
Solar-REC		7.25		
Non Solar- REC		3.50		
<b>Sub Total - RPO</b>	<b>480.45</b>	<b>207.43</b>	<b>575.02</b>	<b>249.23</b>
<b>Traders</b>				
Open Market	384.39	149.91	258.14	100.67
<b>Sub Total – Open Market</b>	<b>384.39</b>	<b>149.91</b>	<b>258.14</b>	<b>100.67</b>
<b>New Stations</b>				
Kameng HEP	10.88	5.44	10.88	5.44
Lara STPP – I & II	49.89	24.95	49.89	24.95
Khargone STPP	80.19	40.10	80.19	40.10
Gadarwara STPP	99.31	49.65	78.01	28.70
<b>Sub Total - New stations</b>	<b>240.28</b>	<b>120.14</b>	<b>218.98</b>	<b>99.19</b>
<b>Transmission Charges</b>				
PGCIL Charges		201.03	-	200.98
<b>Total</b>	<b>4,669.66</b>	<b>1,678.28</b>	<b>4,673.95</b>	<b>1,661.83</b>

6.6.13 The Hon'ble Commission is kindly requested to approve the total power purchase cost of for FY 2020-21 as stated in the table above. The details of the Power Purchase Expenses for FY 2020-21 are provided in Format 4 of Tariff Filing Formats.

## 6.7 Operation and Maintenance (O&M Expenses)

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

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

6.7.2 As per Regulation 51 of JERC MYT regulations, 2018, licensee required to submit O&M expenses for the control period as a part of MYT tariff petition. O&M expense for the base year shall be approved by Hon'ble Commission taking in to 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.

6.7.3 The JERC MYT regulations, 2018 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.

*"51.4 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,*

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

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

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

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

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

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

*EMP<sub>n</sub> – Employee expenses of the Distribution Licensee for the nth Year;*

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

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

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

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

*Gn is a growth factor for the nth Year. Value of Gn shall be determined by the Commission for each Year in the Multi Year Tariff Order for meeting the additional manpower requirement based on Licensee’s filings, benchmarking, 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.*

6.7.4 Employee Cost: - In line with the Hon’ble Commission order dated 20<sup>th</sup> May 2019, EDG has adopted the same approach for projecting employee cost for FY 2020-21. EDG has computed the employee expenses for the base year FY 2018-19 based on the available audited data for FY 2013-14, FY 2014-15 & FY 2015-16 and average of the same is computed. The average value of employee expenses is considered as the employee expenses for FY 2014-15 (Median year). Further the determined employee expenses for FY 2014-15 is escalated y-o-y with CPI Inflation (4.22%) up to the base year of FY 2018-19. An impact of 7<sup>th</sup> pay Commission of Rs. 69.27 Crore has been added to the employee expenses of the base year FY 2018-19. Thereafter the resultant employee expenses has been escalated by growth rate and CPI Inflation to arrive at the employee expenses for FY 2020-21.

6.7.5 As per regulation 51 of JERC MYT Regulation, 2018, Gn factor is a growth factor which will be approved by Hon’ble Commission to meet the additional manpower requirement proposed for FY 2020-21. EDG submits that it has considered the Gn factor as (-) 1.85% for FY 2020-21.

6.7.6 As per regulation, CPI inflation of three preceding years to be considered. Hence EDG has considered average of CPI inflation for FY 2016-17 to FY 2018-19. Working of the same is provided as under:-

**Table 6-7: Calculation of CPI rate considered for Employee Cost projection**

Particulars	FY 16-17	FY 17-18	FY 18-19
<b>CPI based on Industrial Workers, All India</b>	275.92	284.42	300
YoY	4.12%	3.08%	5.45%
3 years average			4.22%

6.7.7 Computation of employee expenses for FY 2020-21 is as shown below:-

**Table 6-8: Calculation of Employee cost for FY 2020-21**

Particulars	FY 2018-19 Base Year	FY 2019-20 Rs. Crore	FY 2020-21 Rs. Crore
Employee Cost for nth-1 year (A)		310.81	318.72
Gn Factor (5 Yr CAGR) (B)		-1.61%	-1.85%
CPI Inflation (C)		4.22%	4.22%
<b>Employee Cost for nth year D=</b> <b>A*(1+B)*(1+C)</b>	<b>310.81</b>	<b>318.72</b>	<b>326.02</b>

6.7.8 Repairs and Maintenance Expense: - In line with JERC MYT regulations, 2018, R&M expense for FY 2020-21 is calculated considering FY 2018-19 as base year. FY 2018-19 average GFA considered to arrive with the stated formula.

6.7.9 As per JERC MYT regulations, 2018, average of preceding three years of WPI considered in above calculation of R&M expense. Hence EDG has considered average of WPI inflation for FY 2016-17 to FY 2018-19 and calculation of average rate of WPI of 2.98% is shown below.

**Table 6-9: Calculation of WPI rate considered for R&M expense projection**

Escalation rate working	FY 16-17	FY 17-18	FY 18-19
WPI based on Office of Economic Advisor, Gol	111.60	114.9	119.79
YoY	1.73%	2.96%	4.26%
<b>3 years average</b>			<b>2.98%</b>

6.7.10 K factor is calculated as the ratio of R&M over GFA for FY 2013-14, FY 2014-15 & FY 2015-16 as per the latest audited accounts, averaged for three years.

6.7.11 Calculation of R&M expense for FY 2020-21 is as shown in the table below: :-

**Table 6-10: Calculation of R&M Expense for FY 2020-21**

Particulars	Units	FY 2018-19 Base Year	FY 2019-20 Rs. Crore	FY 2020-21 Rs. Crore
Avg GFA for nth-1 year (A)	Rs. Crs		1461.50	1376.10
K Factor (R&M Cost /GFA ) (B)	%		2.54%	2.54%
WPI Inflation (C)	%		2.98%	2.98%
<b>R&amp;M Cost for nth year D= A*B*(1+C)</b>	<b>Rs. Crs</b>	<b>1461.50</b>	<b>38.16</b>	<b>35.93</b>

6.7.12 Administrative and General Expenses: - In line with JERC MYT regulations, 2018, A&G expense are projected as per formula stated in previous para. EDG has computed the

A&G expenses for the base year FY 2018-19 based on the available audited data for FY 2013-14, FY 2014-15 & FY 2015-16 and average of the same is computed. The average value of A&G expenses is considered as the A&G expenses for FY 2014-15 (Median year). Further the determined A&G expenses for FY 2014-15 is escalated y-o-y with CPI Inflation (4.22%) up to the base year of FY 2018-19. Thereafter the resultant A&G expenses has been escalated with growth rate and CPI Inflation to arrive at the A&G expenses for FY 2020-21.

6.7.13 Calculation of A&G expense for FY 2020-21 is as shown in the table below:

**Table 6-11: Calculation of A&G Expense for FY 2020-21**

Particulars	Units	FY 2018-19 Base Year	FY 2019-20 Rs. Crore	FY 2020-21 Rs. Crore
A&G Cost for nth-1 year (A)	Rs. Crs		26.05	27.15
CPI Inflation (b )	%		4.22%	4.22%
<b>A&amp;G Cost for nth year D= A*B*(1+C)</b>	<b>Rs. Crs</b>	<b>26.05</b>	<b>27.15</b>	<b>28.29</b>

## 6.8 Capital expenditure and Capitalisation

6.8.1 The JERC MYT Regulations, 2018 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) In case, during the annual performance review, the cumulative (starting from first Year of the Control Period up to the current Year ) actual capital expenditure incurred is less than 50% of the cumulative approved capital*

*expenditure, the Commission shall true-up the ARR elements relevant to actual capital expenditure in the current Year and remaining Years of the Control Period;*

*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 ex 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;*

*.....”*

6.8.2 EDG submits that the projected Capex and Capitalisation for FY 2020-21 is Rs. 1092.50 Crore and Rs.683.50 Crore respectively as against the approved Capex and Capitalisation of Rs. 330.43 Crore and Rs. 303.13 Crore vide the Hon’ble Commission order dated 20<sup>th</sup> May 2019.

6.8.3 Summary of the Capex and Capitalisation submitting for FY 2020-21 is tabulated as under:-

**Table 6-12: Capital Expenditure and Capitalization for FY 2020-21- Rs. Crore**

S.No.	Particulars	FY 2020-21
1	Capital Expenditure	1092.50
2	Capitalization	683.50

6.8.4 It is submitted that the scheme wise details of capital expenditure and capitalization for FY 2020-21 has also been provided in Format 5 of Tariff Filing Formats.

6.8.5 EDG further submits that, since depreciation, Interest on loan and return on equity is not allowable on the assets created through grants and electricity duty fund or any subsidy.

6.8.6 Following calculation of net GFA/Capitalisation after removal of grant and electricity

duty portion is as shown in the table below:

**Table 6-13: GFA and Capitalisation Details for FY 2020-21- Rs. Crore**

S.No.	Particulars	FY 2020-21
1	Additions to GFA	683.50
2	Less: 75% Grant Component of APDRP Part-B / IPDS scheme	26.25
3	Less: Schemes out of ED Fund	298.00
4	<b>Net Additions to GFA</b>	<b>359.25</b>

## 6.9 Depreciation

6.9.1 The JERC MYT Regulations, 2018 specifies the following provisions for projection of Depreciation.

### ***“30 Depreciation***

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

6.9.2 As stated in the above Regulation, EDG has arrived at fixed assets balance after reduction of accumulated depreciation as on 1<sup>st</sup> April 2019. The same block is carry forwards for existing assets and depreciation is charged as per new depreciation rate specified in the JERC MYT regulations 2018. Further, the assets which are newly commissioned or capitalised, for which depreciation is calculated at new rate mentioned in the Regulations.

6.9.3 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 arrived in the proportion of total GFA and GFA excluding grant and electricity duty fund.

6.9.4 In line with above, the following table shows the depreciation projected by EDG for FY 2020-21.

**Table 6-14: Depreciation for FY 2020-21- Rs. Crore**

Sr. No	Particulars	Approved in Order dated 20.05.2019	FY20-21 Estimated
1	Opening Gross Fixed Assets	2,217.00	1,038.44
2	Add: Capitalization approved/Estimated	303.14	683.50
3	Less: Capitalization through grants/ED	249.77	324.25
4	<b>Closing Gross Fixed Assets</b>	<b>2,270.36</b>	<b>1,397.69</b>
5	<b>Average Gross Fixed Assets excluding Grant/Electricity Duty contribution (A)</b>	<b>2,243.68</b>	<b>1,218.06</b>
6	<b>Total Average GFA (B)</b>		<b>1,566.73</b>
8	<b>Total Depreciation (C )</b>		<b>59.42</b>
9	<b>Depreciation twds GFA (Excl. Grant/ED/Consumer Contribution) (A/B*C)</b>	81.58	<b>46.19</b>
10	<b>Rate of Depreciation</b>	<b>3.64%</b>	<b>3.79%</b>

### 6.10 Interest on Loan:-

6.10.1 The JERC MYT Regulations, 2018 specifies the following provisions for projection of Interest on Loan.

#### ***“28 Interest on Loan***

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

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

*Provided further that in case of De-capitalisation or retirement or replacement of assets, the loan capital shall be reduced to the extent of outstanding loan component of the original cost of the de-capitalised or retired or replaced assets, based on documentary evidence. 28.2 The normative loan outstanding as on April 1, 2019, shall be worked out by deducting the cumulative repayment as admitted by the Commission up to March 31, 2018, from the gross normative loan.*

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

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

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

to the Transmission Licensee or the Distribution Licensee shall be considered as the rate of interest:

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

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

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

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

28.6 For new loans proposed for each Financial Year of the Control Period, interest rate shall be considered as lower of (i) one (1) Year State Bank of India (SBI) MCLR / any replacement thereof as notified by RBI for the time being in effect applicable for one (1) Year period, as may be applicable as on 1st April of the relevant Year plus 100 basis points, and (ii) weighted average rate of interest proposed by the Distribution Licensee. 28.7 The above interest computation shall exclude the interest on loan amount, normative or otherwise, to the extent of capital cost funded by consumer contribution, deposit work, capital subsidy or grant, carried out by Transmission Licensee or Distribution Licensee.

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

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

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

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

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

6.10.2 Based on the above Regulations, ED-Goa has calculated interest on Loan for FY 2020-21 in the following manner.

6.10.3 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 normative closing loan for FY 2019-20 is considered as the normative opening loan for FY 2020-21. Further during FY 2020-21, addition of 70% 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 2020-21. The rate of Interest for long term loan has been considered at the rate of 9.55% including 100 basis points as per one year SBI MCLR Interest rate applicable on the 1<sup>st</sup> April of the relevant year.

6.10.4 In line with above methodology, following is calculation of the normative interest on loan for FY 2020-21 is as shown in the below table:-

**Table 6-15: Normative Interest on Loan for FY 2020-21- Rs. Crore**

Sl.No.	Particulars	Approved in Order dated 20.05.2019	FY20-21 Revised Projection
1	Opening Normative Loan	1,138.90	215.69
2	Add: Normative Loan during the year/GFA during the year	37.35	251.48
3	Less: Normative Repayment for the year	81.58	46.19
<b>4</b>	<b>Closing Normative Loan</b>	<b>1,094.67</b>	<b>420.97</b>
5	Average Normative Loan	1,116.78	318.33
6	Rate of Interest	9.55%	9.55%
<b>7</b>	<b>Interest on Normative Loan</b>	<b>106.65</b>	<b>30.40</b>

6.10.5 The detailed calculation has been provided in Format 10 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.

## 6.11 Interest on Working Capital

6.11.1 The JERC MYT Regulations, 2018 specifies the following provisions for projection of Interest on Working Capital.

***“31 Interest on Working Capital***

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

*31.2 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.*

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

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

***52 Norms of Working Capital for Distribution Wires Business***

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

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

6.11.2 In line with above provisions stated in the JERC MYT Regulations, 2018. EDG has calculated the working capital requirement. The Interest rate considered to calculate the interest on Working Capital is equivalent to the 1 year SBI base Rate available as on 10<sup>th</sup> April 2019 for FY 2019-20 which is at 8.50% plus 200 basis points which works out to be 10.50%.

6.11.3 Interest on working capital loan for FY 2020-21 is as shown in the Table below:

**Table 6-16: Interest on working capital for FY 2020-21- Rs. Crore**

Sl.No.	Particulars	Approved in Order dated 20.05.2019	FY 20-21 Estimated
1	O&M Expense for 1 month	32.29	32.52
2	Maintenance spares at 40% of R&M expenses for one (1) month;	1.96	1.20
3	Receivables equivalent to two (2) months of the expected revenue from charges at the prevailing tariff	395.22	368.56
4	Less: Amount, held as security deposits	143.53	167.63
<b>5</b>	<b>Total Working Capital Requirement</b>	<b>285.95</b>	<b>234.65</b>
6	SBI MCLR Rate (%)	10.15%	10.50%
<b>7</b>	<b>Interest on Working Capital</b>	<b>29.02</b>	<b>24.64</b>

6.11.4 The detailed calculation has been provided in Format 18 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 2018.

## **6.12 Return on Equity**

6.12.1 The MYT Regulations, 2018 specifies the following provisions for projection of Return on Equity.

### **27 Return on Equity**

*27.1 Return on equity shall be computed on the paid up equity capital determined in accordance with Regulation 26 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.*

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

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

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

6.12.2 Further, provision of debt to equity ratio specified in the MYT regulation 2018 as under:-

### **"26 Debt to Equity Ratio**

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

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

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

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

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

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

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

*Provided also that the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment Provided further that the premium, if any, raised by the Licensee while issuing share capital and investment of internal resources created out of its free reserves, for the funding of the scheme, shall be reckoned as paid up capital for the purpose of computing return on equity, provided such premium amount and internal resources are actually 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.*

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

6.12.3 Opening equity for FY 2020-21 is taken as per closing normative equity for FY 2019-20 as 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.

6.12.4 The following table shows the calculation of return on equity for the control period.

**Table 6-17: Return on equity for FY 2020-21- Rs. Crore**

Sl.No.	Particulars	Approved in Order dated 20.05.2019	FY 20-21 Estimated
1	Opening Equity Amount	665.10	339.22
2	Equity Addition during year (30% of Capitalization)	16.01	107.78
3	Closing Equity Amount	681.11	446.99
4	<b>Average Equity Amount</b>	<b>673.11</b>	<b>393.11</b>
5	<b>Average Equity (Wires Business)</b>	<b>605.80</b>	<b>353.80</b>
6	<b>Average Equity (Retail Supply Business) Business)</b>	<b>67.31</b>	<b>39.31</b>
7	Return on Equity for Wires Business (%)	15.50%	15.50%
8	Return on Equity for Retail Supply Business (%)	16.00%	16.00%
9	Return on Equity for Wires Business	93.90	54.84
10	Return on Equity for Retail Supply Business	10.77	6.29
11	<b>Return on Equity</b>	<b>104.67</b>	<b>61.13</b>

6.12.5 The detailed calculation has been provided in Format 6 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.

### 6.13 Interest on Security Deposit

6.13.1 The opening security deposit for FY 2020-21 is considered from the closing balance of deposit arrived for FY 2019-20. Addition of consumer security deposit projected as per new consumer expected to connect during FY 2020-21. The interest rate considered is 6.25% as approved by the Hon'ble Commission in the MYT Order dated 20<sup>th</sup> May 2019.

6.13.2 The interest on security deposit for FY 2020-21 is as shown in the table below:

**Table 6-18: Interest on Security Deposit for FY 2020-21- Rs. Crore**

Sl.No.	Particulars	Approved in Order dated 20.05.2019	FY20-21 Revised Projection
1	Opening Security Deposit	123.87	148.83
2	Add: Deposit during the year	39.32	43.92
3	Less: Deposits refunded		6.32
4	Closing Security Deposit	163.19	186.43
5	<b>Average</b>	<b>143.53</b>	<b>167.63</b>
6	RBI Bank Rate	6.25%	6.25%
7	<b>Interest on Security Deposit</b>	<b>8.97</b>	<b>10.48</b>
8	<b>Interest on Security Deposit to be paid - To be claimed in ARR</b>		<b>13.99</b>

6.13.3 The detailed calculation has been provided in Format 18A 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.

#### **6.14 Non-Tariff Income**

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

##### ***“53 Non-Tariff Income***

*53.1 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.*

*53.2 The Non-Tariff Income shall inter-alia include:*

- a) Income from rent of land or buildings;*
- b) Income from sale of scrap;*
- c) Income from statutory investments;*
- d) 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 contractors 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.”*

6.14.2 The Non-tariff Income for the FY 2020-21 is as shown in the table below:

**Table 6-19: Non-Tariff Income for FY 2020-21- Rs. Crore**

Sl.No.	Particulars	Approved in Order dated 20.05.2019	FY20-21 Estimated
1	Non-Tariff Income	25.34	17.06

6.14.3 EDG request Hon'ble Commission to approve above mentioned Non-tariff income for FY 2020-21.

### 6.15 Aggregate Revenue Requirement

6.15.1 The Net Revenue Requirement derived for FY 2020-21 based on the expenses discussed in the previous sections as against the approved by the Hon'ble Commission vide its order dated 20<sup>th</sup> May 2019 as shown in the table below.

**Table 6-20: Net Aggregate Revenue Requirement for FY 2020-21- Rs. Crore**

Sl.No.	Particulars	Approved in Order dated 20.05.2019	FY20-21 Revised Projection
1	Cost of Power Purchase	1,678.28	1,661.83
2	Provision for RPO Compliance		
3	Employee Expenses	300.35	326.02
4	A&G Expenses	28.26	28.29
5	R&M Expenses	58.91	35.93
6	Depreciation	81.58	46.19
7	Interest on Loan	106.65	30.40
8	Interest on Consumer Security Deposit	8.97	13.99
9	Interest on Working Capital	29.02	24.64
10	Return on Equity	104.67	61.13
11	Provision for Bad Debt		
12	Provision for DSM Expenses		
13	<b>Total Revenue Requirement</b>	<b>2,396.69</b>	<b>2,228.43</b>
14	Less: Non-Tariff Income	25.34	17.06
15	<b>Net Revenue Requirement</b>	<b>2,371.35</b>	<b>2,211.37</b>

6.15.2 EDG request Hon'ble Commission to approve net Revenue requirement of Rs. 2211.37 Crore against Rs. 2371.35 Crore as approved by the Hon'ble Commission vide its order dated 20<sup>th</sup> May 2019.

### 6.16 Revenue from Sale of Power at Existing Tariff

6.16.1 EDG has considered same sales as approved in MYT Order dated 20<sup>th</sup> May 2019. However for Electric Vehicle charging station, EDG has considered sales based on the development being happened with regards to setting up of Electric Vehicle charging

stations in the State of Goa. The Revenue from sale of power at existing tariff rates approved by Hon'ble Commission in last tariff order dated 20<sup>th</sup> May 2019 for MYT control period is outlined below for assessing the Revenue gap / (surplus) for FY 2020-21.

**Table 6-21: Revenue from Sale of Power for FY 2020-21- Rs. Crore**

Sl.No.	Particulars	Approved in Order dated 20.05.2019		FY20-21 Estimated	
		Units (Mus)	Amt (Rs.Crore)	Units (Mus)	Amt (Rs.Crore)
<b>1</b>	<b>DOMESTIC</b>				
<b>i</b>	<b>LT-D Domestic</b>				
	0-100 units	85.48	19.09	113.96	23.24
	101-200 units	243.17	55.74	262.02	59.76
	201-300 units	191.99	56.11	222.76	64.47
	301-400 units	116.37	42.33	152.93	55.10
	Above 400 units	569.07	230.09	505.19	204.86
<b>ii</b>	<b>Low Income Group</b>	1.76	0.09	1.76	0.09
<b>iii</b>	<b>HT-D Domestic</b>	0.29	0.14	0.29	0.14
<b>2</b>	<b>COMMERCIAL</b>				
<b>i</b>	<b>LT-C Commercial</b>				
	0-100 units	33.95	14.94	94.48	36.03
	101-200 units	21.95	9.91	55.41	23.81
	201-400 units	31.76	16.83	67.79	32.20
	Above 400 units	404.32	213.61	318.52	165.36
	<b>HT-C Commercial</b>	119.05	87.27	127.11	91.96
<b>3</b>	<b>INDUSTRIAL</b>				
	<b>LT-I Industrial</b>				
	0-500 units	19.03	8.88	19.68	9.08
	Above 500 units	82.09	34.50	84.95	35.60
	Low Tension-Mixed/LT-P (Hotel Industries)	5.62	2.78	5.78	2.85
	<b>High Tension-I/HT-I</b>				
	Connected at 11/33 kV	1,275.63	694.69	1,335.76	752.15
	Connected at 110 kV	252.13	122.98	284.43	139.65
	High Tension-Ferro/SM/PI/SR	442.64	224.36	442.64	228.80
<b>4</b>	<b>AGRICULTURE</b>				
	Low Tension-AG/LT-AGP (Pump Sets/Irrigation)	17.03	3.21	17.37	3.28
	Low Tension-AG/LT-AGA (Allied Activities)	0.89	0.19	0.91	0.19
	High Tension-AG/HT-AGP (Pump Sets/Irrigation)	4.85	1.07	4.85	1.07
	High Tension-AG/HT-AG (Allied Activities)	4.52	0.95	4.52	0.95
<b>5</b>	<b>MILITARY ENGINEERING SERVICES/DEFENSE ESTABLISHMENTS</b>	27.01	14.98	27.07	15.02
<b>6</b>	<b>PUBLIC LIGHTING</b>	2.66	1.18	2.66	1.19
<b>7</b>	<b>HOARDINGS/SIGNBOARDS</b>	0.24	0.29	0.24	0.28
<b>8</b>	<b>TEMPORARY</b>				
	<b>LT</b>				
	LT Domestic	1.00	0.80	1.00	0.76
	LT Commercial	19.51	22.13	19.51	15.16
	<b>HT temporary</b>	0.30	0.34	0.30	0.41
<b>9</b>	<b>Single Point Supply</b>				
	Residential Complexes			0	0
	Commercial Complexes	5.46	3.48	5.46	3.48
	Industrial Complexes			-	-
<b>10</b>	<b>Electric Vehicle Charging Station</b>	-	-	4.04	1.76
	<b>TOTAL</b>	<b>3,979.76</b>	<b>1,882.97</b>	<b>4,183.39</b>	<b>1,968.69</b>

6.16.2 EDG hereby submits that the revenue as calculated above based on the existing tariff is without considering FPPCA Charges, as it is vary in nature, and consideration of FPPCA charges in revenue projection, may fluctuate drastically and it will have major deviation among projected and actual. Thus EDG submits that Revenue without FPPCA charges may be considered. Revenue from FPPCA charges may deal in the True up of respective financial year. In view of above, the Hon'ble Commission is requested to kindly allow Revenue at existing tariff as proposed above for FY 2020-21.

### 6.17 Revenue Gap for FY 2020-21

6.17.1 Based on the aggregate revenue requirement and revenue calculation based on the existing tariff, the revenue gap for the control period has been computed. The revenue gap for FY 2020-21 is as shown in the table below:

**Table 6-22: Revenue Gap for FY 2020-21 – Rs. Crore**

Sl.No.	Particulars	Approved in Order dated 20.05.2019	FY20-21 Revised Projection
1	Net Revenue Requirement	2,371.35	2,211.37
2	Revenue from Sale of Power at existing tariff		1,968.69
3	<b>Net Gap During the Year</b>		<b>242.68</b>

6.17.2 In view of above, the Hon'ble Commission is requested to kindly approve the revenue gap of Rs. 242.68 Crore for FY 2020-21 at existing tariff.

## CHAPTER 7. PROPOSAL TO MEET ARR AND REVENUE GAP OF FY 2020-21

### 7.1 Cumulative Revenue Gap of FY 2020-21

7.1.1 It is submitted that revenue gap for past years i.e. from FY 2016-17 to FY 2018-19 is not being claimed as the audited accounts are yet to be finalized. The same would be claimed once financial statements are ready and separate true-up petition would be filed before JERC or may be merged in subsequent tariff filing petitions. However, as per True up for FY 2015-16, revenue gap for FY 2015-16 is arrived at Rs.129.74 Crore. There were no proposal of meeting revenue gap for FY 2015-16 through budgetary support at the time of filing of ARR for FY 2015-16. Therefore revenue gap arrived as per True up submitted in this petition will carry forward. In view of this, cumulative Revenue gap to be claimed in FY 2020-21 is as shown below.

**Table 7-1: Cumulative Revenue gap to be claimed in FY 2020-21 (Rs. Crore)**

Particulars	True up	Approved	Approved	Approved	APR	Ensuing Year
	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21
Net ARR	1,500.61	1,694.13	1,845.32	1,952.54	2,132.94	2,211.37
Revenue from Existing Tariff	1,370.88	1,511.12	1,563.67	1,634.92	1,861.50	1,968.69
<b>Revenue Gap for the Year</b>	<b>129.74</b>	<b>183.02</b>	<b>281.65</b>	<b>317.62</b>	<b>271.44</b>	<b>242.68</b>
<b>Opening Balance of Gap</b>	-	<b>129.74</b>	<b>129.74</b>	<b>129.74</b>	<b>129.74</b>	<b>129.74</b>
<b>Total Cumulative Gap for years</b>	<b>129.74</b>	<b>312.75</b>	<b>411.39</b>	<b>447.36</b>	<b>401.18</b>	<b>372.41</b>
Less: Budgetary Support commitment provided	-	183.02	281.65	317.62	271.44	-
<b>Balance Gap to be recovered from FY 20-21</b>	<b>129.74</b>	<b>129.74</b>	<b>129.74</b>	<b>129.74</b>	<b>129.74</b>	<b>372.41</b>
Less: Budgetary Support from Government of Goa						296.78
<b>Additional revenue from Proposed Hike</b>						<b>75.63</b>
<b>Proposed Tariff hike from last year</b>						<b>3.84%</b>

7.1.2 EDG submits that the cumulative Revenue Gap till FY 2020-21 i.e. including revenue gap for FY 2015-16 based on true up exercise is to recover partially through tariff hike and partially through budgetary support from the Government of Goa. Following section deals with the meeting of cumulative revenue gap.

## CHAPTER 8. TARIFF PHILOSOPHY

### 8.1 Preamble

8.1.1 This section elucidates the proposed retail tariff and miscellaneous charges to be applicable for FY 2020-21. EDG prays the Hon'ble Commission to approve the proposed retail tariff for FY 2020-21 as proposed for different categories of consumers, applicable from 1<sup>st</sup> April 2020.

### 8.2 Tariff Design Principles

8.2.1 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 Hon'ble Commission, in this order too, may apply similar principles keeping in view the ground realities.

### 8.3 Philosophy of Tariff Design

8.3.1 EDG submits that gap of FY 2016-17 to FY 2019-20 to be addressed through budgetary support. However Cumulative revenue gap of Rs. 372.41 Crore till FY 2020-21 (including revenue gap of Rs.129.74 Crore for FY 2015-16) is to be met partially through Tariff hike and budgetary support.

8.3.2 Revenue Gap computed based on the existing tariff for FY 2020-21 is Rs. 242.68 Crore.

8.3.3 Partial revenue gap for FY 2020-21 has to be recovered through tariff hike and accordingly the incremental revenue over the existing tariff is Rs. 75.63 Crore. The net effective revenue gap for FY 2020-21 works out to be Rs. 167.04 Crore, which will be met through the budgetary support from Government of Goa. The Overall Tariff hike proposed is 3.84%

8.3.4 For FY 2020-21 EDG proposes non-telescopic billing approach for the following categories of the consumers as shown below:

- LT Domestic –All consumers whose consumption is more than 200 units shall lose the benefit of first two slab i.e. 0-100 and 101-200 units for the energy charges. Further total monthly consumption more than 200 units shall fall in the respective slab and accordingly applicable energy charges for that respective slab will be levied.
- LT Commercial – All consumers whose Consumption beyond 100 Units will lose

the benefit of first slab and the total consumption shall fall in the respective slab and accordingly applicable energy charge for the respective slab shall be levied.

- LT Industries – All consumers whose consumption beyond 500 units shall lose the benefit of first 500 units (0-500 units) for the energy charges. As a result consumption beyond 500 units shall fall in the 2<sup>nd</sup> slab i.e. above 500 units and accordingly energy charges applicable for the respective slab will be levied.

Explanation:

Under this Tariff structure the energy consumed is cumulatively billed at one uniform rate for the entire consumption depending on the slab rate in which the consumption falls. For example a consumer is billed @ Rs. X /unit for consumption range of 0-200 Units, if his consumption exceeds above 200 Units then the consumer will be billed @ Rs. Y /unit for his entire consumption, where Y is the rate applicable for consumption range above 200 Unit and  $Y > X$ .

8.3.5 Along with above proposed non-telescopic approach for categories of consumer where slab wise tariff is applicable, EDG proposed to meet partial revenue gap through tariff hike and balance gap to be met through budgetary support.

8.3.6 As per the tariff methodology and revised tariff proposed, the average Tariff hike of 3.84% arrived with incremental revenue of Rs. 75.63 Crore over the revenue as per existing approach and existing tariff. The standalone revenue gap after revised tariff will be Rs. 167.04 Crore for FY 2020-21. As a result, cumulative revenue gap (including revenue gap of Rs.129.74 of FY 2015-16) after considering revenue from revised tariff is arrived at Rs.296.78 Crore. Balance cumulative revenue gap of Rs.296.78 Crore shall be funded through the budgetary support. The Letter for Budgetary support from Government of Goa shall be submitted after issuance of the same by Government of Goa.

8.3.7 Also, EDG submits that pending finalization of audited accounts for relevant years under consideration, the revenue gap may be provisionally recognized by 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.

8.3.8 As stated above, EDG proposes revised retail tariff for FY 2020-21 is highlighted below:

**Table 8-1: Proposed Tariff Structure for FY 2020-21**

S. No.	Category	Existing Tariff		Proposed Tariff	
		Fixed Charges	Energy Charges (INR/kWh)	Fixed Charges	Energy Charges (INR/kWh)
<b>1</b>	<b>Domestic</b>				
<b>A</b>	<b>Low Tension-D/LT-D</b>				
	0-100 units	Single Phase INR 25/Con/Month Three Phase INR 60/Con/Month	1.40	Single Phase INR 25/Con/Month Three Phase INR 60/Con/Month	1.40
	101-200 units		2.10		2.10
	201 to 300 units		2.65		2.65
	301 to 400 units		3.45		3.45
	Above 400 units		4.00		4.00
<b>B</b>	<b>Low Tension-LIG/LT-LIG</b>	<b>INR 40/Con/Month</b>	-	<b>INR 40/Con/Month</b>	-
<b>C</b>	<b>High Tension-D/HT-D</b>				
	All Units	INR 100/kVA/Month	3.45	INR 100/kVA/Month	3.45
<b>2</b>	<b>Commercial</b>				
<b>A</b>	<b>Low Tension-C/LT-C</b>				
	0-100 units	For consumers with Load upto – INR 50/Con/Month For consumers with Load more than 20 kW and upto 90 kW- INR 55/kW/Month	3.40	For consumers with Load upto – INR 50/Con/Month For consumers with Load more than 20 kW and upto 90 kW- INR 55/kW/Month	3.50
	101-200 units		4.10		4.20
	201 units- 400 units		4.60		4.70
	Above 400 units		5.00		5.10
<b>B</b>	<b>High Tension-C/HT-C</b>				
	All Units	INR 250/kVA/month	5.50	INR 250/kVA/month	5.60
<b>3</b>	<b>Industrial</b>				
<b>A</b>	<b>Low Tension-I/LT-I</b>				
	0-500 units	INR 35/HP/Month	3.30	INR 35/HP/Month	3.40
	Above 500 units	INR 35/HP/Month	3.80	INR 35/HP/Month	3.90
<b>B</b>	<b>Low Tension-Mixed/LT-P (Hotel Industries)</b>				
	All Units	INR 40/kW/Month	4.70	INR 40/kW/Month	4.80
<b>C</b>	<b>High Tension-I/HT-I</b>				
	Connected at 11/33 kV	INR 250/kVA/Month	4.50	INR 250/kVA/Month	4.60
	Connected at 110 kV	INR 250/kVA/Month	4.40	INR 250/kVA/Month	4.50
<b>D</b>	<b>High Tension- Ferro/SM/ PI/ SR</b>				
	All Units	INR 250/kVA/Month	4.50	INR 250/kVA/Month	4.60
<b>4</b>	<b>Agricultural</b>				
<b>A</b>	<b>Low Tension-AG/LT-AGP (Pump Sets/Irrigation)</b>				
	All Units	INR 15/HP/Month	1.40	INR 15/HP/Month	1.40
<b>B</b>	<b>Low Tension-AG/LT-AGA (Allied</b>				

S. No.	Category	Existing Tariff		Proposed Tariff	
		Fixed Charges	Energy Charges (INR/kWh)	Fixed Charges	Energy Charges (INR/kWh)
	<b>Activities)</b>				
	All Units	INR 20/HP/Month	1.70	INR 20/HP/Month	1.70
<b>C</b>	<b>High Tension-AG/HT-AGP (Pump Sets/Irrigation)</b>				
	All Units	INR 35/kVA/Month	1.50	INR 35/kVA/Month	1.50
<b>D</b>	<b>High Tension-AG/HT-AG (Allied Activities)</b>				
	All Units	INR 60/kVA/Month	1.90	INR 60/kVA/Month	1.90
<b>5</b>	<b>Military Engineering Services/defense Establishments</b>				
	All Units	INR 175/kVA/Month	5.00	INR 175/kVA/Month	5.10
<b>6</b>	<b>Public Lighting</b>				
	All Units	INR 50/kW/Month	4.10	INR 50/kW/Month	4.20
<b>7</b>	<b>Hoardings/Signboards</b>				
	All Units	INR 60/kVA/Month	9.90	INR 60/kVA/Month	10.00
<b>8</b>	<b>Temporary Supply</b>				
	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. For multi activity pursuit, applicable Tariff for temporary connection shall be with reference to that of commercial category for permanent supply.		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.	
	LT Temporary Commercial				
	HT Temporary				
<b>9</b>	<b>Single Point Supply</b>				
<b>A</b>	Residential Complexes	INR 100 per kVA per month or part thereof	3.45	INR 100 per kVA per month or part thereof	3.55
<b>B</b>	Commercial Complexes	INR 200 per kVA per month or part thereof	4.60	INR 200 per kVA per month or part thereof	4.70
<b>C</b>	Industrial Complexes	INR 200 per kVA per month or part thereof	4.20	INR 200 per kVA per month or part thereof	4.30
<b>10</b>	<b>Electric Vehicle Charging Station</b>	<b>INR 100/kVA/Month</b>	<b>4.20</b>	<b>INR 100/kVA/Month</b>	<b>4.20</b>

8.3.9 EDG has propose a tariff hike of 3.84% for FY 2020-21.

#### **8.4 Tariff Rationalisation**

8.4.1 EDG proposed no change in the applicability of the clause and general terms and condition.

#### **8.5 General Conditions and Definitions**

- 1) These tariffs are proposed to be made applicable from 1st April 2020 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.
- 2) 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.
- 3) Unless otherwise agreed to, these tariffs for power supply are applicable for supply at one point only.
- 4) Unless specifically stated to the contrary the figures of energy charges relate to rupee per unit (kWh) charge for energy consumed and fixed charge relates to a month.
- 5) 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.
- 6) 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.
- 7) 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.
- 8) 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.

- 9) 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

**10) Billing of Demand in excess of Contracted Demand :**

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.

The definition of the maximum demand would be in accordance with the provisions of the JERC (Electricity Supply Code) Regulations, 2010. If such over-drawl is more than 20% of the contracted demand then the connection shall be disconnected immediately.

**Explanation:**

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 X 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, excess demand and consumption will be billed at the rate of Rs 500 per kVA per month and Rs 9.00/kWh respectively. Connections drawing more than 120 kVA shall be disconnected immediately.

**8.6 Miscellaneous and General Charges**

**8.6.1 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 dated 20<sup>th</sup> May 2019 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.goaelectricity.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.

### 8.6.2 Electricity Duty

The Electricity 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 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/>

### 8.6.3 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 )

### 8.6.4 Power Factor Penalty

(Applicable for all HT categories and LT categories wherever approved by Commission)

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% (0.9 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).

EDG proposes that of 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.

#### 8.6.5 Power Factor Incentive

(Applicable for all HT categories and LT categories wherever approved by Commission)

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.

#### 8.6.6 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. 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.

#### 8.6.7 Delayed Payment Charges (DPC):

In case the electricity bills are not paid within the due date mentioned on the bill, delayed payment charges of two percent (2%) (Computed on daily basis on outstanding bill from the due date till 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 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 after giving 15 days' notice as per provision of the Electricity Act 2003 and Supply Code Regulations 2018.

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.

#### 8.6.8 Time of Day tariff (ToD):

- i) 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.
- ii) 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

- iii) Applicability and Terms and Conditions of TOD tariff:
  - a) TOD tariff is mandatory for HT/EHT consumers and shall be optional for LT industrial and commercial consumers.
  - b) 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.
  - c) The HT/EHT industrial consumers who have installed standby generating plants shall also be eligible for the aforesaid TOD tariff
    - In the event of applicability of TOD tariff to a consumer, all other terms and conditions of the applicable tariff shall continue to apply.

## 8.7 Schedule of Miscellaneous Charges

8.7.1 There is no change proposed in the schedule of Miscellaneous charges for FY 2020-21 and are proposed to be retained as approved by the Hon'ble Commission vide its order dated 20<sup>th</sup> May 2019.

**Table 8-2: Schedule of Miscellaneous Charges**

Description	Miscellaneous Charges
<b>Monthly Meter Rental Charges(as per provisions (Electricity Supply Code) Regulations 2018)</b>	
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
Temporary Supply	Shall be twice as applicable in above meter types
Changing or moving a Meter board	Actual Cost + 15%
<b>Note:</b>	
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)	
<b>Reconnection Charges(as per provisions (Electricity Supply Code) Regulations 2018)</b>	
<b>LT Services – At Cut outs</b>	
· Single Phase	Rs 25/-
· Three Phase	Rs 50/-
<b>LT Services – At Overhead Mains</b>	
· Single Phase	Rs 30/-
· Three Phase	Rs 50/-
<b>LT Services – At Underground Mains</b>	
· Single Phase	Rs 75/-
· Three Phase	Rs 125/-
<b>HT Services</b>	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>	
<b>Re-Rating of Installations</b>	
Lighting Installation	Rs. 50/-
Motive Power Installation	Rs. 100/-
HT	Rs. 500/-

Description	Miscellaneous Charges
<b>Testing Fee for Various Metering Equipment's (as per provisions (Electricity Supply Code) Regulations 2018)</b>	
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
3 – Ø Phase Tri-vector Meter Industrial LT Consumer	Rs 1000/- for laboratory testing
3 – Ø Phase Tri-vector Meter 11 KV and 33kV HT Consumer	Rs 5000/- at site
Three Phase Tri-Vector Meter 110 KV EHT Consumers	Rs 1000/-at site
Combined CTPT Unit for 11kV and 33kV Consumer	Rs 2500/-
110KV CT / PT Unit	Rs 10000/-
Single Phase CT	Rs 150/ unit
Three Phase TT Block	Rs 500/unit
Distribution Transformer Testing (HT con.)	Rs 6,000
Power Transformer Testing ( EHT consumer)	Rs 20,000
<b>Service Connection Charges (as per provisions (Electricity Supply Code) Regulations 2018)</b>	
Single Phase 1 φ	Rs 250
<b>Three Phase 3 φ</b>	
up to 5 HP	Rs 500
5 HP to 20 HP	Rs 800
Above 20 HP	Rs 1,200
HT (First 500 KVA) – New	Rs 10,000
HT (Beyond 500 KVA) - New	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 (if in case of only conversion of line, 50% of these charges shall be applicable)
Extra Length for 1 φ for agricultural consumers (beyond 300 meters)	Rs 25 /meter (if in case of only conversion of line, 50% of these charges shall be applicable)
Extra Length for 3 φ (beyond 30 meters)	Rs 100 /meter (if in case of only conversion of line, 50% of these charges shall be applicable)

Description	Miscellaneous Charges
Extra Length for 3 $\phi$ for agricultural consumers (beyond 300 meters)	Rs 50 /meter (if in case of only conversion of line, 50% of these charges shall be applicable)
Underground Service Cable	Actual charges +15%
Shunt Capacitor- 20 kW to 50 kW	Rs 2000
Shunt Capacitor- above 50kW	Rs 5000
<b>Testing Consumer's installation (as per provisions (Electricity Supply Code) Regulations 2018)</b>	
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
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 4000 + ST
• LS/BS/RT (loads Above 70kW)	Rs 8000 + ST
Shunt Capacitor- 20 kW to 50 kW	Rs 1000 + GST
Shunt Capacitor- above 50kW	Rs 4000 + GST
<b>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 (Electricity Supply Code) Regulations 2018)</b>	
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 + ST
<b>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</b>	
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/-
<b>Service Charges</b>	
General Supply	
• Single Phase	Rs 10/-
• Three phase below 70kW	Rs 20/-
• Three phase above 70kW	Rs 50/-
Industrial/bulk/ agriculture /Street Lightning Supply	

Description	Miscellaneous Charges
• Upto70kW	Rs 25/-
• Above 70kW	Rs 50/-
<b>Replacement of broken glass</b>	
Replacement of broken glass of meter cupboard (When there is default on Consumer Side)	Rs 50/-
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/-
<b>Supply of duplicate copies of electricity bills</b>	
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
<b>Stand by meter</b>	
HT	Rs. 10,000
EHT	Rs. 20,000
<b>Check Meter</b>	
HT	Rs. 10,000
EHT	Rs. 20,000
<b>Load enhancement</b>	Actual Cost + 15% Supervision Charges
<b>system strengthening charges or capacity building charges,</b>	Actual Cost + 15% Supervision Charges
<b>Advance for Temporary Connections</b>	
• 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>	
<b>Non-Refundable Registration-cum-processing fees</b>	As per Supply code Regulations notified by JERC

8.7.2 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 Rs.25 / metre for single phase and Rs.50/ meter for Three phase as approved under Schedule of General and Miscellaneous Charges.

## CHAPTER 9. TARIFF SCHEDULE

This section highlights the proposed tariff schedule.

### 9.1 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

#### 9.1.1 LT 1(A): Tariff LTD/Domestic

Existing Applicability Clause	Point of Supply/Notes	Proposed Applicability Clause
<p>This schedule shall apply to private residential houses, government residential quarters, charitable institutions or educational institutions aided by State / Central Board, colleges aided by Goa University and 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>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 Rs1000/-.</p>	<p>No change Proposed</p>

I. **Tariff**

Consumption Slab	Basis of Fixed charge	Existing and Proposed Tariff for FY 2020-21	
		Fixed Charges	Energy Charges (Rs. KWh)
0-100 units	Rs/Conn/ Month - Single Phase	25	1.40
101-200 units		25	2.10
201 to 300 units	Rs/Conn/ Month - Three Phase	60	2.65
301 to 400 units		60	3.45
Above 400 units		60	4.00

9.1.2 LT 1(B): Tariff LTLIG/Low Income Group

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 0.1 kW (primarily 2 points with 2 x 40 watts) and who consume up to 30 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 30 units per month, the entire consumption would be billed at the rate of LTD-/Domestic for that particular month.	No change Proposed

I. Tariff:

Consumption Slab	Basis of Fixed charge	Existing and Proposed Tariff for FY 2020-21	
		Fixed Charges	Energy Charges (Rs/kWh)
Consumption up to 30 Units P.m.	Rs/Conn/ Month	40	-

**Note:** The applicability of the Low Income Group category will be assessed at the end of each month and in case the consumption exceeds above 30 units per month then entire such consumption would be billed at the rate of LTD-/Domestic for that particular month.

9.1.3 LT II: LTC/Commercial

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"> <li>• Houses with rent back facilities</li> <li>• Government hospitals</li> <li>• Professionals not covered in domestic category.</li> <li>• Commercial Complexes and Business premises, including Shopping malls/show rooms, offices / shops;</li> <li>• 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;</li> <li>• Offices including Government Offices, Commercial Establishments;</li> </ul>	<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>No change Proposed</p>

I. Tariff

	Basis of Fixed charge	Existing Tariff for FY 2019-20		Proposed Tariff for FY 2020-21	
Consumption Slab		Fixed Charges	Energy Charges (Rs/kWh)	Fixed Charges	Energy Charges (Rs/kWh)
1-100 Units	Rs/Conn/ Month	0-20 kW- Rs.50/Conn/Month Above 20kW-90 kW Rs. 55/KW/month	3.40	0-20 kW- Rs.50/Conn/Month Above 20kW-90 kW Rs. 55/KW/month	3.50
101-200 units			4.10		4.20
201-400 Units			4.60		4.70
Above 400 units			5.00		5.10

9.1.4 LT III: LTI/Industry

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"> <li>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.</li> <li>Ice Factories, Ice Cream Manufacturing units/ Plants, Dairy Testing Process, Milk Dairies, Milk Processing/ Chilling Plants (Dairy) etc;</li> <li>Engineering workshops, Engineering Goods Manufacturing units, Printing Presses, Transformer repairing Workshops, Tyre retreading units, Motive Power Loads etc;</li> <li>Mining, Quarry and Stone Crushing units etc;</li> </ul>	<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>No changes Proposed</p>

Existing Applicability Clause	Point of Supply/Notes	Proposed Applicability Clause
<ul style="list-style-type: none"> <li>Garment Manufacturing units,</li> <li>LPG/ CNG Bottling plants etc;</li> <li>Sewage Water Treatment Plants/ Common Effluent Treatment Plants owned, operated and managed by Industrial Associations and situated within industrial area.</li> <li>Pumping of water for public water supply, Sewage Treatment Plants, activities related with public water Supply Schemes and Sewage Pumping Stations.</li> <li>Use of electricity / power supply for activities/ facilities exclusively meant for employees of the industry within the premises of the Industry.</li> <li>IT Industry, IT parks etc.</li> </ul>		

I. Tariff:

Consumption Slab	Basis of Fixed charge	Existing Tariff for FY 2019-20		Proposed Tariff for FY 2020-21	
		Fixed Charges	Energy Charges (Rs/kWh)	Fixed Charges	Energy Charges (Rs/kWh)
0-500 Units	Rs/HP/ Month	35	3.30	35	3.40
Above 500 units	Rs/HP/ Month	35	3.80	35	3.90

9.1.5 LT IV: LTP Mixed (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	No changes proposed

Existing Applicability Clause	Point of Supply/Notes	Proposed Applicability Clause
	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.	

I. Tariff:

Consumption Slab	Basis of Fixed charge	Existing Tariff for FY 2019-20		Proposed Tariff for FY 2020-21	
		Fixed Charges	Energy Charges (Rs/kWh)	Fixed Charges	Energy Charges (Rs/kWh)
Total consumption	Rs/kW/ Month	40	4.70	40	4.80

9.1.6 LT V: LTAG/Agriculture and other Allied Activities

a. LT-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.	No changes Proposed

Existing Applicability Clause	Point of Supply/Notes	Proposed Applicability Clause
	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.	

I. Tariff

Consumption Slab	Basis of Fixed charge	Existing and Proposed Tariff for FY 2020-21	
		Fixed Charges	Energy Charges (Rs/kWh)
Total consumption	Rs/HP/ Month	15	1.40

b. LT-Agriculture Allied Activities (B)

Existing Applicability Clause	Point of Supply/Notes	Proposed Applicability Clause
This schedule shall apply to establishments for other allied activities related to Agriculture and shall include but not limited to: <ul style="list-style-type: none"> <li>Poultry farms, Livestock farms, Combination of livestock farms with dairy, Piggery etc</li> <li>Horticulture, Green Houses, Plantations, all types of nurseries etc.</li> </ul>	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	No changes Proposed

Existing Applicability Clause	Point of Supply/Notes	Proposed Applicability Clause
<ul style="list-style-type: none"> <li>Fish farms including ornamental fish farms, prawn farms, other aqua farms etc</li> <li>Tissue culture, Mushroom activities, Aquaculture, Floriculture, Fisheries, Sericulture, Floricultural nurseries, hatcheries etc</li> <li>Any other agricultural activity not falling under HT-Agriculture (A) shall be covered under this category</li> </ul>	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

Consumption Slab	Basis of Fixed charge	Existing Tariff for FY 2019-20		Proposed Tariff for FY 2020-21	
		Fixed Charges	Energy Charges (Rs/kWh)	Fixed Charges	Energy Charges (Rs/kWh)
Total consumption	Rs/HP/ Month	20	1.70	20	1.80

9.1.7 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"> <li>Market Places, Roads, Pathways and Parking Lighting belonging to local authorities such as Municipality/ Panchayats/ Government;</li> </ul>		No changes Proposed

Existing Applicability Clause	Point of Supply/Notes	Proposed Applicability Clause
<ul style="list-style-type: none"> <li>• Lighting in Public Gardens;</li> <li>• Traffic Signals and Traffic Islands;</li> <li>• State Transport Bus Shelters;</li> <li>• Public Sanitary Conveniences; and</li> <li>• Public Water Fountains and such other Public Places open for general public free of charge.</li> <li>• Street lighting in the colony of a factory which is situated separately from the main factory.</li> <li>• This shall also be applicable to public lighting of Government/ Semi Government Establishments but shall not be applicable in case of private establishments.</li> </ul>		

I. Tariff

	Basis of Fixed charge	Existing Tariff for FY 2019-20		Proposed Tariff for FY 2020-21	
Consumption Slab		Fixed Charges	Energy Charges (Rs/kWh)	Fixed Charges	Energy Charges (Rs/kWh)
Total consumption	Rs/kW/ Month	50	4.10	50	4.20

9.1.8 Hoarding & Sign Boards

Existing Applicability Clause	Point of Supply/Notes	Proposed Applicability Clause

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 changes Proposed

I. Tariff

Consumption Slab	Basis of Fixed charge	Existing Tariff for FY 2019-20		Proposed Tariff for FY 2020-21	
		Fixed Charges	Energy Charges (Rs/kWh)	Fixed Charges	Energy Charges (Rs/kWh)
Total consumption	Rs/kVA/ Month	60	9.90	60	10.00

9.1.9 LT VIII: LTTS/ Temporary Supply

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"> <li>i The Temporary connection shall be released through a proper meter.</li> <li>ii 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.</li> </ul>	No changes Proposed

I. Tariff

	Existing and Proposed Tariff for FY 2020-21	
Category	Fixed Charges	Energy Charges (Rs/kWh)
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.	

**9.2 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.

9.2.1 HT VI: HTD/Domestic

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.		No changes proposed

I. Tariff

Consumption Slab	Basis of Fixed charge	Existing Tariff for FY 2019-20		Proposed Tariff for FY 2020-21	
		Fixed Charges	Energy Charges (Rs/kWh)	Fixed Charges	Energy Charges (Rs/kWh)
Total consumption	Rs/kVA/ Month	100	3.45	100	3.55

9.2.2 HT I: HTI / Industrial

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"> <li>II. Bulk Supply of power at 11 KV, 33 kV /110 KV and above for industries, factories and other industrial purposes.</li> <li>III. Bulk supply of power at 11 KV and above for educational institutions owned or aided by Government, non-industrial establishments,</li> <li>IV. Industrial units engaged in Ice Manufacturing Units;</li> <li>V. Hotels with lodging and boarding facilities etc</li> <li>VI. Use of electricity / power supply by an</li> </ul>		No changes proposed

Existing Applicability Clause	Point of Supply/Notes	Proposed Applicability Clause
establishment such as IT Industries, IT Parks, IT Units VII. Pumping of water, public water supply, public water treatment plant, activities related with Supply Schemes and Sewage Treatment Plants, Sewage Pumping Stations etc		

I. Tariff

Consumption Slab	Basis of Fixed charge	Existing Tariff for FY 2019-20		Proposed Tariff for FY 2020-21	
		Fixed Charges	Energy Charges (Rs/kWh)	Fixed Charges	Energy Charges (Rs/kWh)
11/33 kV	Rs/kVA/ Month	250	4.50	250	4.60
110 kV	Rs/kVA/ Month	250	4.40	250	4.50

9.2.3 HT IV - 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 changes Proposed

I. Tariff

	Basis of Fixed charge	Existing Tariff for FY 2019-20	Proposed Tariff for FY 2020-21

Consumption Slab		Fixed Charges	Energy Charges (Rs/kWh)	Fixed Charges	Energy Charges (Rs/kWh)
Total Consumption	Rs/kVA/ Month	250	4.50	250	4.60

9.2.4 HT III: HTC/ Commercial

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> <ol style="list-style-type: none"> <li>1. Marriage Halls (including halls attached to religious places), Hotels /Restaurants (without boarding facilities), Ice-cream parlours, Bakeries, Coffee Shops, private educational institutions, 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, Beauty Parlours and Saloons, dry cleaners etc</li> <li>2. 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;</li> <li>3. Banks, Telephone Exchanges, TV Station, Micro Wave Stations, All India Radio (AIR) Stations, ATM Centres etc;</li> <li>4. For common facilities, like Water Pumping / Street Lighting / Lifts / Fire Fighting Pumps / Premises (Security) Lighting, etc. in Commercial Complexes;</li> <li>5. Sports Clubs, Health Clubs, Gymnasium, Swimming Pools;</li> <li>6. Research and Development units situated outside Industrial premises;</li> <li>7. Airports, Railways, Railway Stations, Bus stands of KTC etc;</li> </ol>	<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>No changes Proposed</p>

Existing Applicability Clause	Point of Supply/Notes	Proposed Applicability Clause

a. Tariff

	Basis of Fixed charge	Existing Tariff for FY 2019-20		Proposed Tariff for FY 2020-21	
Consumption Slab		Fixed Charges	Energy Charges (Rs/kWh)	Fixed Charges	Energy Charges (Rs/kWh)
Total Consumption	<i>Rs/kVA/ Month</i>	250	5.50	250	5.60

9.2.5 HT II: 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 changes Proposed

I. Tariff

	Basis of Fixed charge	Existing Tariff for FY 2019-20		Proposed Tariff for FY 2020-21	
Consumption Slab		Fixed Charges	Energy Charges (Rs/kWh)	Fixed Charges	Energy Charges (Rs/kWh)
Total Consumption	<i>Rs/kVA/ Month</i>	175	5.00	175	5.10

9.2.6 HT V: HTAG / 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.	No changes Proposed

**II. Tariff**

Consumption Slab	Basis of Fixed charge	Existing and Proposed Tariff for FY 2020-21	
		Fixed Charges	Energy Charges (Rs/kWh)
Total Consumption	Rs/kVA/ Month	35	1.50

**b. HT-Agriculture Allied Activities (B)**

Existing Applicability Clause	Point of Supply/Notes	Proposed Applicability Clause
This schedule shall apply to establishments for other allied activities related to Agriculture and shall include but not limited to:  I. Poultry farms, Livestock farms, Combination of livestock farms with dairy, Piggery etc	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	No changes Proposed

Existing Applicability Clause	Point of Supply/Notes	Proposed Applicability Clause
II. Horticulture, Green Houses, Plantations, all types of nurseries etc. III. Fish farms including ornamental fish farms, prawn farms, other aqua farms etc IV. Tissue culture, Mushroom activities, Aquaculture, Floriculture, Fisheries, Sericulture, Floricultural nurseries, hatcheries etc V. Any other agricultural activity not falling under HT-Agriculture (A) shall be covered under this category	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.	

II. Tariff

Consumption Slab	Basis of Fixed charge	Existing Tariff for FY 2019-20		Proposed Tariff for FY 2020-21	
		Fixed Charges	Energy Charges (Rs/kWh)	Fixed Charges	Energy Charges (Rs/kWh)
Total Consumption	Rs/kVA/ Month	60	1.90	60	2.10

9.2.7 HT VII: HTTS/ Temporary Supply

Existing Applicability Clause	Point of Supply/Notes	Proposed Applicability Clause
This schedule shall apply to usage of electricity for all temporary purposes.	i The temporary connection shall be released through a proper meter ii 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 changes Proposed

I. Tariff

	Existing and Proposed Tariff for FY 2020-21	
Category	Fixed Charges	Energy Charges (Rs/kWh)
HT 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.	

9.2.8 HT VIII: HT SPS Single Point Supply

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 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.	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. The following shall be the different combinations for SPS in a defined area: i. All LT consumer mix area ii. All HT consumer mix area iii. HT+LT consumer mix area a. The General Conditions, Miscellaneous and General Charges would also be applicable for all SPS categories. b. 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. c. 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.	No changes Proposed

Existing Applicability Clause	Point of Supply/Notes	Proposed Applicability Clause
	<p>d. 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>e. The complete cost of erection and O&amp;M for the sub-transmission and distribution infrastructure within such complex would need to be borne by the said SPS applicant.</p> <p>f. 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>g. 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 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>h. Individual Domestic HT consumers in a residential complex that opt for SPS shall need to apply separately under HT Domestic category.</p> <p>i. The SPS applicant shall not charge tariff to the downstream consumers higher than stipulated.</p>	

Existing Applicability Clause	Point of Supply/Notes	Proposed Applicability Clause
	<p>j. 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&amp;M expenses, such applicant would be eligible to get rebates from ED-Goa on full bill payment, within the due time:</p> <ul style="list-style-type: none"> <li>i 5% on the overall billed amount in all cases of LT and HT consumers</li> <li>ii Any other loss would be to the account of the applicant.</li> </ul> <p>k. 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 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>l. 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>	

I. Tariff

The SPS applicant shall pay to EDG the tariff as mentioned below, corresponding to the demand<sup>1</sup> and the input energy at the HT end of such supply:

	Basis of Fixed charge	Existing Tariff for FY 2019-20		Proposed Tariff for FY 2020-21	
Consumption Slab		Fixed Charges	Energy Charges (Rs/kWh)	Fixed Charges	Energy Charges (Rs/kWh)
Residential Complexes	Rs/kVA/ Month or part thereof	100	3.45	100	3.55

Commercial Complexes	Rs/kVA/ Month or part thereof	200	4.60	200	4.70
Industrial Complexes	Rs/kVA/ Month or part thereof	200	4.20	200	4.30

### 9.3 Electric Vehicle Charging Station

Existing Applicability Clause	Point of Supply/Notes	Proposed Applicability Clause
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, Gol and Central Electricity Authority (CEA) from time to time. The tariff for domestic consumption shall be applicable for domestic charging (LT/HT)	-	No changes Proposed

#### a) Tariff

Consumption Slab	Basis of Fixed charge	Existing and Proposed Tariff for FY 2020-21	
		Fixed Charges	Energy Charges (Rs/kWh)
Total Consumption	Rs. KVA/Month	100	4.20

## CHAPTER 10. SEGREGATION OF WHEELING AND SUPPLY BUSINESS

### 10.1 Allocation Policy

10.1.1 EDG submits the bifurcation of all expenses between the functions of wheeling business (wire business) and retail supply business based on the regulation 48 of the MYT Regulations, 2018 and accordingly allocation matrix approved by the Hon'ble Commission in the Tariff Order dated 20<sup>th</sup> May 2019. The summary of the allocation statement and the segregation of ARR into wheeling and retail supply business is given in the table below:

**Table 10-1: Allocation Statement Wheeling and Retail Supply for FY 2020-21**

Sr. No.	Item of expense	Wheeling Business	Retail Supply Business	Wheeling Business	Retail Supply Business	Total
		%	%	FY 2020-21		
1	Cost of power purchase	0%	100%	-	1,661.83	1,661.83
2	Provision for RPO Compliance	0%	100%	-	-	-
3	Employee costs	40%	60%	130.41	195.61	326.02
4	R&M expenses	90%	10%	32.34	3.59	35.93
5	Administration and General expenses	50%	50%	14.15	14.15	28.29
6	Depreciation	90%	10%	41.57	4.62	46.19
7	Interest & Financial charges	90%	10%	27.36	3.04	30.40
8	Interest on Working Capital	10%	90%	2.46	22.17	24.64
9	Return on NFA /Equity	90%	10%	55.02	6.11	61.13
10	Provision for Bad Debt	0%	100%	-	-	-
11	Provision for DSM Expenses	0%	100%	-	-	-
12	Interest on Consumer Security Deposit	10%	90%	1.40	12.59	13.99
13	<b>Total Revenue Requirement</b>			<b>304.71</b>	<b>1,923.72</b>	<b>2,228.43</b>
14	Less: Non Tariff Income	10%	90%	1.71	15.35	17.06
15	<b>Net Revenue Requirement (13-14)</b>			<b>303.00</b>	<b>1,908.37</b>	<b>2,211.37</b>

10.1.2 The Hon'ble Commission is requested to approve the segregation of ARR into wheeling & retail supply business for FY 2020-21 as per above table.

## OPEN ACCESS CHARGES FOR FY 2020-21

### 11.1 Approach for computation of open access charges

11.1.1 EDG submits that as per Regulation 67.2 and 67.3 of JERC MYT Regulations, 2018 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.

11.1.2 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 of FY 2019-20.

11.1.3 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 2019-20.

- Wheeling Loss at HT & EHT Level - 3.64% (balance losses attributable to LT Level)

### 11.2 Computation of Wheeling Charge and losses

11.2.1 Based on above mentioned and the projections for Sales and Wheeling ARR for FY 2020-21, the wheeling charges for HT/EHT & LT are determined.

11.2.2 In line with methodology, adopted by Hon'ble Commission in tariff order for FY 2019-20 to determine wheeling charges and losses, EDG has calculated wheeling charges for LT and HT/EHT level. As per segregated ARR, out of total wheeling cost, O&M cost and other cost is separate out, O&M cost is allocated between LT and HT/EHT level based on number of consumers, whereas other cost allocated between LT and HT/EHT level as per assets allocation ratio. Parameters assumed for allocation of wheeling cost at LT and HT/EHT level as given below:-

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

Category	Consumers	Asset Allocation (%)	Sales (MU)	Cumulative Voltage wise Losses (%)	Energy Input
Low Tension (LT) Level	674759	60.00%	1,946.92	17.26%	2,353.00
High Tension (HT)/ Extra High Tension(EHT) Level	1205	40.00%	2,236.47	3.64%	2,320.95
Total	675964	100.00%	4,183.39	10.50%	4,673.95

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

**Table 11-2: Wheeling Charge for FY 2020-21**

Category	O&M Expense Rs.Crore	Other Expense Rs.Crore	Total Rs.Crore	Sales (MU)	Wheeling Charges (Rs/kWh)
Low Tension (LT) Level	176.74	101.06	277.80	1,946.92	1.43
High Tension (HT)/ Extra High Tension(EHT) Level	0.16	25.05	25.21	2,236.47	0.11
<b>Total</b>			<b>303.00</b>	<b>4,183.39</b>	

11.2.4 Therefore, EDG requests the Hon’ble Commission to approve wheeling charge for HT/EHT category as Rs. 0.11 /kWh and for LT category as Rs. 1.43 /kWh for FY 2020-21.

### 11.3 Computation of additional Surcharge for FY 2020-21

11.3.1 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:*

*Provided that such additional surcharge shall not be levied in case Open Access is provided to a person who has established a captive generation plant for carrying the electricity to the destination of his own use.”*

*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”*

11.3.2 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.]”

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

**Table 11-3: Additional Surcharge for FY 2020-21**

Particulars	FY 2020-21
Total Power Purchase cost (Rs. Crore)	1,661.83
Fixed Cost component in Power Purchase Cost (excluding Transmission Charges) (Rs. Crore)	333.38
Energy Sales (MU)	4,183.39
<b>Additional Surcharge (Rs/kWh)</b>	<b>0.80</b>

11.3.4 EDG request Hon’ble Commission to approve additional surcharge of Rs.0.80/kWh as determined in above table.

#### **11.4 Computation of Cross Subsidy Surcharge for FY 2020-21**

11.4.1 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.

11.4.2 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.

11.4.3 However, calculation of Cross subsidy surcharge is calculated in this chapter as per methodology adopted by Hon'ble Commission in last tariff order for FY 2019-20

11.4.4 Voltage wise losses for HT/EHT is considered at 3.64%. In order to maintain the Intra-State T&D losses at 10.50% for FY 2020-21 as approved in the MYT order dated 20<sup>th</sup> May 2019, losses at LT level is considered 17.28% as approved in last tariff order. The T&D loss for FY 2019-20 & FY 2020-21 approved in above mentioned order were 10.75% and 10.50% respectively.

11.4.5 Voltage wise losses assumed for the calculation of Cross-subsidy surcharge is provided as below:

**Table 11-4: Voltage wise losses assumed for FY 2020-21**

Category	Voltage Level Loss (%)	Cumulative Losses upto that voltage level (%)
Low Tension (LT) Level	14.64%	17.26%
High Tension (HT)/ Extra High Tension(EHT) Level	3.64%	3.64%
<b>Total</b>	<b>10.50%</b>	<b>10.50%</b>

11.4.6 Voltage wise energy sales based on Sales approved by Hon'ble Commission for FY 2020-21 in MYT order, accordingly level wise calculation of energy input considering above voltage wise losses is arrived at as under:-

**Table 11-5: Voltage wise Energy Input for FY 2020-21**

Category	Energy Sales (MU)	Cumulative Losses (%)	Energy Input (MU)
Low Tension (LT) Level	1,946.92	17.26%	2,353.00
High Tension (HT)/ Extra High Tension(EHT) Level	2,236.47	3.64%	2,320.95
<b>Total</b>	<b>4,183.39</b>	<b>10.50%</b>	<b>4,673.95</b>

11.4.7 Overall ARR arrived for FY 2020-21 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.

11.4.8 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:

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

**Table 11-6: Parameters used for allocation of fixed costs for FY 2020-21**

Category	Energy Input (MU)	Voltage wise Asset Allocation (%)	Number of Consumers
Low Tension (LT) Level	2,353.00	60.00%	6,74,759
High Tension (HT)/ Extra High Tension(EHT) Level	2,320.95	40.00%	1,205
<b>Total</b>	<b>4,673.95</b>	<b>100.00%</b>	<b>6,75,964</b>

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

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

**Table 11-7: Voltage Wise Cost of Supply (VCoS) for FY 2020-21**

Category	Allocated Fixed Cost (Rs. Crore)	Allocated Variable Cost (Rs.Crore)	Total Cost (Rs. Crore)	Energy Sales (MU)	VCoS (INR/kwh)
Low Tension (LT) Level	685.39	668.78	1,354.17	1,946.92	6.96
High Tension (HT)/ Extra High Tension(EHT) Level	197.53	659.67	857.20	2,236.47	3.83
<b>Total</b>			<b>2,211.37</b>	<b>4,183.39</b>	

11.4.11 As per above VCoS calculated and applicable level wise ABR level, following is the Cross-subsidy surcharge for FY 2020-21.

**Table 11-8: Cross-Subsidy Surcharge for FY 2020-21**

Category	VCoS (Rs/kWh)	ABR (Rs/kWh)	Cross- Subsidy (Rs/kWh)
Low Tension (LT) Level	6.96	4.04	-
High Tension (HT)/ Extra High Tension(EHT) Level	3.83	5.62	1.79

11.4.12 Therefore, EDG requests the Hon'ble Commission to approve the cross subsidy surcharge of Rs. 1.79/kWh for HT and EHT consumers in FY 2020-21.

## CHAPTER 12. COMPLIANCE OF DIRECTIONS

The Hon'ble Commission in its Tariff Order for FY 2019-20 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:

### Status of Compliance of Directives issued in tariff order dated 20<sup>th</sup> May 2019

Sr. No.	Directives	Hon'ble Commission's Comments on directive in the Tariff Order dated 20 <sup>th</sup> May 2019	Compliance by the Electricity Department Goa
1	Annual Statement of Accounts	The Commission has undertaken the True-up for the FY 2014-15 in this Order, even though in normal course and as per the provisions of Tariff Regulations 2009 and MYT Regulations, 2014, the True-up upto FY 2017-18 should have been done in this Order.	The Audit for Financial Year 2015-16 is completed & CAG Certificate is awaited, the same will be submitted on or before Public Hearing. Further, the data collection for Financial Year 2016-17 to 2018-19 is completed & the process of finalisation of Account shall be completed before the next Tariff Petition.
2	Preparation of Fixed Asset Register	The Commission has noted with serious concern that the Petitioner is yet to submit the Fixed Asset Register upto FY 2017-18. The Petitioner is directed expedite the process and submit the FAR upto FY 2018-19 along with the next tariff petition. The Petitioner is required to ensure that the FAR submitted in the next petition should provide the details (nature and value) of assets depreciated upto 90% in the relevant year.	FAR for FY 2017-18 and 2018-19 are prepared and finalized and the same are attached as <b>Annexure 2</b> .
3	Energy Audit Reports	The Commission has noted with serious concern that the Petitioner is yet to submit the Energy Audit Reports for previous years despite repeated directions	EDG submits that report on Energy Audit for the whole Department shall submitted along with next tariff petition.
4	Employee Cost / Manpower study	The Commission has noted with serious concern that the Petitioner is yet to submit a systematic manpower study report with a specific focus on manpower rationalization. The Commission directs the Petitioner to finalise the draft report and submit the same for the decision of the State	The Government has decided to conduct comprehensive work study to workout requirement of manpower in consultation with the department of administrative reforms and by application of yardstick adopted by various electricity Distribution Companies of neighbouring states.

Sr. No.	Directives	Hon'ble Commission's Comments on directive in the Tariff Order dated 20 <sup>th</sup> May 2019	Compliance by the Electricity Department Goa
		Govt. with the next quarterly progress report	
5	Interest on Consumer Security Deposit	The Commission observes that while the Petitioner has undertaken some efforts towards compliance of this directive, a substantial payment is yet to be credited to the consumers. The Commission is of the view that adequate time has already been given to the Petitioner. The Commission directs the Petitioner to ensure payment of interest on security deposit upto FY 2018-19 latest by 31st August 2019 in accordance with the MYT Regulations, 2018.	EDG has paid Interest on Consumer Security deposit till FY 2017-18. Disbursement of Interest on consumer Security Deposit for FY 2018-19 shall be completed by 31 <sup>st</sup> March 20.
6	Sub Divisions as Strategic Business Units	The Commission has noted the submission of the Petitioner. The Commission directs the Petitioner to submit the report of this pilot project along with the sub-division wise status report of readiness of all the sub-divisions towards introduction of the system of Cost-Revenue Centre Oriented Sub Divisions within 3 months of issuance of this Order.	Division 3 and Sub Division I (Verna) under Division 14 is selected as a Pilot project. Based on the data collected, EDG has computed Individual ARR for these respective Division/Sub Division. Details of the ARR Computed is attached in <b>Annexure 4</b>
7	Installation of Pre Paid Meters	The Commission directs the Petitioner to expedite the process of installation of prepaid meters and submit a compliance report along with the filing of the next tariff petition.	Technical specifications for the said meters have been frozen. Department is in the process of obtaining market rate approval. Once market rate approval is obtained, the tender will be floated for the procurement of said meters.
8	Unbundling of Electricity Department	The Commission directs the Petitioner to submit the proposal to the State Govt. by June 30th 2019. Till such time a decision is taken by the State Govt. ring fencing of the transmission functions should be initiated. Further, it is directed that the Petitioner should increase its efforts towards making the State Load Dispatch Center (SLDC) fully operational.	<ul style="list-style-type: none"> <li>• ED-Goa submits that there is no directives from the state Government yet for the unbundling of ED-Goa.</li> <li>• Necessary manpower for full operationalization of SLDC is arranged and SLDC will be made fully operational from 5<sup>th</sup> December' 19.</li> </ul>
9	Renewable	The Commission has noted the	Action plan for fulfilment for RPO has

Sr. No.	Directives	Hon'ble Commission's Comments on directive in the Tariff Order dated 20 <sup>th</sup> May 2019	Compliance by the Electricity Department Goa
	Purchase Obligation	submission of the Petitioner. The Solar policy may be utilized for increasing the solar installations in the State. More efforts should be made to purchase physical power instead of REC's	been made and RPO will be fulfilled as per target set by JERC.
10	Billing and Collection Efficiency	The Commission notes with serious concern that the billing and collection efficiency in the State is very low. The Commission in the MYT Order had approved the collection efficiency of 100% for FY 2018-19 and T&D loss level of 10.75%. The Commission directs the Petitioner to take all necessary actions on priority so as to resolve all the issues pertaining to billing and collection and report the status along with next Tariff Filing.	<ul style="list-style-type: none"> <li>• EDG-Goa has taken actions on priority to increase billing efficiency by doing monthly billing</li> <li>• Arrears from Government department which not get settled is one of the reason for lower Collection efficiency. In view of the same, necessary transfer entries are being passed in order to settle the dues from Government connections. The same shall help to improve the collection efficiency.</li> </ul>
11	Creation of SLDC	A time bound Action Plan for fully operationalizing the SLDC may be drawn up. This shall facilitate the efficient power procurement. Further it shall also help in safeguarding the interests of EDG once Open access is operationalized besides facilitating the open access. The Petitioner is directed to streamline the SLDC operations and strengthen the manpower.	EDG submits that SLDC will be made fully operational from 5th December'19
12	kVAh based tariff	The Commission believes that the data submitted by the Petitioner is not reliable of the previous years due to change in billing agencies. However, the Petitioner in the tariff proceedings has submitted that the billing system has been put in place and reliable data would be available in the coming period. The Petitioner is directed to submit a proposal for kVA/kVAh based tariff for all HT/EHT categories along with the next tariff petition.	EDG has extracted billing data of HT and EHT consumers for FY 2016-17, FY 2017-18 and FY 2018-19 and worked out the financial impact of KVAh Vs KWh billing. The said data is attached as <b>Annexure 5</b> for Hon'ble Commission's perusal. Based on Hon'ble Commission's direction considering above data being submitted in <b>Annexure 5</b> , EDG shall submit the proposal of KVAh tariff for HT and EHT consumers along with next Tariff Petition.
13	Capital Investment	The Commission has observed that EDG is lacking in data/ information	This directive were given by Hon'ble Commission in Tariff Order dated

Sr. No.	Directives	Hon'ble Commission's Comments on directive in the Tariff Order dated 20 <sup>th</sup> May 2019	Compliance by the Electricity Department Goa
	Plan and Monitoring (Directive from Tariff Order dated 06.04.2015)	pertaining to progress of the schemes. Hence, the Commission directed EDG to engage a Project Monitoring Consultants (PMC) for all projects costing more than Rs. 5 crores.	06.04.2015. EDG has been complying this directives so far. However EDG submits that, EDG has sufficient experience in carrying out works departmentally and EDG is competent to take up all LT Distributions and Sub transmission works of 11 KV and 33KV without PMC. However EDG will need to continue to appoint PMC for special works/services such as: a) Design and Erection of EHV Sub-stations and Transmission Lines b) GIS (Gas Insulated Sub-Stations) c) IT (Information Technology) related projects d) Any other specialized works which have not been carried out by EDG earlier. In view of the above, EDG request Hon'ble Commission to exempt EDG from appointing Project Management Consultant (PMC) for certain selected projects above Rs.5 Crore.

***New Directives issued in Tariff Order for FY 2019-20***

1	Determination of Category wise/ Voltage wise Cost of supply	The Petitioner is hereby directed to submit a proposal for category wise cost of supply along with the Tariff Petition for the next year. The Petitioner in this regard is directed to start collecting category wise and voltage wise data on losses, connected load, asset allocation etc. for prudent determination of the cost of supply.	Considering the time required to complete the Energy Audit of whole Electricity Department. EDG submits that extension for submission of a proposal for category wise cost of supply be granted. EDG will submit the proposal of category wise cost of supply on completion of Energy Audit for the whole department.
2	Submission of Petition for True up of FY 2015-16, FY 2016-17, FY 2017-18 and FY 2018-19 and APR of FY 2019-20	The Petitioner is hereby directed to submit the true-up petition along with the audited accounts for FY 2015-16 within two months of issuance of this order. Further the Petitioner is directed to submit the petition on true-up from FY 2016-17 to FY 2018-19 along with the APR of FY 2019-20 based on reliable data by 30th November 2019.	The Audit for Financial Year 2015-16 is completed & CAG Certificate is awaited, the same will be submitted on or before Public Hearing. Further, the data collection for Financial Year 2016-17 to 2018-19 is completed & the process of finalisation of Account shall be completed before the next Tariff Petition.

## **CHAPTER 13. PRAYER'S TO THE COMMISSION**

### **13.1 Prayer to the Hon'ble Commission**

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

- a) Accept and admit the petition for True-up of FY 2015-16, Provisional APR for FY 2019-20 Revision of ARR and Tariff Determination for FY 2020-21 which is in line with the principles laid by Joint Electricity Regulatory Commission contained in MYT Regulations 2018, MYT Regulations 2014 and Tariff Regulations 2009;
- b) Approve the total recovery and revenue gap of Final True up of FY 2015-16, APR for FY 2019-20 and Aggregate Revenue Requirement for FY 2020-21
- c) Approve the proposed cumulative Revenue Gap till FY 2020-21 amounting to Rs. **372.41 Crore** (including revenue gap of Rs.129.74 Crore for FY 2015-16) on provisional basis and the revenue gap as may be approved by the Hon'ble Commission during the process of finalising tariff petition is proposed to be met partially through tariff hike and through the Budgetary support by Govt. of Goa.
- d) To consider the Tariff Design Philosophy and approve the proposed changes in Tariff Schedule for FY 2020-21.
- e) Approve the Expected Revenue from existing tariff for FY 2020-21 and the cumulative gap till FY 2020-21.
- f) Pass suitable orders with respect to True-up of FY 2015-16, APR for FY 2019-20 and Tariff Determination for FY 2020-21 for the expenses to be incurred by EDG for serving its consumers;
- g) To allow cost related to past interest on security deposit into ARR of FY 2020-21.
- h) Grant approval for the schedule of tariff, charges for services and schedule of miscellaneous charges as made in the petition for FY 2020-21.
- i) Grant any other relief as the Hon'ble Commission may consider appropriate.
- j) 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.
- k) 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.

- l) 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.

## **ANNEXURES**

**Annexure 1: Tariff Formats**

**Annexure 2: Fixed Assets Register for FY 2017-18 and FY 2018-19**

**Annexure 3: Audited Accounts of Electricity Department, Goa for FY 2015-16**

**Annexure 4: Data related to Division III and Sub Division I (Verna O&M) Under Division 14 for FY 2017-18 and FY 2018-19**

**Annexure 5: Data related to KVAh reading, power factor etc. for FY 2016-17, FY 2017-18 and FY 2018-19**