

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

**PETITION**  
**FOR**  
**APPROVAL OF**  
**TRUE-UP FOR FY 2014-15, ANNUAL PERFORMANCE REVIEW OF FY 2018-19, TARIFF**  
**DETERMINATION FOR FY 2019-20 AND DETERMINATION OF AGGREGATE REVENUE**  
**REQUIREMENT FOR MYT CONTROL PERIOD FY 2019-20 TO FY 2021-22**

**BY**



**ELECTRICITY DEPARTMENT**  
*Government of GOA*

**NOVEMBER 2018**



**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 2014-15, APR for FY 2018-19, Tariff Determination proposal for FY 2019-20 and Aggregate Revenue Requirement of MYT Control period FY 2019-20 to FY 2021-22 for the Electricity Department of Goa under Section 45, 46, 61, 62, 64 and 86 of the Electricity Act, 2003 and Regulation 9 of JERC (Generation, Transmission and Distribution Multi Year Tariff) Regulations, 2018.

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 **59** 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 2014-15, APR for FY 2018-19, Tariff Determination proposal for FY 2019-20 and Aggregate Revenue Requirement of MYT Control period FY 2019-20 to FY 2021-22 for the Electricity Department of Goa under Section 45, 46, 61, 62, 64 and 86 of the Electricity Act, 2003, and Regulation 9 of MYT Regulations, 2018.

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

**Advocate**

Solemnly affirmed before me on this **30th day of November 2018** 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**

Filing No.....

Case No.....

IN THE MATTER OF: Petition for approval of True-up of FY 2014-15, APR for FY 2018-19, Tariff Determination proposal for FY 2019-20 and determination of Aggregate revenue requirement of MYT Control Period FY 2019-20 to FY 2021-22 for the Electricity Department of Goa under Section 45, 46, 61, 62, 64 and 86 of the Electricity Act, 2003 and Regulation 9 of JERC (Generation, Transmission and Distribution Multi Year Tariff) Regulations, 2018.

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 2014-15, APR FOR FY 2018-19, TARIFF DETERMINATION PROPOSAL FOR FY 2019-20 AND DETERMINATION OF AGGREGATE REVENUE REQUIREMENT OF MYT CONTROL PERIOD FY 2019-20 TO FY 2021-22 UNDER SECTION 45, 46, 61, 62, 64 AND 86 OF THE ELECTRICITY ACT, 2003 AND (GENERATION, TRANSMISSION AND DISTRIBUTION MULTI YEAR TARIFF) REGULATIONS, 2018 FOR ELECTRICITY DEPARTMENT OF GOA (HEREIN AFTER REFERRED TO AS "EDG")

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 (ARR) / Multi-year Tariff (MYT) Petition 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 2014-15 based on the principles outlined in the Tariff Regulations 2009, APR for FY 2018-19 based on the

principles outlined in the Tariff Regulations 2014 and Tariff Determination proposal for FY 2019-20 based on the principles outlined in the 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 2019-20 is attached to this petition as **Annexure 2**.
5. EDG prays to the Hon'ble Commission to admit the attached petition for True-up of FY 2014-15, APR for FY 2018-19, Tariff Determination proposal for FY 2019-20 and determination of Aggregate revenue requirement of MYT control period FY 2019-20 to FY 2021-22 and would like to submit that:

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. Broadly, in formulating the APR for FY 2018-19, the principles specified by the Joint Electricity Regulatory Commission in Multi Year Distribution Tariff (MYT) Regulations, 2014 has been considered as the basis.
- C. Formulating Aggregate Revenue Requirement for the control period of FY 2019-20 to FY 2021-22 based on the principles specified by MYT Regulations 2018 and as per Business Plan Order approved dated 16<sup>th</sup> November 2018.
- D. In order to align the thoughts and principles behind the ARR/MYT 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 2014-15 as per Tariff Regulations 2009, APR for FY 2018-19 as per Tariff Regulations 2014, Tariff Determination for FY 2019-20 and ARR determination of MYT Control period FY 2019-20 to FY 2021-22 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 2014-15, Annual Performance Review for FY 2018-19 and Aggregate Revenue Requirement of MYT

Control Period FY 2019-20 to FY 2021-22.

- c) Approve the proposed cumulative Revenue Gap till FY 2019-20 amounting to Rs. **308.33 Crores** 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 from the budgetary support by Govt. of Goa as per letter dated 29<sup>th</sup> November 2018 attached to this petition as **Annexure 2**
- 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 2019-20.
- e) Approve the revenue at existing tariff for FY 2019-20 and the consolidated gap till FY 2019-20.
- f) Pass suitable orders with respect to True-up of FY 2014-15, APR for FY 2018-19 and Tariff Determination for 2019-20 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 2019-20.
- h) Grant approval for the schedule of tariff, charges for services and schedule of charges as made in the petition for FY 2019-20.
- 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: \_\_\_ November 2018

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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	ABT	Availability Based Tariff
4	ACoS	Average Cost of Supply/ Service
5	AMI	Automated Metering Infrastructure
6	AMR	Automatic Meter Reading
7	APR	Annual Performance review
8	ARR	Aggregate Revenue Requirement
9	CAG	Comptroller and Auditor General
10	CAGR	Compound Annual Growth Rate
11	CAPEX	Capital Expenditure
12	CEA	Central Electricity Authority
13	CERC	Central Electricity Regulatory Commission
14	CGS	Central Generating Station
15	CUF	Capacity Utilization Factor
16	CWIP	Capital work in progress
17	DELP	DSM based Efficient Lighting Programme
18	Discom	Distribution Companies
19	DSM	Demand Side Management
20	EA Act	The Electricity Act 2003
21	EC	Energy Charges
22	ED	Electricity Duty
23	EDG	Electricity Department, Government of Goa
24	EHT	Extra High Tension
25	FC	Fixed Charges
26	FOR	Forum of Regulators
27	FPPCA	fuel and power purchase cost adjustment
28	FY	Financial Year
29	GFA	Gross Fixed Assets
30	GoI	Government of India
31	GST	Goods and Services Tax
32	HT	High Tension
33	IPDS	Integrated Power Development Scheme
34	IPP	Independent Power Producer
35	JERC	Joint Electricity Regulatory Commission
36	KV	Kilo Volt
37	kVA	Kilo Volt Ampere
38	kVAh	Kilo Volt Ampere Hour
39	kW	Kilo Watt
40	kWh	Kilo Watt Hour

<b>S. No</b>	<b>Abbreviations</b>	<b>Descriptions</b>
41	LGBR	Load Generation Balance Report
42	LT	Low Tension
43	MNRE	Ministry of New and Renewable Energy
44	MOD	Merit Order Despatch
45	MoP	Ministry of Power
46	MOU	Memorandum of Understanding
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	NTP	National Tariff Policy
54	NTPC	National Thermal Power Corporation
55	NVVNL	NTPC Vidyut Vyapar Nigam Limited
56	O&M	Operation & Maintenance
57	PGCIL	Power Grid Corporation of India
58	PLR	Prime Lending Rate
59	POC	Point of Connection
60	PPA	Power Purchase Agreement
61	PV	Photo voltaic
62	R&M	Repair and Maintenance
63	R-ADPRP	Restructured Accelerated Power Development and Reforms
64	R-APDRP	Restructured Accelerated Power Development and Reforms Programme
65	REC	Renewable Energy Certificate
66	ROE	Return on Equity
67	RPO	Renewable Purchase Obligation
68	Rs	Rupees
69	SBI	State Bank of India
70	SECI	Solar Energy Corporation of India
71	SLDC	State Load Dispatch Centre
72	T&D	Transmission and Distribution
73	TOD	Time of Day
74	UI	Unscheduled Interchange Charges
75	VCoS	Voltage Wise Cost of Supply
76	w.e.f	With effect from
77	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 14-15 as per the provisions of the Tariff Regulations, 2009 and APR of FY 2018-19, tariff Proposal for FY 2019-20 and determination of Aggregate Revenue Requirement (ARR) of MYT Control period FY 2019-20 to FY 2021-22.

### **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 6.19 Lacs consumers with an annual



energy consumption of approx 3500 MUs. The Consumers of the Electricity Department of Goa are classified as under:

- Domestic (31% of consumption)
- Commercial (15% of consumption)
- Industrial (51% of consumption)
- Agriculture (1% of consumption)
- Temporary (5% of consumption)
- Defence Establishments (1% of consumption)

1.2.5 The peak demand of Goa during FY 2017-18 was around 644 MW and peak demand recorded till August 18 is 657 MW (in April 18) As per CEA LGBR report, for FY 2017-18, the Energy Deficit and the peak deficit 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 575 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 the audit of the accounts for FY 14-15 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 for FY 15-16 are completed and audit will be initiated now. True-up petition for FY 15-16 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 2016-17 and FY 2017-18 are yet to be prepared and therefore EDG submits that in the current petition, the figures (if any) used for the FY 2015-16, FY 2016-17 and FY 2017-18 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 2018-19, for H1 provisional actual figures and for H2, projected figures have been considered, along with revised estimates of FY 2018-19 approved by Commission in the Business Plan. 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 the MYT control period FY 2019-20 to FY 2021-22, ARR has been projected considering the figures approved in Business Plan order for MYT control period FY 2019-20 to FY 2021-22 issued by Hon'ble commission on 16<sup>th</sup> November 2018.

## **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 (Multi Year Distribution Tariff) Regulations, 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 2014-15**

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 the finalisation of audited accounts for FY 2014-15 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 2014-15. The said audited accounts are enclosed as **Annexure 3** of this Petition.

### **2.2 Truing up for FY 2015-16, FY 2016-17 and FY 2017-18**

2.2.1 EDG submits that preparation of accounts of FY 2015-16 are completed and the same shall be submitted for CAG audit soon. For FY 2016-17, it is in process of finalisation of audited accounts of FY 2016-17. 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 2015-16, FY 2016-17 and FY 2017-18 are as per the approved figures by the Commission for the respective years..

### **2.3 Annual Performance Review FY 2018-19**

2.3.1 EDG is filing this Annual Performance Review petition for the year FY 2018-19 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 consideration the revised estimates approved by the Commission for the base year FY 2018-19 in the Business Plan.

### **2.4 Determination of MYT Tariff for FY 2019-20 to FY 2021-22**

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. 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 ARR and revenue for FY 2019-20 to FY 2021-22 and effectively

revenue gap for MYT control period.

## **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 2014-15
- d) Section 4 contains Tur-up for FY 2015-16, FY 2016-17 and FY 2017-18
- e) Section 6 contains Annual Performance Review of FY 2018-19
- f) Section 7 contains ARR for MYT Control period FY 2019-20 to FY 2021-22
- g) Section 8 contains Treatment of Revenue Gap
- h) Section 9 contains Tariff Determination for FY 2019-20
- i) Section 10 contains Tariff Proposal
- j) Section 11 contains determination of charges related to Open Access
- k) Section 12 contains EDG’s compliance to Commission’s Directives
- l) Section 13 contains EDG’s prayers to the Hon’ble Commission

## **CHAPTER 3. TRUING UP OF FY 2014-15**

### **3.1 Preamble**

3.1.1 This section outlines the performance of Goa Electricity Department (EDG) for FY 2014-15. EDG submits that the Hon'ble Joint Electricity Regulatory Commission after undertaking a thorough analysis had issued the APR Order for Financial Year 2014-15 on 6<sup>th</sup> April 2015. In the Order issued by JERC for Determination of Tariff for FY 2018-19 on 28<sup>th</sup> March 2018, the Hon'ble Commission has directed that the true up till FY 2016-17 should have been done. However, it is submitted that due to unavoidable circumstances, EDG is submitting True-up of FY 2014-15 only and therefore request the Hon'ble Commission to condone the delay of submission of True up till FY 2017-18. Submission of true up for FY 2015-16 to FY 2017-18 shall be submitted once accounts are prepared and audited.

3.1.2 Accordingly, the final truing up of FY 2014-15 is submitted by comparing actual audited figures for the year with those approved by Hon'ble Commission for FY 2014-15 vide APR order dated 6th April 2015. The Audited balance sheet for FY 2014-15 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 2014-15 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 2014-15 are 3,440 MU's. The category wise actual and approved sales for FY 2014-15 are shown in the table below.

**Table 3-1: Energy Sales (MUs) for FY 2014-15**

Sr.No	Category of Consumer	FY 14-15	
		Approved by Commission	Actuals
	<b>A. LOW TENSION SUPPLY</b>	<b>1,266</b>	<b>1,396</b>
1	(a) LTD/Domestic	728	905
	(b) LTD/L.I.G.	2	9
	(c) LTD Domestic Mixed	7	9
2	LTC/Commercial	268	311
3	(a) LTP/Motive Power	179	86
	(b) LTP Mixed (Hotel Industries)	5	6
	(c) LTP Ice Manufacturing	8	9
4	LTAG/Agriculture	25	20
5	(a) LTPL ( Public lighting )	40	36
6	LTPWW/Public Water works	6	5
	<b>B. HIGH TENSION SUPPLY</b>	<b>1,810</b>	<b>2,027</b>
7	HT ( Mixed )	134	144
8	HTI (Industrial) Ferro Metallurgical/ Steel	565	743
9	HTI Industrial	607	586
10	HTAG ( Agriculture )	6	6
11	EHTI ( Industrial )	175	174
12	HT P.W.W. & Sewage system	137	138
13	HT. M.E.'s Defence Estt.	27	26
14	HTI ( Steel Rolling )	-	61
15	HTI / IT High Tech	21	32
16	HTI/Ice Manufacturing	2	1
17	Sale from EDG to GSPL (Div. VII)		8
18	HTI Hotel Industry	137	106
	<b>C. TEMPORARY SUPPLY</b>	<b>38</b>	<b>17</b>
19	(a) L.T. Temporary	38	17
	(b) H.T. Temporary	-	0
	(C) Hoardings/Signboards		0
	<b>Total</b>	<b>3,114</b>	<b>3,440</b>

3.2.2 It is requested to Hon'ble Commission to approve the actual sales of FY 2014-15 as stated in the table above.

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

3.3.1 EDG submits that actual 12.16% and 7.33% as the Intra State T&D Loss and Inter State Loss respectively for FY 2014-15 as compared to that approved by Hon'ble Commission at 11.5% and 5.28% respectively for power procured through generating stations in western region and southern region. It is submitted to the Hon'ble Commission that there is a reduction in the distribution loss as compared to the approved distribution

losses in APR order of FY 2014-15. Therefore, it is requested to approve the actual T&D Loss level mentioned in this para.

3.3.2 EDG while computing Energy balance for entire FY 2014-15 has considered actual of UI overdrawal/ under drawal, purchase of traders, sale to exchange etc.

**Table 3-2: Energy Balance for FY 2014-15**

Sr. No.	Item	FY 14-15 Approved (MUs)	FY 14-15 Audited (MUs)
1	<b>Energy Input at Goa Periphery</b>	3,729	3,770
2	<b>Total Power Scheduled/ Purchased at Goa Periphery</b>		
	Total Schedule Billed Drawal - CGS	3,337	3,404
	Add: Overdrawal	100	146
	Add: Purchase from traders	155	272
	Add: Power purchase from NVVN		
	Less: Underdrawal		54
	Less: Power diverted to Exchange		
	Less: Banking Power		
	Add : Renewable Power	5	7
	<b>Total</b>	<b>3,597</b>	<b>3,775</b>
3	<b>PGCIL Losses - MUs</b>	197	277
	<b>PGCIL Losses - % *</b>	5.28%	7.33%
4	<b>Total Power Purchased within Goa State</b>		
	Add: Co-generation	158	146
	Add: Independent Power Producers (IPP)	(21)	
	<b>Total</b>	<b>137</b>	<b>146</b>
5	<b>Total Power Purchase availability after PGCIL Losses</b>	<b>3,537</b>	<b>3,916</b>
	Less: Retail Sales to Consumers	3,114	3,440
	Distribution Losses - MUs	405	476
6	<b>Distribution Losses - %</b>	<b>11.50%</b>	<b>12.16%</b>

3.3.3 The Hon'ble Commission is requested to approve the Energy Balance for the year FY 2014-15 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 14-15**

Particulars	FY 14-15 (Approved)	FY 14-15 (Audited)
Intra State T&D Loss	11.50%	12.16%
Inter State Loss	5.28%	7.33%

### 3.4 Power Purchase Quantum & Cost for FY 2014-15

- 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 through IPP (Reliance Infra).
- 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, MOPA etc. and supplementary charges considered on actual basis. However EDG would like to mention that Non-Solar RPO is being met through purchase of Co-generation power and the same has been acknowledged by Hon'ble Commission vide its order dated 27<sup>th</sup> December 2013 in case no.61/2012. Also, 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 2014-15 including Transmission Charges, UI charges and purchase from traders.

**Table 3-4: Power Purchase Quantum & Cost for FY 2014-15**

Sr. No.	Source	FY 14-15 (Approved)		FY 14-15 (Audited)	
		Quantum (MUs)	Cost (Rs. Cr)	Quantum (MUs)	Cost (Rs. Cr)
1	<b>NTPC</b>	<b>3,132.88</b>	<b>750.55</b>	<b>3,200.69</b>	<b>750.22</b>
2	<b>NPCIL</b>	<b>204.56</b>	<b>48.14</b>	<b>202.85</b>	<b>52.85</b>
3	<b>Co-Generation</b>	<b>158.44</b>	<b>38.10</b>	<b>145.98</b>	<b>34.92</b>
	Goa Energy Private Limited	124.26	29.89	105.90	25.48
	Goa Sponge & Power Limited	6.68	1.60	6.01	1.37
	Sesa Goa	27.50	6.60	34.08	8.07
4	<b>Renewable Energy</b>	<b>4.75</b>	<b>16.73</b>	<b>6.58</b>	<b>6.71</b>
5	<b>IPP</b>	<b>(21.40)</b>	<b>(2.76)</b>	<b>-</b>	<b>-</b>
6	<b>Traders</b>	<b>154.70</b>	<b>54.95</b>	<b>272.09</b>	<b>89.40</b>
7	<b>Overdrawal</b>	<b>100.03</b>	<b>51.21</b>	<b>92.64</b>	<b>68.48</b>
8	<b>Transmission and Other Charges</b>	<b>-</b>	<b>136.70</b>	<b>-</b>	<b>132.23</b>
	<b>Total</b>	<b>3,733.96</b>	<b>1,093.62</b>	<b>3,920.84</b>	<b>1,134.81</b>
	<b>Power purchase cost per unit</b>		<b>2.93</b>		<b>2.89</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 request the Hon'ble Commission to approve the power purchase cost including the transmission charges for FY 2014-15.



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

3.5.1 GFA: The Opening Balance of GFA for FY 2014-15 comes to around Rs.883.20 Crs as per annual accounts of respective years. The following table shows the opening balance, additions, deductions and closing balance of GFA for FY 2014-15.

**Table 3-5: GFA for FY 2014-15 – Rs. Crs**

Particulars	FY 14-15 (Approved)	FY 14-15 (Audited)
Opening Value of Assets at the beginning of the year	398.74	883.20
Additions during the year	182.63	76.76
Value of assets sold/disposed off	-	3.14
<b>Gross Fixed Assets at the end of year</b>	<b>581.37</b>	<b>956.82</b>

3.5.2 As seen from the above table, the approved opening value of GFA is lower than the actual opening GFA, as in the Tariff order dated 27th June 2012, the Hon'ble Commission had not considered the opening value of Assets while approving Gross Fixed Assets component since EDG had not submitted reliable fixed asset register and audited accounts to support the claim in petition. In the current petition, for True Up for FY 2014-15, EDG is submitting the above mentioned GFA figures based on the Audited Accounts and Fixed Asset Register (attached as **Annexure 4** to the petition) for FY 2014-15 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. 116.11 Crs and capitalisation of Rs. 76.76 Crs for FY 2014-15 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.

3.5.3.1 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

3.5.4 **Depreciation:** "As per Regulation 26 of JERC Tariff Regulations, 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.

3.5.4.1 EDG would like to submit that the depreciation arrived in annual accounts for FY

2014-15 is based on the rates specified by Hon'ble Commission in its Tariff Regulations.

3.5.4.2 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%

3.5.4.3 The following table shows the depreciation arrived by EDG for FY 2014-15 based on the approved depreciation rates specified by the Hon'ble Commission for different asset class. The same is reflecting in the annual audited accounts for respective years.

**Table 3-7 : Depreciation for FY 2014-15 – Rs. Crs**

Particulars	FY 14-15 (Approved)	FY 14-15 (Audited)
Opening Value of Assets at the beginning of the year (Rs Cr)	398.74	883.20
Additions during the year (Rs Cr)	182.63	76.76
Value of assets sold/disposed off (Rs Cr)	-	3.14
<b>Gross Fixed Assets at the end of year (Rs Cr)</b>	<b>581.37</b>	<b>956.82</b>
Rate of depreciation	5.28%	4.25%
<b>Depreciation</b>	<b>25.87</b>	<b>39.13</b>

3.5.4.4 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 4.25%.

3.5.4.5 The Hon'ble Commission is requested to approve Rs. 39.13 Crs for FY 2014-15 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;*

3.6.3 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....."

3.6.4 Employee Expenses: EDG has computed the Employee expense for FY 2014-15 based on the actual employee expenses incurred during the entire year.

3.6.5 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 2014-15 – Rs. Crs**

Employee Cost (Rs. Crs)		
Particulars	FY 14-15 (Approved)	FY 14-15 (Audited)
Salaries& Allowances	152.42	205.70
Terminal Benefits		
Other Salary payments		
<b>Total</b>	<b>152.42</b>	<b>205.70</b>
Less: Add/Deduct share of others		
<b>Total</b>	<b>152.42</b>	<b>205.70</b>
Less: Amount capitalized		
<b>Total Employee Expenses</b>	<b>152.42</b>	<b>205.70</b>

3.6.5.1 EDG submits that employee cost as approved by the Hon'ble Commission for FY 2014-15 was Rs. 152.42 Crs whereas the actual expenditure for FY 2014-15 is Rs. 205.70 Crs, resulting in increase of 35%. EDG humbly submits that the WPI for FY 2014-15 was ~1.24% against which the escalation in the cost is ~35%. Employee Cost

for FY 2014-15 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 approx. 35% to 40% of the total employee cost. Also, the audited employee cost for FY 2013-14 was Rs. 170.34 Crs which means the resultant increase on YoY basis is ~21%.

3.6.5.2 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 2014-15 reflecting in annual accounts.

3.6.6 **Repairs & Maintenance Expenses:** The repairs and maintenance cost has been claimed as per expenses actually incurred during FY 2014-15 which is reflecting in annual accounts of that financial year.

**Table 3-9: R&M Expenses for FY 2014-15 – Rs. Crs**

Particulars	FY 14-15 (Approved)	FY 14-15 (Audited)
<b>Total expenses</b>	<b>20.73</b>	<b>28.96</b>
<b>Less : Capitalized</b>		
<b>Net expenses</b>	<b>20.73</b>	<b>28.96</b>
Add: prior period		
<b>Total R&amp;M expenses</b>	<b>20.73</b>	<b>28.96</b>

3.6.6.1 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.

3.6.6.2 Proportion of R&M expense over average GFA was at 4.23% for FY 2014-15 as per figures approved in APR order dated 6<sup>th</sup> April 2015. However above stated R&M expense as per audited accounts for FY 2014-15 are at 3.15% of average GFA.

3.6.6.3 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. 28.96 Crs for FY 2014-15 as R&M expenses.

3.6.7 **Administration & General expenses:** The administrative expense mainly comprise of rents, professional charges, office expenses, etc. The expenses incurred by the EDG for FY 2014-15 are shown in the table below.

**Table 3-10: A&G Expenses for FY 2014-15 – Rs. Crs**

Particulars	FY 14-15 (Approved)	FY 14-15 (Audited)
Travelling Expenses		0.28
Office Expenses		16.34
Petrol,Oil,Lubricant (P.O.L)		-
Rent,Rates & Taxes		0.47
Advertisement & Publicity		0.04
Professional & Special Services		0.97
Other Charges		1.35
Overtime Allowance		0.00
Minor Works		2.84
Audit of Accounts and Professional Fees		0.11
<b>Total</b>	<b>9.46</b>	<b>22.40</b>
Less : share of others (To be specified)		
<b>Total expenses</b>	<b>9.46</b>	<b>22.40</b>
<b>Less : Capitalized</b>		
<b>Net expenses</b>	<b>9.46</b>	<b>22.40</b>
Add: prior period		
<b>Total A&amp;G expenses</b>	<b>9.46</b>	<b>22.40</b>

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

3.6.8 **O&M Expenses Summary:** Based on the foregoing paragraphs, the O&M expenses for the year FY 2014-15 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 2014-15 – Rs. Crs**

Particulars	FY 14-15 (Approved)	FY 14-15 (Audited)
Employee Expenses	152.42	205.70
A&G Expenses	9.46	22.40
R&M Expenses	20.73	28.96
<b>O&amp;M Expenses (Rs Cr)</b>	<b>182.61</b>	<b>257.07</b>

3.6.8.1 The Hon'ble Commission is requested to approve the O&M Expenses of Rs. 257.07 Crs for FY 2014-15 as shown in the table above. The details of O&M expense for FY 2014-15 are provided in the Formats 13, 15 & 16 of the Tariff Filing Formats.

### 3.7 Interest & Finance Charge

3.7.1 The Regulation 25 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. 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.

3.7.2 Opening balance of normative loan for FY 2014-15 considered as per the approved normative loan in true up of FY 2013-14. Accordingly the Interest expenses vis-a-vis approved by the Hon'ble Commission for FY 2014-15.

**Table 3-12 : Interest on normative loan for FY 2014-15 – Rs. Crs**

Particulars	FY 14-15 (Approved)	FY 14-15 (Audited)
Opening Normative Loan	256.67	165.71
Add: Normative Loan during the year	83.87	36.37
Less: Normative Repayment	25.87	16.57
<b>Closing Normative Loan</b>	<b>314.67</b>	<b>185.51</b>
Average Normative Loan	285.67	175.61
Rate of Interest (@SBI PLR rate)	7.99%	14.75%
<b>Interest on Normative Loan</b>	<b>22.82</b>	<b>25.90</b>

3.7.3 As seen from the above table, EDG has submitted Interest on normative loan which is 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 2014-15, however at the time of APR EDG had submitted provisional Interest.

3.7.4 Secondly, as FY 2011-12 was the first year of ARR, while approving the loan in true up for FY 2011-12 and FY 2012-13. However, the same was approved by the Commission in true-up of FY 2013-14. Accordingly, the opening balance of FY 2014-15 (i.e. approved closing balance of FY 2013-14 approved by Commission) is lower than the one approved. EDG requests the Hon'ble Commission to consider the same.

3.7.5 EDG submits that addition of normative loan is calculated at 70% of the capitalisation added during FY 2014-15 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.

3.7.6 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 3-13 : Other Interest and Finance Charges for FY 2014-15 – Rs. Crs**

Particulars	FY 14-15 (Approved)	FY 14-15 (Audited)
Opening Normative Loan	256.67	165.71
Add: Normative Loan during the year	83.87	36.37
Less: Normative Repayment	25.87	16.57
<b>Closing Normative Loan</b>	<b>314.67</b>	<b>185.51</b>
Average Normative Loan	285.67	175.61
Rate of Interest (@SBI PLR rate)	7.99%	14.75%
<b>Interest on Normative Loan</b>	<b>22.82</b>	<b>25.90</b>
Other Finance Charges	1.30	5.07
<b>Total Interest &amp; Finance Charges</b>	<b>24.12</b>	<b>30.97</b>

3.7.7 The Hon'ble Commission is requested to approve the Interest & Finance Charges of Rs. 30.97 Crs (Rs. 25.90 Cr+ Rs. 5.07 Cr) for FY 2014-15. 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 2013-14 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 3-14 : Interest on working capital for FY 2014-15 – Rs. Crs**

Particulars	FY 14-15 (Approved)	FY 14-15 (Audited)
Power Purchase Cost for one month*	77.83	94.57
Employee Cost for one month	12.70	17.14
A&G Expenses for one month	0.79	1.87
R&M Expenses for one month	1.73	2.41
<b>Total Working Capital for one month</b>	<b>93.05</b>	<b>115.99</b>
Closing Security Deposit (amount already with ED Goa)	80.88	22.35
<b>Total Working Capital considered for one month (5-6)</b>	<b>12.17</b>	<b>93.64</b>
SBI PLR Rate	14.75%	14.75%
<b>Interest on Working Capital</b>	<b>1.80</b>	<b>13.81</b>

3.8.3 As per Regulation No. 29 of JERC for the State of Goa and Union Territories (Terms and Conditions for Determination of Tariff) Regulations, 2009, Interest on working capital is computed. The Hon'ble Commission is requested to approve the Interest on Working Capital of Rs. 13.81 Cr for FY 2014-15 as presented in the table above.

### **3.9 Interest on Security Deposits**

3.9.1 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 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. The prevailing Bank rate is considered at 10 % for FY 2014-15 as notified by Reserve Bank of India.



**Table 3-15 : Interest on Security deposit for FY 2014-15– Rs. Crs**

Particulars	FY 14-15 (Approved)	FY 14-15 (Audited)
Opening Security Deposit	73.73	21.09
Add: Deposits during the Year	15.96	4.98
Less: Deposits refunded	2.86	2.46
<b>Closing Security Deposit</b>	<b>86.83</b>	<b>23.61</b>
<b>Average Security Deposit</b>	<b>80.28</b>	<b>22.35</b>
<b>Bank Rate</b>	<b>8.50%</b>	<b>10.00%</b>
<b>Interest on Security Deposit</b>	<b>6.82</b>	<b>2.24</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 2014-15.

### **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 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 2014-15 is tabulated below:

**Table 3-16 : Return on Capital Base/net Fixed Assets for FY 2014-15 – Rs. Crs**

Particulars	FY 14-15 (Approved)	FY 14-15 (Audited)
Gross block at beginning of the year	398.74	1,389.32
Less accumulated depreciation	28.12	256.98
<b>Net fixed assets at beginning of the year</b>	<b>370.62</b>	<b>1,132.33</b>
<b>Reasonable return @3% of NFA</b>	<b>11.12</b>	<b>33.97</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 2013-14 is already submitted and accounts for FY 2014-15 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.33.97 Crs for FY 2014-15.

### 3.11 Provision for Doubtful debts

3.11.1 As specified in Regulation 28 of JERC Tariff Regulations (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 2014-15 in audited accounts as under:-

**Table 3-17: Provisions for Bad debts for FY 2014-15 – Rs. Crs**

Particulars	FY 14-15 (Approved)	FY 14-15 (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 regulations, 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 2014-15. However EDG has not claimed the provision for bad and doubtful debt in ARR for FY 2014-15.

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 2014-15.

### 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 APR for FY 2014-15 was Rs. 6.74 Crs.

3.12.2 The details of Non-Tariff Income for FY 2014-15 are provided in Format 20 of the Tariff Filing Formats.

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

**Table 3-18: Non-Tariff Income for FY 2014-15– Rs. Crs**

Particulars	FY 14-15 (Approved)	FY 14-15 (Audited)
Sale Proceeds of dead stock, waste paper etc		
Receipt from State Electrical Inspectorate		
Misc. Receipts/income	6.74	22.10
Meter/service rent		
Deferred Income (Electricity Development fund)		
Income from trading		
<b>Total income</b>	<b>6.74</b>	<b>22.10</b>
Add: prior period income		-
<b>Total Non-tariff income</b>	<b>6.74</b>	<b>22.10</b>

3.12.4 In view of above, the Hon'ble Commission is requested to kindly allow Non-Tariff Income of Rs. 22.10 Cr for FY 2014-15.

### 3.13 Revenue from sale of Surplus Power

3.13.1 Revenue from sale of Surplus power is Rs. 2.31 Cr against approved amount of Rs. NIL. As while approving in the Order, Hon'ble Commission has not approved Revenue from Sale of surplus power – UI Pool since EDG had not submitted any projection for the revenue from sale of Surplus of power in the APR petition. As in the past order, Hon'ble Commission had not approved the revenue from sale of surplus power as EDG had procured costly power and stated that the same will be considered in true up.

**Table 3-19: Revenue from Sale of Surplus power for FY 2014-15 – Rs. Crs**

Particulars	FY 14-15 (Approved)	FY 14-15 (Audited)
Revenue from sale of surplus power – UI Pool	-	2.31
<b>Total</b>	<b>-</b>	<b>2.31</b>

3.13.2 In view of above, the Hon'ble Commission is requested to kindly allow the above Revenue from Sale of Surplus Power of Rs. 2.31 Cr for FY 2014-15.

### 3.14 Aggregate Revenue Requirement for FY 2014-15

3.14.1 The Aggregate Revenue Requirement for FY 2014-15 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 2014-15 – Rs. Crs**

Particulars	FY 14-15 (Approved by Commission)	FY 14-15 (Claimed in True-Up)
Cost of power purchase including Provision for RPO	1,114.32	1,134.81
Employee costs	152.42	205.70
Other Expenses	-	-
R&M expenses	20.73	28.96
Administration and general expenses	9.46	22.40
Depreciation	25.87	39.13
Interest and Finance Charges	24.12	30.97
Interest on Working Capital	1.80	13.81
Interest on Security Deposit	6.82	-
Return on NFA	11.12	33.97
Provision for Bad Debts	-	-
<b>Total Revenue Requirement</b>	<b>1,366.66</b>	<b>1,509.76</b>
Less: Non Tariff Income	6.74	22.10
Less: Revenue from Sale of Power - UI Pool	-	2.31
Less: Revenue from Sale of Power-Exchanges		
Less: Revenue from Sale / Banking of Power		
<b>Aggregate Revenue Requirement</b>	<b>1,359.92</b>	<b>1,485.35</b>

3.14.2 EDG hereby requests the Hon'ble Commission to approve the ARR of Rs. 1,485.35 Cr for FY 2014-15 as submitted above.

### **3.15 Revenue from Sale of Power at Existing Tariff**

3.15.1 The Revenue from Tariff for FY 2014-15 approved by the Hon'ble Commission in APR order dated 6th April 2015 was Rs. 1147.44 Cr.

3.15.2 The actual revenue earned from tariffs for FY 2014-15 is shown in the table below

**Table 3-21: Revenue from Tariff for FY 2014-15**

Particulars	FY 14-15 (Approved)		FY 14-15 (Audited)	
	Sales (MUs)	Total Revenue (Rs Cr)	Sales (MUs)	Total Revenue (Rs Cr)
<b>A. LOW TENSION SUPPLY</b>	<b>1,266</b>	<b>333.51</b>	<b>1,396.23</b>	<b>394.86</b>
(a) LTD/Domestic	728	136.80	905.20	200.95
(b) LTD/L.I.G.	2	0.57	9.40	0.82
(c) LTD Domestic Mixed	7	2.38	8.55	3.16
LTC/Commercial	268	100.95	311.37	132.02
(a) LTP/Motive Power	179	68.34	86.07	32.10
(b) LTP Mixed (Hotel Industries)	5	2.82	5.54	2.46
(c) LTP Ice Manufacturing	8	2.95	9.16	3.19
LTAG/Agriculture	25	4.25	20.05	3.32
(a) LTPL ( Public lighting )	40	12.43	35.70	14.77
LTPWW/Public Water works	6	2.02	5.19	2.08
<b>B. HIGH TENSION SUPPLY</b>	<b>1,810</b>	<b>722.66</b>	<b>2,026.62</b>	<b>795.06</b>
HT ( Mixed )	134	58.68	143.98	67.28
HTI (Industrial) Ferro Metallurgical/ Steel Melting/Power Intensive.	565	197.96	742.66	214.08
HTI Industrial	607	251.30	586.43	261.59
HTI Hotel Industry	137	54.48	105.82	44.36
HTAG ( Agriculture )	6	1.44	6.48	1.54
EHTI ( Industrial )	175	74.48	173.89	78.45
HT P.W.W. & Sewage system	137	52.95	138.49	66.59
HT. M.E.'s Defence Estt.	27	10.10	26.42	10.66
HTI ( Steel Rolling )	-	12.57	61.22	33.18
HTI / IT High Tech	21	8.32	32.10	13.88
HTI/Ice Manufacturing	2	0.38	1.13	0.49
(a) Sale from EDG to GSPL (Div. VII)			7.99	3.01
Sale to MSEDCL (Div. VI)			-	0.03
<b>C. TEMPORARY SUPPLY</b>	<b>38</b>	<b>20.75</b>	<b>17.14</b>	<b>31.15</b>
(a) L.T. Temporary	38	20.66	17.01	14.27
(b) H.T. Temporary			0.03	0.20
Hoarding/Sign Board	-	0.09	0.10	0.27
Arrears under RRC (with no. of cases)				16.41
<b>FPPCA charge</b>		<b>70.52</b>		
<b>Total</b>	<b>3,114.00</b>	<b>1,147.44</b>	<b>3,439.99</b>	<b>1,221.07</b>

3.15.3 In view of above, the Hon'ble Commission is requested to kindly allow Revenue of Rs. 1,221.07 Cr for FY 2014-15.

### 3.16 Revenue Gap for FY 2014-15

3.16.1 EDG in its submission of the 'Tariff Proposal for FY 2014-15 has submitted that the entire revenue gap for FY 2014-15 has to be met through budgetary support. EDG has also submitted the letter from Government of Goa wherein the Government of Goa has assured to provide requisite budgetary support to meet the deficit at the existing tariff for FY 2014-15. In view of the budgetary support for FY 2014-15 from the Government of Goa, there is no net revenue gap for FY 2014-15.

3.16.2 Accordingly, the revenue gap of Rs. 264.28 Crs for FY 2014-15 has not been carried forward and the same will be met through the budgetary support as per letter submitted earlier dated 3<sup>rd</sup> February 2014 from Government of Goa.

**Table 3-22: Revenue Gap for FY 2014-15 – Rs. Crs**

<b>Particulars</b>	<b>FY 14-15 (Approved)</b>	<b>FY 14-15 (Audited)</b>
Aggregate Revenue Requirement	1,359.92	1,485.35
Revenue from Tariff including FPPCA	1,147.44	1,221.07
<b>Revenue Gap</b>	<b>212.48</b>	<b>264.28</b>
Less : Budgetary Support from Govt.	<b>212.48</b>	<b>264.28</b>
<b>Net Final revenue Gap</b>	-	-

3.16.3 In view of above, the Hon'ble Commission is requested to kindly allow Revenue Gap of Rs 264.28 Crs for FY 2014-15.

## **CHAPTER 4. TRUE-UP OF ARR FOR FY 2015-16, FY 2016-17 AND FY 2017-18**

### **4.1 Preamble**

- 4.1.1 This section outlines the submission on the performance of EDG for FY 2015-16, FY 2016-17 and FY 2017-18.
- 4.1.2 It is submitted that the True-up of FY 2015-16 has to be carried out as per the Regulation 8 of JERC Tariff Regulations, 2009 and True-up of FY 2016-17 and FY 2017-18 has to be carried out as per Regulations 8 of JERC MYT regulations 2014. However, EDG submits that the CAG audit for FY 2015-16 is yet to be completed and preparation of the financial statement for FY 2016-17 and FY 2017-18 is in the process of finalisation and accordingly the audit will be undertaken.
- 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 28<sup>th</sup> March 2018, the Hon'ble Commission has directed EDG to file the True-up Petitions from FY 2014-15 to FY 2017-18 along with the next APR Petition. However, due to uncontrollable factors, the audit of the FY 2015-16 to FY 2017-18 is not yet completed and hence seek 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 2015-16, FY 2016-17 and FY 2017-18 separately.
- 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 2015-16, FY 2016-17 and FY 2017-18 as approved by the Hon'ble Commission in the Tariff Order dated 6<sup>th</sup> April, 2015, 18<sup>th</sup> April 2016 and 23<sup>rd</sup> May 2017 respectively has been summarised in the following table:

**Table 4-1: ARR approved by JERC in Tariff Order for FY 2015-16, FY 2016-17 and FY 2017-18**

Sr. No.	Item of expense	Approved as per Order dtd 06.04.15	Approved as per Order dtd 18.04.16	Approved by the Commission Order dtd 23.05.17
		FY15-16	FY16-17	FY17-18
1	2	3	4	5
1	Cost of fuel			
2	Cost of power purchase	1048.34	1,245.03	1,330.98
3	Provision for RPO Compliance		8.55	9.38
4	Employee costs	161.53	239.21	254.24
5	Administration and General expenses	10.03	9.48	10.12
6	R&M expenses	12.68	27.86	30.57
7	Depreciation	38.81	49.22	64.16
8	Int and Finance Charges	33.49	57.63	74.04
9	Interest on Working Capital	2.34	8.36	9.90
10	Return on NFA /Equity	15.82	44.74	58.33
11	Provision for Bad Debt			-
12	Interest on Consumer Security Deposit	7.43	6.82	6.93
13	Amortization of the regulatory asset proposed for previous years			
14	Provision for DSM Expenses		3.98	3.41
<b>15</b>	<b>Total Revenue Requirement</b>	<b>1330.47</b>	<b>1700.87</b>	<b>1852.06</b>
16	Less: Non Tariff Income	6.74	6.74	6.74
17	Less: Revenue from Sale of Power - UI Pool			
18	Provision for RPO Obligation for previous			
<b>19</b>	<b>Net Revenue Requirement (11-12)</b>	<b>1323.73</b>	<b>1694.13</b>	<b>1845.32</b>

4.1.6 The Hon'ble Commission had approved Rs.185.43 Crs, Rs.183.02 Crs and Rs.281.65 Crs revenue gap for the FY 2015-16, FY 2016-17 and FY 2017-18 respectively in tariff order dated 6<sup>th</sup> April 2015, 18<sup>th</sup> April 2016 and 23<sup>rd</sup> May 2017. 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 2018-19

### 5.1 Background to FY 2018-19 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 2018-19 and requests the Hon'ble Commission to review the performance for FY 2018-19. The Annual Performance Review for FY 2018-19 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. EDG has also considered the revised estimates for FY 2018-19 as approved by Hon'ble Commission in Business Plan order dated 16<sup>th</sup> November 2018.

### 5.2 Performance Review for FY 2018-19

5.2.1 Regulation 8 (1) of the Joint Electricity Regulatory Commission for the State of Goa and Union Territories (Multi Year Distribution Tariff) Regulations, 2014 states that,

**8. Annual Review of Performance and True-up**

*(1) The Commission shall undertake a review along with the next Tariff Order of the expenses and revenue approved by the Commission in the Tariff Order. While doing so, the Commission shall consider variations between approvals and revised estimates / 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'.*

5.2.2 Further Regulation 20.2 (b) of the aforesaid regulations states that,

*"Estimated figures for the current financial year should be based on actual figures for the first six months and the estimated figures for the second six-months of the year. The estimated figures for the second half year of the current financial year should be based on the actual audited figures for the second half of the previous year with adjustments that reflect known and measurable changes expected to occur between them. These adjustments must be specifically documented and justified".*

5.2.3 The Hon'ble Commission had issued the Tariff Order for FY 2018-19 on 28<sup>th</sup> March 2018. For the purpose of ease of reference; the summary of approved ARR vis-a-vis submitted by EDG for FY 2018-19 submitted in the previous filing is reproduced hereunder:

**Table 5-1: ARR approved by JERC for FY 2018-19 - Rs. Crs**

Sl.No.	Particulars	Submitted in petition	Approved in order dtd 28.03.2018
1	Power Purchase Cost (inclusive of RPO Cost)	1,433.09	1,329.68
2	Operation & Maintenance Expenses	326.82	326.82
3	Depreciation	91.59	91.59
4	Interest and Finance charges	107.19	107.19
5	Interest on Working Capital	12.36	10.68
6	Interest on Security Deposit	16.17	7.02
9	Return on Equity	83.27	83.27
10	Provision for Bad Debt	-	-
11	Income Tax	-	-
12	Payment towards DSM	3.03	3.03
<b>13</b>	<b>Total Revenue Requirement</b>	<b>2,073.52</b>	<b>1,959.28</b>
14	Less: Non-Tariff Income	6.74	6.74
<b>15</b>	<b>Net Revenue Requirement</b>	<b>2,066.78</b>	<b>1,952.54</b>

5.2.4 EDG would now discuss each of the elements of review in detail for H1 and H2 and revised estimates for FY 2018-19 for determination of ARR and its gap for FY 2018-19.

### 5.3 Energy Sales

5.3.1 The sales for FY 2018-19 H1 is 1877.83 MUs, It is submitted that the Hon'ble Commission has analysed past sales trend and approved the revised estimates for sales of FY 2018-19 in Business Plan order dated 16<sup>th</sup> November 2018 as a base year for MYT control period FY 2019-20 to FY 2021-22. Hence for the purposed of APR of FY 2018-19, EDG has considered approved revised estimates of sales of FY 2018-19 from the Business Plan order dated 16<sup>th</sup> November 2018.

5.3.2 The following table shows the overall sales considered by EDG for APR of FY 2018-19 vis-à-vis Sales approved in tariff order for FY 2018-19.

**Table 5-2: Sales for FY 2018-19 (MUs)**

Category	Approved in Order dated 28.03.2018	FY18-19 H1	FY18-19 H2	FY18-19 Estimated
<b>A. LOW TENSION SUPPLY</b>	<b>1,529.76</b>	<b>837.31</b>	<b>896.85</b>	<b>1,734.17</b>
LTD/Domestic	984.51	573.38	583.97	1,157.35
LT-LIG/Low Income Group	1.10	0.83	0.93	1.76
Low Tension-DM/LT-DM	14.84		-	
LTC/Commercial	325.42	205.08	246.31	451.39
LTI/Industrial	137.42	45.81	51.92	97.73
LT Mixed/ LT-P Hotel Industries	5.31	2.32	3.14	5.46
Low Tension-AG/LT-AGP (Pump Sets/Irrigation)	23.86	8.54	9.03	17.57
Public Lighting	36.95	1.28	1.38	2.66
Hoardings/Signboards	0.35	0.08	0.16	0.24
<b>B. HIGH TENSION SUPPLY</b>	<b>2,093.09</b>	<b>1,026.47</b>	<b>1,004.88</b>	<b>2,031.35</b>
HTD Domestic	0.28	0.14	0.15	0.29
HTC Commercial	79.05	54.75	56.75	111.50
HTI Industrial	1,398.09	706.34	734.26	1,440.60
High Tension-Ferro/SM/PI/SR	582.70	247.07	195.57	442.64
High Tension-AG/HT-AGP (Pump Sets/Irrigation)	6.08	4.91	4.46	9.37
Military Engineering Services/defense Establishments	26.89	13.26	13.69	26.95
<b>C. TEMPORARY SUPPLY</b>	<b>22.08</b>	<b>11.06</b>	<b>9.75</b>	<b>20.81</b>
LT Temporary	22.08	10.70	9.81	20.51
HT Temporary		0.36	0.06	0.30
<b>D. SINGLE POINT SUPPLY</b>	<b>-</b>	<b>2.99</b>	<b>2.47</b>	<b>5.46</b>
Residential Complexes			-	
Commercial Complexes		2.99	2.47	5.46
Industrial Complexes			-	
<b>Total</b>	<b>3,644.93</b>	<b>1,877.83</b>	<b>1,913.95</b>	<b>3,791.79</b>

5.3.3 EDG submits that the sales considered for FY 2018-19 is 3,791.79 MU's as approved by Hon'ble Commission in above mentioned Business Plan Order. EDG further submits that it has considered the no. of consumers and connected load figures for FY 2018-19 also, as approved by the Commission in the Business Plan.

5.3.4 The Hon'ble Commission is requested to kindly approve the sales figures considered in the table above for FY 2018-19 APR. The figures of Number of Consumers, Connected Load and Sales for FY 2018-19 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 2018-19 as base year and accordingly approved number of consumers for MYT Control period. Hence, in FY 2018-19 APR, EDG is considering number of consumers for FY 2018-19 as a whole based on numbers approved in Business Plan order dated 16<sup>th</sup> November

2018. However for FY 2018-19 H1, EDG is submitting actual numbers in this petition. The table below shows category wise number of consumers for the year FY 2018-19 considered for FY 2018-19 projection vis-à-vis number of consumer approved by Hon'ble Commission in tariff order for FY 2018-19.

**Table 5-3: Number of Consumers for FY 2018-19 (Nos)**

Category	Approved in Order dated 28.03.18	FY18-19 Projection
<b>A. LOW TENSION SUPPLY</b>	<b>6,14,563</b>	<b>6,31,170</b>
LTD/Domestic	4,96,725	5,14,401
LT-LIG/Low Income Group	3,049	1,835
Low Tension-DM/LT-DM	4,399	
LTC/Commercial	92,869	97,134
LTI/Industrial	6,466	5,963
LT Mixed/ LT-P Hotel Industries	233	142
Low Tension-AG/LT-AGP (Pump Sets/Irrigation)	10,821	11,695
<b>B. HIGH TENSION SUPPLY</b>	<b>3,600</b>	<b>1,267</b>
HTD Domestic	2	3
HTC Commercial	117	219
HTI Industrial	651	745
High Tension-Ferro/SM/PI/SR	37	29
High Tension-AG/HT-AGP (Pump Sets/Irrigation)	41	44
Military Engineering Services/defense Establishments	12	12
Public Lighting	2,740	215
<b>C. TEMPORARY SUPPLY</b>	<b>2,685</b>	<b>5,247</b>
LT Temporary	2,581	5,181
HT Temporary		2
Hoardings/Signboards	104	63
Commercial Complexes		1
<b>Total</b>	<b>6,20,848</b>	<b>6,37,684</b>

5.4.2 The Hon'ble Commission is requested to approve number of consumers for FY 2018-19 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 2018-19 and for FY 2018-19 as a whole, EDG has considered connected load for FY 2018-19 H1 as per actual and FY 2018-19 as a whole as approved by the Hon'ble Commission in Business Plan order dated 16<sup>th</sup> November 2018. Category wise connected load considered for FY 18-19 APR projection vis-à-vis connected load approved by Hon'ble Commission in tariff order for FY 2018-19 provided in the table below.

**Table 5-4: Connected Load for FY 2018-19**

Category	Approved in Order dated 28.03.18	FY18-19 Projected
<b>A. LOW TENSION SUPPLY</b>	<b>18,80,005</b>	<b>19,50,248</b>
LTD/Domestic	14,29,336	14,40,583
LT-LIG/Low Income Group	338	231
Low Tension-DM/LT-DM	13,044	
LTC/Commercial	2,82,941	3,19,309
LTI/Industrial	1,15,580	1,40,551
LT Mixed/ LT-P Hotel Industries	4,285	2,868
Low Tension-AG/LT-AGP (Pump Sets/Irrigation)	34,481	46,706
<b>B. HIGH TENSION SUPPLY</b>	<b>5,99,792</b>	<b>6,79,626</b>
HTD Domestic	193	300
HTC Commercial	42,567	71,802
HTI Industrial	4,17,220	4,90,684
High Tension-Ferro/SM/PI/SR	1,14,756	98,700
High Tension-AG/HT-AGP (Pump Sets/Irrigation)	8,378	9,550
Military Engineering Services/defense Establishments	7,080	6,990
Public Lighting	9,598	1,600
<b>C. TEMPORARY SUPPLY</b>	<b>1,133</b>	<b>25,688</b>
LT Temporary	1,098	20,684
HT Temporary		350
Hoardings/Signboards	35	619
Commercial Complexes		4,035
<b>Total</b>	<b>24,80,929</b>	<b>26,55,562</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 2018-19 (i.e. Apr 18 to Sep 18) based on the actual data available comes to 12.37%

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 17-18 – H1**

Particulars	WR	SR	H1
Energy Inputs at Periphery (MUs)	1,710	333	2,043

5.6.3 Energy Balance H1: The Energy Balance for the 1<sup>st</sup> half of the year FY 2018-19, based on the provisional figures is shown in the table below:

**Table 5-6: Energy Balance for FY 2018-19 H1 (in MU's)**

Particulars	FY18-19 H1
<b>Energy Input at Goa Periphery</b>	<b>2,042.89</b>
<b>Total Power Scheduled/ Purchased at Goa Periphery</b>	-
Total Schedule Billed Drawal - CGS	1,886.88
Add: Overdrawal	30.05
Add: Power purchase from NVVN / Banking	-
Add: Power purchase from Traders/ Open Market	122.19
Add : Hydro Power	-
Less: Underdrawal	16.52
Add: Renewable Power	89.71
Less: Power diverted to Exchange	-
<b>Total</b>	<b>2,112.31</b>
PGCIL Losses - MUs	69.42
PGCIL Losses - %	3.29%
<b>Total Power Purchased within Goa State</b>	
Add: Co-generation	100.12
Add: Independent Power Producers (IPP)	-
<b>Total</b>	<b>100.12</b>
<b>Total Power Purchase availability after PGCIL Losses</b>	<b>2,143.01</b>
<b>Less: Retail Sales to Consumers</b>	<b>1,877.83</b>
<b>Distribution Losses - MUs</b>	<b>265.18</b>
<b>Distribution Losses - %</b>	<b>12.37%</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 Sales and PGCIL and distribution losses as approved by Hon'ble Commission for FY 2018-19 as a whole in Business Plan order dated 16<sup>th</sup> November 2018. However H1 of FY 2018-19 is based on the provisional actual numbers. Accordingly, Inter-state transmission losses for FY 18-19 H1 and FY 2018-19 arrived as under.

**Table 5-7: Inter-State Transmission Losses for FY 18-19 (MUs)**

Particulars	FY 18-19 (Approved)		FY18-19H1			FY18-19H2	FY18-19 Revised Estimate
	WR	SR	WR	SR	Total	Total	Total
Inter-State Transmission Loss (%)	3.66%	7.50%	1.58%	11.18%	3.29%	4.16%	3.73%

5.6.5 **Distribution Loss for overall FY 18-19:** In Business Plan Petition, EDG submitted that the provisional T&D Loss of for FY 2018-19 were 11.25%. However Hon'ble Commission opined that T&D Loss of 10.75% were directed to achieve by end of the existing control period. Hence Hon'ble Commission has opined that at least T&D Loss of 10.75% to be achieved by FY 2019-20. Also while approving number for FY 2018-19 as base year, Hon'ble Commission has approved T&D Loss of 10.75% for FY 2018-19 in Business Plan order dated 16<sup>th</sup> November 2018. For FY 2018-19 APR, EDG has considered provisional

actuals of 11.25% T&D Loss as T&D Loss for H1 are 12.37% and projected the power purchase requirement.

5.6.6 The figures of AT&C loss and Distribution Loss for FY 2018-19 are provided in Format 2 of Tariff Filing Formats.

5.6.7 **PGCIL Losses for FY 2018-19:** For FY 2018-19 H2, EDG has considered the PGCIL losses of 3.25% for WR and 9.87% for SR as approved by the Commission in the Business Plan and accordingly projections have been done with respect to power requirement.

5.6.8 EDG submits that it has projected power purchase quantum for H2 of FY 2018-19 in line with power purchase approved by Hon'ble Commission plus power required to meet the RPO and to meet the energy deficit for FY 2018-19. Power purchase quantum projected on the following assumptions.

- Percentage Allocation of firm allocation and allocation from unallocated quota from the CGS based on allocation obtained from WRPC vide letter dated 5<sup>th</sup> November 2018 and from SRPC vide letter dated 2<sup>nd</sup> November 2018.
- 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.
- Based on the above assumptions power purchase quantum from CGS stations have been arrived.
- The remaining power requirement will be catered through power from power exchanges/ open market.
- While projecting the purchase from IEX/Traders, EDG considered the quantum of 122.19 MUs purchase from IEX/Traders in H1 at actuals whereas in H2 96 MUs projected to be procured after procuring power to meet RPO obligations.
- Additional quantum of 63.78 MUs has been considered in FY 2018-19 H2 to meet Solar RPO at the rate of Rs.4.85 per unit. For non-Solar 126.15 MUs projected to be procured from short term tender through DEEP portal at the rate of Rs.4.82 for FY 2018-19 H2 to meet Non-Solar RPO.

5.6.9 EDG has therefore estimated the power purchase quantum for H2 of FY 2018-19 and has integrated with actual quantum of H1 to arrive at energy balance for entire year of FY 2018-19.

5.6.10 EDG while computing Energy balance for entire FY 2018-19 has considered actual of over-drawl/under-drawl during first half of FY 2018-19. Thus, on the basis of the foregoing paragraphs, the Energy Balance for the year FY 2018-19 is computed by EDG shown in the table below.

**Table 5-8: Energy Balance for FY 18-19 (H1 + H2) - (MUs)**

Particulars	FY18-19 H1 Actual	FY18-19 H2 Projected	FY18-19 Revised Estimation
<b>Energy Input at Goa Periphery</b>	2,042.89	2,061.72	4,104.61
<b>Total Power Scheduled/ Purchased at Goa Periphery</b>			
Total Schedule Billed Drawal - CGS	1,886.88	1,779.44	3,666.31
Add: Overdrawal	30.05	-	30.05
Add: Power purchase from NVVN / Banking	-	-	-
Add: Power purchase from Traders/ Open Market	122.19	96.28	218.47
Add : Hydro Power	-	5.57	5.57
Less: Underdrawal	16.52	-	16.52
Add: Renewable Power	89.71	270.00	359.71
Less: Power diverted to Exchange	-	-	-
<b>Total</b>	<b>2,112</b>	<b>2,151</b>	<b>4,264</b>
<b>PGCIL Losses - MUs</b>	<b>69.42</b>	<b>89.56</b>	<b>158.98</b>
<b>PGCIL Losses - %</b>	<b>3.29%</b>	<b>4.16%</b>	<b>3.73%</b>
<b>Total Power Purchased within Goa State</b>			
Add: Co-generation	100.12	68.08	168.19
Add: Independent Power Producers (IPP)	-	-	-
<b>Total</b>	<b>100.12</b>	<b>68.08</b>	<b>168.19</b>
Total Power Purchase availability after PGCIL Losses	<b>2,143.01</b>	<b>2,129.80</b>	<b>4,272.81</b>
Less: Retail Sales to Consumers	1,877.83	1,913.95	3,791.79
<b>Distribution Losses - MUs</b>	<b>265.18</b>	<b>215.47</b>	<b>480.65</b>
<b>Distribution Losses - %</b>	<b>12.37%</b>	<b>10.12%</b>	<b>11.25%</b>

5.6.11 The Hon'ble Commission is requested to approve the Energy Balance for the FY 2018-19 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 2018-19 (H1, H2 and overall for FY 2018-19) are provided in Format 3 of Tariff Filing Formats.

## **5.7 Power Purchase Quantum & Cost for FY 2018-19**

### **Power Purchase Cost for H1 FY 2018-19**

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 Solar Power procured from NVVNL, SECI and through Short term from MPL Solar.



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 2018-19 including Transmission Charges, Overdrawl and purchase from traders:

**Table 5-9: Power Purchase Quantum & Cost for FY 2018-19 (H1)**

Sl. No	Particulars	Gross Purchase	Cost	Rate
		MUs	Rs. Crs	Rs./kWh
1	NTPC	1,825.65	489.78	2.68
2	NPCIL	61.22	19.31	3.15
3	Traders	122.19	67.83	5.55
4	Overdrawal	13.53	7.09	5.24
5	Co-Generation	100.12	24.04	2.40
6	Renewable	89.71	47.72	5.32
7	Transmission	-	71.85	
8	Hydro Power			
9	<b>Total</b>	<b>2,212.43</b>	<b>727.61</b>	<b>3.29</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 drawal and under drawal charges. The summary details of the same are provided in the table below for H1:

**Table 5-10: DSM Power (Overdrawl & Underdrawl) Charges for H1 of FY 2018-19**

Region	Over drawal		Under drawal		Net Drawal	
	Rs. Cr	MUs	Rs. Cr	MUs	Rs. Cr	MUs
Western	5.16	13.82	1.10	8.07	4.06	5.76
Southern	4.46	16.22	1.43	8.45	3.03	7.78
<b>Total</b>	<b>9.61</b>	<b>30.05</b>	<b>2.53</b>	<b>16.52</b>	<b>7.09</b>	<b>13.53</b>

5.7.5 Transmission Charges H1: The transmission charges for the 1<sup>st</sup> half of FY 2018-19 comprises of transmission charges for Western Region and Southern Region. The Transmission charge comes to around Rs. 71.85 Crores.

**Power Purchase Cost for H2 FY 2018-19**

5.7.6 Power Purchase Fixed Cost for H2 FY 2018-19: The Fixed charges are depend on the availability of the plant. Hence while projecting the cost for FY 2018-19 H2, the fixed charges for CGS have been taken in line with the proportion of actual fixed charges in FY 2017-18 H2 over FY 2017-18 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 2018-19: Power purchase requirement for H2 FY 2018-19 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 2018-19 H2 has been computed considering per unit cost incurred in H1 of FY 2018-19. The variable cost per unit for Co-Generation Stations has been taken as per actuals of H1 on average basis. Variable cost for the new hydro station (Kameng) is considered of 399.82 Paise/Unit

**Power Purchase from Renewable Energy Sources:**

- 5.7.8 Solar RPO: As regards fulfilment of Solar RPO is concerned, In H2 FY 2018-19, EDG would purchase from NVVNL and SECI for the units approved for FY 2018-19 by Hon'ble Commission in Business Plan order dated 16<sup>th</sup> November 2018 less actual procured in H1 of 2018-19. Despite that, since quantum to meet the Solar RPO arise, EDG estimated to procure through short term tender from DEEP portal. For the short term Solar Power, considered variable cost rate of Rs.4.85/Unit
- 5.7.9 Non-Solar RPO: To meet Non-Solar RPO, EDG is projected to procure power from NVVNL hydro and balance required quantum to meet RPO through DEEP portal at the rate of 4.82/unit.
- 5.7.10 Along with the procurement of 126.15 MUs of Non-Solar through DEEP Portal in H2 of FY 2018-19, EDG will be in position to meet the Non-Solar RPO till FY 2018-19. On the other hand along with 63.78 MUs of Solar through DEEP portal in H2 of FY 2018-19 EDG will be able to meet the Solar RPO till FY 2018-19.
- 5.7.11 EDG submits that cumulative RPO target for solar and Non-Solar till FY 18-19 is projected to be met through purchase of Power from short term power. Details of the Solar and Non Solar RPO Status for FY 2018-19 are given in the table below:

**Table 5-11: Solar & Non-Solar RPO Status for FY 2018-19**

Particulars	Approved in Order dated 28.03.18	FY18-19 Estimated
<b>Sales within State (MU)</b>	<b>3,644.93</b>	<b>3,791.79</b>
Percentage of hydropower (NVVNL Hydro) power purchase quantum at Ex-bus	2.15%	
Resultant Energy Sales for calculation of RPO (after adjustment of power from hydro sources) (MU)	<b>3,566.73</b>	<b>3,791.79</b>
<b>RPO obligation (in %)</b>	<b>9.00%</b>	<b>9.00%</b>
Solar	3.60%	3.60%
Non-Solar	5.40%	5.40%
<b>RPO obligation for the year (in MU)</b>	<b>321.01</b>	<b>341.26</b>
Solar	128.40	136.50
Non-Solar	<b>192.60</b>	204.76
<b>RPO compliance (Physical Power available at Consumer Periphery after adjusting Inter-State Transmission of 3.66% and Intra-State T&amp;D Loss of 10.75%)</b>	<b>52.01</b>	<b>359.71</b>
Solar	52.01	143.57
Non-Solar	-	216.14

5.7.12 Transmission Charges FY 2018-19 (H2): The Transmission Charges for FY 2018-19 are considered as per POC rates. As per CERC Order (determination of PoC rates and transmission losses for the period of July to September 2018) dated 30<sup>th</sup> August 2018 and 19<sup>th</sup> September 2018. 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 2018-19**

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. Crs)	(Rs. Crs)
SR	55988	29248	19093	104329	99.96	1.04	6.24
WR	239332	29248	12313	280893	486.66	13.67	82.02

5.7.13 The total transmission charges for H2 including Wheeling and SLDC charges etc for FY 2018-19 are given in the table below:

**Table 5-13: Total Transmission Charges for H2 FY 2018-19**

Particulars	H2 FY 2018-19 Rs. Crs
POC Transmission charge (Oct 2018 to March 2019)	88.26
Fees and Charges of SRLDC-WR	0.16
Fees and Charges of SRLDC-SR	0.03
SCADA and Reactive Charges	0.00
<b>Total</b>	<b>88.45</b>

5.7.14 Thus, the total Transmission charge for H2 of FY 2018-19 works out to be Rs. 88.45 Crores.

5.7.15 Power Purchase Cost summary FY 2018-19: In line with the foregoing paragraphs, the total Power Purchase for FY 2018-19 estimated and approved in the tariff order is summarized in the table below:

**Table 5-14: Power Purchase Summary for FY 2018-19**

Sl. No	Particulars	Gross Purchase	Cost	Rate
		MUs	Rs. Crs	Rs./kWh
1	NTPC	3,563	970	2.72
2	NPCIL	103	32	3.16
3	Traders	218	111	5.09
4	Overdrawal	14	7	5.24
5	Co-Generation	168	40	2.40
6	Renewable	360	183	5.10
7	Transmission/PGCIL	-	160	
9	Hydro Power	6	2	4.00
10	<b>Total</b>	<b>4,431.79</b>	<b>1,507.34</b>	<b>3.40</b>

5.7.16 It is submitted that net power purchase at state periphery after losses is 4272.81 MUs with total power purchase cost of Rs. 1,507.34 Crores and the average power purchase cost works out to Rs. 3.40 /kWh against approved net power purchase cost of Rs. **3.33** /kWh for FY 2018-19.

5.7.17 The power purchase details for H1 and H2 and for FY 2018-19 (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. 1,507.34 Crores for FY 2018-19 as per workings and at an average cost of Rs. 3.40 /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 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.

5.8.2 As per Regulation 21 of JERC MYT Regulations, 2014, the Hon'ble Commission shall stipulate separate trajectory of norms for each component of O&M expenses.

*" 21. Operation & Maintenance Expenses*

*(a) The Commission shall stipulate a separate trajectory of norms for each of the components of O&M expenses viz., Employee cost, R&M expense and A&G expense.*

*Provided that such norms may be specified for a specific Distribution Licensee or a class of Distribution Licensees.*

....

*(c) One-time expenses such as expense due to change in accounting policy, arrears paid due to pay commissions etc., shall be excluded from the norms in the trajectory.*

*(d) The expenses beyond the control of the Distribution Licensee such as dearness allowance, terminal benefits in Employee cost etc., shall be excluded from the norms in the trajectory.*

*(e) The One-time expenses and the expenses beyond the control of the Distribution Licensee shall be allowed by the Commission over and above normative Operation & Maintenance Expenses after prudence check."*

5.8.3 Employee Expenses for FY 2018-19:

5.8.3.1 As per Regulation 21.1 of JERC MYT Regulations, 2014 expenses beyond the control of the Distribution Licensee like arrears and impact of pay commission shall be adjusted.

5.8.3.2 The relevant extract of regulations is reproduced below for reference.

*"21.1 Employee Cost*

*Employee cost shall be computed as per the approved norm escalated by wholesale price index (WPI), adjusted by provisions for expenses beyond the control of the Distribution Licensee and one time expected expenses, such as recovery/adjustment of terminal benefits, **implications of pay commission, arrears** and Interim Relief, governed by the following formula:*

$EMP_n = (EMP_b * WPI \text{ inflation}) + \text{Provision}$

Provision: Provision for expenses as necessitated by the licensee due to expansion of the consumer base, yearly increments of Employees, and any expected one-time expenses as specified above.”

5.8.3.3 Actual employee expense for FY 2017-18 were Rs. 351.18 Crs, for FY 2018-19 H1 were Rs.183.31 Crs. EDG has projected employee cost for FY 2018-19 H2 of Rs.169.38 Crs and projected FY 2018-19 employee cost at Rs.352.69 Crs.

**Table 5-15: Justification on the employee cost for FY 2018-19**

Particulars	Units	FY 2011-12	FY 2018-19	CAGR
Employee Expenses	Rs. Crs	155.04	352.69	12%
Average No. of Employee	No.	5,606	6,784	3%
Cost per Employee	Rs. Lacs	2.77	5.20	9%

5.8.3.4 From the above table it is observed that, employee expense are increased from FY 2011-12 to FY 2018-19 at a CAGR of 12%. Whereas employee cost per employee increased at CAGR of 9% during same period. From the CPI data from FY 2011-12 to FY 2017-18, it can be observed that CPI has increased at CAGR of 6.49%. Also above salary component includes the impact of 7<sup>th</sup> Pay commission which if excluded will witness a marginal increase as compare to FY 2018-19. Accordingly, EDG request the Hon’ble Commission to approve the Employee cost as submitted in the petition.

5.8.3.5 The head wise actual information for employee expenses has been provided in Format 15 of Tariff Filing Format.

**5.8.4 Repairs & Maintenance Expenses for FY 2018-19:** 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. 15.11 Crores in the first six months period from April-September 2018 which includes Rs.9.75 Crs spend for the Plant and machinery. While projecting the R&M expense for H2, EDG has estimated the expenses based on the budget available with the department. In H2, repairs and maintenance related to plant and machinery only estimated of Rs. 23.13 Crs. Consequently, repairs and maintenance projected expense for FY 2018-19 H2 comes at Rs.35.85 Crs.

5.8.4.2 Accordingly, the R&M expenses for FY 2018-19 worked out to Rs.50.96 Crs. 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.

5.8.4.3 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 5-16: Justification of R&M Expenses for FY 2018-19**

Particulars	Units	FY 2018-19
R&M Expenses	Rs. Crs	50.96
Average GFA	Rs. Crs	1,795
% of GFA	%	2.84%

5.8.4.4 The R&M cost claimed by EDG is ~2.84% of GFA which is lower than the norm of 2.92% approved by the Hon'ble Commission. 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 2018-19:

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 As per Regulation 21.3 of JERC MYT Regulations, 2014 there is provision for expected expenses and one-time expenses.

**"21.3 Administrative and General Expenses**

A&G expenses shall be computed as per the norm escalated by wholesale price index (WPI) and adjusted by provisions for confirmed initiatives (IT etc. initiatives as proposed by the Distribution Licensee and validated by the Commission) or other expected one-time expenses, and shall be governed by following formula:

$$A\&G_n = (A\&G_b * WPI \text{ inflation}) + \text{Provision}$$

where:

A&G<sub>n</sub>: A&G expense for the year n A&G<sub>b</sub>:

A&G expense as per the norm

WPI inflation: is the average increase in the Wholesale Price Index (WPI) for immediately preceding three years

**Provision:** Cost for initiatives or other one-time expenses as proposed by the

Distribution Licensee and validated by the Commission. “

5.8.5.3 A&G Expense for FY 2018-19 is projected by EDG considering the actual of FY 2018-19 H1 and revised projection of FY 2018-19 H2. Actual A&G expense for FY 2018-19 H1 A&G expense is Rs.10.14 Crs and A&G expense for FY 2018-19 H2 is projected at Rs. 17.02 Crs considering budget available for A&G expense of FY 2018-19.

5.8.5.4 Details of the A&G expense actual for H1 and projection for H2 is provided in form 16 of the tariff filing format. In H2, Rs. 7.03 Cr projected for regulatory expense. Hence A&G cost for H2 is approximately higher by Rs.7 Crs compared to actual of H1 cost.

5.8.5.5 Based on H1 actual and projection for H2, FY 2018-19 estimated cost worked out to Rs. 27.16 Crs. The Hon’ble Commission is requested to approve A&G expenses as per projections for FY 2018-19.

5.8.5.6 In case the same is linked to the number of consumer base which has increased in past few years, the cost per consumers has witness a growth of 8.33% whereas CPI growth at CAGR of 6.53% from FY 2012-13 to FY 2017-18. The details are highlighted as below:

**Table 5-17: Justification of A&G Expenses for FY 2018-19**

Particulars	Units	FY 2012-13	FY 2018-19	CAGR
A&G Cost	Rs. Crs	13.80	27.16	11.95%
No. of Consumers	No.	5,23,615	6,37,684	3.34%
Cost per consumer	Rs.	264	426	8.33%

5.8.5.7 Accordingly, EDG request the Hon’ble Commission to approve the A&G cost as submitted in the petition.

5.8.6 O&M Expenses Summary FY 2018-19: Based on the foregoing paragraphs, the O&M expenses for the FY 2018-19 vis-a-vis the approved level by the Hon’ble Commission is shown in the table below:

**Table 5-18: O&M Expenses for FY 2018-19 - Rs. Crs.**

Sl.No.	Particulars	Approved in Order dated 28.03.18	H1 Actual	H2 Projection	FY18-19 Revised Estimation
1	Employee Expenses	270.41	183.31	169.38	352.69
2	A&G Expenses	10.81	10.14	17.02	27.16
3	R&M Expenses	45.60	15.11	35.85	50.96
4	<b>Total O&amp;M Expenses</b>	<b>326.82</b>	<b>208.56</b>	<b>222.25</b>	<b>430.81</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 2018-19 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 ED-Goa submits that it has considered the capex & capitalization for FY 2018-19 as approved by the Commission in the Business Plan order. The Capital Work in Progress (CWIP), Gross Fixed Asset (GFA) and Depreciation for FY 2018-19 are discussed hereunder.

5.9.2 EDG would like to submit that the Gross Block considered in FY 2018-19 is based on audited figure of FY 2014-15 and further addition is based on the provisional actual number for FY 15-16, FY 2016-17 and FY 2017-18 taken while arriving at gross block for FY 2018-19.

5.9.3 EDG hereby submits a gist on the Capital Expenditure & Capitalisation for the FY 2018-19.

**Table 5-19: Capital Expenditure & Capitalisation for FY 2018-19 – Rs. Crs.**

S. No.	Name of Scheme	Capex during FY18-19	Capitalisation during FY18-19
1	Schedule Tribe Development Scheme (P)	35.00	15.00
2	Infrastructure development through Electricity Duty (Plan)	250.00	156.00
3	Erection and Augmentation of 33/11 KV S/S line (Plan)	1.00	1.00
4	Normal Development Schemes (Plan)	14.00	14.00
5	System Improvement Schemes (Plan)	18.00	15.00
6	Construction of staff quarters and office buildings (Plan)	2.00	2.00
7	Strengthening of 220 KV Transmission Network	1.00	1.00
8	Underground Cabling	20.00	20.00
9	Public Lighting Scheme	1.00	1.00
10	APDRP(State Schemes)	1.72	1.72
11	Restructured Accelerated Power Development and Reforms Programme Part A	16.00	16.00
12	R-APDRP Part B / IPDS	35.00	35.00
13	EHV new Transmission / Sub-Station / Capacitor banks schemes	0.16	0.16
14	Erection of 220/110/33/11 KV Sub-Station at Verna (New)	5.00	-
	<b>Total</b>	<b>399.88</b>	<b>277.88</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 2018-19 as per estimates is Rs.399.88 Crores and Rs.277.88 Crores respectively. The detail of capital expenditure schemes for FY 2018-19 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 5-20: CWIP for FY 2018-19 – Rs. Crs**

Sr. No.	Particulars	FY 2018-19
1	Opening Balance	422.13
2	Add: New Investments	399.88
3	Total	822.01
4	Less Investment Capitalized	277.88
5	Other Entries in CWIP	-
5	Closing Balance	544.13

5.9.6 The Opening Balance of GFA for FY 2018-19 comes to around Rs. 1270.16 Crores excluding capitalisation through grants and electricity duty fund. The additions to GFA excluding grant and electricity duty fund are estimated to be around Rs. 90.25 Crores for FY 2018-19; the details of which are provided in the table below:

**Table 5-21: Details of GFA for FY 2018-19 – Rs. Crs.**

Sr. No.	Particulars	Approved	Projected
1	Opening Gross Fixed Assets	1,454.96	1,270.16
2	Add: Capitalization approved	685.27	277.88
3	Less: Capitalization through grants/ED	125.77	187.63
4	<b>Closing Gross Fixed Assets</b>	<b>2,014.46</b>	<b>1,360.40</b>

5.9.7 The Regulation 23 of JERC MYT Regulations, 2014 provides for depreciation to be calculated. Further, as per the regulation, depreciation shall be calculated annually at the rate of depreciation specified by the JERC/ CERC from time to time. Therefore, in line with the Regulation, EDG has calculated the depreciation at Rs. 94.26 Crs. However as per the regulation 23 (b) clearly state that depreciation shall not be allowed on assets funded by capital subsidies, consumer contribution or grants. Depreciation of Rs.92.26 Crs is towards total average GFA base of Rs. 1,794.98 Crs. GFA excluding grant and electricity duty comes to Rs. 1,315.28 Details of the same is provided in form 12 of the tariff filing format. Hence depreciation towards GFA excluding grant and electricity duty comes to Rs. 69.07 Crores 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 2018-19.

**Table 5-22: Depreciation for FY 2018-19 – Rs. Crs.**

Sr. No	Particulars	Approved in Order dated 28.03.18	FY18-19 Estimated
1	Opening Gross Fixed Assets	1,454.96	1,270.16
2	Add: Capitalization approved/Estimated	685.27	277.88
3	Less: Capitalization through grants/ED	125.77	187.63
4	<b>Closing Gross Fixed Assets</b>	<b>2,014.46</b>	<b>1,360.40</b>
5	<b>Average Gross Fixed Assets excluding Grant/Electricity Duty contribution (A)</b>	<b>1,734.71</b>	<b>1,315.28</b>
6	<b>Total Average GFA (B)</b>		<b>1,794.98</b>
8	<b>Total Depreciation (C)</b>	<b>91.59</b>	<b>94.26</b>
9	<b>Depreciation twds GFA (Excl. Grant/ED/Consumer Contribution) (A/B*C)</b>		<b>69.07</b>
10	<b>Rate of Depreciation</b>	<b>5.28%</b>	<b>5.25%</b>

5.9.8 The detail of GFA & Depreciation for FY 2018-19 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 2018-19.

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

5.10.1 As per regulation 24 (b) of MYT Regulations, 2014,

*“(b) If the equity deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan.*

*Provided that where equity actually deployed is less than 30% of the capital cost, the actual loan shall be considered for determination of interest on loans.*

...

*(e) The repayment for the control period shall be deemed to be equal to the depreciation allowed for the year.”*

5.10.2 The Regulation 24(b) 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 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.

5.10.3 The opening normative loan balances considered from the audited accounts of FY 2014-15. additions to loan has been taken as 70% of additions to GFA after excluding on the amount of GFA for APDRP Part B schemes as they are proposed to be funded by grant. Also amount of GFA for Scheme which are funded through Electricity Duty excluded from the addition to loan amount. Normative loan repayments are considered same as depreciation amount excluding in proportion of grant and electricity duty for FY 2018-19.

5.10.4 The rate of Interest for long term Interest rate has been considered at the rate of 11.75% as per latest Interest rate applicable in FY 2018-19 for the loan taken from PFC. 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 5-23: Interest & Finance Charges for FY 2018-19 – Rs. Crs.**

Sl.No.	Particulars	Approved in Order dated 28.03.18	FY18-19 Estimated
1	Opening Normative Loan	773.99	333.32
2	Add: Normative Loan during the year/GFA during the year	391.65	63.17
3	Less: Normative Repayment for the year	91.59	69.07
<b>4</b>	<b>Closing Normative Loan/ GFA</b>	<b>1,074.05</b>	<b>327.43</b>
5	Average Normative Loan	924.02	330.37
6	Rate of Interest	11.60%	11.75%
<b>7</b>	<b>Interest on Normative Loan</b>	<b>107.19</b>	<b>38.82</b>

5.10.6 The Hon'ble Commission is requested to approve the Interest & Finance Charges for FY 2018-19 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 25 of JERC MYT Regulations, 2014, interest on Working Capital for retail supply activity of the licensee shall consist of:

- Receivables for two months of billing
- Less power purchase cost of one month
- Less consumer security deposit but excluding bank guarantee/ fixed deposit receipt
- Inventory for two months based on annual requirement for previous year.

5.11.2 The Interest Rate is considered equivalent to the SBI base Rate available as on 1<sup>st</sup> April of the FY 2018-19 which is at 8.70%.

5.11.3 In line with the aforesaid regulation, the Interest on Working Capital works out to Rs. 11.20 Crores for FY 2018-19 which is provided in the table below:

**Table 5-24: Interest on Working Capital for FY 2018-19 – Rs. Crs.**

Sl.No.	Particulars	Approved in Order dated 28.03.18	FY18-19 Estimated
1	Receivables of 2 Months Billing	325.42	350.17
2	Less: Power Purchase Cost 1 Month	110.81	125.61
3	Less: Consumer Security Deposit Excl. BG/FDR	91.15	95.87
4	Add: Inventory Based on Annual Requirement for Previous FY for 2 months	-	
5	<b>Total Working Capital Requirement</b>	<b>123.47</b>	<b>128.69</b>
6	SBI MCLR Rate (%)	8.65%	0.09
7	<b>Interest on Working Capital</b>	<b>10.68</b>	<b>11.20</b>

5.11.4 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 2018-19 are provided in Format 18 of the Tariff Filing Formats.

## 5.12 Interest on Security Deposit

5.12.1 As per the Regulation 6.10 (8) of Electricity Supply Code Regulations, 2010:

*"The distribution licensee shall pay interest, at the bank rate notified by the Reserve Bank of India from time to time on such security deposits taken from the consumer. In this regard it shall be the responsibility of the licensee to keep a watch on the bank rate from time to time.*

*The interest amount of previous financial year shall be adjusted in the energy bill issued in May/ June of each financial year depending on billing cycle."*

5.12.2 The provision of interest on security deposits is to be made at the bank rate. The prevailing Bank rate is considered at 8.70% as notified by Reserve Bank of India.

5.12.3 In view of the above, Interest on Security Deposit is calculated at Rs. 8.34 Crores on cash security deposit amounts excluding Bank Guarantee & Fixed Deposit Receipts. The table below shows details of Interest on Security Deposit for FY 2018-19:

**Table 5-25: Interest on Security Deposit for FY 2018-19 – Rs. Crs.**

Sl.No.	Particulars	Approved in Order dated 28.03.18	FY18-19 Estimated
1	Opening Security Deposit	90.57	79.48
2	Add: Deposit during the year	1.16	38.65
3	Less: Deposits refunded	0	5.88
4	Less: Deposits in form of BG/FDR		-
5	Closing Security Deposit	91.73	112.25
6	Average	91.15	95.87
7	RBI Bank Rate	7.75%	8.70%
8	<b>Interest on Security Deposit</b>	<b>7.02</b>	<b>8.34</b>

5.12.4 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.

5.12.5 The Hon'ble Commission is requested to approve the Interest on Security Deposit as claimed in ARR for FY 2018-19.

### 5.13 Return on Equity

5.13.1 The proviso of Regulation 27 of MYT Regulations 2014 provides for entitlement for Return on Equity. As per the regulations, RoE is allowed @16% on 30% of the capital base or actual equity, whichever is lower. However, assets funded by consumer contribution, capital subsidies/grants and corresponding depreciation shall not form part of the capital base.

5.13.2 In line with the regulation and the methodology proposed in the MYT Regulations, 2014, EDG has calculated the Return on Equity as outlined in the following table for FY 2018-19.

5.13.3 The opening balance of assets and accumulated depreciation are considered as per audited account of FY 14-15 and further provisional actual numbers used to arrive at the FY 2018-19. 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 2015.

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 5-26: Opening Balance of Equity as on FY 2018-19 – Rs. Crs**

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	66.49
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	31.49
8	<b>Op. Balance of Equity as on 1<sup>st</sup> April 2018</b>	<b>357.26</b>

5.13.5 The table below shows calculation of Return on equity for FY 2018-19:

**Table 5-27: Return on equity for FY 2018-19 – Rs. Crs**

Sl.No.	Particulars	Approved in Order dated 28.03.18	FY18-19 Estimated
1	Opening Equity Amount	436.49	357.26
2	Equity Addition during year (30% of Capitalization)	167.85	27.07
3	Closing Equity Amount	604.34	384.33
4	Average Equity Amount	520.41	370.80
5	Rate of Return on Equity	16.00%	16%
6	<b>Return on Equity</b>	<b>83.27</b>	<b>59.33</b>

5.13.6 The Hon'ble Commission is requested to approve the Return on equity at Rs. 59.33 Crores as shown in the table above. The details of Return on equity for FY 2018-19 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 2018-19 comes to Rs. 25.07 Crores.

5.14.2 The details of Non-Tariff Income for FY 2018-19 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 2018-19 is Rs. 936.58 Crores including FPPCA of Rs. 109.61 Crores. The category wise details of revenue are provided in Format 26 of the MYT Filing Formats.

5.15.2 In Business Plan order dated 16<sup>th</sup> November 2018, the Hon'ble Commission has approved connected load, sales and consumer for FY 2018-19. Based on the same EDG has projected total revenue for FY 2018-19. Revenue from FPPCA charges for FY 2018-19 H2 is calculated on the sales of FY 2018-19 H2 at the FPPCA rate of Q2 of FY 2018-19 which is latest available rate of FPPCA.

5.15.3 The overall revenue from sale of power for FY 2018-19 computes to Rs. 1,858.39 Crores and Hon'ble commission is requested to approve the same.

**Table 5-28: Revenue from Sale of Power for FY 2018-19**

Particulars	Approved in Order dated 28.03.18		FY18-19 H1		FY18-19 Estimated	
	Units (Mus)	Amt (Rs.Crore)	Units (Mus)	Amt (Rs.Crore)	Units (Mus)	Amt (Rs.Crore)
<b>DOMESTIC</b>					-	-
<b>LT-D Domestic</b>						
0-100 units	276.28	46.28	221.30	40.22	446.68	76.90
101-200 units	251.76	56.68	130.34	33.15	263.08	65.03
201-300 units	164.13	47.71	69.48	22.16	140.25	46.33
301-400 units	105.43	38.27	39.61	16.12	79.95	32.69
Above 400 units	201.75	82.92	112.66	51.47	227.40	102.36
<b>Low Income Group</b>	<b>1.10</b>	<b>0.15</b>	<b>0.83</b>	<b>0.19</b>	<b>1.76</b>	<b>0.11</b>
<b>HT-D Domestic</b>	<b>0.28</b>	<b>0.12</b>	<b>0.14</b>	<b>0.08</b>	<b>0.29</b>	<b>0.15</b>
<b>COMMERCIAL</b>						
<b>LT-C Commercial</b>					-	-
0-100 units	49.14	20.04	34.40	15	75.71	32.33
101-200 units	31.05	13.54	20.83	10	45.84	21.72
201-400 units	52.14	25.97	26.19	14	57.64	30.08
Above 400 units	193.08	106.04	123.66	74	272.19	156.28
<b>HT-C Commercial</b>	<b>79.05</b>	<b>56.25</b>	<b>54.75</b>	<b>44</b>	<b>111.50</b>	<b>89.65</b>
<b>INDUSTRIAL</b>						
<b>LT-I Industrial</b>						
0-500 units	19.96	8.87	8.36	4	17.83	9.14
Above 500 units	117.46	47.21	37.45	17	79.90	36.40
<b>Low Tension-Mixed/LT-P (Hotel Industries)</b>	<b>5.31</b>	<b>2.70</b>	<b>2.32</b>	<b>1</b>	<b>5.46</b>	<b>2.95</b>
<b>High Tension-I/HT-I</b>						
Connected at 11/33 kV	1,165.47	621.01	587.37	358	1,197.95	725.25
Connected at 110 kV	232.62	112.20	118.97	66	242.65	130.95
High Tension-Ferro/SM/PI/SR	582.70	291.48	247.07	140	442.64	248.26
<b>AGRICULTURE</b>						
Low Tension-AG/LT-AGP (Pump Sets/Irrigation)	23.86	3.96	8.14	1	16.69	3.15
Low Tension-AG/LT-AGA (Allied Activities)	-	-	0.40	0	0.88	0.19
High Tension-AG/HT-AGP (Pump Sets/Irrigation)	6.08	1.26	2.36	1	4.85	1.07
High Tension-AG/HT-AG (Allied Activities)	-	-	2.55	0.54	4.52	0.95
<b>MILITARY ENGINEERING SERVICES/DEFENSE ESTABLISHMENTS</b>	<b>26.89</b>	<b>14.93</b>	<b>13.26</b>	<b>8.32</b>	<b>26.95</b>	<b>16.22</b>
<b>PUBLIC LIGHTING</b>	<b>36.95</b>	<b>15.73</b>	<b>1.28</b>	<b>0.64</b>	<b>2.66</b>	<b>1.29</b>
<b>HOARDINGS/SIGNBOARDS</b>	<b>0.35</b>	<b>0.35</b>	<b>0.08</b>	<b>0.11</b>	<b>0.24</b>	<b>0.30</b>
<b>TEMPORARY</b>						
<b>LT</b>						
LT Domestic	2.74	1.98	0.65	0.66	1.25	2.22
LT Commercial	19.34	19.28	10.05	13.06	19.26	22.58
<b>HT temporary</b>	<b>-</b>		<b>0.36</b>	<b>0.41</b>	<b>0.30</b>	<b>0.35</b>
<b>Single Point Supply</b>						
Residential Complexes						
Commercial Complexes			2.99	2.11	5.46	3.48
Industrial Complexes						
<b>TOTAL</b>	<b>3,644.92</b>	<b>1,634.92</b>	<b>1,877.83</b>	<b>936.58</b>	<b>3,791.79</b>	<b>1,858.39</b>
<b>ABR</b>		<b>4.49</b>		<b>4.99</b>		<b>4.90</b>



## 5.16 Aggregate Revenue Requirement for FY 2018-19

5.16.1 Based on the submissions made in the foregoing paragraphs, the net Aggregate Revenue Requirement for the year FY 2018-19 and the revenue gap is shown in the table below:

**Table 5-29: Aggregate Revenue Requirement for FY 2018-19 - Rs. Crs**

Sl.No.	Particulars	Approved in Order dated 28.03.18	FY18-19 H1	FY18-19 H2	FY18-19 Estimated
1	Cost of Power Purchase	1,329.68	727.61	779.73	1,507.34
2	Provision for RPO Compliance				
3	Employee Expenses	270.41	183.31	169.38	352.69
4	A&G Expenses	10.81	10.14	17.02	27.16
5	R&M Expenses	45.60	15.11	35.85	50.96
6	Depreciation	-	34.53	34.53	69.07
7	Interest on Loan	107.19	19.41	19.41	38.82
8	Interest on Consumer Security Deposit	7.02	1.23	5.24	6.48
9	Interest on Working Capital	10.68	5.60	5.60	11.20
10	Return on Equity	83.27	29.66	29.66	59.33
11	Provision for Bad Debit	-	-	-	-
12	Provision for DSM Expenses	3.03	-	3.03	3.03
<b>13</b>	<b>Total Revenue Requirement</b>	<b>1,867.69</b>	<b>1,026.61</b>	<b>1,099.46</b>	<b>2,126.07</b>
14	Less: Non-Tariff Income	6.74	5.29	19.78	25.07
<b>15</b>	<b>Net Revenue Requirement</b>	<b>1,860.95</b>	<b>1,021.32</b>	<b>1,079.68</b>	<b>2,101.00</b>

5.16.2 The Hon'ble Commission is requested to approve the net ARR of FY 2018-19 computed at Rs. 2,101.00 Crores as per revised projections.

**Table 5-30: Revenue Gap for FY 2018-19 - Rs. Crs**

Sl.No.	Particulars	Approved in Order dated 28.03.18	FY18-19 H1	FY18-19 H2	FY18-19 Estimated
1	Net Revenue Requirement	1,860.95	1,021.32	1,079.68	2,101.00
2	Revenue from Sale of Power	1,634.92	936.58	921.80	1,858.39
<b>3</b>	<b>Net Gap During the Year</b>	<b>226.02</b>	<b>84.74</b>	<b>157.87</b>	<b>242.61</b>

5.16.3 EDG submits that as per above table the Revenue gap for FY 2018-19 is arrived at Rs. 242.61 Crores. However in tariff petition for FY 2018-19, gap were proposed to be meet partly through tariff hike and partly through budgetary support. In tariff order for FY 2018-19, Hon'ble Commission has increase tariff at an average rate of 6.37% and approved balance gap to be met through budgetary support. Government of Goa through its letter No. 1/14/2017-Fin/(Bud)/ dated 14th December 2017 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 2018-19.



## CHAPTER 6. ARR FOR MYT CONTROL PERIOD FY 2019-20 TO FY 2021-22

### 6.1 Preamble

6.1.1 The Joint Electricity Regulatory Commission (JERC) has notified the Regulations, JERC (Multi Year Distribution Tariff) Regulations, 2018 on 4th September 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 (Multi Year Distribution Tariff) Regulations, 2018 hereafter referred to as 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 (ensuing year for which tariff proposal is being submitted) up to FY 2021-22.

6.1.5 ED-Goa therefore submits Aggregate Revenue Requirement for the MYT control period from FY 2019-20 to FY 2021-22 based on the parameters defined in the MYT Regulations, 2018 which are proposed to be approved by the Hon'ble Commission.

### 6.2 Principles for determination of ARR

6.2.1 This chapter summarizes the Aggregate Revenue Requirement (ARR) for the MYT control period FY 2019-20 to FY 2021-22. The projections for the control period have been made based on the parameters specified in the MYT Regulations, norms proposed and approved in business plan and also based on actual data for previous years.

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

6.2.3 While projecting ARR, EDG has considered the parameters which are approved in Business Plan Order for MYT control period FY 2019-20 to FY 2021-22 issued by Hon'ble Commission on 16<sup>th</sup> November 2018.

### 6.3 Number of Consumers for FY 2019-20 to FY 2021-22

6.3.1 EDG has submitted number of consumer along with past various CAGR and based on rational for each category of consumers specific CAGR has been used to project category wise consumers in its business Plan petition.

6.3.2 Hon'ble Commission has analysed the past data and CAGR assumed by EDG and approved the number of Consumers for MYT control period FY 2019-20 to FY 2021-22. The number of consumers approved by the Hon'ble Commission in Business Plan Order dated 16<sup>th</sup> November, 2018 is considered to project the revenue for MYT control period. Number of consumers considered for MYT control period is tabulated below.

**Table 6-1: Number of Consumers for FY 2019-20 to FY 2021-22**

Category	FY 2019-20	FY 2020-21	FY 2021-22
<b>A. LOW TENSION SUPPLY</b>	<b>6,50,229</b>	<b>6,69,578</b>	<b>6,89,518</b>
Tariff LTD/Domestic and Non-Commercial	5,30,554	5,47,213	5,64,396
Tariff LTD/Low Income Group	1,835	1,835	1,835
Tariff-LTC/Commercial	99,524	1,01,972	1,04,480
LTI-Industry	5,963	5,963	5,963
Tariff-LTP/Mixed (Hotel Industries)	147	151	156
LT-Agriculture	11,928	12,166	12,410
Tariff-LTPL/Public Lighting	215	215	215
Tariff-LT Hoarding and SignBoard	63	63	63
<b>B. HIGH TENSION SUPPLY</b>	<b>1,119</b>	<b>1,192</b>	<b>1,269</b>
Tariff HTD/Domestic	3	3	3
Tariff HT-Commercial	229	240	251
Tariff HTI/Industrial	802	864	930
H.T.Industrial (Ferro Metallurgical/ Steel Melting/ Power I	29	29	29
HT-Agriculture	44	44	44
H.T. MES/Defence Establishments	12	12	12
<b>C. TEMPORARY SUPPLY</b>	<b>5,182</b>	<b>5,182</b>	<b>5,182</b>
Tariff-LT/Temporary Domestic	728	728	728
Tariff-LT/Temporary Commercial	4,453	4,453	4,453
Tariff-HTTS/Temporary Supply	1	1	1
<b>D. SINGLE POINT SUPPLY</b>	<b>1</b>	<b>1</b>	<b>1</b>
Residential Complexes	-	-	-
Commercial Complexes	1	1	1
Industrial Complexes	-	-	-
<b>Total Number of Consumers</b>	<b>6,56,531</b>	<b>6,75,953</b>	<b>6,95,970</b>

### 6.4 Connected load for FY 2019-20 to FY 2021-22

6.4.1 EDG had submitted connected load for MYT control period in Business Plan based on past trend. Which is further analysed by Hon'ble Commission and approved for the MYT control period.

6.4.2 EDG submits that connected load for FY 2019-20 to FY 2021-22 is considered as approved by the Hon'ble Commission in Business Plan Order dated 16<sup>th</sup> November, 2018.

6.4.3 The following table summarises the connected load considered for the MYT control period FY 2019-20 to FY 2021-22.

**Table 6-2: Connected load for FY 2019-20 to FY 2021-22**

Category	FY 2019-20	FY 2020-21	FY 2021-22
<b>A. LOW TENSION SUPPLY</b>	<b>20,24,587</b>	<b>20,99,627</b>	<b>21,77,706</b>
Tariff LTD/Domestic and Non-Commercial	15,01,232	15,64,434	16,30,297
Tariff LTD/Low Income Group	231	231	231
Tariff-LTC/Commercial	3,29,846	3,40,731	3,51,975
LTI-Industry	1,40,551	1,40,551	1,40,551
Tariff-LTP/Mixed (Hotel Industries)	2,868	2,868	2,868
LT-Agriculture	47,640	48,593	49,565
Tariff-LTPL/Public Lighting	1,600	1,600	1,600
Tariff-LT Hoarding and SignBoard	619	619	619
<b>B. HIGH TENSION SUPPLY</b>	<b>7,08,595</b>	<b>7,40,970</b>	<b>7,75,259</b>
Tariff HTD/Domestic	300	300	300
Tariff HT-Commercial	72,650	73,507	74,374
Tariff HTI/Industrial	5,20,370	5,51,853	5,85,240
H.T.Industrial (Ferro Metallurgical/ Steel Melting/ Power Intensive)	98,700	98,700	98,700
HT-Agriculture	9,550	9,550	9,550
H.T. MES/Defence Establishments	7,025	7,060	7,095
<b>C. TEMPORARY SUPPLY</b>	<b>21,034</b>	<b>21,034</b>	<b>21,034</b>
Tariff-LT/Temporary Domestic	1,501	1,501	1,501
Tariff-LT/Temporary Commercial	19,183	19,183	19,183
Tariff-HTTS/Temporary Supply	350	350	350
<b>D. SINGLE POINT SUPPLY</b>	<b>4,035</b>	<b>4,035</b>	<b>4,035</b>
Residential Complexes	-	-	-
Commercial Complexes	4,035	4,035	4,035
Industrial Complexes	-	-	-
<b>Total Number of Consumers</b>	<b>27,58,251</b>	<b>28,65,666</b>	<b>29,78,034</b>

## 6.5 Sales for FY 2019-20 to FY 2021-22

6.5.1 EDG submits that sales for MYT control period FY 2019-20 to FY 2021-22 is approved by the Hon'ble Commission in Business Plan order after analysis of past data and after analysing various CAGRs. Therefore for MYT control period, EDG submits the Sales as per Business Plan order issued by Hon'ble Commission on 16<sup>th</sup> November 2018.

**Table 6-3: Sales (In MUs) for FY 2019-20 to FY 2021-22**

Category	FY 2019-20	FY 2020-21	FY 2021-22
<b>A. LOW TENSION SUPPLY</b>	<b>1,827.37</b>	<b>1,926.41</b>	<b>2,031.68</b>
Tariff LTD/Domestic and Non-Commercial	1,206.08	1,256.86	1,309.77
Tariff LTD/Low Income Group	1.76	1.76	1.76
Tariff-LTC/Commercial	491.97	536.20	584.40
LTI-Industry	101.12	104.63	108.26
Tariff-LTP/Mixed (Hotel Industries)	5.62	5.78	5.95
LT-Agriculture	17.92	18.28	18.64
Tariff-LTPL/Public Lighting	2.66	2.66	2.66
Tariff-LT Hoarding and SignBoard	0.24	0.24	0.24
<b>B. HIGH TENSION SUPPLY</b>	<b>2,126.12</b>	<b>2,226.67</b>	<b>2,333.36</b>
Tariff HTD/Domestic	0.29	0.29	0.29
Tariff HT-Commercial	119.05	127.11	135.72
Tariff HTI/Industrial	1,527.76	1,620.19	1,718.21
H.T.Industrial (Ferro Metallurgical/ Steel Melting/ Power Intensive)	442.64	442.64	442.64
HT-Agriculture	9.37	9.37	9.37
H.T. MES/Defence Establishments	27.01	27.07	27.13
<b>C. TEMPORARY SUPPLY</b>	<b>20.81</b>	<b>20.81</b>	<b>20.81</b>
Tariff-LT/Temporary Domestic	1.00	1.00	1.00
Tariff-LT/Temporary Commercial	19.51	19.51	19.51
Tariff-HTTS/Temporary Supply	0.30	0.30	0.30
<b>D. SINGLE POINT SUPPLY</b>	<b>5.46</b>	<b>5.46</b>	<b>5.46</b>
Residential Complexes	-	-	-
Commercial Complexes	5.46	5.46	5.46
Industrial Complexes	-	-	-
<b>Total Sales (MUs)</b>	<b>3,979.76</b>	<b>4,179.35</b>	<b>4,391.31</b>

6.5.2 The details of Number of Consumers, Connected Load and Sales for MY control period FY 2019-20 to FY 2021-22 are provided in Format 1 of Tariff Filing Formats.

#### 6.6 T&D Loss for FY 2019-20 to FY 2021-22

6.6.1 The Hon'ble Commission has approved T&D losses in business Plan order dated 16<sup>th</sup> November 2018 for MYT control period. EDG submits that, EDG has considered same T&D loss for MYT control period in this petition.

6.6.2 T&D Loss trajectory with loss reduction of 0.25% every year as tabulated below is approved by Hon'ble Commission for MYT control period.

**Table 6-4: T&D Loss FY 2019-20 to FY 2021-22**

Particulars	FY 2019-20	FY 2020-21	FY 2021-22
<b>T&amp;D Loss %</b>	<b>10.75%</b>	<b>10.50%</b>	<b>10.25%</b>

## 6.7 Energy Balance

6.7.1 Based on the approved Sales and distribution loss for FY 2019-20 to FY 2021-22 and PGCIL losses approved in the Business Plan order, the energy requirement is projected by the EDG, Energy balance for FY 2019-20 to FY 2021-22 is shown in the following table:

**Table 6-5: Energy Balance for FY 2019-20 to FY 2021-22**

Particulars	FY 2019-20	FY 2020-21	FY 2021-22
<b>Energy Input at Goa Periphery</b>	<b>4,290.65</b>	<b>4,501.78</b>	<b>4,724.52</b>
<b>Total Power Scheduled/ Purchased at Goa Periphery</b>			
Total Schedule Billed Drawal - CGS	3,677.58	3,796.13	3,796.13
Add: Overdrawal	-	-	-
Add: Power purchase from NNVN / Banking	-	-	-
Add: Power purchase from Traders/ Open Market	318.09	292.00	361.96
Add : Hydro Power	11.25	11.25	11.25
Less: Underdrawal	-	-	-
Add: Renewable Power	457.67	589.29	746.52
Less: Power diverted to Exchange	-	-	-
<b>Total</b>	<b>4,465</b>	<b>4,689</b>	<b>4,916</b>
<b>PGCIL Losses - MUs</b>	<b>173.94</b>	<b>186.89</b>	<b>191.35</b>
<b>PGCIL Losses - %</b>	<b>3.90%</b>	<b>3.99%</b>	<b>3.89%</b>
<b>Total Power Purchased within Goa State</b>			
Add: Co-generation	<b>168.19</b>	<b>168.19</b>	<b>168.19</b>
Add: Independent Power Producers (IPP)	-	-	-
<b>Total</b>	<b>168.19</b>	<b>168.19</b>	<b>168.19</b>
<b>Total Power Purchase availability after PGCIL Losses</b>	<b>4,459</b>	<b>4,670</b>	<b>4,893</b>
Less: Retail Sales to Consumers	3,979.76	4,179.35	4,391.31
Distribution Losses - MUs	479.35	490.31	501.51
<b>Distribution Losses - %</b>	<b>10.75%</b>	<b>10.50%</b>	<b>10.25%</b>

6.7.2 EDG submits that PGCIL losses approved by the Commission for WR and SR level are 3.26% & 9.87% respectively and the same has been considered in this petition, i.e. as per approved Business Plan order for FY 2019-20 to FY 2021-22.

## 6.8 Power Purchase quantum and Cost for FY 2019-20 to 2021-22

6.8.1 The 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.”*

6.8.2 EDG had submitted detailed power procurement plan in chapter 5 of the Business Plan for MYT control period FY 2019-20 to FY 2021-22. 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 Business Plan order dated 16<sup>th</sup> November 2018.

- 6.8.3 Following is the Power purchase quantum for FY 2019-20 to FY 2021-22 submitted for the MYT control period FY 2019-20 to FY 2021-22.



**Table 6-6: Power Purchase Quantum for FY 2019-20 to FY 2021-22**

Sr. No.	Source	FY 2019-20 MUs	FY 2020-21 MUs	FY 2021-22 MUs
<b>A</b>	<b>Central Sector Power Stations</b>			
<b>1</b>	<b>NTPC</b>	<b>3,594.63</b>	<b>3,713.18</b>	<b>3,713.18</b>
	KSTPS	1,561.91	1,561.91	1,561.91
	VSTPS - I	258.91	258.91	258.91
	VSTPS - II	107.06	107.06	107.06
	VSTPS -III	93.76	93.76	93.76
	VSTPS-IV	113.05	113.05	113.05
	VSTPS-V	53.86	53.86	53.86
	KGPP	40.58	40.58	40.58
	GGPP	49.76	49.76	49.76
	SIPAT- I	215.11	215.11	215.11
	FSTPS	-	-	-
	KSTPS-III	53.49	53.49	53.49
	TSTPS	-	-	-
	KHSTPS-I	-	-	-
	RSTPS	705.75	705.75	705.75
	SIPAT- II	94.97	94.97	94.97
	Solapur	38.46	38.46	38.46
	Mouda I	53.43	53.43	53.43
	Mouda II	35.96	35.96	35.96
	Lara STPP – I & II	25.79	51.57	51.57
	Khargone STPP	41.45	82.90	82.90
	Gadarwara STPP	51.33	102.65	102.65
<b>2</b>	<b>NPCIL</b>	<b>82.95</b>	<b>82.95</b>	<b>82.95</b>
	KAPS	-	-	-
	TAPS	82.95	82.95	82.95
<b>3</b>	<b>New Hydro Station</b>	<b>11.25</b>	<b>11.25</b>	<b>11.25</b>
	Kameng HEP	11.25	11.25	11.25
<b>4</b>	<b>Traders</b>	<b>318.09</b>	<b>292.00</b>	<b>361.96</b>
	a) IEX PURCHASE AND SALES	318.09	292.00	361.96
	b) Traders			
<b>B</b>	<b>Within State Generations</b>			
	<b>CO- GENERATION</b>	<b>168.19</b>	<b>168.19</b>	<b>168.19</b>
	Vedanta Plant-1	92.90	92.90	92.90
	Vedanta Plant -2	69.89	69.89	69.89
	Goa Sponge and private limited	5.40	5.40	5.40
<b>C</b>	<b>RPO Obligation</b>	<b>457.67</b>	<b>589.29</b>	<b>746.52</b>
	MPL Solar (STOA)	-	-	-
	NVVNL Solar	11.60	-	-
	SECI Solar	51.10	51.10	51.10
	NTPC Solar	-	136.88	273.75
	Short Term Tender DEEP portal - Solar	124.35	66.96	26.45
	SECI Wind (Non Solar)	153.30	306.60	306.60
	Hindustan waste treatment plant Goa	2.00	2.00	2.00
	NVVNL Hydro (Non Solar)	-	-	-
	Short Term Tender DEEP portal - Non Solar	115.32	25.75	86.62
	<b>Total Energy available</b>	<b>4,632.78</b>	<b>4,856.86</b>	<b>5,084.06</b>

6.8.4 Power purchase quantum projected above is as approved by Hon'ble Commission in

Business Plan order, and additional power from the market/traders/DEEP portal to meet the RPO obligations and to meet energy deficit.

6.8.5 Power purchase cost: - In Business Plan petition, EDG had submitted the power purchase procurement plan along with power purchase cost. However in Business Plan order, only power procurement quantum has been approved. Parameters assumed while projecting the power purchase cost for MYT period is discussed in upcoming sections.

6.8.6 **Fixed Cost and Variable Cost for Central Generating Stations:** - for the projection of CGS cost, fixed cost for CGS considered with 5% escalation on the cost of FY 2018-19, and arrived fixed cost considered for whole control period (FY 2019-20 to FY 2021-22). No escalation has been considered on fixed cost during the control period. Whereas for Variable cost rate for CGS has been considered with 2% escalation on the FY 2018-19 variable cost rate and further it is escalated every year at 2%. The following table shows the variable and fixed cost considered for entire control period.

**Table 6-7: Fixed Cost and Variable Cost for CGS for FY 2019-20 to FY 2021-22**

Source	FY 2019-20		FY 2020-21		FY 2021-22	
	Fixed (Rs. Crores)	Variable (Rs./unit)	Fixed (Rs. Crores)	Variable (Rs./unit)	Fixed (Rs. Crores)	Variable (Rs./unit)
<b>Central Sector Power Stations</b>						
<b>NTPC</b>	<b>372.19</b>		<b>372.19</b>		<b>372.19</b>	
KSTPS	109.09	1.29	109.09	1.32	109.09	1.35
VSTPS - I	25.23	1.53	25.23	1.56	25.23	1.60
VSTPS - II	8.90	1.43	8.90	1.46	8.90	1.49
VSTPS -III	11.86	1.44	11.86	1.47	11.86	1.50
VSTPS-IV	22.34	1.44	22.34	1.47	22.34	1.50
VSTPS-V	11.03	1.47	11.03	1.50	11.03	1.53
KGPP	7.95	2.47	7.95	2.52	7.95	2.57
GGPP	9.81	2.41	9.81	2.45	9.81	2.50
SIPAT- I	33.93	1.27	33.93	1.30	33.93	1.33
KSTPS-III	8.64	1.27	8.64	1.30	8.64	1.33
RSTPS	53.05	2.48	53.05	2.53	53.05	2.58
SIPAT- II	13.65	1.32	13.65	1.34	13.65	1.37
Solapur	16.58	3.77	16.58	3.85	16.58	3.93
Mouda I	19.34	3.17	19.34	3.23	19.34	3.30
Mouda II	20.78	2.98	20.78	3.04	20.78	3.10
Lara STPP – I & II	-	3.27	-	3.34	-	3.40
Khargone STPP	-	4.32	-	4.41	-	4.49
Gadarwara STPP	-	3.63	-	3.70	-	3.78
TAPS		3.22		3.29		3.35

6.8.7 Cost of Co-generation stations: - EDG submits that variable cost rate for Co-generating plants of Vedanta Plant 1 & 2 and Goa Sponge Pvt Ltd. is considered at the same rate it is being charged in FY 2018-19. Variable cost rate of Vedanta Plant 1&2 and Goa sponge Pvt Ltd is 240.50 Ps/Unit, 239.69 Ps/Unit and 239.24 Ps/unit respectively, also these rate considered same for FY 2019-20 to FY 2021-22.

6.8.8 Energy from Solar: - As regards fulfilment of Solar RPO is concerned, EDG has been procuring power from the Renewable Sources whereby 6 MW Solar Power is procured from NVVNL and 25 MW from SECIL to meet its RPO obligations. The NVVNL tie-up will be till FY 19-20 only. Hence, power purchase from NVVNL has been considered in FY 2019-20 only at the rate of 878.36 Ps/Unit. Power Purchase from SECI of approx. 51 MUs has been considered during the entire control period at Rs.5.84/Unit.

6.8.9 Further, EDG has planned the tie-ups of Renewable energy during the control period to meet its RPO obligations. For Solar Power, ED-Goa is in advance stage of finalization of 125 MW solar with NTPC Solar and envisages the supply to start from second half of FY 2020-21 at the rate of Rs 3.0/unit at goa periphery. Apart from above, to meet any shortfall (if any) and to fulfil the Solar RPO obligation, EDG shall purchase power through short term (Traders) through DEEP portal at the rate of Rs.4.75/Unit for FY 2019-20 and Rs.4.50/Unit for FY 2020-21 and FY 2021-22.

6.8.10 **Energy from Non-Solar:** EDG submits that, non-solar Renewable power for meeting the RPO during MYT control period to be procured through short term on DEEP portal. EDG is also procuring 2 MUs every year from Hindustan Waste Energy Ltd and the same has been envisaged to buy during the entire control period at the rate of Rs.5.50/unit.

6.8.11 Further, EDG has also tied up with SECI for 2x50 MW Wind power. The expected COD of first is 50 MW is May 2019 and for the next 50 MW is November 2019. ED-Goa has tied-up the power at a rate of Rs. 2.72/unit and Rs.2.52/unit during MYT control period. Despite this arrangement of Non-Solar, if any power requirement arises to meet the Non-Solar RPO obligation, it will be procured through short term on DEEP portal at the rate of Rs.3.50/Unit.

**Table 6-8: RPO obligation and compliance for FY 2019-20 to FY 2021-22**

Description	Units	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22
<b>Sales Within State (A)</b>	<b>MUs</b>	<b>3,439.99</b>	<b>3,232.80</b>	<b>3,027.50</b>	<b>3,614.71</b>	<b>3,791.79</b>	<b>3,979.76</b>	<b>4,179.35</b>	<b>4,391.31</b>
<b>RPO Obligation</b>	<b>%</b>	<b>3.30%</b>	<b>3.55%</b>	<b>4.85%</b>	<b>6.70%</b>	<b>9.00%</b>	<b>11.50%</b>	<b>14.10%</b>	<b>17.00%</b>
- Solar	%	0.60%	0.85%	1.65%	2.50%	3.60%	4.70%	6.10%	8.00%
- Non Solar	%	2.70%	2.70%	3.20%	4.20%	5.40%	6.80%	8.00%	9.00%
<b>RPO Obligation</b>	<b>MUs</b>	<b>113.52</b>	<b>114.76</b>	<b>146.83</b>	<b>242.19</b>	<b>341.26</b>	<b>457.67</b>	<b>589.29</b>	<b>746.52</b>
- Solar	MUs	20.64	27.48	49.95	90.37	136.50	187.05	254.94	351.30
- Non Solar	MUs	92.88	87.29	96.88	151.82	204.76	270.62	334.35	395.22
<b>RPO Purchase / REC</b>	<b>MUs</b>	<b>152.56</b>	<b>166.49</b>	<b>138.42</b>	<b>248.83</b>	<b>359.71</b>	<b>457.67</b>	<b>589.29</b>	<b>746.52</b>
- Solar	MUs	6.58	78.51	65.54	83.30	143.57	187.05	254.94	351.30
- Non Solar	MUs	145.98	87.98	72.88	165.52	216.14	270.62	334.35	395.22
<b>Cumulative RPO Obligation</b>	<b>-</b>	<b>54.83</b>	<b>3.10</b>	<b>25.09</b>	<b>18.45</b>	<b>0.00</b>	<b>-</b>	<b>-</b>	<b>-</b>
- Solar	MUs	53.05	2.01	-	7.07	-	-	-	-
- Non Solar	MUs	1.78	1.09	25.09	11.38	0.00	-	-	-

6.8.12 Cost of New Hydro station-Kameng: - Variable cost for new hydro station Kameng is considered of 399.82 Ps/Unit for FY 2019-20, which is considered same as actual variable cost rate in FY 2018-19. However for FY 2020-21 and FY 2021-22 variable cost rate considered 407.82 Ps/Unit and 415.97 Ps/Unit after 2% escalation in FY 2020-21 and FY 2021-22.

6.8.13 Cost of Power procured from traders/IEX:- for projection of MYT control period FY 2019-20 to FY 2021-22, after meeting RPO quantum from the Renewable sources and short term renewable power, 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 450 Ps/Unit for FY 2019-20, FY 2020-21 and FY 2021-22.

6.8.14 PGCIL Transmission Charges: Transmission charges has been projected for FY 2018-19 H2 as discussed in chapter 5.7 of this petition.

6.8.15 EDG has worked out the various CAGR for transmission charges per units from FY 2011-12 to F 2018-19. In which it is observed that there is no specific trend/growth rate in 1 year to 7 years CAGR and there are sudden spikes in the CAGR. Hence EDG has assumed a nominal 2% of escalation on the cost arrived for FY 2018-19 H2 in previous chapter.

6.8.16 Past trend of transmission charges from FY 2011-12 to FY 2018-19 is tabulated below.

**Table 6-9: Transmission charges FY 2019-20 to FY 2021-22**

Particulars	Units	Order	Provisional APR	APR		Audited	Audited	Audited	Audited
		FY 18-19	FY 17-18	FY 16-17	FY 15-16	FY 14-15	FY 13-14	FY 12-13	FY 11-12
PGCIL Cost	Rs. Crs	184	159	193	161	132	121	100	101
CGS Units	MUs	3,544	3,558	3,477	3,431	3,404	3,381	3,309	3,421
Total Power purchase Units	MUs	4,160	4,232	4,068	4,041	3,921	3,617	3,577	3,812
Cost per CGS Units	Rs/MU	0.52	0.45	0.55	0.47	0.39	0.36	0.30	0.29
Cost per total Units	Rs/MU	0.44	0.37	0.47	0.40	0.34	0.33	0.28	0.26

CAGRs	Units	7 Yrs	5 Yrs	3 Yrs	1 Yr	2 Yr
Transmission charges per CGS Units	Growth %	8.43%	7.75%	3.32%	16.34%	-3.21%
Transmission charges per total Units	Growth %	7.62%	5.76%	3.43%	17.87%	-3.37%

6.8.17 The following table shows the summary of transmission charges which are arrived for the entire control period.-

**Table 6-10: Transmission charges FY 2019-20 to FY 2021-22**

Particulars	H2 FY 2018-19	FY 19-20 Rs.Crs	FY 20-21 Rs.Crs	FY 21-22 Rs.Crs
POC Transmission charge	88.26	180.05	183.65	187.32
Fees and Charges of SRLDC-WR	0.16	0.32	0.33	0.34
Fees and Charges of SRLDC-SR	0.03	0.06	0.06	0.06
SCADA and Reactive Charges	-	-	-	-
<b>Total</b>	<b>88.45</b>	<b>180.43</b>	<b>184.04</b>	<b>187.72</b>
Escalation rate considered		2.00%	2.00%	2.00%

6.8.18 As discussed in forgoing paras, following is the station wise power purchase quantum and cost for the MYT control period.

**Table 6-11: Power purchase quantum and cost for FY 2019-20 to FY 2021-22**

Source	FY 2019-20		FY 2020-21		FY 2021-22	
	Units (MUs)	Rs. Crs	Units (MUs)	Rs. Crs	Units (MUs)	Rs. Crs
<b>Central Sector Power Stations</b>						
<b>NTPC</b>	<b>3,594.63</b>	<b>997.99</b>	<b>3,713.18</b>	<b>1,056.38</b>	<b>3,713.18</b>	<b>1,070.06</b>
KSTPS	1,561.91	311.25	1,561.91	315.29	1,561.91	319.41
VSTPS - I	258.91	64.95	258.91	65.74	258.91	66.55
VSTPS - II	107.06	24.23	107.06	24.54	107.06	24.85
VSTPS -III	93.76	25.34	93.76	25.61	93.76	25.88
VSTPS-IV	113.05	38.60	113.05	38.92	113.05	39.25
VSTPS-V	53.86	18.94	53.86	19.09	53.86	19.26
KGPP	40.58	17.96	40.58	18.16	40.58	18.36
GGPP	49.76	21.78	49.76	22.02	49.76	22.27
SIPAT- I	215.11	61.33	215.11	61.87	215.11	62.43
FSTPS	-	-	-	-	-	-
KSTPS-III	53.49	15.45	53.49	15.59	53.49	15.73
TSTPS	-	-	-	-	-	-
KHSTPS-I	-	-	-	-	-	-
RSTPS	705.75	228.17	705.75	231.68	705.75	235.25
SIPAT- II	94.97	26.16	94.97	26.41	94.97	26.66
Solapur	38.46	31.10	38.46	31.39	38.46	31.68
Mouda I	53.43	36.26	53.43	36.60	53.43	36.95
Mouda II	35.96	31.51	35.96	31.72	35.96	31.94
Lara STPP – I & II	25.79	8.43	51.57	17.20	51.57	17.54
Khargone STPP	41.45	17.91	82.90	36.53	82.90	37.26
Gadarwara STPP	51.33	18.63	102.65	38.01	102.65	38.77
<b>NPCIL</b>	<b>82.95</b>	<b>26.74</b>	<b>82.95</b>	<b>27.28</b>	<b>82.95</b>	<b>27.82</b>
KAPS	-	-	-	-	-	-
TAPS	82.95	26.74	82.95	27.28	82.95	27.82
<b>New Hydro Station</b>	<b>11.25</b>	<b>4.50</b>	<b>11.25</b>	<b>4.59</b>	<b>11.25</b>	<b>4.68</b>
Kameng HEP	11.25	4.50	11.25	4.59	11.25	4.68
<b>Traders</b>	<b>318.09</b>	<b>143.14</b>	<b>292.00</b>	<b>131.40</b>	<b>361.96</b>	<b>162.88</b>
a) IEX PURCHASE AND SALES	318.09	143.14	292.00	131.40	361.96	162.88
b) Traders	-	-	-	-	-	-
<b>Within State Generations</b>						
<b>CO- GENERATION</b>	<b>168.19</b>	<b>40.39</b>	<b>168.19</b>	<b>40.39</b>	<b>168.19</b>	<b>40.39</b>
Vedanta Plant-1	92.90	22.34	92.90	22.34	92.90	22.34
Vedanta Plant -2	69.89	16.75	69.89	16.75	69.89	16.75
Goa Sponge and private limited	5.40	1.29	5.40	1.29	5.40	1.29
<b>RPO Obligation</b>	<b>457.67</b>	<b>180.72</b>	<b>589.29</b>	<b>161.35</b>	<b>746.52</b>	<b>223.71</b>
MPL Solar (STOA)	-	-	-	-	-	-
NVVNL Solar	11.60	10.19	-	-	-	-
SECI Solar	51.10	29.84	51.10	29.84	51.10	29.84
NTPC Solar	-	-	136.88	41.06	273.75	82.13
Short Term Tender DEEP portal - Solar	124.35	59.07	66.96	-	26.45	-
SECI Wind (Non Solar)	153.30	40.16	306.60	80.33	306.60	80.33
Hindustan waste treatment plant Goa	2.00	1.10	2.00	1.10	2.00	1.10
NVVNL Hydro (Non Solar)	-	-	-	-	-	-
Short Term Tender DEEP portal - Non Solar	115.32	40.36	25.75	9.01	86.62	30.32
<b>OTHER CHARGES</b>	<b>-</b>	<b>180.43</b>	<b>-</b>	<b>184.04</b>	<b>-</b>	<b>187.72</b>
PGCIL Transmission Charges, Wheeling, Oen Access & Trading Marrgin & Other Charges	-	180.43	-	184.04	-	187.72
<b>Total Energy available</b>	<b>4,632.78</b>	<b>1,573.92</b>	<b>4,856.86</b>	<b>1,605.42</b>	<b>5,084.06</b>	<b>1,717.27</b>

6.8.19 The Hon'ble Commission is kindly requested to approve the total power purchase cost of for the control period as stated in the table above. The details of the Power Purchase Expenses for FY 2019-20 to FY 2021-22 are provided in Format 4 of Tariff Filing Formats.

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

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

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

6.9.2 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 transmission Licensee, estimates of the actuals for the Base Year, prudence check and any other factors considered appropriate by the Commission.

6.9.3 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,*

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

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

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

*'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;*

*GFA<sub>n-1</sub> – 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:*

*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.*

6.9.4 **Employee Cost:** - While projecting employee cost for the MYT control period FY 2019-20 to FY 2021-22, EDG has considered FY 2018-19 as base year. As per regulations, it is stated that latest available audited accounts to be taken in to account while determining O&M expense for MYT control period. However latest audited accounts are available for FY 2014-15. Employee cost for FY 2019-20 to FY 2021-22 is projected based on the methodology as provided in the Regulation as above. For FY 2018-19 (base year), employee cost considered as submitted in the FY 2018-19 APR chapter. FY 2018-19 cost considered with H1 actual and projection for H2.

6.9.5 As per regulation 51 of JERC MYT Regulation, 2018, G<sub>n</sub> factor is a growth factor which will be approved by Hon'ble Commission to meet the additional manpower requirement proposed MYT tariff filing. EDG submit that calculation of G<sub>n</sub> factor to project the employee cost for MYT control period is arrived by considering last 3 year CAGR from FY 2014-15 to FY 2016-17. For calculating of CAGR, cost for FY 2017-18 is not considered, as FY 2017-18 includes the impact of 7<sup>th</sup> pay commission. It gives CAGR of ~14%, which is very high. Therefore for the projection of employee cost, CAGR of 1.42% (from FY 2014-15 to FY 2016-17) is considered as Growth factor in above calculations. Calculation of growth factor of 1.42% is provided below:-



**Table 6-12: Calculation of Growth factor considered for Employee cost**

Particulars	Audited				Actual	Actual	Actual
	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	FY 2017-18
Number of employees	6,210	6,200	4,910	6,561	6,372	7,160	7,195
Projected Employee Cost (Rs. Crs)	155.04	154.63	170.07	205.70	161.53	230.92	351.18
Employee Expense per Employee (Rs Cr)	0.02	0.02	0.03	0.03	0.03	0.03	0.05
<b>Last 3 yrs audited CAGR</b>	<b>17.79%</b>						
<b>Last 3 yrs CAGR (considering FY 16-17 since FY 17-18 has 7th Pay commission impact)</b>	<b>1.42%</b>						
<b>Last 5 yrs CAGR (considering FY 17-18)</b>	<b>14.37%</b>						

6.9.6 As per regulation, CPI inflation of three preceding years to be considered. Hence EDG has considered average of CPI inflation for FY 2015-16 to FY 2017-18. Working of the same is provided as under:-

**Table 6-13: Calculation of CPI rate considered for Employee Cost projection**

Particulars	FY 11-12	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18
<b>CPI based on Industrial Workers, All India</b>	195.00	215.17	236.00	250.83	265.00	275.92	284.42
YoY		10.34%	9.68%	6.28%	5.65%	4.12%	3.08%
5 years average							5.76%
3 years average							4.28%

6.9.7 Computation of employee cost for MYT control period FY 2019-20 to 2021-22 is provided as under:-

**Table 6-14: Calculation of Employee cost for FY 2019-20 to FY 2021-22**

Particulars	Units	Base Year	MYT Control period		
		FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22
<b>Employee Cost for nth-1 year (A)</b>	<b>Rs. Crs</b>		<b>352.69</b>	<b>373.03</b>	<b>394.55</b>
Gn Factor (5 Yr CAGR) (B)	%		1.42%	1.42%	1.42%
CPI Inflation (C)	%		4.28%	4.28%	4.28%
<b>Employee Cost for nth year D= A*(1+B)*(1+C)</b>	<b>Rs. Crs</b>	<b>352.69</b>	<b>373.03</b>	<b>394.55</b>	<b>417.31</b>

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

6.9.9 As per JERC MYT regulations, 2018, average of preceding three years of WPI considered in above calculation of R&M expense. Calculation of average rate of WPI of 0.33% is shown below.

**Table 6-15: Calculation of R&M Expense for MYT Control period**

Escalation rate working	FY 11-12	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18
WPI based on Office of Economic Advisor, GoI	100.00	106.90	112.50	113.90	109.70	111.60	114.9
YoY		6.90%	5.24%	1.24%	-3.69%	1.73%	2.96%
5 years average							1.50%
3 years average							0.33%

6.9.10 K factor is calculated as R&M over GFA, As per FY 2017-18 APR, R&M expense were projected Rs.30.06 Crs in APR of FY 2017-18 and Average GFA of FY 2017-18 Rs. 1550.13 Crs considered to arrive at K factor.

6.9.11 Calculation of R&M expense for MYT control period is provided below:-

**Table 6-16: Calculation of R&M Expense for MYT Control period**

Particulars	Units	Base Year	MYT Control period		
		FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22
Avg GFA for nth-1 year (A)	Rs. Crs		1,794.98	1,715.25	1,648.15
K Factor (R&M Cost /GFA ) (B)	%		1.94%	1.94%	1.94%
WPI Inflation (C)	%		0.33%	0.33%	0.33%
R&M Cost for nth year $D= A*B*(1+C)$	Rs. Crs	50.96	34.93	33.37	32.07

6.9.12 Administrative and General Expenses: - In line with JERC MYT regulations, 2018, A&G expense are projected as per formula stated in previous para. A&G expense of FY 2018-19 as per projection for APR is considered as base to project the A&G expense for MYT control period. Calculation of A&G expense for MYT control period is provided below:-

**Table 6-17: Calculation of A&G Expense for MYT Control period**

Particulars	Units	Base Year	MYT Control period		
		FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22
A&G Cost for nth-1 year (A)	Rs. Crs		27.16	28.33	29.54
CPI Inflation (b)	%		4.28%	4.28%	4.28%
A&G Cost for nth year $D= A*B*(1+C)$	Rs. Crs	27.16	28.33	29.54	30.81

## 6.10 Capital expenditure and Capitalisation

6.10.1 The 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;*

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

6.10.2 As per above provisions of Capital investment plan, EDG has submitted the proposed

plan of Capex and capitalisation plan in chapter 6 of the Business Plan petition. However Hon'ble Commission has approved only capex and capitalisation for the scheme for which DPR and technical approval CEA is submitted the Commission. Therefore EDG is now submitting Capex and Capitalisation for the MYT control period as approved by Hon'ble Commission in Business Plan order dated 16<sup>th</sup> November 2018.

6.10.3 Summary of the Capex and Capitalisation submitting for MYT control period is tabulated as under:-

**Table 6-18: Capital Expenditure and Capitalization for MYT Control period**

S.No.	Particulars	FY 2019-20	FY 2020-21	FY 2021-22
1	Capital Expenditure	575.28	330.43	225.00
2	Capitalization	442.99	303.13	345.00

6.10.4 It is submitted that the scheme wise details of capital expenditure and capitalization for each of the year during the control period has also been provided in Format 5 of Tariff Filing Formats.

6.10.5 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.

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

**Table 6-19: Net addition to GFA for MYT Control period**

S. No	Particulars	FY 2019-20	FY 2020-21	FY 2021-22
1	Additions to GFA	442.99	303.13	345.00
2	Less: 75% Grant Component of APDRP Part-B / IPDS scheme	86.25	112.50	150.00
3	Less: Schemes out of ED Fund	154.20	137.27	120.00
4	<b>Net Additions to GFA</b>	<b>202.54</b>	<b>53.36</b>	<b>75.00</b>

## 6.11 Depreciation

6.11.1 The 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

6.11.2 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 MYT regulations 2018. Further, the assets which are newly commissioned or capitalised, for which depreciation is calculated at new rate mentioned in the Regulations.

6.11.3 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.

6.11.4 In line with above, the following table shows the depreciation projected by EDG for the MYT control period FY 2019-20 to FY 2021-22

**Table 6-20: Depreciation for MYT Control period**

Sr. No	Particulars	FY 2019-20	FY 2020-21	FY 2021-22
1	Opening Gross Fixed Assets	1,360.40	1,562.94	1,616.30
2	Add: Capitalization approved/Estimated	442.99	303.13	345
3	Less: Capitalization through grants/ED	240.45	249.77	270.00
4	<b>Closing Gross Fixed Assets</b>	<b>1,562.94</b>	<b>1,616.30</b>	<b>1,691.30</b>
5	<b>Average Gross Fixed Assets excluding Grant/Electricity Duty contribution (A)</b>	<b>1,461.67</b>	<b>1,589.62</b>	<b>1,653.80</b>
6	<b>Total Average GFA (B)</b>	<b>1,715.25</b>	<b>1,648.15</b>	<b>1,972.21</b>
8	<b>Total Depreciation (C)</b>	<b>46.93</b>	<b>60.66</b>	<b>72.59</b>
9	<b>Depreciation twds GFA (Excl. Grant/ED/Consumer Contribution) (A/B*C)</b>	<b>39.99</b>	<b>58.51</b>	<b>60.87</b>
10	<b>Rate of Depreciation</b>	<b>2.74%</b>	<b>3.68%</b>	<b>3.68%</b>

## 6.12 Interest on Loan:-

6.12.1 The 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.”

6.12.2 Based on the above Regulations, ED-Goa has calculated interest on Loan for the control period in the following manner.

6.12.3 EDG doesn't have any actual loan in EDG's books, 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 2014 in final true up of FY 2013-14. The same normative loan balance has considered as opening balance for FY 2014-15, 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 forwards as opening normative loan for first year of MYT control period. Further during every year of control period, addition of net GFA (excluding grant and electricity duty) is added. Accordingly average loan for each year of control period arrived at. Interest rate charged by PFC for the loan given to Government of Goa for the capital investment of EDG is considered as Interest rate to calculate the normative interest on loan.

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

**Table 6-21: Normative Interest on Loan for MYT Control period**

Sl.No.	Particulars	FY 2019-20	FY 2020-21	FY 2021-22
1	Opening Normative Loan	327.43	429.21	408.05
2	Add: Normative Loan during the year/GFA during the year	141.78	37.35	52.50
3	Less: Normative Repayment for the year	39.99	58.51	60.87
4	<b>Closing Normative Loan/ GFA</b>	<b>429.21</b>	<b>408.05</b>	<b>399.68</b>
5	Average Normative Loan	378.32	418.63	403.87
6	Rate of Interest	11.75%	11.75%	11.75%
7	<b>Interest on Normative Loan</b>	<b>44.45</b>	<b>49.19</b>	<b>47.45</b>

6.12.5 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.

### 6.13 Interest on Working Capital

6.13.1 The 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;

6.13.2 In line with above provisions stated in MYT Regulations, 2018. EDG has calculated the working capital requirement. As on 1<sup>st</sup> April 2018, MCLR rate is at 8.15% plus 200 basis point. Hence Interest rate of 10.15% is considered to calculate the Interest on working capital loan for the MYT control period.

6.13.3 Following table shows the Interest on working capital loan for MYT control period.

**Table 6-22: Interest on working capital for MYT Control period**

Sl.No.	Particulars	FY 2019-20	FY 2020-21	FY 2021-22
1	Two Months Receivable	364.72	377.01	400.22
2	O&M expense 1 month	36.36	38.12	40.02
3	Maintenance 40% of O&M 1 month	14.54	15.25	16.01
4	<b>Total working Capital requirement</b>	<b>415.62</b>	<b>430.38</b>	<b>456.25</b>
5	Less: Security Deposit	128.32	164.05	209.13
6	<b>Net working Capital requirement</b>	<b>287.30</b>	<b>266.33</b>	<b>247.12</b>
7	Interest Rate	10.15%	10.15%	10.15%
8	<b>Interest on working capital</b>	<b>29.16</b>	<b>27.03</b>	<b>25.08</b>

6.13.4 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.

### **6.14 Return on Equity**

6.14.1 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.

6.14.2 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.”*

6.14.3 Opening equity for FY 2019-20 is taken as per closing normative equity for FY 2018-19 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.

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

**Table 6-23: Return on equity for MYT Control period**

Sl.No.	Particulars	FY 2019-20	FY 2020-21	FY 2021-22
1	<b>Opening Equity Amount</b>	<b>384.33</b>	<b>445.10</b>	<b>461.10</b>
2	Equity Addition during year (30% of Capitalization)	60.76	16.01	22.50
3	<b>Closing Equity Amount</b>	<b>445.10</b>	<b>461.10</b>	<b>483.60</b>
4	<b>Average Equity Amount</b>	<b>414.71</b>	<b>453.10</b>	<b>472.35</b>
5	Rate of Return on Equity	16.00%	16.00%	16.00%
6	<b>Return on Equity</b>	<b>66.35</b>	<b>72.50</b>	<b>75.58</b>

6.14.5 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.

## **6.15 Interest on Security Deposit**

6.15.1 The opening security deposit is considered from the closing balance of deposit arrived for FY 2018-19. Addition of consumer security deposit projected as per new consumer expected to connect during MYT control period. The interest rate considered is 8.70% based on the RBI bank rate applicable on the 1<sup>st</sup> April of the financial year in which tariff petition is being filed.

6.15.2 The following table shows the interest on security deposit for FY 2019-20 to FY 2021-22.

**Table 6-24: Interest on Security Deposit for MYT Control period**

Sl.No.	Particulars	FY 2019-20	FY 2020-21	FY 2021-22
1	<b>Opening Security Deposit</b>	<b>112.25</b>	<b>144.39</b>	<b>183.71</b>
2	Add: Deposit during the year	38.72	46.95	59.36
3	Less: Deposits refunded	6.58	7.63	8.53
4	Less: Deposits in form of BG/FDR	0	-	-
5	<b>Closing Security Deposit</b>	<b>144.39</b>	<b>183.71</b>	<b>234.54</b>
6	<b>Average</b>	<b>128.32</b>	<b>164.05</b>	<b>209.13</b>
7	RBI Bank Rate	8.70%	8.70%	8.70%
8	<b>Interest on Security Deposit</b>	<b>11.16</b>	<b>14.27</b>	<b>18.19</b>

6.15.3 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.

## 6.16 Non-Tariff Income

6.16.1 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.*

6.16.2 The following table shows the Non-tariff Income for the control period as projected by EDG.

**Table 6-25: Non-Tariff Income for MYT Control period**

Sl.No.	Particulars	FY 2019-20	FY 2020-21	FY 2021-22
1	Sale Proceeds of dead stock, waste paper etc	1.25	1.30	1.35
2	Receipt from Other Items	6.35	6.40	6.45
3	Misc. Receipts/income	16.80	17.64	18.52
4	<b>Total Non-Tariff Income</b>	<b>24.40</b>	<b>25.34</b>	<b>26.32</b>

6.16.3 EDG request Hon'ble Commission to approve above mentioned Non-tariff income for the MYT control period.

### **6.17 Provision for DSM expense**

6.17.1 EDG has considered provision for DSM expense of Rs.3.03 Crore based on the DSM expense provision approved by the Hon'ble Commission for FY 2018-19 in tariff order dated 28<sup>th</sup> March 2018.

6.17.2 EDG request Hon'ble Commission to approve the provision for DSM expense of Rs.3.03 for each year of the MYT control period.

### **6.18 Aggregate Revenue Requirement**

6.18.1 The Net Revenue Requirement derived for the control period based on the expenses discussed in the previous sections is shown in the table below.

**Table 6-26: Net Aggregate Revenue Requirement for MYT Control period**

Sl.No.	Particulars	FY 2019-20	FY 2020-21	FY 2021-22
1	Cost of Power Purchase	1,573.92	1,605.42	1,717.27
2	Employee Expenses	373.03	394.55	417.31
3	A&G Expenses	28.33	29.54	30.81
4	R&M Expenses	34.93	33.37	32.07
5	Depreciation	39.99	58.51	60.87
6	Interest on Loan	44.45	49.19	47.45
7	Interest on Working Capital	29.16	27.03	25.08
8	Return on Equity	66.35	72.50	75.58
9	Provision for Bad Debit	-	-	-
10	Provision for DSM Expenses	3.03	3.03	3.03
11	Interest on Consumer Security Deposit	19.53	14.27	18.19
12	<b>Total Revenue Requirement</b>	<b>2,212.73</b>	<b>2,287.42</b>	<b>2,427.67</b>
13	Less: Non-Tariff Income	24.40	25.34	26.32
14	<b>Net Revenue Requirement</b>	<b>2,188.33</b>	<b>2,262.08</b>	<b>2,401.35</b>

6.18.2 EDG request Hon'ble Commission to approve net Revenue requirement of Rs.2188.33 Cr, Rs.2262.08 Cr and Rs.2401.35 Cr for FY 2019-20, FY 2020-21 and FY 2021-22 respectively.

#### **6.19 Revenue from Sale of Power at Existing Tariff**

6.19.1 The Revenue from sale of power at existing tariff rates approved by Hon'ble Commission in last tariff order dated 28<sup>th</sup> March 2018 for MYT control period is outlined below for assessing the Revenue gap / (surplus) for MYT control period FY 2019-20 to FY 2021-22

**Table 6-27: Revenue from Sale of Power for FY 2019-20 to 2021-22**

Particulars	FY 2019-20		FY 2020-21		FY 2021-22	
	Units (Mus)	Amt (Rs.Crore)	Units (Mus)	Amt (Rs.Crore)	Units (Mus)	Amt (Rs.Crore)
<b>DOMESTIC</b>						
<b>LT-D Domestic</b>						
0-100 units	109.35	22.37	113.96	23.24	118.75	24.14
101-200 units	251.43	57.39	262.02	59.76	273.05	62.22
201-300 units	213.76	61.92	222.76	64.47	232.14	67.13
301-400 units	146.75	52.89	152.93	55.10	159.37	57.39
Above 400 units	484.78	196.61	505.19	204.86	526.46	213.46
<b>Low Income Group</b>	1.76	0.09	1.76	0.09	1.76	0.09
<b>HT-D Domestic</b>	0.29	0.14	0.29	0.14	0.29	0.14
<b>COMMERCIAL</b>						
<b>LT-C Commercial</b>						
0-100 units	86.69	33.28	94.48	36.03	102.98	39.01
101-200 units	50.84	21.91	55.41	23.81	60.40	25.88
201-400 units	62.20	29.60	67.79	32.20	73.88	35.03
Above 400 units	292.24	152.03	318.52	165.36	347.15	179.87
<b>HT-C Commercial</b>	119.05	87.27	127.11	91.96	135.72	96.96
<b>INDUSTRIAL</b>						
<b>LT-I Industrial</b>						
0-500 units	19.02	8.86	19.68	9.08	20.37	9.30
Above 500 units	82.10	34.52	84.95	35.60	87.89	36.72
<b>Low Tension-Mixed/LT-P (Hotel Industries)</b>	5.62	2.78	5.78	2.85	5.95	2.93
<b>High Tension-I/HT-I</b>						
Connected at 11/33 kV	1,259.56	709.24	1,335.76	752.15	1,416.58	797.65
Connected at 110 kV	268.20	131.68	284.43	139.65	301.63	148.10
High Tension-Ferro/SM/PI/SR	442.64	228.80	442.64	228.80	442.64	228.80
<b>AGRICULTURE</b>						
Low Tension-AG/LT-AGP (Pump Sets/Irrigation)	17.03	3.21	17.37	3.28	17.71	3.34
Low Tension-AG/LT-AGA (Allied Activities)	0.89	0.19	0.91	0.19	0.93	0.20
High Tension-AG/HT-AGP (Pump Sets/Irrigation)	4.85	1.07	4.85	1.07	4.85	1.07
High Tension-AG/HT-AG (Allied Activities)	4.52	0.95	4.52	0.95	4.52	0.95
<b>MILITARY ENGINEERING SERVICES/DEFENSE ESTABLISHMENTS</b>	27.01	14.98	27.07	15.02	27.13	15.05
<b>PUBLIC LIGHTING</b>	2.66	1.19	2.66	1.19	2.66	1.19
<b>HOARDINGS/SIGNBOARDS</b>	0.24	0.28	0.24	0.28	0.24	0.28
<b>TEMPORARY</b>						
<b>LT</b>						
LT Domestic	1.00	0.83	1.00	0.83	1.00	0.83
LT Commercial	19.51	22.08	19.51	22.08	19.51	22.08
<b>HT temporary</b>	0.30	0.35	0.30	0.35	0.30	0.35
<b>Single Point Supply</b>						
Residential Complexes	0	0	0	0%	0	0%
Commercial Complexes	5.46	3.48	5.46	348%	5.46	348%
Industrial Complexes	0	0	0	0%	0	0%
<b>TOTAL</b>	<b>3,979.76</b>	<b>1,880.00</b>	<b>4,179.35</b>	<b>1,973.86</b>	<b>4,391.31</b>	<b>2,073.64</b>

6.19.2 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 2019-20.

6.19.3 EDG submits that details of the calculation of revenue is provided in format 26 of the tariff filing format.

## 6.20 Revenue Gap for FY 2019-20 to FY 2021-22

6.20.1 Based on the aggregate revenue requirement and revenue calculation, the revenue gap for the control period has been computed. The following table shows the revenue gap for entire control period:

**Table 6-28: Revenue Gap for FY 2019-20 to FY 2021-22 – Rs. Crs**

Sl.No.	Particulars	FY 2019-20	FY 2020-21	FY 2021-22
1	Net Revenue Requirement	2,188.33	2,262.08	2,401.35
2	Revenue from Sale of Power at existing Tariff	1,880.00	1,973.86	2,073.64
3	<b>Net Gap During the Year</b>	<b>308.33</b>	<b>288.22</b>	<b>327.70</b>

6.20.2 In view of above, the Hon'ble Commission is requested to kindly approve the revenue gap of Rs.308.33 Crs, Rs.288.22 Crs and Rs.327.70 Crs for FY 2019-20, FY 2020-21 and FY 2021-22 respectively at existing tariff.

## CHAPTER 7. PROPOSAL TO MEET ARR AND REVENUE GAP OF FY 2019-20

### 7.1 Cumulative Revenue Gap of FY 2018-19

7.1.1 It is submitted that revenue gap for past years i.e. from FY 2015-16 to FY 2017-18 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.

**Table 7-1: Cumulative Revenue gap to be claimed in FY 2019-20 (Rs. Crs)**

Particulars	True Up	Approved	Approved	Approved	APR	MYT
	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
Net ARR	1,485.35	1,323.73	1,694.13	1,845.32	2,101.00	2,188.33
Less: Revenue at Existing Tariffs excluding Surcharge	1,221.07	1,138.30	1,511.12	1,563.67	1,858.39	1,880.00
<b>Revenue Gap for the year</b>	<b>264.28</b>	<b>185.43</b>	<b>183.01</b>	<b>281.65</b>	<b>242.61</b>	<b>308.33</b>
<b>Opening Balance of Gap</b>	-	-	-	-	-	-
<b>Total Cumulative Gap for years</b>	<b>264.28</b>	<b>185.43</b>	<b>183.01</b>	<b>281.65</b>	<b>242.61</b>	<b>308.33</b>
Less: Budgetary Support commitment provided	264.28	185.43	183.01	281.65	242.61	-
Balance Gap to be recovered from FY 19-20	-	-	-	-	-	308.33
<b>Less: Budgetary Support from Government of Goa</b>	-	-	-	-	-	<b>308.33</b>
Proposed Gap Recovery in FY 2019-20	-	-	-	-	-	-
<b>Proposed Tariff hike from last year</b>	-	-	-	-	-	<b>0%</b>

7.1.2 EDG submits that, for FY 2019-20 EDG proposes no (NIL) tariff hike. Total revenue gap of Rs. 308.33 Crs for FY 2019-20 shall be funded through the budgetary support. Letter for Budgetary support of Government of Goa. The Letter for Budgetary support from Government of Goa is attached herewith as **Annexure 2**.

7.1.3 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.

## CHAPTER 8. TARIFF PHILOSOPHY

### 8.1 Preamble

8.1.1 This section elucidates the proposed retail tariff and proposed amendments miscellaneous charges to be applicable for FY 2019-20. EDG prays the Hon'ble Commission to approve the proposed retail tariff for FY 2019-20 as proposed for different categories of consumers, applicable from April 1 '2019.

### 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 2015-16 to FY 2018-19 to be addressed through budgetary support. EDG is not proposed any tariff hike for FY 2019-20, and effectively Gap of the year FY 2019-20 to be funded fully through budgetary support from Government of Goa. Revenue Gap for FY 2019-20 is computed based on Revenue as per existing tariff, Amount of revenue gap is of Rs. 308.33 Crs for FY 2019-20. The total gap of Rs.308.33 Crs to be met fully through budgetary support from Government of Goa. There will be No (NIL) tariff hike for FY 2019-20.

8.3.2 EDG proposes retail tariff for FY 2019-20 at same tariff rate currently applicable for FY 2018-19. The proposed Tariff structure is highlighted below:

**Table 8-1: Proposed Tariff Structure for FY 2019—20**

Sr. No.	Category of Consumer	Fixed Charge Basis	Fixed Charge (Rs/kW, Rs/kVA Rs/BHP Rs/Month/ Connection)	Energy Charge (Rs/kWh)
<b>A</b>	<b>Low Tension Supply</b>			
<b>1</b>	<b>Tariff LTD/Domestic and Non-Commercial</b>			
1(a)	0-100 units	Rs./Connection/ Month -Single Phase	25	1.40
1(b)	101-200 units		25	2.10
1(c)	201 to 300 units	Rs./Connection/ Month -Three Phase	60	2.65
1(d)	301 to 400 units		60	3.45
1(e)	Above 400 units		60	4.00
<b>2</b>	<b>Tariff LTD/Low Income Group</b>	Rs./Connection/ Month	<b>40</b>	-
<b>3</b>	<b>Tariff-LTC/Commercial</b>			
	<u>0-20 KW/Commercial Consumers</u>			
	1-100 Units		50	3.40
	101-200 units	Rs./Connection/ Month	50	4.10
	201-400 Units		50	4.60
	Above 400 units		50	5.00
	<u>&gt;20-90Kw Commercial Consumers</u>			
	1-100 Units		55	3.40
	101-200 units	Rs./kW/Month	55	4.10
	201-400 Units		55	4.60
	Above 400 units		55	5.00
<b>4</b>	<b>LTI-Industry</b>			
	0-500 Units	Rs./HP/Month	35	3.30
	Above 500 units		35	3.80
<b>5</b>	<b>Tariff-LTP/Mixed (Hotel Industries)</b>	<b>Rs./kW/Month</b>	<b>40</b>	<b>4.70</b>
<b>6</b>	<b>LT-Agriculture</b>			
	Tariff-LTAG/Agriculture (Pump Sets/Irrigation) (A)	Rs./HP/Month	15	1.40
	Tariff-LTAG/Agriculture Allied (B)		20	1.70
<b>7</b>	<b>Tariff-LTPL/Public Lighting</b>	<b>Rs./kW/Month</b>	<b>50</b>	<b>4.10</b>
<b>8</b>	<b>Tariff-LT Hoarding and SignBoard</b>	<b>Rs./kVA/Month</b>	<b>60</b>	<b>9.90</b>
<b>B</b>	<b>High Tension Supply</b>			
<b>9</b>	<b>Tariff HTD/Domestic</b>	<b>Rs./kVA/Month</b>	<b>100</b>	<b>3.45</b>
<b>10</b>	<b>Tariff HT-Commercial</b>	<b>Rs./kVA/Month</b>	<b>250</b>	<b>5.50</b>
<b>11</b>	<b>Tariff HTI/Industrial</b>			
	Connected at 11/33 kV	Rs./kVA/Month	250	4.50
	Connected at 110 kV		250	4.40
<b>12</b>	<b>H.T.Industrial (Ferro Metallurgical/ Steel Melting/ Power Intensive)</b>	<b>Rs./kVA/Month</b>	<b>250</b>	<b>4.50</b>
<b>13</b>	<b>HT-Agriculture</b>			
	Tariff-HTAG/Agriculture (Pump Sets/Irrigation) (A)	Rs./HP/Month	35	1.50
	Tariff-HTAG/Agriculture (Allied Activities) (B)	Rs./HP/Month	60	1.90
<b>14</b>	<b>H.T. MES/Defence Establishments</b>	<b>Rs./kVA/Month</b>	<b>175</b>	<b>5.00</b>
<b>C</b>	<b>Temporary Supply</b>			
<b>15</b>	<b>Tariff-LT/Temporary Domestic</b>	<b>Rs./kW/Month</b>	<b>60</b>	<b>7.20</b>
<b>16</b>	<b>Tariff-LT/Temporary Commercial</b>	<b>Rs./kVA/Month</b>	<b>120</b>	<b>9.90</b>
<b>17</b>	<b>Tariff-HTTS/Temporary Supply</b>	<b>Rs./kVA/Month</b>	<b>120</b>	<b>9.90</b>
<b>D</b>	<b>Single Point Supply</b>			
18	Residential Complexes		100	3.45
19	Commercial Complexes	Rs./kVA/Month	200	4.60
20	Industrial Complexes		200	4.20

8.3.3 Though there is zero (NIL) tariff hike for retail tariff for FY 2019-20. EDG has propose change in the miscellaneous charges applicable for FY 2019-20 and propose changes in general terms and condition.

#### **8.4 Tariff Rationalisation**

8.4.1 Certain proposal in the clarification or changes in the applicability of the clause and change in the general terms and condition has been suggested keeping in mind the consumers suggestions, practices in neighbouring states and supply code regulations 2018.

8.4.2 EDG has modified / fine-tuned applicability clauses in some of the categories for clarity and better implementation. The changes proposed in the applicability are discussed in detailed and highlighted in proposed LT & HT Tariff Schedule.

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

- 1) These tariffs are proposed to be made applicable from 1st April 2019 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-drawal 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 ( $12000 \times 100 / 120$ ) and consumption corresponding to the excess demand will be 2000 units. This excess demand of 20 kVA and excess consumption of 2000 units will be billed at twice the respective normal rate. E.g. in case of HTI/Industrial category, 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 28<sup>th</sup> March 2018 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 month/ 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.

**EDG Proposal:**

Provided that the due date for bill payment through cheques shall be 3 working days in advance of the normal due date for cash payment (in terms of Supply code 2018).

EDG propose 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 day's 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
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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
- d) 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 The proposed Schedule of General & Miscellaneous charges for FY 2019-20 are as under:

**Table 8-2: Existing and Proposed Schedule of Miscellaneous Charges**

Description	Miscellaneous Charges	
	Existing	Proposed
<b>Monthly Meter Rental Charges(as per provisions (Electricity Supply Code) Regulations 2018)</b>		
Single Phase LT meter	Rs 10/month	Rs 15/month
Three Phase LT meter	Rs 20/month	Rs 25/month
Three Phase LT meter with CTs	Rs 50/month	Rs 75/month
LT Meter with MD Indicator	Rs 30/month	-
LT Trivector meter with CT's	0	Rs 75/month

Description	Miscellaneous Charges	
	Existing	Proposed
Tri-vector Meter	Rs 1000/month	Rs 1200/month
Bi directional meter		Rs.1500/month
Temporary Supply	Shall be twice as applicable in above meter types	Shall be twice as applicable in above meter types
Changing or moving a Meter board	Actual Cost + 15%	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/-	Rs 25/-
· Three Phase	Rs 50/-	Rs 50/-
<b>LT Services – At Overhead Mains</b>		
· Single Phase	Rs 30/-	Rs 30/-
· Three Phase	Rs 50/-	Rs 50/-
<b>LT Services – At Underground Mains</b>		
· Single Phase	Rs 75/-	Rs 75/-
· Three Phase	Rs 125/-	Rs 125/-
<b>HT Services</b>	Rs 200/-	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	Rs25/-	Rs.50/-
Motive Power Installation	Rs50/-	Rs 100/-
HT		Rs 500/-
<b>Testing Fee for Various Metering Equipment's (as per provisions (Electricity Supply Code) Regulations 2018)</b>		

Description	Miscellaneous Charges	
	Existing	Proposed
Single phase LT	Rs 25/energy meter	Rs 25/energy meter
Poly Phase LT without CT	Rs 50/energy meter	Rs 50/energy meter
L.T. meter with CTs/Demand or Special Type Meters	Rs 150/energy meter	Rs 150/energy meter
H.T and E.H.T. metering equipment	Rs 10000/- at site	Rs 10000/- at site
Transformer Oil	Rs 200/- per sample	Rs 200/- per sample
LT Current Transformer at lab	0	Rs.50 per Sample
3 – ∅ Phase Tri-vector Meter Industrial LT Consumer	Rs 1000/- for laboratory testing	Rs 1000/- for laboratory testing
3 – ∅ Phase Tri-vector Meter 11 KV and 33kV HT Consumer	Rs 5000/- at site	Rs 5000/- at site
Three Phase Tri-Vector Meter 110 KV EHT Consumers	Rs 1000/-at site	Rs 1000/-at site
Combined CTPT Unit for 11kV and 33kV Consumer	Rs 2500/-	Rs 2500/-
110KV CT / PT Unit	Rs 10000/-	Rs 10000/-
Single Phase CT	Rs 150/ unit	Rs 150/ unit
Three Phase TT Block	Rs 500/unit	Rs 500/unit
Distribution Transformer Testing (HT con.)	Rs 6000	Rs 6000
Power Transformer Testing ( EHT consumer)	Rs 20000	Rs 20000
<b>Service Connection Charges (as per provisions (Electricity Supply Code) Regulations 2018)</b>		
Single Phase 1 ∅	Rs 250	Rs 250
<b><u>Three Phase 3 ∅</u></b>		
up to 5 HP	Rs 500 to Rs 1200	Rs 500
5 HP to 20 HP		Rs 800
Above 20 HP		Rs 1200
HT (First 500 KVA) - New	Rs 10000	Rs 10000
HT (Beyond 500 KVA) - New	Rs 20000	Rs 20000

Description	Miscellaneous Charges	
	Existing	Proposed
HT Additional load	0	Rs.500/- for every addition of 100 KVA
Extra Length for 1 $\phi$ (beyond 30 meters)	Rs 50 /meter	Rs 50 /meter
Extra Length for 1 $\phi$ for agricultural consumers (beyond 300 meters)	Rs 25 /meter	Rs 25 /meter
Extra Length for 3 $\phi$ (beyond 30 meters)	Rs 100 /meter	Rs 100 /meter
Extra Length for 3 $\phi$ for agricultural consumers (beyond 300 meters)	Rs 50 /meter	Rs 100 /meter
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	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/-	Rs 100/-
• Three phase	Rs 200/-	Rs 200/-
• MS/BS loads upto70kW	Rs 4000 + ST	Rs 4000 + GST
• LS/BS/RT (loads Above 70kW)	Rs 8000 + ST	Rs 8000 + GST
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/-	Rs 100/-
3-phase without C.T.s	Rs 200/-	Rs 200/-
L.T. meter with C.T.s	Rs 500/-	Rs 500/-

Description	Miscellaneous Charges	
	Existing	Proposed
H.T and E.H.T. metering equipment	Rs 8000 + ST	Rs 8000 + GST
<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/-	Rs 50/-
Where cut-out is independently sealed	Rs 50/-	Rs 50/-
Meter cover or Meter Terminal cover	Rs 50/-	Rs 50/-
Meter cover of Meter Terminal cover (3 phase).	Rs 50/-	Rs 50/-
Maximum demand Indicator or C.T.s chamber	Rs 50/-	Rs 50/-
<b>Service Charges</b>		
General Supply		
• Single Phase	Rs 10/-	Rs 10/-
• Three phase below 70kW	Rs 20/-	Rs 20/-
• Three phase above 70kW	Rs 50/-	Rs 50/-
Industrial/bulk/ agriculture /Street Lightning Supply		
• Upto70kW	Rs 25/-	Rs 25/-
• Above 70kW	Rs 50/-	Rs 50/-
<b>Replacement of broken glass</b>		
Replacement of broken glass of meter cupboard (When there is default on Consumer Side)	Rs 50/-	Rs 50/-
Replacement of broken Glass of single phase meter if the consumer has broken or tamper and with meter.	Rs 50/-	Rs 50/-
Replacement of broken Glass of three phase meter if the consumer has broken or tamper and with meter	Rs 50/-	Rs 50/-
<b>Supply of duplicate copies of electricity bills</b>		
Domestic Consumers	Rs 5 per bill or Rs 10 per statement	for all the LT consumers Rs.5/- per bill and for all the HT consumers Rs.10 Per bill
Non Domestic consumers	-	
LT Industrial upto 20kW and AP Consumer	-	

Description	Miscellaneous Charges	
	Existing	Proposed
H.T Industrial and Bulk supply consumer	Rs 5 per bill or Rs 10 per statement	
<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>		
HT		Rs. 20,000
EHT		Rs. 1,00,000
<b>Note: -</b>		
1. Shall be levied while applying for new connection.		
2. These charges shall be adjusted by the Licensee while issuing the demand note.		

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 with no hike.

### 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>The Professionals i.e. individuals engaged in those activities involving services based on professional skills, like Lawyers, Doctors {only those using OPD/consultancy}, Professional Engineers, Chartered Accountants, etc. may utilize the domestic connection at their residence for carrying out their professional work in the nature of consultancy without attracting commercial tariff for the electricity consumed, provided the area used for professional activity does not exceed the area permitted to be used for such activity in residential area as per the prevailing laws/notifications issued by Town and Country Planning Department/other concerned departments of Government of Goa in this regard.</p>	<p>a. For the premises or flats which are closed or locked for a continuous period of more than three months and having sanctioned / connected load more than 10 kW, the monthly minimum charges would be Rs1000/-.</p>	<p>No change Proposed</p>



I. **Tariff**

Consumption Slab	Basis of Fixed charge	Existing and Proposed Tariff for FY 2019-20	
		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

**Note** - The premises or flats which are closed or locked for continuous period of more than three months and having sanctioned / connected load more than 10 kW, the monthly minimum charges would be Rs.1000/-.

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 2019-20	
		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 and Proposed Tariff for FY 2019-20	
Consumption Slab		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
101-200 units			4.10
201-400 Units			4.60
Above 400 units			5.00

**Note** - 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.

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> <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</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
area. <ul style="list-style-type: none"> <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 and Proposed Tariff for FY 2019-20	
		Fixed Charges	Energy Charges (Rs/kWh)
0-500 Units	Rs/HP/ Month	35	3.30
Above 500 units	Rs/HP/ Month	35	3.80

**Note** - The above mentioned tariff is based on the supply being given through a single delivery and metering point and at a single voltage.

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 stating that the intending applicant is registered under Goa Registration of Tourist Trade Act, 1982 and in the Hotel business on	No changes proposed

Existing Applicability Clause	Point of Supply/Notes	Proposed Applicability Clause
	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 and Proposed Tariff for FY 2019-20	
		Fixed Charges	Energy Charges (Rs/kWh)
Total consumption	Rs/kW/ Month	40	4.70

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. 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	No changes Proposed

Existing Applicability Clause	Point of Supply/Notes	Proposed Applicability Clause
	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 2019-20	
		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
<p>This schedule shall apply to establishments for other allied activities related to Agriculture and shall include but not limited to:</p> <ul style="list-style-type: none"> <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> <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>	<p>This tariff shall be applicable from the date of production of a certificate from the Directorate of Animal Husbandry or Agriculture Department of Government of Goa to the effect that the consumer carried on the said activity on regular basis. In case of failure to produce the certificate, the same shall be considered under Commercial category.</p> <p>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>	No changes Proposed

I. Tariff

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

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> <p><input checked="" type="checkbox"/> Market Places, Roads, Pathways and Parking Lighting belonging to local authorities such as Municipality/ Panchayats/ Government;</p> <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>		No changes Proposed

I. Tariff

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

9.1.8 Hoarding & Sign Boards

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

I. Tariff

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

9.1.9 LT VIII: LTTS/ Temporary Supply

Existing Applicability Clause	Point of Supply/Notes	Proposed Applicability Clause
a) LT Temporary Domestic: This schedule shall apply to usage of electricity for all religious purposes or public functions for non-commercial purposes. It shall also	i. The temporary connection shall be released through a proper meter	No changes Proposed



Existing Applicability Clause	Point of Supply/Notes	Proposed Applicability Clause
apply for construction of own house by an individual with single tenement b) LT Temporary Commercial: This schedule shall apply to usage of electricity for any of the activities not covered under LT Temporary Domestic. It would include but not be limited to: <ul style="list-style-type: none"> <li>All other Constructions including renovation, of all type of structures/ infrastructure, including buildings, bridges, flyovers, dams, power stations, roads, aerodromes, tunnels for laying of pipe lines for all purposes</li> </ul>	ii. These temporary tariffs are applicable for temporary supply for a period not exceeding three months which may be extended beyond that period only with the prior permission of the Chief Electrical Engineer, up to a maximum period of six months for general purpose and two years for construction activities. iii. Security deposit shall be collected in advance for an assessed 3 months billing.	

I. Tariff

	Basis of Fixed charge	Existing and Proposed Tariff for FY 2019-20	
Consumption Slab		Fixed Charges	Energy Charges (Rs/kWh)
Temporary Domestic	Rs /kW /month or part thereof subject to a minimum of Rs300/- per connection per month or part thereof	60	7.20
Temporary Commercial	Rs / kVA/month or part thereof subject to a minimum of Rs 600/- per connection per month or part thereof	120	9.90

## 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

- Tariff

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

### 9.2.2 HT I: HTI / Industrial

Existing Applicability Clause	Point of Supply/Notes	Proposed Applicability Clause
This schedule shall apply to consumers taking electricity supply for Industrial purpose. It shall also include the following categories: <ul style="list-style-type: none"> <li>• Bulk Supply of power at 11 KV, 33 kV /110 KV and above for industries, factories and other industrial purposes.</li> <li>• Bulk supply of power at 11 KV and</li> </ul>		No changes proposed

Existing Applicability Clause	Point of Supply/Notes	Proposed Applicability Clause
<p>above for educational institutions owned or aided by Government, non-industrial establishments,</p> <ul style="list-style-type: none"> <li>Industrial units engaged in Ice Manufacturing Units;</li> <li>Hotels with lodging and boarding facilities etc</li> <li>Use of electricity / power supply by an establishment such as IT Industries, IT Parks, IT Units</li> <li>Pumping of water, public water supply, public water treatment plant, activities related with Supply Schemes and Sewage Treatment Plants, Sewage Pumping Stations etc</li> </ul>		

I. Tariff

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

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		No changes Proposed

Existing Applicability Clause	Point of Supply/Notes	Proposed Applicability Clause
Alloy, and Ferro metallurgical industries where melting is involved using electric power.		

I. Tariff

Consumption Slab	Basis of Fixed charge	Existing and Proposed Tariff for FY 2019-20	
		Fixed Charges	Energy Charges (Rs/kWh)
Total Consumption	Rs/kVA/ Month	250	4.50

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> <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 changes Proposed</p>

I. Tariff

Consumption Slab	Basis of Fixed charge	Existing and Proposed Tariff for FY 2019-20	
		Fixed Charges	Energy Charges (Rs/kWh)
Total Consumption	Rs/kVA/ Month	250	5.50

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

Consumption Slab	Basis of Fixed charge	Existing and Proposed Tariff for FY 2019-20	
		Fixed Charges	Energy Charges (Rs/kWh)
Total Consumption	Rs/kVA/ Month	175	5.00

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	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	No changes Proposed

Existing Applicability Clause	Point of Supply/Notes	Proposed Applicability Clause
crusher and/or fodder cutter for self-use for Agricultural purposes.	<p>the consumer carried on the said activity on regular basis. In case of failure to produce the certificate, the same shall be considered under Commercial category.</p> <p>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>	

II. Tariff

Consumption Slab	Basis of Fixed charge	Existing and Proposed Tariff for FY 2019-20	
		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
<p>This schedule shall apply to establishments for other allied activities related to Agriculture and shall include but not limited to:</p> <ul style="list-style-type: none"> <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> <li>• Fish farms including ornamental fish farms, prawn farms, other aqua farms etc</li> <li>• Tissue culture, Mushroom activities, Aquaculture,</li> </ul>	<p>This tariff shall be applicable from the date of production of a certificate from the Directorate of Animal Husbandry or Agriculture Department of Government of Goa to the effect that the consumer carried on the said activity on regular basis. In case of failure to produce the certificate, the same shall be considered under Commercial category.</p> <p>Cold Storages which are solely attached to</p>	No changes Proposed

Existing Applicability Clause	Point of Supply/Notes	Proposed Applicability Clause
Floriculture, Fisheries, Sericulture, Floricultural nurseries, hatcheries etc <ul style="list-style-type: none"> <li>Any other agricultural activity not falling under HT-Agriculture (A) shall be covered under this category</li> </ul>	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 and Proposed Tariff for FY 2019-20	
		Fixed Charges	Energy Charges (Rs/kWh)
Total Consumption	Rs/kVA/ Month	60	1.90

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.	9.2.7.1	No changes Proposed

I. Tariff

Consumption Slab	Basis of Fixed charge	Existing and Proposed Tariff for FY 2019-20	
		Fixed Charges	Energy Charges (Rs/kWh)
Total Consumption	Rs/kVA/ Month or part thereofRs	120	9.90

Note: -

- (i) The above temporary connection shall be released through a proper meter

- (ii) The above temporary tariffs are applicable for temporary supply at high voltage for a period not exceeding three months which may be extended with prior permission of the Chief Electrical Engineer, up to a maximum period of six months for general purpose and two years for construction activities.
- (iii) Security deposit shall be collected in advance for an assessed 3 months billing.

9.2.8 HT VIII: HT SPS Single Point Supply

Existing Applicability Clause	Point of Supply/Notes	Proposed Applicability Clause
<p>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.</p>	<p>In case of a dispute on whether the complex can be classified as an industrial complex, a certificate from Industries Department, Government of Goa will be required.                      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.                      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.                      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.                      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>No changes Proposed</p>



Existing Applicability Clause	Point of Supply/Notes	Proposed Applicability Clause
	<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> <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> <p>i. 5% on the overall billed amount in all cases of LT and HT consumers</p> <p>ii. Any other loss would be to the account of the applicant.</p> <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:

Consumption Slab	Basis of Fixed charge	Existing and Proposed Tariff for FY 2019-20	
		Fixed Charges	Energy Charges (Rs/kWh)
Residential Complexes	Rs/kVA/ Month or part thereof	100	3.45
Commercial Complexes	Rs/kVA/ Month or part thereof	200	4.60
Industrial Complexes	Rs/kVA/ Month or part thereof	200	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 allocation matrix approved by the Hon'ble Commission in the Tariff Order dated 18<sup>th</sup> April 2016. 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 2019-20**

Sr. No.	Item of expense	Wires Business	Retail Supply Business	Wire Business	Retail Supply Business	Total
		%	%	FY 2019-20		
1	2	3	4	5	6	7
1	Cost of fuel					
2	Cost of power purchase	0%	100%	-	1,573.92	1,573.92
3	Provision for RPO Compliance	0%	100%	-	-	-
4	Employee costs	40%	60%	149.21	223.82	373.03
5	R&M expenses	90%	10%	31.43	3.49	34.93
6	Administration and General expenses	50%	50%	14.16	14.16	28.33
7	Depreciation	90%	10%	35.99	4.00	39.99
8	Interest & Financial charges	90%	10%	40.01	4.45	44.45
9	Interest on Working Capital	10%	90%	2.92	26.24	29.16
10	Return on NFA /Equity	90%	10%	59.72	6.64	66.35
11	Provision for Bad Debt	0%	100%	-	-	-
12	Provision for DSM Expenses	0%	100%	-	3.03	3.03
13	Interest on Consumer Security Deposit	10%	90%	1.95	17.58	19.53
14	<b>Total Revenue Requirement</b>			<b>335.40</b>	<b>1,877.33</b>	<b>2,212.73</b>
15	Less: Non Tariff Income	10%	90%	2.44	21.96	24.40
16	<b>Net Revenue Requirement (12-13)</b>			<b>332.96</b>	<b>1,855.37</b>	<b>2,188.33</b>

10.1.2 The Hon'ble Commission is requested to approve the segregation of ARR into wheeling & retail supply business for FY 2019-20 as per above table.

## CHAPTER 11. OPEN ACCESS CHARGES FOR FY 2019-20

### 11.1 Approach for computation of open access charges

11.1.1 EDG submits that as per Regulation 67.2 and 67.3 of 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 2018-19.

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 2018-19.

- 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 2019-20, 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 2018-19 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 (%)
Low Tension (LT) Level	655410	60.00%	1847.88	18.83%
High Tension (HT)/ Extra High Tension(EHT) Level	1121	40.00%	2131.88	3.64%
Total	656531	100.00%	3979.76	10.75%

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 2019-20**

Category	O&M	Others	Total	Sales (MU)	Wheeling Charges (Rs/kWh)
Low Tension (LT) Level	194.48	82.89	277.37	1847.88	1.50
High Tension (HT)/ Extra High Tension(EHT) Level	0.33	55.26	55.59	2131.88	0.26
<b>Total</b>	<b>194.81</b>	<b>138.15</b>	<b>332.96</b>	<b>3,979.76</b>	

11.2.4 Therefore, EDG requests the Hon'ble Commission to approve wheeling charge for HT/EHT category as Rs 0.26 /kWh and for LT category as Rs 1.50 /kWh for FY 2019-20.

### **11.3 Computation of additional Surcharge for FY 2019-20**

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 Drawal 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 2019-20**

Particulars	FY 2019-20
Total Power Purchase cost	1,573.92
Fixed Cost component in Power Purchase Cost (excluding Transmission Charges)	372.19
Energy Sales (MU)	3,979.76
<b>Additional Surcharge (Rs/kWh)</b>	<b>0.94</b>

11.3.4 EDG request Hon’ble Commission to approve additional surcharge of Rs.0.94/kWh as determined in above table.

#### **11.4 Computation of Cross Subsidy Surcharge for FY 2019-20**

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 2018-19

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 10.75% for FY 2019-20 as approved in Business Plan order for MYT control period FY 2019-20 to 2021-22, losses at LT level is considered 15.76% as approved in last tariff order. As T&D loss for FY 2018-19 approved in last order and T&D Loss for FY 2019-20 as per Business Plan order is same.

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 2019-20**

Category	Voltage Level Loss (%)	Cumulative Losses upto that voltage level (%)
Low Tension (LT) Level	15.76%	18.83%
High Tension (HT)/ Extra High Tension(EHT) Level	3.64%	3.64%
<b>Total</b>	<b>10.75%</b>	<b>10.75%</b>

11.4.6 Voltage wise energy sales based on Sales approved by Hon'ble Commission for FY 2019-20 in business Plan 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 2019-20**

Category	Energy Sales (MU)	Cumulative Losses (%)	Energy Input (MU)
Low Tension (LT) Level	1847.88	18.83%	2,276.56
High Tension (HT)/ Extra High Tension(EHT) Level	2131.88	3.64%	2,212.41
<b>Total</b>	<b>3979.76</b>	<b>10.75%</b>	<b>4,488.97</b>

11.4.7 Overall ARR arrived for FY 2019-20 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:

- The fixed cost of power purchase is assigned to each voltage level on the basis of energy input at respective voltage levels.
- The O&M expenses are allocated to each voltage level on the basis of the number of consumers. The resultant cost allocated to 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.
- 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 2019-20**

Category	Energy Input (MU)	Voltage wise Asset Allocation (%)	Number of Consumers
Low Tension (LT) Level	2,276.56	60.00%	6,55,410
High Tension (HT)/ Extra High Tension(EHT) Level	2,212.41	40.00%	1,121
<b>Total</b>	<b>4,488.97</b>	<b>100.00%</b>	<b>6,56,531</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 2019-20**

Category	Allocated Fixed Cost (Rs Cr)					Allocated Variable Cost (Rs Cr)	Total Cost (Rs Cr)	Energy Sales (MU)	VCoS . Rs/kwh
	Power Purchase FC	O&M FC @ No. of Consumer	O&M FC further @ Input energy	Other FC @ Asset allocation	Other FC further @ Input energy				
Low Tension (LT) Level	188.76	435.54	435.92	106.87	90.33	609.45	1,324.46	1,847.88	7.17
High Tension (HT)/ Extra High Tension(EHT) Level	183.44	0.74	0.37	71.25	87.79	592.28	863.87	2,131.88	4.05
<b>Total</b>	<b>372.19</b>	<b>436.29</b>	<b>436.29</b>	<b>178.12</b>	<b>178.12</b>	<b>1,201.73</b>	<b>2,188.33</b>	<b>3,979.76</b>	

11.4.11 As per above VCoS calculated and applicable level wise ABR level, following is the Cross-subsidy surcharge for FY 2019-20

**Table 11-8: Cross-Subsidy Surcharge for FY 2019-20**

Category	VCoS (Rs/kWh)	ABR (Rs/kWh)	Cross- Subsidy (Rs/kWh)
Low Tension (LT) Level	7.17	3.82	(3.34)
High Tension (HT)/ Extra High Tension(EHT) Level	4.05	5.53	1.47

11.4.12 Therefore, EDG requests the Hon'ble Commission to approve the cross subsidy surcharge of Rs. 1.47/kWh for HT and EHT consumers in FY 2019-20.

## CHAPTER 12. COMPLIANCE OF DIRECTIONS

The Hon'ble Commission in its Tariff Order for FY 2018-19 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:

### 1.1 Status of Compliance of Directives issued in tariff order dated 28<sup>th</sup> March 2018

Sr. No.	Directives	Hon'ble Commission's Comments on directive in the Tariff Order dated 23 <sup>rd</sup> May 2017	Compliance by the Electricity Department Goa
1	Annual Statement of Accounts	The Commission has undertaken the True-up for the FY 2013-14 in tariff Order for FY 2018-19, further Commission stated that in tariff petition for FY 2018-19 true up till FY 2016-17 should have been done.	CAG audit for FY 2014-15 is completed and CAG certificate is awaited and it is expected that the CAG certificate for the same will be submitted prior to the date of Public Hearing. The draft Accounts for FY 2015-16 are prepared & the same is submitted to CAG. Audit for the same shall start shortly. With respect to FY 2016-17 and FY 2017-18, data collection and account preparation are in progress.
2	Preparation of Fixed Asset Register	The Commission has noted with serious concern that the EDG is yet to submit the Fixed Asset Register. EDG is directed to submit the FAR upto FY 2017-18 along with the tariff petition for FY 2019-20	FAR for FY 2015-16 & FY 2016-17 are prepared and finalized and the same are attached as <b>Annexure- 6</b> . Data collection for FAR for FY 2017-18 is in progress.
3	Energy Audit Report	The Commission has noted with serious concern that the Petitioner is yet to submit the Energy Audit Reports for previous years. The Commission directed EDG to expedite the process of DT and Feeder metering and complete the Energy Audit of the State on priority.	It is submitted that ED-Goa has implemented SAP and AMR modules to track real time data. Certain communication / modem issues are there, as soon as they are resolved, ED-Goa shall submit the Energy Audit report to the Commission at least till Feeder level.
4	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 directed EDG to finalise the report prepared by the appointed consultant and submit the same for the decision of the State Govt.	The draft report has been prepared and finalization of the same is in progress. The same shall be submitted along with the next quarterly progress report of the directives.
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	The backlog of interest on security deposit from FY 2015-16 to FY 2016-17 is cleared and for FY 2017-18 is being streamlined and payment to consumers is being done.

Sr. No.	Directives	Hon'ble Commission's Comments on directive in the Tariff Order dated 23 <sup>rd</sup> May 2017	Compliance by the Electricity Department Goa
		view that substantial time has already been given to the EDG. The Commission directed EDG to compute the quantum of backlog and ensure payment of balance interest on security deposit pertaining to previous years before 31st August 2018.	
6	Sub Divisions as Strategic Business Units	The Commission directed EDG 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 1 month of issuance of this Order.	EDG has identified Division III and is in the process of implementation of the system, the report of the same shall be provided to the Commission in due course of time.
7	Installation of Pre Paid Meters	The Commission directed EDG to expedite the process of installation of prepaid meters and submit a compliance report along with the filing of the Tariff petition for FY 2019-20	Further to Commission's direction, EDG has decided to install prepaid meters for all the temporary connections (approx. 12000 consumers), the report on the same shall be submitted by next tariff petition.
8	Unbundling of Electricity Department	The Commission directed EDG to submit the proposal to the State Govt. by June 30th 2018. 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.	EDG reiterates its stand in last tariff petition and requests the Hon'ble Commission to drop the said directive as there is no specific directive for unbundling of EDG from the State Government. SLDC as a function is fully operational and has separate employees for the same.
9	Renewable Energy Obligation	The Commission has noted the submission of EDG. The Solar policy may be utilized for increasing the solar installations in the State. Efforts should be made to purchase physical power instead of REC's.	EDG has already tied up for entire quantum of RPO obligation (both solar & non-solar) for FY 2018-19. For the H1 upto 30th September 18. ED-Goa has already procured 45.72 MUs of Solar and 44 MUs Non-Solar power. Besides this, ED-Goa also invites tenders through DEEP portal to procure Solar & Non-Solar deficit quantum power to fulfil its RPO obligation (if required). Projection in this petition for FY 2018-19 is considered accordingly to meet full RPO.
10	Billing and Collection Efficiency	The Commission noted 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 AT&C	ED-Goa has transitioned from normal billing to SAP system and the billing and collection process is being streamlined to resolve all billing and collection issues. The Billing and Collection Efficiency shall be

Sr. No.	Directives	Hon'ble Commission's Comments on directive in the Tariff Order dated 23 <sup>rd</sup> May 2017	Compliance by the Electricity Department Goa
		loss level of 10.75%. The Commission directed 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 tariff petition for FY 2019-20	submitted to the Commission in the next quarter progress report.
<b>New directives issued</b>			
11	Creation of SLDC	The Commission directed EDG to fully operationalize a separate SLDC which is ring fenced from the EDG. EDG is directed to deploy suitable employees dedicated for the SLDC functions.	Further, ED-Goa is in process of strengthening more manpower in SLDC to streamline the continuous working of SLDC.
12	kVAh based tariff	EDG in the proceedings of this Tariff Order FY 2018-19 failed to submit the requisite data such as Power factor, kVAh readings etc. to implement kVAh based energy charges for HT/EHT consumers. EDG is directed to submit the status of technological readiness of these high voltage consumers and the requisite information of incentive/disincentive on account of power factor rebate/ penalty, power factor for different categories and kVAh based readings of FY 2017-18 along with the petition of tariff filing for FY 2019-20	All the HT/EHT consumers have CT/PT and maximum demand meters installations and their kWh and KVAh reading is recorded on monthly basis. EDG also submits that recently SAP system has been implemented for billing and collection purpose. Accordingly all the HT/EHT consumers and EDG are technologically ready to implement KVAh base energy charges. Requisite data such as power factor, kVAh readings etc. for HT/EHT consumers is attached as <b>Annexure - 5</b> to this tariff petition of FY 2019-20

## **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 2014-15, Provisional APR for FY 2018-19 and Tariff Determination for FY 2019-20 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 2014-15, APR for FY 2018-19 and Aggregate Revenue Requirement for FY 2019-20.
- c) Approve the proposed cumulative Revenue Gap till FY 2019-20 amounting to Rs. **308.33 Crores** 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 from the Budgetary support by Govt. of Goa. It is submitted that Budgetary Support is limited to this amount and any further revenue gap at a later date when petition for true-up is filed based on actual accounts / figures, it would be dealt appropriately at that time.
- d) To consider the Tariff Design Philosophy and approve the proposed changes in Tariff Schedule (rationalisation of tariff categories & changes in applicability clauses) for FY 2019-20.
- e) Approve the Expected Revenue from existing tariff for FY 2019-20 and the consolidated gap till FY 2019-20.
- f) Pass suitable orders with respect to True-up of FY 2014-15, APR for FY 2018-19 and Tariff Determination for FY 2019-20 for the expenses to be incurred by ED - Goa for serving its consumers;
- g) To allow cost related to past interest on security deposit into ARR of FY 2019-20.
- h) Grant approval for the schedule of tariff, charges for services and schedule of miscellaneous charges as made in the petition for FY 2019-20.
- 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: Budgetary Support letter from Government of Goa**

**Annexure 3: Audited Accounts of Electricity Department, Goa for FY 2014-15**

**Annexure 4: Fixed Assets Register for FY 2014-15**

**Annexure 5: Data related to KVAh reading, power factor etc**

**Annexure 6: Fixed Assets Register for FY 2015-16 and FY 2016-17**

