ANNUAL PERFORMANCE REVIEW OF FY 2015-16 AND AGGREGATE REVENUE REQUIREMENT (ARR) WITH TARIFF PROPOSAL FOR MYT CONTROL PERIOD FROM FY 2016-17 TO FY 2018-19

OF

ELECTRICITY DEPARTMENT, GOVERNMENT OF GOA

SUBMITTED TO THE HON'BLE JOINT ELECTRICITY REGULATORY COMMISSION GURGAON



By

ELECTRICITY DEPARTMENT, GOVERNMENT OF GOA

FEBRUARY 2016

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 Annual Performance Rev Multi Year Tariff for the First Control Period of 2018-19 and Tariff Proposal for FY 2016-17 Department of Goa under Section 45, 46, 61, 62 Electricity Act, 2003	FY 2016-17 to FY for the Electricity
	AND	
IN THE MATTER OF:	Electricity Department, Government of Goa Vidyut Bhavan, Panaji,	
	Goa	Petitioner

Electricity Department, Government of Goa (hereinafter referred to as "EDG"), files petition for approval of Annual Performance Review of FY 2015-16 and Multi Year Tariff for Control Period of FY 2016-17 to FY 2018-19 and Tariff Proposal for FY 2016-17under Section 45, 46, 61, 62, 64 and 86 of the Electricity Act, 2003.

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

Filing No		
Case No		
IN THE MATTER OF:	Petition for approval of Annual Performance R 16, Multi Year Tariff for First Control Period fo 2018-19 and Tariff Proposal for FY 2016-17 Department of Goa under Section 45, 46, 61, 62 Electricity Act, 2003	r FY 2016-17 to FY for the Electricity
	AND	
IN THE MATTER OF:	Electricity Department, Government of Goa Vidyut Bhavan, Panaji, Goa	Petitioner
	AFFIDAVIT VERIFYING THE PETITION	
	, son of Shri aged deponent named above do hereby solemnly af	
oath as under:-		
	Electrical Engineer and Head of Electricity Departion authorised to sign and submit the said petition, a posed to below.	

- 2. I say that on behalf of ED-Goa, I am now filing this Petition under The Electricity Act, 2003 for approval of Annual Performance Review of FY 2015-16 and Multi Year Tariff for the Control Period of FY 2016-17 to FY 2018-19 and Tariff Proposal for FY 2016-17 for its Licensee Area.
- 3. I further say that the statements made and financial data presented in the aforesaid Petition are as per records of the Department and on the information received from the concerned officials 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, ______ Advocate and Notary having office at Panaji-Goa, do hereby declare that the person making this affidavit is known to me through the perusal of records and I am satisfied that he is the same person alleging to be deponent himself.

Advocate

Solemnly affirmed before me on this _____ day of February 2016 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 approval of Annual Performance Review Multi Year Tariff for the First Control Period for F 2018-19 and Tariff Proposal for FY 2016-17 fo Department of Goa under Section 45, 46, 61, 62, 6 Electricity Act, 2003.	Y 2016-17 to FY r the Electricity
	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 APPROVAL OF THE MULTI YEAR TARIFF PETITIONAND TARIFF PROPOSAL OF ELECTRICITY DEPARTMENT OF GOA (herein after referred to as "EDG") FOR FY 2016-17.

The Petitioner respectfully submits as under: -

- 1. The Petitioner, The Electricity Department Goa (EDG) has been allowed to function as Distribution Utility 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 the governing regulations thereof.

- 3. The Hon'ble Commission has issued order on Business Plan for control period FY 2016-17 to FY 2018-19 on 22nd Dec 2015 and directed EDG to file MYT petition within 30 days from date of order.
- 4. EDG hereby submits the present petition for approval of Annual Performance Review (APR/ Review) of FY 2015-16 and Multi Year Tariff for the Control Period of FY 2016-17 to FY 2018-19 and Tariff Proposal for FY 2016-17 based on the principles outlined in the Tariff Regulations 2009 and MYT Regulations 2014, notified by the Hon'ble Commission.
- 5. EDG prays to the Hon'ble Commission to admit the attached petition for Annual Performance Review of FY 2015-16 and Multi Year Tariff for the Control Period of FY 2016-17 to FY 2018-19 and Tariff Proposal for FY 2016-17 would like to submit that:

Prayers to the Commission:

- A. The petition provides, inter-alia, ED-Goa'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 2015-16, the principles specified by the Joint Electricity Regulatory Commission in the notified (Terms and Conditions of Tariff) Regulations 2009 (Tariff Regulations) has been considered as the basis.
- C. Formulating Aggregate Revenue Requirement for the control period of FY 2016-17 to FY 2018-19 based on the principles specified by MYT Regulations 2014 and approved Business Plan.
- 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 the petition for Annual Performance Review of FY 2015-16 and Multi Year Tariff for the Control Period of FY 2016-17 to FY 2018-19 and Tariff Proposal for FY 2016-17which is in line with the principles laid by Joint Electricity Regulatory Commission contained in MYT Regulations 2014 and Tariff Regulations 2009;
- b) Approve the Review of Revenue Requirement for FY 2015-16 at Rs. **1,522.96** Crores, ARR for FY 2016-17 at Rs. **1,710.06** Crores, ARR for FY 2017-18 at Rs. **1,879.20** Crores and ARR for FY 2018-19 at Rs. **2,115.42** Crores.
- c) Approve the proposed Revenue Gap for FY 2015-16 amounting to Rs. 135.53 Crores on provisional basis and this -revenue gap 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 2016-17;
- e) Approve the proposed Revenue Gap of Rs. **270.28** Crores, Tariff Increase of Rs. **77.01** Crores and remaining revenue gap to be met by 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.
- f) The delay in filing this MYT Petition may please be condoned and the Hon'ble Commission is requested to accept this Petition and process the same.
- g) Pass suitable orders with respect to APR for FY 2015-16 and MYT for FY 2016-17 to FY 2018-19 for the expenses to be incurred by ED Goa for serving its consumers;
- h) Approve DELP scheme as DSM initiate by the department under DSM Regulations 2014 and also approve the energy saving potential under this scheme.

- i) Condone any inadvertent omissions/errors/shortcomings and permit EDG to add/change/modify/alter this filing and make further submissions as may be required at a future date.
- j) Pass such further orders, as the Hon'ble Commission may deem fit and appropriate keeping in view the facts and circumstances of the case.

Electricity Department, Government of Goa

Petitioner

Place: Panaji

Dated: ____ February 2016

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LIST OF ABBREVIATIONS

S. No	Abbreviations	Descriptions
1	A&G	Administrative and General
2	ABT	Availability Based Tariff
3	ACoS	Average Cost of Supply/ Service
4	AMI	Automated Metering Infrastructure
5	AMR	Automatic Meter Reading
6	APR	Annual Performance review
7	ARR	Aggregate Revenue Requirement
8	CAGR	Compound Annual Growth Rate
9	CAPEX	Capital Expenditure
10	CEA	Central Electricity Authority
11	CERC	Central Electricity Regulatory Commission
12	CGS	Central Generating Station
13	CUF	Capacity Utilization Factor
14	CWIP	Capital work in progress
15	DELP	DSM based Efficient Lighting Programme
16	Discom	Distribution Companies
17	DSM	Demand Side Management
18	EA Act	The Electricity Act 2003
19	EDG	Electricity Department, Government of Goa
20	EC	Energy Charges
21	EHT	Extra High Tension
22	FC	Fixed Charges
23	FOR	Forum of Regulators
24	FY	Financial Year
25	GFA	Gross Fixed Assets
26	Gol	Government of India
27	HT	High Tension
28	JERC	Joint Electricity Regulatory Commission
29	KV	Kilo Volt
30	kVA	Kilo Volt Ampere
31	kVAh	Kilo Volt Ampere Hour
32	kW	Kilo Watt
33	kWh	Kilo Watt Hour
34	LT	Low Tension
35	MNRE	Ministry of New and Renewable Energy
36	MOD	Merit Order Despatch

37	MoP	Ministry of Power
38	MOU	Memorandum of Understanding
39	MU	Million Units (Million kWh)
40	MVA	Mega Volt Ampere
41	MW	Mega Watt
42	MYT	Multi Year Tariff
43	NFA	Net Fixed Assets
44	NPCIL	Nuclear Power Corporation of India Limited
45	NTP	National Tariff Policy
46	NTPC	National Thermal Power Corporation
47	O&M	Operation & Maintenance
48	PLR	Prime Lending Rate
49	POC	Point of Connection
50	PPA	Power Purchase Agreement
51	PV	Photo voltaic
52	R&M	Repair and Maintenance
		Restructured Accelerated Power Development and Reforms
53	R-APDRP	Programme
54	REC	Renewable Energy Certificate
55	ROE	Return on Equity
56	RPO	Renewable Purchase Obligation
57	Rs	Rupees
58	SBI	State Bank of India
59	SECI	Solar Energy Corporation of India
60	SLDC	State Load Dispatch Centre
61	SWOT	Strength, Weakness, Opportunity and Threats
62	T&D	Transmission and Distribution
63	TOD	Time of Day
64	UI	Unscheduled Interchange Charges
65	w.e.f	With effect from
66	WPI	Wholesale Price Index

CHAPTER 1. INTRODUCTION

1.1 Electricity Department of Goa

- 1.1.1 Goa, a tiny emerald land on the west coast of India, the 25th State in the Union of States of India, was liberated from Portuguese rule in 1961. It was part of Union territory of Goa, Daman & Diu till 30th May 1987 when it was carved out to form a separate State. Goa covers an area of 3,702 square kilometres and comprises two Revenue district viz North Goa and South Goa. Boundaries of Goa State are defined in the North by the Terekhol River which separates it from Maharashtra, in the East and the South by Karnataka State and in the West by the Arabian Sea.
- 1.1.2 Goa, for the purpose of revenue administration is divided into district viz. North and South Goa with headquarters at Panaji and Margao respectively. The entire State comprises 11 talukas. For the purpose of implementation of development programmes, the State is divided into 12 community development blocks. As per 2011 census, the population of the State was~14,58,000. Administratively the State is organised into two districts North Goa comprising six talukas with a total area of 1736 sq. kms and South Goa comprising five talukas with an area of 1966 sq. kilometres. In all there are 383 villages of which 233 are in North Goa district and 150 in South Goa district.

Mapusa Bicholim Carambohm (Dicholi)

Panaji NORTH GOA

Ponda

Ponda

Ponda

Caranzalem

Caranzalem

Curchorem

South GoA

Bhars

Chaudi (Chauri)

Mashem

Polem

Figure 1-1: Goa Map

Source:goa.gov.in

- 1.1.3 According to 18th Electric Power Survey (EPS), the peak demand of Goa is expected to grow to 1191 MW by 2022.
- 1.1.4 Per capita electricity consumption of Goa is highest compared to any other state in the Country (~2000 kWh as compared to India average of 957 kWh) which is comparable with most of the developed nations.
- 1.1.5 The Energy Deficit and the peak deficit as per LGBR report for FY 2015-16 for the Sate of Goa are anticipated to be 0.5% (18MUs) and 0.9% (5MW) respectively.
- 1.1.6 Every society has its own peculiarity and that has to be understood individually for the society. The Goan society has very high expectations from its governing bodies. Also Goa is one of the tourism capitals of India and a lot of foreign and domestic tourists visit Goa frequently on various festive occasions; hence, the basic facilities have to be on world class level especially domestic electricity availability and services. There are so many events being organized in Goa such as International Live Concerts, International Film Festival, Huge Christmas and New Year Celebrations etc. Such society and such events impose stringent challenges to the governing bodies owing to high public expectations on maintaining un-interrupted power supply.
- 1.1.7 EDG takes up efficient measures to provide world class services to the consumers and hence utilizes more capital investment on the system, more number of employees for better operation and maintenance facilities and efficient redressal of consumer complaints.
- 1.1.8 The State of Goa doesn't 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 NTPC Ltd. and Nuclear Power Corporation of India Ltd. (NPCIL) as allocated by Ministry of Power Govt. of India.
- 1.1.9 EDG also has arrangement of power purchase from three Co-generation Power Plants in the State:
 - Goa Energy Private Limited for 14-21 MW
 - Goa Sponge and Power Limited for 3 MW
 - Vedanta Ltd. (Erst while Sesa Sterlite) for minimum 2 MW

1.2 Business Activities

- 1.2.1 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.
- 1.2.2 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, exporting, wheeling, trading 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.
- 1.2.3 The Hon'ble Joint Electricity Regulatory Commission (hereinafter referred to as Hon'ble Commission / JERC) issued the JERC (Multi Year Distribution Tariff) Regulations, 2014 (hereinafter referred to as MYT Regulations) in exercise of powers conferred by Section 61, 62, 63 and 86 read with Section 181 of Electricity Act 2003 on 30th June, 2014. These regulations were made applicable to all distribution licensee in the State of Goa & Union Territories of Andaman & Nicobar Island, Dadra & Nagar Haveli, Daman & Diu, Chandigarh, Lakshadweep and Puducherry. The Commission had subsequently issued first amendment to the MYT regulations on 10th August, 2015. As per clause 3.1.6 of the JERC (Multi Year Distribution Tariff) Regulations, 2014, the Control Period was defined as a three year period from FY 2015-16 to FY 2018-19. However in the last tariff order dated 10th April, 2015 the Commission had deferred the implementation of MYT by one year and thus the Control period was revised to FY 2016-17 to FY 2018-19. The same has been highlighted in the first amendment to the JERC MYT regulations.

- 1.2.4 As per provisions in clause 5.1 (as per amendment dated 10th August 2015) and 12.1 of the JERC Multi Year Distribution Tariff Regulations, 2014, EDG has filed for approval of its Business Plan for three years control period i.e. from FY 2016-17 to FY 2018-19.
- 1.2.5 The Hon'ble Commission has admitted the business plan petition as Petition No. 181/2015 on 22nd October, 2015 after seeking further information/data from EDG so as to take a prudent view of the petition. EDG has submitted clarification to JERC on 02ndNovember, 2015. The technical validation session was held on 02nd November, 2015 at EDG office, Panaji and subsequent to that Public hearing was held at Panaji on 04thNovember, 2015. The order on the business plan petition was issued on 22ndDecember, 2015 and the Hon'ble Commission has directed to file the MYT Petition within one month of the issue of the Business Plan order. Accordingly this MYT petition has been prepared in line with the Tariff Regulations 2009, Business plan order, MYT Regulations 2014 and subsequent amendment.

1.3 Filing of ARR and Multi Year Tariff Petition

- 1.3.1 Under the provisions of Electricity Act, 2003, Licensee is required to submit its ARR and Tariff Petition as per procedures outlined in section 61, 62 and 64 of EA 2003, and the governing regulations of JERC of the relevant years thereof.
- 1.3.2 The Hon'ble Commission has notified first amendment to JERC (MYT Distribution Tariff) Regulations, 2014 wherein tariff determination under MYT framework shall be applicable from 1st April 2016. In line with the regulations, determination of ARR and Tariff for MYT Period for the first control period of FY 2016-17 to FY 2018-19 are prepared in line with MYT Regulations, 2014 and subsequent first amendment. The tariff formats as outlined in the Tariff Regulations 2014 and as applicable to EDG are provided at the end of this petition.
- 1.3.3 EDG is now filing this petition for approval of Hon'ble Commission and the Tariff Formats are enclosed along with this petition.

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 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 10th August, 2015. In line with the Tariff regulations, 2009, EDG has been filing the ARR petitions for consideration of the Hon'ble Commission in the formats laid down for providing information relating to past, present and future performance. In this petition, Electricity Department, Goa is filing Annual Performance Review for FY 2015-16 along with MYT ARR for first control period of FY 2016-17 to FY 2018-19.

2.1 Annual Performance Review for FY 2015-16

- 2.1.1 As specified in the Tariff Regulations, the Hon'ble Commission shall undertake the Annual Performance Review by considering variations between the approved and revised estimates/ provisional actual of sale of electricity, income and expenditure for the relevant year.
- 2.1.2 Accordingly, EDG is filing this Annual Performance Review petition for the year FY 2015-16 based on the actual performance during the 1st half of the year and the revised estimates for the second half of the year of purchase and sales.

2.2 Multi – Year Tariff Petition for FY 2016-17 to FY 2018-19 and Tariff Proposal for FY 2016-17

- 2.2.1 As per Clause 6 of the MYT Regulations, 2014 it provides that submission of forecast of ARR and expected revenue from tariff will be based on the approved Business Plan.
- 2.2.2 Therefore, EDG is filing the petition for the determination of Annual Revenue Requirement Petition for the first control period i.e. FY 2016-17 to FY 2018-19 in line with the JERC Distribution Tariff Regulations 2014 and subsequent first amendment and projections are based on the norms specified in the Regulations as well as approved in the MYT Business plan order and on the past performance, wherever required and considering expected changes in each element of cost and revenue for the ensuing control period. EDG has studied the previous trends and taken cognisance of other internal and external developments to estimate the likely performance for first control period of FY 2016-17 to FY 2018-19.

- 2.2.3 Projections of various cost components required for determination of Aggregate Revenue Requirement for the control period along with the rationale for estimation of such cost is covered in the subsequent section. Further, the philosophy adopted by EDG for projecting power purchase cost has also been elucidated in the respective section.
- 2.2.4 However, in line with the MYT Regulations, 2014, the sales projection, Capital Investment plan and O&M norms are considered in line with the MYT Business plan order as approved by the Hon'ble Commission vide order dated 22nd December 2015.

2.3 Norms for Projection

- 2.3.1 The First MYT Control Period as directed by the Hon'ble Commission in the Regulations Order will commence from 1st April 2016 onwards. EDG is filing this petition in line with the norms and principles enumerated by Hon'ble Commission in the MYT Regulations, 2015 and the business plan order.
- 2.3.2 APR for FY 2015-16and ARR for the Control Period i.e. FY 2016-17 to FY 2018-19have been carried out separately and details of the same are presented separately.

CHAPTER 3. ANNUAL PERFORMANCE REVIEW FOR FY 2015-16

3.1 Background to FY 2015-16 Petition

3.1.1 EDG in this chapter submits the performance of each parameter of ARR as against the values approved by the Hon'ble Commission and as projected earlier. This chapter summarizes each of the components of ARR for FY 2015-16 and requests the Hon'ble Commission to review the performance for FY 2015-16. The Annual Performance Review for FY 2015-16 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.

3.2 Review for FY 2015-16

- 3.2.1 Regulation 8 (1) of the Joint Electricity Regulatory Commission for the State of Goa and Union Territories (Terms and Conditions for Determination of Tariff) Regulations, 2009 states that, ,
 - "...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'..."
- 3.2.2 Further Regulation 13 (2) (ii) 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..."
- 3.2.3 The Hon'ble Commission had issued the Tariff Order for FY 2015-16 on 6th April 2015. For the purpose of ease of reference; the summary of approved ARR vis-a-vis submitted by EDG for FY 2015–16 submitted in the previous filing is reproduced hereunder:

Table 3-1: ARR approved by JERC for FY 2015-2016

Sr. No.	Item of expense	Projected for FY 2015-16 (Rs.Crs)	Now Approved in T.O. (06.4.15) (Rs.Crs)
1	Cost of power purchase	1,149.85	1,048.34
2	Employee costs	232.45	161.53
3	R&M expenses	37.30	12.68
4	Administration and General expenses	16.27	10.03
5	Depreciation	63.19	38.81
6	Interest on Loan & Finance charges	88.20	33.49
7	Interest on Working Capital	4.27	2.34
8	Interest on Security Deposit	8.27	7.43
9	Return on NFA /Equity	57.45	15.82
10	Total Revenue Requirement	1,657.26	1,330.47
11	Less: Non Tariff Income	6.65	6.74
12			-
13	Net Revenue Requirement (10-11-12)	1,650.60	1,323.74

EDG would now discuss each of the elements of review in detail for H1 and H2 of FY 2015-16.

3.3 Number of Consumers

3.3.1 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.EDG envisages nominal growth in later half of FY 2015-16. The table below shows category wise number of consumers for the year FY 2015-16 (Revised Estimates).

Table 3-2: Number of Consumers for FY 2015-2016 (Revised Estimates) (Nos)

Cat. No	Category of Consumer	Number of	Number of	Number of
		Consumers	Consumers	Consumers for
		FY 2015-16 H1	FY 2015-16 H2	FY 2015-16 (Total)
1	2	3	4	5
Α	Low Tension Supply	5,82,362	5,88,186	5,88,186
1(a)	Tariff LTD/Domestic and Non-Commercial	4,63,715	4,68,352	4,68,352
	0-100	1,91,845	1,93,763	1,93,763
	101-200	1,35,937	1,37,296	1,37,296
	201-400	97,269	98,242	98,242
	Above 400 units	38,664	39,051	39,051
1(b)	Tariff LTIG/Low Income Group	2,790	2,818	2,818
1(c)	Tariff LTDM/Domestic Mixed	4,566	4,612	4,612
	First 400 Units	3,956	3,996	3,996
	Above 400 Units	610	616	616
2	Tariff-LTC/Commercial	86,625	87,491	87,491
	0-20 kW Commercial Consumers	85,237	86,089	86,089
	0-200 Units	33,591	33,927	33,927
	201-400 Units	11,407	11,521	11,521
	Above 400 Units	40,239	40,641	40,641
	>20-90 kW Commercial Consumers	1,388	1,402	1,402
	0-200 Units	127	128	128
	201-400 Units	1,101	1,112	1,112
	Above 400 Units	160	162	162
3 (a)	Tariff-LTI/Industries	7,694	7,771	7,771
	0-500 Units	5,010	5,060	5,060
	Above 500 Units	2,684	2,711	2,711
4	Tariff-LTP/Mixed (Hotel Industries)	995	1,005	1,005
5	Tariff-LTAG/Agriculture	7,292	7,365	7,365
6	Tariff-LTPL/Public Lighting	3,731	3,768	3,768
7	Tariff-LTH/ Hoardings & Signboards	93	94	94
8	Tariff-LTTS/Temporary Supply	4,861	4,910	4,910
	Temporary Domestic	3,825	3,863	3,863
	Temporary Commercial	1,036	1,046	1,046
В	High Tension Supply	867	876	876
9	Tariff HTI/Industrial	655	662	662
	Connected at 11/33 kV	650	657	657
	Connected at 110 kV	5	5	5
10	H.T.Industrial (Ferro Mettallurgical/ Steel	38	38	38
	Melting/ Power Intensive)			
11	Tariff-HTC/Commercial	118	119	119
12	Tariff-HTAG/Agriculture	42	42	42
13	Tariff-HTD/Domestic	2	2	2
14	H.T. MES/Defence Establishments	12	12	12
15	HTTS/ Temporary Supply			
	Total LT + HT	5,83,229	5,89,061	5,89,061

^{*}The closing balance of FY 2015-16 H2 is taken as the number of consumer for entire year FY 2015-16

3.4 Connected Load

3.4.1 EDG envisages corresponding nominal growth in connected load for H2 of FY 2015-16 and category wise load estimates for FY 2015-16 are provided in the table below.

Table 3-3: Connected Load for FY 2015-16

Cat. No	Category of Consumer	Connected load	Connected Load	Connected Load
		for	for	for
		FY 2015-16 H1	FY 2015-16 H2	FY 2015-16
				(Total)
1	2	3	4	5
A	Low Tension Supply	16,26,100	16,42,361	16,42,361
1(a)	Tariff LTD/Domestic and Non-Commercial	11,39,883	11,51,282	11,51,282
	0-100	3,63,265	3,66,898	
	101-200	2,60,267	2,62,869	2,62,869
	201-400	2,89,534	2,92,429	2,92,429
	Above 400 units	2,26,817	2,29,085	2,29,085
1(b)	Tariff LTIG/Low Income Group	330	333	333
1(c)	Tariff LTDM/Domestic Mixed	12,863	12,992	12,992
	First 400 Units	9,310	9,403	9,403
	Above 400 Units	3,554	3 <i>,</i> 589	3,589
2	Tariff-LTC/Commercial	2,64,988	2,67,638	2,67,638
	0-20 kW Commercial Consumers	1,86,056	1,87,917	1,87,917
	0-200 Units	51,178	51,690	51,690
	201-400 Units	54,949	55 <i>,</i> 499	55,499
	Above 400 Units	79,930	80,729	80,729
	>20-90 kW Commercial Consumers	78,932	79,721	79,721
	0-200 Units	4,019	4,059	4,059
	201-400 Units	69,759	70,456	70,456
	Above 400 Units	5,154	5,205	5,205
3 (a)	Tariff-LTI/Industries	1,23,799	1,25,037	1,25,037
	0-500 Units	71,695	72,412	72,412
	Above 500 Units	52,104	52,625	52,625
4	Tariff-LTP/Mixed (Hotel Industries)	29,749	30,046	30,046
5	Tariff-LTAG/Agriculture	22,628	22,854	22,854
6	Tariff-LTPL/Public Lighting	12,741	12,868	12,868
7	Tariff-LTH/ Hoardings & Signboards	1,273	1,285	1,285
8	Tariff-LTTS/Temporary Supply	17,847	18,025	18,025
	Temporary Domestic	13,444	13,578	13,578
	Temporary Commercial	4,403	4,447	4,447
	High Tension Supply	6,06,205	6,12,267	6,12,267
9	Tariff HTI/Industrial	4,32,619	4,36,945	4,36,945
	Connected at 11/33 kV	3,59,119	3,62,710	3,62,710
	Connected at 110 kV	73,500	74,235	74,235
10	H.T.Industrial (Ferro Mettallurgical/ Steel Melting/ Power Intensive)	1,13,483	1,14,618	1,14,618
11	Tariff-HTC/Commercial	44,138	44,579	44,579
12	Tariff-HTAG/Agriculture	8,685	8,772	8,772
13	Tariff-HTD/Domestic	200	202	202
14	H.T. MES/Defence Establishments	7,080	7,151	7,151
15	HTTS/ Temporary Supply	- 7,000		- ,,151
	Total LT + HT	22,32,305	22,54,628	22,54,628

^{*}The closing balance of FY 2015-16 H2 is taken as the connected load for entire year FY 2015-16

Note: All LT Connections expect LTP/Motive Power, LTAG/Agriculture, LT Ice manufacturing and LT Public Water Work in KW, LTP/Motive Power, LTAG/Agriculture Connections LT Ice manufacturing and LT Public Water Work in HP, All HT Connections in KVA

3.5 Energy Sales

- 3.5.1 It is submitted that due to delayed monsoons and less rains, the sales in 1sthalf has been on higher side as compared to previous year 1sthalf period. Apart from the above factors the sales recorded in the month of September are abnormally high than the previous months. However EDG does not expect similar growth in H2 of FY 2015-16. Hence the overall sales for FY 2015-16 are retained at approved levels for most of the categories.
- 3.5.2 The following table shows the overall sales projected by EDG for the year FY2015-16. The table includes the sales projections of the newly created categories like HT Commercial and HT Domestic which recorded 35 MUs and 0.25 MUs in H1 and the same are envisaged in H2 of 2015-16 and the same are considered and shown in the below table.

Table 3-4: Sales for FY 2015-16 (MUs)

Cat. No	Category of Consumer	Sales for	Sales for	Sales for FY
		FY 2015-16 H1	FY 2015-16 H2	2015-16 (H1+H2)
1	2	3	4	5
A	Low Tension Supply	803	664	1,467
1(a)	Tariff LTD/Domestic and Non-Commercial	551	440	991
	0-100	52	44	97
	101-200	121	100	221
	201-400	164	138	301
	Above 400 units	214	158	372
1(b)	Tariff LTIG/Low Income Group	2	2	4
1(c)	Tariff LTDM/Domestic Mixed	7	8	15
	First 400 Units	3	4	7
	Above 400 Units	4	4	8
2	Tariff-LTC/Commercial	155	126	281
	0-20 kW Commercial Consumers	129	105	234
	0-200 Units	20	16	36
	201-400 Units	68	55	123
	Above 400 Units	41	34	75
	>20-90 kW Commercial Consumers	26	21	47
	0-200 Units	0	0	0
	201-400 Units	26	21	47
	Above 400 Units	0	0	0
3 (a)	Tariff-LTI/Industries	48	51	99
	0-500 Units	23	24	47
	Above 500 Units	25	27	52
4	Tariff-LTP/Mixed (Hotel Industries)	23	18	41
5	Tariff-LTAG/Agriculture	5	7	12
6	Tariff-LTPL/Public Lighting	3	2	5
7	Tariff-LTH/ Hoardings & Signboards	1	1	2
8	Tariff-LTTS/Temporary Supply	9	9	18
	Temporary Domestic	7	7	14
	Temporary Commercial	2	2	4
В	High Tension Supply	922	879	1,801
9	Tariff HTI/Industrial	618	585	1,203
	Connected at 11/33 kV	553	517	1,070
	Connected at 110 kV	65	68	133
10	H.T.Industrial (Ferro Mettallurgical/ Steel Melting/ Power Intensive)	253	241	494
11	Tariff-HTC/Commercial	35	35	70
12	Tariff-HTAG/Agriculture	2	4	6
13	Tariff-HTD/Domestic	0	0	0
14	H.T. MES/Defence Establishments	13	14	27
15	HTTS/ Temporary Supply	13	14	27
	Total LT + HT	1,725	1,543	3,268

3.5.3 EDG submits that the sales as estimated for FY 2015-16 in above table are very much in line with that approved by the Hon'ble Commission in last tariff order.

3.5.4 The Hon'ble Commission is requested to kindly approve the sales figures as estimated in the table above. The figures of Number of Consumers, Connected Load and Sales for FY 2015-16 are provided in **Format 1 of Tariff Filing Formats**.

3.6 T&D Loss & Energy Requirement

- 3.6.1 **T&D Loss H1:** The Distribution Loss for the 1st half of the year FY 2015-16 (i.e. Apr 15 to Sep 15) based on the actual data available comes to **10.05**%
- 3.6.2 **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 3-5: Energy Input for WR & SR: FY 15-16 - H1

Month	WR(MU's)	SR(MU's)	TOTAL(MU's)
Apr-15	258.58	58.07	316.65
May-15	264.08	65.87	329.95
Jun-15	242.56	43.94	286.50
Jul-15	239.58	52.99	292.58
Aug-15	227.86	63.03	290.89
Sep-15	245.09	51.80	296.89
Total	1,477.76	335.69	1,813.45

3.6.3 **Energy Balance H1:** The Energy Balance for the 1st half of the year FY 2015-16, based on the provisional figures is shown in the table below:

Table 3-6: Energy Balance for FY 2015-16 H1 (in MU's)

Sr. No.	ltem	Apr-Sep (Act) - WR FY 2015-16 H1	Apr-Sep (Act) - SR FY 2015-16 H1	Apr-Sep (Act) - WR + SR FY 2015-16 H1
1	2	3	4	5
1	Energy Input at Goa Periphery (Mus)	1,478	336	1,813
2	Total Power Scheduled/ Purchased by ED-Goa (Mus)			
	Total Schedule Billed Drawal - CGS	1,337	373	1,710
	Add: Overdrawal	83	11	94
	Add: Power purchase from Traders/ Open Market	91	1	91
	Less: Underdrawal	6	7	13
	Add: Renewable Power	8	-	8
	Total (Mus)	1,513	376	1,889
3	PGCIL Losses - MUs	35	40	76
	PGCIL Losses - %	2.34%	10.76%	4.02%
4	Total Power Purchased within Goa State (Mus)			
	Add: Co-generation	104	_	104
				-
	Total	104		104
5	Total Power Purchase availability after PGCIL Losses	1,582	336	1,918
	(Mus) Less: Retail Sales to Consumers			1 725
	T&D Losses - MUs			1,725
6	T&D Losses - Mus			193
ס	I & D LUSSES - 70	I		10.05%

- 3.6.4 **PGCIL SR Losses:** It can be seen from the table above, that PGCIL loss for the southern region is on much higher side in the 1st half of the year FY 2015-16. This is due to the following reasons:
 - i. The Power Scheduled from the SR originates from Ramagundam Periphery, which is located in Telangana.
 - ii. Hence, the power which shall be made available at Goa periphery is subjected to substantial amount of losses viz Intra State Loss of Telangana and Inter State Losses and Losses between regions and Goa belong to the western region and Telangana to southern.
 - iii. Thus, the PGCIL loss for the southern region tends to be more than the Western Region in H1.
- 3.6.5 **Distribution Loss for overall FY 15-16:** The Distribution Loss for the year FY 2015-16 on overall basis is estimated to be around 11.50% as approved by the Hon'ble

Commission. EDG has been trying to minimize the Distribution Loss and shall continue with the efforts in reducing the Distribution Loss further.

- 3.6.6 The figures of AT&C loss and Distribution Loss for FY 2015-16 are provided in **Format**2 of Tariff Filing Formats.
- 3.6.7 **PGCIL Losses for H2 of FY 2015-16:** As discussed in above Para, the total PGCIL Losses are considered for both the regions, i.e. WR & SR. The PGCIL loss for the SR for FY 2015-16 is estimated as **27** MUs (Telangana Intra State Transmission Loss + Interstate Losses + Losses between regional grids). On the other hand PGCIL losses for the WR are estimated at **62** MUs.
- 3.6.8 EDG submits that it has projected power purchase quantum for H2 of FY 2015-16 based on the following assumptions.
 - Percentage Allocation arrived for each of CGS station from WRPC allocation data dated 30th Oct 2015
 - > PLF of CGS station considered for H2 are based on past 5 years average data
 - Auxiliary consumption for CGS stations is taken from revised CERC tariff Regulations 2014.
 - ➤ Based on the above assumptions power purchase quantum from CGS stations have been arrived.
 - Power Purchase quantum from within state existing co-generating stations is considered same as that of H1 of FY 2015-16.
 - The remaining power requirement will be catered through power from power exchanges/ open market.
 - EDG has entered into Banking agreement which is considered as inflow in Q4 of FY 2015-16 and as outflow in Q2 of FY 2016-17
- 3.6.9 EDG has therefore estimated the power purchase quantum for H2 of FY 2015-16 and has integrated with actual quantum of H1 to arrive at energy balance for entire year of FY 2015-16.
- 3.6.10 EDG while computing Energy balance for entire FY 2015-16 has considered actual of over-drawl/under-drawl during first half of FY 2015-16. Thus, on the basis of the foregoing paragraphs, the Energy Balance for the year FY 2015-16 is computed by EDG and shown in the table below.

Table 3-7: Energy Balance for FY 15- 16 (H1 + H2)

Sr. No.	ltem	Apr-Mar (Proj) - WR FY 2015-16	Apr-Mar (Proj) - SR FY 2015-16	Apr-Mar (Proj) WR + SR FY 2015-16
1	2	3	4	5
1	Retail Sales to Consumers (Mus)			3,268
	Add: T&D Losses - %			11.50%
	T&D Losses - MUs			425
2	Energy Requirement at Goa Periphery			3,693
3	Total Power Scheduled by ED-Goa (Mus)			
	Scheduled Power from NTPC, NPCIL & RSTPS	2,628	734	3,361
	Add: Power from Exchange/ Traders	153	-	153
	Add: Net UI Overdrawal/ Underdrawal	78	3	81
	Less: Power diverted to Exchange (Mus)	-	-	-
	Add: Renewable Power	54	-	54
	Total	2,912	737	3,649
4	Less: PGCIL Losses - %			
	PGCIL Losses - MUs	98	68	165
5	Total Power Purchased within Goa State (Mus)			
	Add: Co-generation	208	-	208
	Total	208	-	208
7	Energy Input at Periphery after PGCIL Losses & State Power Purchase (Mus)	3,023	669	3,693

3.6.11 The table below provides the comparison of Energy Balance with approved and revised estimates for FY 2015-16.

	Table of companies of aneight and the			
S No.	ltem	Submitted	Approved	Revised
		in ARR	in TO dated	Estimates
		petition for	6th April,	for FY
		FY 2015-16	2015	2015-16
1	Retail sales to consumers - Mus	3225	3233	3268
	Add: T & D losses%	13.75%	11.50%	11.50%
	T & D losses-Mus	514	420	425
2	Energy Requirement at Goa Periphery	3739	3653	3693
3	Total Power Scheduled/ Purchased by ED-Goa			
	Scheduled power from NTPC,RGPPL,NPCIL &	3647	3548	3361
	RSTPS			
	Add: Actuals of Over/ Unerdrawal, Traders and	0	0	81
	Sales to Exchange			
	Add: Power purchase from Open Market during	77	77	153
	peak/ (surplus Power diversion to exchange			
	during off-peak)			
	Add: Renewable Energy Sources	27	27	54
	Total	3751	3652	3649
4	PGCIL Losses - MUs	198	185	165
	PGCIL Losses - %	5.33%	5.21%	4.52%
5	Total Power Purchased within Goa State			
	Add: Co-generation	186	186	208
	Total	186	186	208
6	Energy input at periphery after PGCIL Losses &	3739	3654	3693
	within the State Power Purchase			

Table 3-8: Comparison of Energy Balance for FY 2015- 16 (MUs)

3.6.12 The Hon'ble Commission is requested to approve the Energy Balance for the year FY 2015-16 as provided in the above table. The energy requirement and source wise power purchase details along with actual cost for H1 are discussed in subsequent section. The figures of energy Balance for FY 2015-16 (H1 and overall for FY 2015-16) are provided in Format 3 of Tariff Filing Formats.

3.7 Power Purchase Quantum & Cost for FY 2015-16

Power Purchase Cost for H1 FY 2015-16

3.7.1 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.

3.7.2 The table below shows the summary of Power Purchase from various sources along with their costs for the 1st half of FY 2015-16 including Transmission Charges, Overdrawl and purchase from traders:

Table 3-9: Power Purchase Quantum & Cost for FY 2015-16 (H1)

S. No.	Particulars	Gross Purchase	Cost	Rate
140.		Mus	Rs. Crs	Rs./kWh
1	NTPC	1,618	368.28	2.28
2	NPCIL	93	25.55	2.76
3	Traders	91	33.44	3.69
4	Overdrawl	81	28.77	3.55
5	Cogeneration	104	25.01	2.40
6	Renewable Power	8	0.88	1.17
7	Transmission		82.43	
8	Total	1,993	564.37	2.83

- 3.7.3 The source wise details of Power Purchase Quantum and its cost are covered in Format 4 of the Tariff Filing Formats.
- 3.7.4 Further, the month wise breakup for each of the source/ element of Power Purchase for the period April-September 2015 are provided at **Error! Reference source not found.** of this Petition.
- 3.7.5 EDG on a real time basis has also overdrawn/ under drawn power from both WR and SR grids. The summary details of the same are provided in the table below for H1:

Table 3-10: DSM Power (Overdrawl & Underdrawl) Charges for H1 of FY 2015-16

Region	Over Drawl		Under Drawl	
	Rs. Cr	Mus	Rs. Cr	Mus
Western	26.29	83.46	0.24	5.77
Southern	3.42	10.80	0.71	7.49
Total	29.71	94.26	0.94	13.26
Avg Rate		3.15		0.71

3.7.6 **Transmission Charges H1:** The transmission charges for the 1st half of FY 2015-16 comprises of transmission charges for Western Region, Southern Region, KPTCL. The Transmission charge comes to around Rs. **82.43** Crores, the details of which are shown in the table below:

Table3-11: Transmission Charges for FY 2015-16 H1

S. No	Name of the Supplier/	Amount (Rs.)	Remarks
	Agency		
1	M/s PGCIL WR, Nagpur	7259,37,564	POC Charges
2	M/s PGCIL SR, Banglore	749,75,393	POC Charges
3	M/s KPTCL, Banglore	151,76,864	wheeling charges
4	M/s POSOCO WR	24,64,123	Fees and charges of SLDC
5	M/s POSOCO SR	20,31,436	Fees and charges of SLDC
6	M/s POSOCO WR	37,40,268	SCADA charges
7	M/s MSEDCL	-	reactive charges
8	M/s POSOCO WR	-	Reactive charges
9	M/s MSETCL (RGPPL)	-	wheeling charges
	Total	8243,25,648	

3.7.7 The month wise details of transmission charges for various heads are provided at **Error! Reference source not found.** of this Petition.

Power Purchase Cost for H2FY 2015-16

- 3.7.8 **Power Purchase Fixed Cost for H2 FY 2015-16:** The Fixed charges for CGS have been taken in line with the cost actually incurred by EDG during the first half of FY 2015-16. The fixed cost has been considered only for CGS stations.
- 3.7.9 **Power Purchase Variable Cost for H2 FY 2015-16:** The variable cost for CGS stations for FY 2015-16 has been computed considering per unit cost of H1 on average basis. The variable cost per unit for Co-Generation Stations (existing as well as upcoming) has been taken as per actuals of H1 on average basis.

Power Purchase from Renewable Energy Sources:

3.7.10 **Solar RPO:** As regards fulfilment of Solar RPO is concerned, PPA has been executed by the Government with M/s NVVNL, New Delhi on 22nd August 2014 for supply of solar power for a period of 5 years @ Rs 7.99 per unit exclusive of transmission charges, 6 MW i.e. approximately 10 MUs. The supply has started w. e. f. 28th August 2014.

Further PSA has been executed with M/s Solar Energy Corporation of India, New Delhi vide letter no. SECI/JNNSM/P-2/B-1/Power Sale/851 dated 11th July 2014 for 25 MW. SECI will be supplying solar power of 25 MW @ Rs 5.50 per unit for a period of

25 years. The flow of power has been started from 08.11.2015 and shall fulfil the solar RPO from 2015-16 till next 25 years.

3.7.11 **Non-Solar RPO:** EDG has issued an LOI to M/s NVVNL (Date: 09.07.2015) at Rs. 4.49 per kWh (At Goa Periphery) for 10MW of hydro power from small Hydro power plant from Eastern Region to meet Non Solar RPO for the year FY 2015-16. Depending on RPO status by way of purchasing above hydro power, ED Goa will further decide on purchasing RECs in Q4 of 2015-16 to fulfil entire non solar RPO.

It is submitted that EDG has intimated Hon'ble Commission on the roadmap for meeting past RPO from FY 2010-11 to FY 2014-15 vide letter No. 120/3/JERC/MYT/CEE/Tech/1664 dated, 19.01.2016. EDG submits that it will ensure past RPO is met for Solar. The details of RPO for Solar and Non-Solar for FY 2015-16 are given in the table below:

Table 3-12: Solar & Non-Solar RPO Status for FY 2015-16

Description	FY 2015-16
Sale within State (MUs)	3,267.89
RPO Obligation in (%)	
Solar	0.85%
Non Solar	2.70%
RPO Obligation in (in MUs)	
Solar	27.78
Non Solar	88.23
Shortfall of RPO Obligation in Past Years (in MUs)	
Solar	-
Non Solar	-
Total RPO Obligation including Past Years (in MUs)	
Solar	27.78
Non Solar	88.23
RPO Compliance during the year (in Mus)	
Solar	21.00
Non Solar	21.97
Shortfall in RPO Compliance (in Mus)	
Solar	6.78
Non Solar	66.27
REC Certificate Purchase (in Mus)	
Solar	6.78
Non Solar	66.26
Cumulative Shortfall in RPO Compliance (in Mus)	
Solar	0.00
Non Solar	0.00
REC Certificate Price (Rs./Unit)	
Solar	3.53
Non Solar	1.50
REC Certificate Cost (Rs. Crores)	
Solar	2.39
Non Solar	9.94
Total	12.33

The Hon'ble Commission is requested to approve the purchase of REC as stated in the table above, that are proposed in order to meet the RPO Obligation for FY 2015-16.

3.7.12 Banking arrangement: EDG has issued an LOI for Banking of Power so as to take power during peak hours in exchange of off peak power in the next financial year i.e FY 2016-17 and the details of the same are provided in the table below (Copy of LOI attached in Annexure 8):

Table 3-13: Banking Arrangement FY 2015-16

Banking Arrangement with MPPL for February and March 2016					
Particular	Amount	Remarks			
Quantum (MW)	50				
Number of days	60	2 months			
Time Block	1600hrs				
	to				
	2200hrs				
No. of Hours per day	6				
Total Amount to be	0.72	Only OA Charges			
paid (Rs.Crs)		and Trading Margin			
Total units	18.00	Energy received at			
receivable (MUs)		WR periphery			

The energy to be returned under this arrangement in Q2 of FY 2016-17 is 19.26 MUs which is 1.07 times of energy received at WR.

- 3.7.13 **Transmission Charges FY 2015-16 (H2):** The Transmission Charges for FY 2015-16 are considered as per POC rates for Oct-Dec 2015 from POSOCO Data. Further, the transmission charge has also been considered factoring the wheeling charges pertaining to KPTCL.
- 3.7.14 The transmission charges for 2nd half of FY 15-16 are computed based on the rates provided in Regional Transmission Account Statement for October 2015. The computation of transmission charges consists of POC Charges, Reliability support charges and HVDC charges and is provided in the table below.

Regions	POC Rates (Rs/Mw/ Month) *	Reliability Support Charges (Rs/Mw/ Month) *	HVDC Charges (Rs/Mw/ Month) *	Total Charges (Rs/Mw/ Month) *	Monthly Quantum (MW)	Monthly Charges (Rs.Crs)	Total Charges for 6 months (Rs.Crs)
Southern Region*	53,874	21,473	17,557	92,904	93.28	0.87	5.20
Western Region*	3,10,307	21,473	-	3,31,780	404.00	12.54	75.22
						-	-
Total					497.28		80.42

^{*} Figures of MW as per Oct 2015 RTA bill (SR + WR)

3.7.15 The transmission charges from KPTCL have been worked out by considering wheeling charge of **2.50 paise/unit** on power drawl. Accordingly, the total transmission charges for H2 including Wheeling and SLDC charges etc for FY 2015-16 are given in the table below:

Table 3-15: Total Transmission Charges for H2 FY 2015-16

Particulars	FY15-16 -
	H2
	(Rs.Crs)
POC Transmission Charges (Oct15-Mar 2016)	80.42
KPTCL Wheeling Charges (FY2015-16 H2)	0.90
Fees and charges of SLDC - WR	0.25
Fees and charges of SLDC - SR	0.20
SCADA & Reactive charges	0.37
MSETCL (RGPPL)	_
Total Transmission Charges (Oct15-Mar 2016)	82.14

- 3.7.16 Thus, the total Transmission charge for H2 of FY 2015-16 works out to be Rs. **82.14** Crores.
- 3.7.17 **Power Purchase Cost summary FY 2015-16:** In line with the foregoing paragraphs, the total Power Purchase for FY 2015-16 is summarized in the table below:

Power Source	Petiti Submissi	oners on for FY	Commission Approved for Fy		Revised Estimates for FY 2015-16	
awet	Gross	Cost (Rs.	Gross	Cost (Rs.	Gross	Cost (Rs.
60	(Mus)	Crs.)	(Mus)	Crs.)	(Mus)	Crs.)
NTPC	3,388.97	816.45	3,228.44	726.39	3,170.11	727.58
NPCIL	258.21	65.43	320.01	81.37	191.23	51.88
Traders/Short Term	14.89	5.51	14.89	5.51	152.96	47.47
Short Term Power (Tie-up)	62.26	23.02	62.26	23.02		
Over Drawl					81.00	28.77
Cogeneration	185.94	44.63	185.95	44.63	208.18	50.03
Renewable Power Sources	27.00	17.34	27.00	17.34	54.17	33.34
RPO Obligation (REC)		13.37		13.37		
Transmission Charges		153.67		136.70		164.58
Total	3,937.26	1,139.42	3,838.55	1,048.33	3,857.65	1,103.63

Table3-16: Power Purchase Summary for FY 2015-16

- 3.7.18 It is submitted that net power purchase at state periphery after losses is **3,692.53** MUs with total power purchase cost of **Rs. 1,103.63 Crores** and the average power purchase cost works out to Rs. **2.99** /kWh against approved net power purchase cost of Rs. **2.87** /kWh for FY 2015-16.
- 3.7.19 The power purchase details for H1 and H2 and for FY 2015-16 (H1+H2) are provided in **Tariff Filing Format 4.**
- 3.7.20 The deviation in power purchase cost for FY 2015-16 as compared to approved is due to the following reasons.
 - Higher transmission charges as compared to approved as the methodology for computation of PoC charges has been changed from July.
 - Purchase of power from short term sources and grid overdraw as envisaged/approved power quantum from NTPC was unavailable
 - Increase in Co-generation cost due to increased quantum
- 3.7.21 It is requested Hon'ble Commission to approve the power purchase cost including transmission charges at Rs. 1,103.63 Crores for FY 2015-16 as per revised workings and at an average cost of Rs. 2.99 /kWh on net power purchase basis. Further the Regional Energy Accounts (REA) and Regional Transmission Accounts (RTA) for the period from April 2015 to September 2015 are provided in soft format along with the petition for verification and scrutiny of the Commission.

3.8 Operation & Maintenance Expenses

3.8.1 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.
- 3.8.2 Regulation 27 (3) of JERC for the State of Goa and Union Territories (Terms and Conditions for Determination of Tariff) Regulations, 2009 provides for O&M Expense for a distribution licensee. The relevant regulation is re-produced hereunder:
 - "27 (3) O&M expenses for distribution functions shall be determined by the Commission as follows:
 - a) O&M expenses as approved by the Commission for the first time for a year shall be considered as base O&M expenses for determination of O&M expenses for subsequent years;
 - b) Base O&M expenses as above shall be adjusted according to variation in the rate of WPI per annum to determine the O&M expenses for subsequent year, where WPI is the Wholesale Price Index on April 1 of the relevant year...."
- 3.8.3 Employee Expenses for FY 2015-16: EDG has computed the O&M (Employee Expense) expense for FY 2015-16 based on the actual employee expenses till September 2015. Further EDG considered employee expenses for second half of FY 2015-16 based actual of H1 of 2015-16. The total employee cost is re-estimated at Rs. 273.80 Crores for FY 2015-16. The above amount includes pension provision of Rs. 6.26 Crores.
- 3.8.4 The employee cost for FY 2015-16 has been on higher side as compared to approved due to increase in dearness allowance (uncontrollable factor), increase in HRA and travel allowance.

- 3.8.5 The head wise actual information for employee expenses has been provided in Format 16 of Tariff Filing Format.
- 3.8.6 **Repairs & Maintenance Expenses for FY 2015-16:** 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.
- 3.8.7 EDG has actually incurred amount of Rs. **18.97** Crores in the first six months period from April-September 2015 and an equal amount is considered for H2. The R&M expenses based on provisional and revised estimates for the year FY 2015-16 compute to Rs. **37.95** Crores.
- 3.8.8 The increase in R&M cost is mainly on account of repairs and maintenance of 33 KV substations, 11 KV substations, LT Lines etc. Also the increase is due to increase in Maintenance cost of LT lines and 33KV Sub stations, Minor R&M works are also contributing to significant part of R&M Expenses.
- 3.8.9 Administration & General expenses for FY 2015-16: As mentioned earlier, Administrative expenses mainly comprise of rents, telephone and other communication expenses, professional charges, conveyance and travelling allowances and other debits.
- 3.8.10 The actual expense for first six months period from April-September 2015 is Rs. **6.11** Crores and an equal amount is estimated for H2 of FY 2015-16.
- 3.8.11 The A&G expenses based on provisional and revised estimates for the year FY 2015-16computes to Rs. 12.22 Crores. The Hon'ble Commission is requested to approve A&G expenses as per revised projections for FY 2015-16.
- 3.8.12 The A&G expenses are estimated on higher side as compared to H1 of FY 2015-16 due to higher cost estimated for regulatory expenses and legal and professional fees.
- 3.8.13 **O&M Expenses Summary FY 2015-16:** Based on the foregoing paragraphs, the revised O&M expenses for the year FY 2015-16 vis-a-vis the approved level by the Hon'ble Commission is shown in the table below:

Table 3-17: O&M Expenses for FY 2015-16 (Crs.)

S. No	Particulars	Claimed by	Approved by	Revised
		the Petitioner	commission	Estimates
		in TO petition	in TO dated	for FY 2015-
		for FY 2015-	April 6th,	16
		16	2015	
1	Employee Expenses	232.45	161.53	273.80
2	R&M Expenses	37.30	10.03	37.95
3	A&G Expenses	16.27	12.68	12.22
4	Total O&M Expenses	286.02	184.24	323.97

3.8.14 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 2015-16 are provided in the **Formats 14, 16 & 17** of the Tariff Filing Formats.

3.9 Capital Work in Progress, GFA and Depreciation

- 3.9.1 The Capital Work in Progress (CWIP), Gross Fixed Asset (GFA) and Depreciation for FY 2015-16are discussed hereunder.
- 3.9.2 EDG would like to submit that the Gross Block considered in FY 2015-16 is based on approved figures considered by Hon'ble Commission in the tariff orders.
- 3.9.3 EDG hereby submits a gist on the Capital Expenditure & Capitalisation for the year FY 2015-16.

Table 3-18: Capital Expenditure & Capitalisation for FY 2015-16 (Crs.)

S. No.	Name of scheme	Rev. Capex during FY 2015-16	Rev. Capitalization during FY 2015-16
1	Scheduled castes development scheme(P)	0.07	0.07
2	Schedule Tribe Development Scheme (P)	45.00	75.00
3	Machinery and Equipments (Plan) Motor Vehicles	-	-
4	Infrastructure development through Electricity Duty (Plan)	130.00	48.00
5	Erection and Augmentation of 33/11 KV S/S line (Plan)	3.00	1.50
6	Normal Development Schemes (Plan)	16.00	16.00
7	System Improvement Schemes (Plan)	4.00	4.00
8	Construction of staff quarters and office buildings (Plan)	2.00	1.50
9	Erection of 220/33 KV 1X50 MVA Sub- Station at Cuncolim	13.00	13.00
10	Erection of 220 KV line from Xeldem to Cuncolim	6.00	6.00
11	Strengthening of 220 KV Transmission Network	1.00	1.00
12	Erection of 220/33KV, 1x50 MVA Sub-Station Xeldem	-	-
13	Accelerated Power Development Reforms Programme	-	-
14	Erection of 2nd 100 MVA transfomer at Xeldem 220/110 KV S/S	0.28	0.28
15	Erection of 220/110/33/11 KV Sub-Station at Verna (New)	9.00	-
16	Erection of 220 KV line from Ponda-Verna-Xeldem	4.00	-
17	APDRP(State Schemes)	4.00	4.00
18	Restructured Accelerated Power Development and Reforms Programme Part A	100.00	106.73
19	Research training and human research development	-	-
20	Underground Cabling	38.71	38.00
21	(R-APDRP) during Eleventh Plan period	-	-
22	Public Lighting Scheme	1.00	1.00
23	R-APDRP Part B / IPDS	200.00	-
24	EHV new Transmission / Sub-Station / Capacitor banks schemes	50.00	50.00
25	Total	627.06	366.08

- 3.9.4 As seen from the above table, the majority of the CAPEX incurred is for Infrastructure development schemes through APDRP, System Strengthening Schemes and R-APDRP. The total Capital Expenditure and Capitalization for FY 2015-16 as per revised estimates is Rs. 627.06 Crores and Rs. 366.08 Crores respectively. The detail of capital expenditure schemes for FY 2015-16 is provided in the Format 5 of Tariff Filing Formats.
- 3.9.5 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 3-19: CWIP for FY 2015-16

S. No	Particulars	FY 2015-16	FY 2015-16	FY 2015-16
		Projected	Approved	Rev Est.
1	Opening Balance (Rs. Crs.)	541.94	504.55	541.94
2	Add: New Investments	817.00	817.00	627.06
3	Total (Rs. Crs.)	1,358.94	1,321.55	1,169.00
4	Less: Investment Capitalized	475.50	475.50	366.08
5	Closing Balance (Rs. Crs.)	883.44	846.05	802.92

3.9.6 The Opening Balance of GFA for FY 2015-16 comes to around Rs. **1,144.13** Crores. The additions to GFA are estimated to be around Rs. **366.08** Crores; the details of which are provided in the table below:

Table 3-20: Details of GFA for FY 2015-16 (Crs.)

S. No.	Particulars	Claimed by Petitioner for FY 2015-16	Approved by commission in TO for FY 2015-16	Revised Estimates for FY 2015-16
1	Opening GFA	1,043.09	581.37	1,144.13
2	Capitalization	307.50	307.50	366.08
3	Closing GFA (1+2)	1,350.59	888.87	1,510.21
4	Average GFA (1+3)/2	1,196.84	735.12	1,327.17

3.9.7 The Regulation 26 of JERC for the State of Goa and Union Territories (Terms and Conditions for Determination of Tariff) Regulations, 2009 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. 70.07 Crores. The table below shows the working of Depreciation.

Table 3-21: Depreciation for FY 2015-16 (Crs.)

Sr. No.	Particulars	Petitioner	Commission	Revised
		Submission for	approved in TO	Estimates for
		FY 2015-16	for FY 2015-16	FY 2015-16
1	Opening Gross Fixed Asset	1,043.09	581.37	1,144.13
2	Add: Assets added during year	307.50	307.5	366.08
	(excl grant & ED Fund			
	component)			
3	Less: Withdrawal during year	-	-	-
4	Closing Gross Fixed Asset	1,350.59	888.87	1,510.21
5	Average Gross Fixed Asset	1,196.84	735.12	1,327.17
6	Average Depreciation Rate	5.28%	5.28%	5.28%
	Total Depreciation for year	63.19	38.81	70.07

3.9.8 The detail of GFA & Depreciation for FY 2015-16 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 assets added during the year for FY 2015-16.

3.10 Interest & Finance Charge

3.10.1 The Regulation 29 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. The following are the provisions with respect to Interest and Finance Charges in Tariff Regulations, 2009

"25. Interest and Finance Charges on Loan

(1) For existing loan capital, interest and finance charges on loan capital shall be computed on the outstanding loans, duly taking into account the rate of interest and schedule of repayment as per the terms and conditions of relevant agreements.

- (2) Interest and finance charges on loan capital for new investments shall be computed on the loans, duly taking into account the rate of interest and the schedule of repayment as per the terms and conditions of relevant agreements. The rate of interest shall, however, be restricted to the prevailing Prime Lending Rate of the State Bank of India.
- (3) The interest rate on the amount of equity above 30% treated as loan shall be the weighted average rate of interest on loan capital of the generating company/licensee:

Provided that interest and finance charges of renegotiated loan agreements shall not be considered, if they result in higher charges:

Provided further that, interest and finance charges on works in progress shall be excluded and shall be considered as part of the capital cost.

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

(5)In case any moratorium period is availed of, depreciation provided for in the tariff during the years of moratorium shall be treated as repayment during those years and interest on loan capital shall be calculated accordingly.

(6)The Commission shall allow obligatory taxes on interest, commitment charges, finance charges and any exchange rate difference arising from foreign currency borrowings, as finance cost.

(7)Any saving in costs on account of subsequent restructuring of debt shall be assessed on to the consumers

- 3.10.2 The opening normative loan balances are also considered as per approved values. EDG submits those 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. However since the schemes are not coming under FY 2015-16, it has not been considered during FY 2015-16. The GFA considered is also after deducting assets created from ED funds. Normative loan repayments are considered same as depreciation amount for FY 2015-16.
- 3.10.3 The rate of Interest for long term Interest rate has been considered @ 11.60% i.e. SBI Short term lending rate minus 3% for FY 2015-16 based on actual loan portfolio of ED-Goa. It is requested to Hon'ble Commission to approve Interest rate on normative principles. The details of actual loan are provided at Tariff Filing Format 10.
- 3.10.4 EDG has also considered the Letter of Credit charges for payment security charges. The total Interest and Finance Charges for the year FY 2015-16 are Rs. **44.45** Crores. The table below shows the Interest and Finance Charges vis-a-vis approved by the Hon'ble Commission.

S. No.	Particulars	Submitted in	Approved in TO	Revised
		Tariff Petition	for FY 2015-16	Estimates for
		for FY 2015-		FY 2015-16
		16		
1	Opening Normative Loan	632.31	314.67	261.18
2	Normative additions	215.25	215.25	222.66
	during the year (70% of			

63.19

784.37

708.34

11.75%

83.23

4.97

88.20

Table 3-22: Interest & Finance Charges for FY 2015-16 (Crs.)

3.10.5 The Hon'ble Commission is requested to approve the Interest & Finance Charges as shown in the table for FY 2015-16. The details of Interest & Finance charges are provided in **Format 10 of the Tariff Filing Formats.**

3.11 Interest on Working Capital

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- 3.11.1 As per Regulation 29 of JERC for the State of Goa and Union Territories (Terms and Conditions for Determination of Tariff) Regulations, 2009, Interest on Working Capital for a licensee shall be the sum of the following for one month:
 - i) Power Purchase Cost.

Net additions to GFA)

Less: Loan Repayment
Closing Normative Loan

Rate of Interest

Interest on Loan

Finance Charges

Average Normative Loan

Interest on Loan & Finance

- ii) Employees Cost.
- iii) Administration & General Expenses &
- iv) Repair & Maintenance Expenses.
- 3.11.2 The following are the Regulatory Provisions in Tariff Regulations 2009, with respect to Interest on Working Capital.
 - "29. WORKING CAPITAL AND INTEREST RATE ON WORKING CAPITAL.....
 - (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

31.29

452.55

356.87

11.60%

41.40

3.05

44.45

38.81

491.11

402.89

7.99%

32.19

33.49

1.30

...... (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 1stApril of the relevant financial year. The interest on working capital shall be payable on normative basis not withstanding 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."

- 3.11.3 The Interest Rate is considered equivalent to the SBI PLR for the year FY 2015-16 which is at 14.60 %. The SBI PLR rate has been attached as **Error! Reference source not found.** to this Petition.
- 3.11.4 In line with the aforesaid regulation, the Interest on Working Capital works out to Rs.

 4.69 Crores for FY 2015-16 which is provided in the table below:

S. No.	Particulars	Submitted in Tariff Petition for FY 2015-16	Approved in TO for FY 2015-16	Revised Estimates for FY 2015- 16
1	Power Purchase Cost - 1 Month	95.82	87.36	91.97
2	Employee Cost - 1 Month	19.37	13.46	22.82
3	A&G Expenses - 1 Month	1.36	0.84	1.02
4	R&M Cost - 1 Month	3.11	1.06	3.16
5	Less: Security Deposit Opening Balance	90.71	86.83	86.83
6	Total	28.95	15.89	32.14
7	Interest Rate	14.75%	14.75%	14.60%
8	Interest on working capital	4.27	2.34	4.69

Table 3-23: Interest on Working Capital for FY 2015-16 (Crs.)

3.11.5 The Hon'ble Commission is requested to approve the Interest on Working Capital as presented in the table above. The details of Interest on Working Capital for FY 2015-16 are provided in Format 19 of the Tariff Filing Formats.

3.12 Interest on Security Deposit

3.12.1 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 8.50% as notified by Reserve Bank of India vide circular dated

4thMarch2015. The notification of RBI is provided at **Error! Reference source not found.** of this Petition.

3.12.2 In lieu of the above, Interest on Security Deposit is calculated at Rs. **7.48** Crores on cash security deposit amounts excluding Bank Guarantee & Fixed Deposit Receipts. The table below shows details of Interest on Security Deposit for FY 2015-16:

Table 3-24: Interest on Security Deposit for FY 2015-16 (Crs.)

S. No.	Particulars	Submitted in ARR petition for FY 2015- 16	Approved in TO for FY 2015-16	Revised Estimates for FY 2015- 16
1	Opening Security Deposit	90.71	86.83	86.83
2	Add: Deposits during the Year	1.14	1.14	1.14
3	Less: Deposits refunded	-		1
4	Closing Security Deposit	91.85	87.97	87.97
5	RBI Bank Rate	9.00%	8.50%	8.50%
6	Interest on Security Deposit	8.27	7.43	7.48

3.12.3 The Hon'ble Commission is requested to approve the Interest on Security Deposit as showcased in the table above. The details of Interest on Security Deposit for FY 2015-16 are provided in **Format 19-A** of the Tariff Filing Formats.

3.13 Return on Capital Base/ Net Fixed Assets

- 3.13.1 The proviso of Regulation 23 (2) and Regulation 24 of Tariff Regulations 2009 provides for entitlement for Returns on Capital Base/ Net Fixed Assets by utility / licensee. Thus, in line with the regulation and the methodology adopted by the Hon'ble Commission in its previous order, EDG has calculated the return on capital base at 3%.
- 3.13.2 The opening balance of assets and accumulated depreciation are considered as per approved values in tariff order.
- 3.13.3 The table below shows Return on Capital Base for FY 2015-16:

S. No.	Particulars	Petitioners	Particulars	Commission	Revised
		submissio		approved for	Estimates
1	Opening Equity	312.93	Gross block at beginning of the year	581.37	534.59
	Add: Equity for the year	92.25	Less accumulated depreciation	53.99	61.61
	(30% of Capitalisation)				
3	Closing Equity	405.18	Less accl. Consumer Contribution	0	0.00
4	Average Equity	359.05	Net block at beginning of the year	527.38	472.98
5	Rate of Equity	16%	Rate of return on Capital Base	3%	3%
6	Return on Equity *	57.448	Reasonable return @3% of NFA *	15.82	14.19

^{*} Commission approved Return on Capital Base as per Tariff regulations 2009 instead of Return of Equity as per MYT Regulations 2014 as the MYT control period is deferred by 1 year.

3.13.4 The Hon'ble Commission is requested to approve the Return on Capital Base at Rs.14.19 Crores as shown in the table above. The details of Return on Capital Base for FY 2015-16 are provided in Format 6 of the Tariff Filing Formats.

3.14 Non-Tariff Income

- 3.14.1 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 2015-16 comes to Rs. 6.74 Crores.
- 3.14.2 The details of Non-Tariff Income for FY 2015-16 are provided in **Format 21 of the**Tariff Filing Formats.

3.15 Revenue from Retail Sale of Power

- 3.15.1 The provisional revenue from sale of power including FPPCA charges for H1 of FY 2015-16 is Rs. **725.24** Crores including FPPCA of Rs. **35.53** Crores. The category wise details of revenue are provided in **Format 28 Rev FY16** of the MYT Filing Formats.
- 3.15.2 The estimated revenue from sale of power for H2 of FY 2015-16 is Rs. 662.18 Crores including FPPCA of Rs. (4.57) Crores (To be credited back to the consumers) .The FPPCA for Q2 i.e. July to Sep 2015 to be levied in Oct to Dec 2015 and the FPPCA for Q3 i.e. Oct to Dec 2015 to be levied in Jan 2016 to March 2016 are considered in revenue. The category wise details of revenue are provided in Format 28 REV FY16 of the MYT Filing Formats.
- 3.15.3 The overall revenue from sale of power for FY 2015-16 computes to Rs. **1,387.42**Crores and Hon'ble commission is requested to approve the same.

Table 3-26: Revenue from Sale of Power for FY 2015-16

Sr. No.	Category of Consumer	Energy Sale/ Demand (MUs)	Total Revenue (Rs.Crs)	Average Rev (Rs/kWh)
1	2	3	4	5
Α	Low Tension Supply	1,467.13	490.07	3.34
1(a)	Tariff LTD/Domestic and Non-Commercial	990.68	264.28	2.67
	0-100	96.57	26.70	2.77
	101-200	221.12	44.83	2.03
	201-400	301.47	83.94	2.78
	Above 400 units	371.52	108.80	2.93
1(b)	Tariff LTIG/Low Income Group	3.59	0.40	1.11
1(c)	Tariff LTDM/Domestic Mixed	15.21	6.23	4.09
	First 400 Units	6.81	2.58	3.78
	Above 400 Units	8.40	3.65	4.35
2	Tariff-LTC/Commercial	281.28	138.82	4.94
	0-20 kW Commercial Consumers	234.25	116.36	4.97
	0-200 Units	36.13	20.10	5.56
	201-400 Units	123.04	55.00	4.47
	Above 400 Units	75.07	41.26	5.50
	>20-90 kW Commercial Consumers	47.03	22.46	4.78
	0-200 Units	0.26	0.13	5.12
	201-400 Units	46.51	22.19	4.77
	Above 400 Units	0.26	0.14	5.27
3 (a)	Tariff-LTI/Indus tries	99.06	39.70	4.01
	0-500 Units	47.01	18.83	4.01
	Above 500 Units	52.05	20.87	4.01
4	Tariff-LTP/Mixed (Hotel Industries)	40.57	18.13	4.47
5	Tariff-LTAG/Agriculture	12.06	2.22	1.84
6	Tariff-LTPL/Public Lighting	5.08	1.70	3.34
7	Tariff-LTH/ Hoardings & Signboards	1.80	1.05	5.81
8	Tariff-LTTS/Temporary Supply	17.80	17.56	9.86
	Temporary Domestic	14.08	13.37	9.50
	Temporary Commercial	3.72	4.19	11.25
		3.72	25	11.23
В	High Tension Supply	1,800.76	897.35	4.98
9	Tariff HTI/Industrial	1,203.08	603.95	5.02
	Connected at 11/33 kV	1,070.12	428.35	4.00
	Connected at 110 kV	132.96	71.04	5.34
10	H.T.Industrial (Ferro Mettallurgical/ Steel	494.00	235.72	4.77
	Melting/ Power Intensive)	15 1.50	255.72	,,
11	Tariff-HTC/Commercial	69.95	43.57	6.23
12	Tariff-HTAG/Agriculture	5.97	1.17	1.96
13	Tariff-HTD/Domestic	0.37	0.20	5.33
14	H.T. MES/Defence Establishments	27.39	12.74	4.65
15	HTTS/ Temporary Supply			
	Total LT + HT	3,267.89	1,387.42	4.25

3.16 Aggregate Revenue Requirement for FY 2015-16

3.16.1 Based on the submissions made in the foregoing paragraphs, the net Aggregate Revenue Requirement for the year FY 2015-16 and the revenue gap is shown in the table below:

Table 3-27: Aggregate Revenue Requirement for FY 2015-16

Sr. No.	Item of expense	Projected for FY 2015-16 (Rs.Crs)	Now Approved in T.O. (10.4.15) (Rs.Crs)	Revised Estimates for FY 2015-16 (Rs.Crs)
1	Cost of power purchase	1,149.85	1,048.34	1,103.63
2	Employee costs	232.45	161.53	273.80
3	R&M expenses	37.30	12.68	37.95
4	Administration and General expenses	16.27	10.03	12.22
5	Depreciation	63.19	38.81	31.29
6	Interest on Loan & Finance charges	88.20	33.49	44.45
7	Interest on Working Capital	4.27	2.34	4.69
8	Interest on Security Deposit	8.27	7.43	7.48
9	Return on NFA /Equity	57.45	15.82	14.19
10	Total Revenue Requirement	1,657.26	1,330.47	1,529.70
11	Less: Non Tariff Income	6.65	6.74	6.74
12		-	-	-
13	Net Revenue Requirement (10-11-12)	1,650.60	1,323.74	1,522.96

3.16.2 The Hon'ble Commission is requested to approve the net ARR of FY 2015-16 computed at Rs. **1,522.96** Crores as per revised projections.

Table 3-28: Revenue Gap for FY 2015-16 (Rs.Crs)

Particulars	Submitted in ARR	Approved in TO	Revised Estimated
	for FY 2015-16	for FY 2015-16	for FY 2015-16
Aggregate Revenue Requirement	1,650.60	1,323.73	1,522.96
Revenue from existing tariff	1,136.95	1,138.30	1,387.42
including FPPCA			
Net Gap	513.65	185.43	135.53
Energy Sales (MU)	3,224.70	3,233.00	3,267.89
Average Cost of Supply (Rs/kWh)	5.12	4.09	4.66

3.16.3 EDG submits that the Revenue gap of Rs. **135.53** Crores is carried forward to next year for appropriate treatment.

CHAPTER 4. ENERGY EFFICIENCY – DELP SCHEME

4.1 Preamble

The Joint Electricity Regulatory Commission notified the Joint Electricity Regulatory Commission for the State of Goa and Union Territories (Demand Side Management) Regulations, 2014. As per the same, the licensees should consider the advancement and implementation of cost effective DSM initiatives in the direction of achieving the targets/ objectives determined by the commission.

4.1.1 As per JERC DSM Regulations, 2014, the licensee should carry out the assessment of potential for DSM in their respective area one year before the start of every Multi Year Tariff Control Period.

As per the MYT Regulations 2014, section "3.1.6 "Control Period" means multiyear period comprising of three financial years of FY 2016-17 to FY 2018-19, and as may be extended by the Commission, for submission of forecast in accordance with these Regulations;"

- 4.1.2 The Distribution licensee shall propose to the commission, the DSM targets to be achieved by them in their respective area if supply.
- 4.1.3 The Petitioner has submitted that it is implementing DSM based efficient lighting programme (DELP) under demand side management programme in the state of Goa along with Energy Efficiency Services Limited (EESL). The Hon'ble Commission as requested by the Electricity Department Govt vide letter: 40/2/CEE/TECH/PLG. /2015-16/1749 dated: 29.12.2015 has accorded in-principle approval for the implementation of the scheme vide letter: DF&L/KT/17/33/2016-JERC/2122 dated: 07.1.2016.
- 4.1.4 Under DELP-SOP program, the EDG along with the technical and financial support of M/s. Energy Efficiency Services Limited has envisaged to undertake the following tasks.
 - (i) It has been envisaged to distribute energy efficient 9W LED bulbs to 488,471 (As per ARR FY15-16 page no. 151) domestic consumers (households) in the jurisdiction of EDG in the state of Goa.
 - (ii) It has been proposed to distribute 3 LED bulbs to each household in the project area as replacement of GLS lamp and at subsidized price of Rs.25 per LED bulb.

- (iii) Distribution of LED Bulbs will be in a phased manner and revenue cycle will start on completion of each phase. For this purpose, distribution of a maximum of 400,000 LED bulbs will be deemed as completion of one phase of distribution.
- (iv) Engage the services of third party agencies such as BEE or any other third party for physical verification. The third party monitoring agency randomly selects the sample of households for annual verification and certifies the working conditions of the LED bulbs in the system.
- (v) The EDG shall make payment to M/s. Energy Efficiency Services Limited to recover the investment made on a periodic basis (monthly) based on the accrued energy efficiency resource benefits calculated based on the working conditions of the LED bulbs as certified by the third party and the DELP-SOP price per unit of energy saved, as determined by the Hon'ble Commission, based on this petition, during the project contract period of three years.
- (vi) M/s. Energy Efficiency Services Limited agrees to replace the faulty LED bulbs for any technical defects (and not for broken lamps) at free of cost throughout the project period of three years irrespective of the type of fault.

(vii) Safety Aspects

- (a) M/s. Energy Efficiency Services Limited has ensured that the LED lights used under this project comply with the photo biological safety standards specified by BIS.
- (b) The sample testing procedure may also be carried out in any laboratory accredited by NABL by M/s. Energy Efficiency Services Limited as part of this programme, in order to ensure performance and safety compliance.

4.2 Energy Savings

4.2.1 The deemed annual saving of energy under DELP program is around 78.6 Million Units. The EDG submits the workings for the deemed energy savings on account of replacement of a 60 W Incandescent bulb by 9 W LED bulb along with the assumptions as below.

Table 4-1: DSM Working

DSM Working Table				
Number of Households (Nos)	4,89,000			
Participation %	10	00.00%		
Number of Households proposed under this scheme	4,	89,000		
Particulars	Unit	Details		
Number of LED Bulbs offered per Household	Nos	3		
Number of LED Bulbs offered under this Scheme	Nos	14,67,000		
Wattage of ICL Bulb	Watt	60		
Wattage of LED Bulb	Watt	9		
Power saving	Watt	51		
Hours of Usage per day	Hours	4		
Operating days per year	Days	300		
Energy saved per LED Bulb per Day	KWHr	0.18		
Energy saved per LED Bulb per year	KWHr	53.55		
Energy Demand Saved per year	Mus	78.56		
Energy Saved under the Scheme per Annum	Mus	78.56		

4.3 Cost Benefit Analysis

- 4.3.1 EDG humbly submits that the implementation of DELP Scheme in its jurisdiction, would result into energy savings of 78.56 Million units per annum resulting into reduction in power procurement cost of INR 58.39 crores over a period of three years (As per the proposal submitted by EESL).
- 4.3.2 The financial payouts/ receivable involved in implementation of this scheme, is as below:

Table 4-2: Savings under DSM

S No.	Description	
		(Rs. Crs.)
1	Total investment made by M/s. Energy Efficiency Services Ltd.	10.18
2	Savings deemed to have been accrued to the EDG for the three years	71.64
	by saving energy purchased at subsidized rate. (As per calculation	
	enclosed)	
3	Total Payout to be made to M/s. Energy Efficiency Services Limited	13.26
	during the project period of three years including AMC charges,	
	including taxes presently applicable. *	
4	Net Savings to EDG	58.39

Note: * Taxes presently applicable are Income tax @ 34.61 % of return on equity and service tax @ 14.50% of total payout to EESL. Any change therein or applicability of any new tax will be passed on to EDG.

4.3.3 Thus, it is submitted that the project is financially viable apart from the benefits the society is achieving Energy security and mitigation of climate changes and protection of environment.

4.4 Other Benefits

The Other accrued benefits upon implementation of this Domestic Efficient Lighting Programme are as given below:

4.4.1 House Hold Sector

Helps to reduce their energy consumption and its cost.

4.4.2 Distribution Utility

- > Aids the department in reducing the demand & Supply gap.
- Minimise load shedding during peak hours.
- > To meet demands of other cross subsidised consumers like commercial and industrial establishment.
- Figure 6 Generate additional revenue through sale of deemed energy saving to cross subsidised consumers and thereby helps to bridge the gap between the Average Cost of supply and the cross subsidised tariff rates.

4.4.3 Cross Subsidized Category

The tariff rates for the cross subsidised categories will progressively reduced due to reduction in cross subsidised costs.

Table 4-3: Cost of LED Bulb to Consumer

S No.	Particulars	Unit	Amount
1	Cost of an LED Bulb	Rs.	82.45
2	Distribution, Storage, Transportation, Insurance of	Rs.	12.00
	LEDs & awareness		
3	Net cost per LED bulb	Rs.	94.45
4	Less : Consumer Contribution (Upfront)	Rs.	25.00
5	Rebate to Consumer through Benefit accrued		69.45
	through Energy Efficiency		

4.4.4 Society

Energy security.

- Enhance social awareness among people for use of energy efficient equipment.
- Mitigation of climate changes and protection of environment.

4.5 Project Financial at a Glance

4.5.1 Tentative Project Cost: The cost of project including the cost for public awareness is estimated at Rs. 13.86 Crores out of which Rs. 3.67 Crores is estimated to be funded as upfront consumer contribution at Rs25/ bulb. The net capital cost is estimated to be Rs. 10.19 Crores

Table 4-4: Net Capital Cost under DSM

S No.	Particulars	Unit	Amount
1	Number of LED Bulbs offered under this Scheme	Nos.	14,67,000
2	Total Cost of the LED Bulbs	INR	1209,54,150
3	Add: Public Awareness Cost	INR	176,04,000
4	Capital cost of the Project	INR	1385,58,150
5	Less: Upfront consumer contribution @ Rs. 25 per LED	INR	366,75,000
	bulb		
6	Net capital cost of the project	INR	1018,83,150

4.5.2 Debt Equity Ratio: The debt equity ratio considered for this project is 80:20 out of which 80% of the project cost is funded through SDA and other financial institutions (40% through SDA and 40% through Financial Institutions) and 20% as equity infused by EESL.

Table 4-5: Returns on Investment for DSM Project

S No.	Particulars	Unit	Value
1	Capital Cost of Project	INR	1018,83,150
2	Debt portion (80% of Capital Cost)	INR	815,06,520
3	Interest for Debt servicing	%	10.00% p.a.
4	Equity portion (20% of Capital cost)	INR	203,76,630
5	Return on Equity / Equity IRR (Post-Tax)	%	15.50% p.a.

4.5.3 Annual Maintenance charges: Annual Maintenance charges of Rs. 24.2 Lakhs are estimated in order to facilitate the consumers in providing the customer service and allied activities. It is calculated as 2% of the actual cost of Bulbs.

Table 4-6: AMC for DSM Project

S No.	Particulars	Unit	Value
1	Total Cost of the LED Bulbs	INR	1209,54,150
2	Provision for Maintenance and	%	2%
	customer service		
3	Annual Maintenance Charges	INR	24,19,083

4.6 Tentative DELP-SOP price

4.6.1 The tentative DELP-SOP price per unit of energy saved and the annual payout to be made to EESL by the EDG under this project is worked out based on the above mentioned parameters envisaging distribution of 14,67,000 LED bulbs and are as detailed in the table below. In case of actual distribution varies, annual payout will vary accordingly. A detailed working sheet is enclosed along with this petition for consideration of the Hon'ble Commission.

Table 4-7: Annual payouts under DSM Scheme to EESL

Year	I	II	III	Total
Deemed Energy supplied through DELP-SOP scheme per Annum (Units)	785,57,850	785,57,850	785,57,850	2356,73,550
Annual payout to EESL, including taxes presently applicable (INR)*	508,04,369	433,72,995	384,18,745	1325,96,109

Note: * Taxes presently applicable are Income tax @ 34.61% of return on equity and service tax @ 14.50% of total payout to EESL. Any change therein or applicability of any new tax will be passed on to EDG.

4.7 Draft Energy Saving Agreement

- 4.7.1 EDG submits that, for the purpose of implementation of DELP Scheme in its jurisdiction with the financial support of M/s. EESL, an ESCO company, an agreement called Energy Saving Agreement needs to be signed between the two parties' viz., EDG and EESL.
- 4.7.2 The copy of the same will be submitted to the Commission once the agreement is signed.

4.8 Prayers to the Hon'ble Commission:

4.8.1 EDG prays to the Hon'ble commission to approve the DELP scheme as the part of Demand Side Management regulations 2014 and approve the energy saving quantum along with the expenditure incurred for the scheme.

CHAPTER 5. MYT FOR FY 2016-17 TO FY 2018-19

5.1 Preamble

- 5.1.1 The Joint Electricity Regulatory Commission (JERC) has notified the Regulations, JERC (Multi Year Distribution Tariff) Regulations, 2014 on 29th May 2014 for the determination of tariff for the first control period based on certain norms of operation and financial parameters.
- 5.1.2 The JERC (Multi Year Distribution Tariff) Regulations, 2014 hereafter referred to as MYT Regulations, 2014 clearly states for the Hon'ble Commission to determine the tariff under MYT framework for the first control period. The relevant section is quoted below:
 - "4.1 The Commission shall determine the tariff for distribution business of electricity under a Multi-Year Tariff framework with effect from April 1, 2015
- 5.1.3 The Commission also notified the first amendment to JERC MYT Regulations dated 10th August, 2015. The amendment has defined control period in the following manner.
 - "3.1.6. "Control Period" means multi-year period comprising of three financial years of FY2016-17 to FY 2018-19, and as may be extended by the Commission, for submission of forecast in accordance with these Regulations;
- 5.1.4 As seen from the above definition, the MYT tariff for the first control period is to be determined for the period starting from FY 2016-17 (ensuing year for which tariff proposal is being submitted) up to FY 2018-19.
- 5.1.5 The said MYT Regulations and the tariff order dated 10th April, 2015 mandates/ directs the Distribution license to submit their Multi-Year Business Plan for the Control Period FY 2016-17 to FY 2018-19, which Electricity Department, Goa had submitted in the first week of October, 2015 which was in line with the MYT Regulations.
- 5.1.6 Based on the MYT regulations 2014, its amendment and the Business plan order dated 22nd December, 2015, this MYT petition is being filed by the petitioner for the Control Period i.e. FY 2016-17 to FY 2018-19. This chapter provides the details of the expenditure estimates of EDG which are the components of the ARR for the entire Control Period from FY 2016-17 to FY 2018-19 which are proposed to be approved

by the Hon'ble Commission. Accordingly, the revenue from the existing tariff with the Revenue gap / (surplus) is determined so as to propose the tariff design / proposal for recovery from the consumers during the MYT control period.

5.2 Principles of ARR

- 5.2.1 This chapter summarizes the Aggregate Revenue Requirement (ARR) for the first control period FY 2016-17 to FY 2018-19. The projections for the control period have been made based on the parameters specified in the MYT Regulations, parameters approved in business plan and also based on actual data for previous years.
- 5.2.2 The overall performance parameters proposed for the control period is based on the methodologies discussed in subsequent paragraphs.
- 5.2.3 EDG has proposed for rationalization of tariff categories including modification of consumption slabs and proposal for new categories. However the projections discussed below for number of consumers, connected load/contacted demand and sales are based on the existing tariff structure of categories. It is submitted that the overall projections would be almost same and for the purpose of tariff proposal for FY 2016-17, the same are provided in Tariff Filing Formats for revenue calculation.

5.3 Number of Consumers

5.3.1 The Hon'ble Commission has already approved the category wise no. of consumers in Table 6.8, page 77 of Business Plan order dated 22.12.2015. However the no. of consumers for HT Domestic and HT Commercial were not considered in Business Plan order. Hence the same are now considered and projected for MYT control period in the table below:

Table 5-1: Number of Consumers for FY 2016-17 to FY 2018-19

Particulars	FY 2016-17	FY 2017-18	FY 2018-19
Total No of Consumers Approved in B.Plan order	5,97,793	6,09,207	6,20,848
Add: HTC/Commercial	118	118	118
Add: HTD/Domestic	2	2	2
Total No of consumers projected in MYT	5,97,913	6,09,326	6,20,967

5.4 Connected Load

5.4.1 The Hon'ble Commission has already approved the category wise connected load in Table 6.12, page 81 of Business Plan order dated, 22.12.2015. However the no. of consumers for LTH/ Hoardings & Signboards, HT Domestic and HT Commercial were not considered in Business Plan order. Hence the same are now considered and

projected for MYT control period in the table below:

Table 5-2: Connected Load for FY 2016-17 to FY 2018-19 (kW/KVA/HP)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19
Total Connected Load Approved in B.Plan order	23,31,494	24,04,208	24,80,894
Add: LTH/ Hoardings & Signboards	35	35	35
Add: HTC/Commercial	40,889	40,889	40,889
Add: HTD/Domestic	200	200	200
Total Connected Load projected in MYT	23,72,619	24,45,332	25,22,019

5.5 Energy Sales Forecast

5.5.1 The Hon'ble Commission has already approved the category wise sales in Table 6.4, page 73 of Business Plan order dated, 22.12.2015. However the energy sales for HT Domestic and HT Commercial were not considered in Business Plan order. Hence the same are now considered and projected for MYT control period in the table below:

Table 5-3: Sales Projection for FY 2016-17 to FY 2018-19

Particulars	FY 2016-17	FY 2017-18	FY 2018-19
Total Energy Sales Approved in B.Plan order	3,351.81	3,494.36	3,644.58
Add: LTH/ Hoardings & Signboards	0.35	0.35	0.35
Add: HTC/Commercial	69.90	69.90	69.90
Add: HTD/Domestic	0.25	0.25	0.25
Total Energy Sales projected in MYT	3,422.30	3,564.85	3,715.07

5.5.2 The details of Number of Consumers, Connected Load and Sales for FY 2016-17 to FY 2018-19 are provided in **Format 1 of Tariff Filing Formats**.

5.6 T&D Loss

5.6.1 It is submitted that losses are approved by the Hon'ble Commission in the Business Plan order at Table 6.13, page 82 dated, 22.12.2015. The same are considered in MYT projections and are mentioned below:

✓ FY 2016-17: 11.25%

✓ FY 2017-18: 11.00%

✓ FY 2018-19: 10.75%

5.7 Energy Efficiency

- 5.7.1 The Petitioner has submitted that it is implementing DSM based efficient lighting programme (DELP) under demand side management programme in the state of Goa along with Energy Efficiency Services Limited (EESL). The Hon'ble Commission as requested by the Electricity Department Govt vide letter: 40/2/CEE/TECH/PLG. /2015-16/1749 dated: 29.12.2015 has accorded in-principle approval for the implementation of the scheme vide letter: DF&L/KT/17/33/2016-JERC/2122 dated: 07.1.2016.
- 5.7.2 Based on the detailed project report, energy savings of 66.60 MUs annually were considered as energy savings during the Control Period and the same was approved by Hon'ble Commission in Business Plan at Table 6.15 page 84 dated, 22.12.2015.
- 5.7.3 However, the projections and scope of DELP scheme has changed and the energy savings potential has been enhanced by 12 MUs annually to 78.60 MUs. EDG would like to re-propose the energy savings potential as given in the table below:

Table 5-4: Energy Savings potential under DSM for MYT (MUs)

Particulars	FY 2016-17		FY 2017-18		FY 2018-19	
	Approved	Proposed	Approved	Proposed	Approved	Proposed
Energy Savings –DELP	66.60	78.60	66.60	78.60	66.60	78.60

5.7.4 EDG has already discussed in detail about DSM in the earlier chapter along with relevant financial calculations.

5.8 Energy Requirement

5.8.1 Considering the above submissions in revised sales projection and revised energy savings, the Energy Requirement projected by EDG for MYT control period is given in the table below:

Table 5-5: Energy requirement for the Entire Control Period

Particulars	FY 20	16-17	FY 2017-18		FY 2018-19	
	Approved	Projected	Approved	Projected	Approved	Projected
Sales within UT (MU)	3,351.00	3,422.31	3,494.00	3,564.86	3,644.00	3,715.07
Savings under DELP (MU)	66.60	78.60	66.60	78.60	66.60	78.60
Total Sales	3,285.21	3,343.71	3,427.76	3,486.26	3,577.98	3,636.47
Loss (%)	11.25%	11.25%	11.00%	11.00%	10.75%	10.75%
Loss (MU)	416.44	423.85	423.66	430.89	430.96	438.01
Energy requirement at periphery (MU)	3,701.65	3,767.56	3,851.41	3,917.15	4,008.94	4,074.48

5.8.2 The detail computation of energy balance and PGCIL losses with segregation into Western Region and Southern Region is detailed in **Format 3 of Tariff Filing Formats** filed along with this Petition.

5.9 Power Purchase Cost

5.9.1 The MYT Regulations, 2014 specifies the following provisions with respect to projecting power purchase quantum and cost.

"18. Power Purchase Quantum and Cost

- 18.1 Based on the sales forecast the power purchase quantum and cost shall be calculated.
- 18.2 The approved Power Purchase cost shall be net of expected revenue from sale of surplus power, if any, during lean period.
- 18.3 Revenue from sale of surplus power shall be estimated at weighted average price of bilateral purchases and power exchange rates for the same quarter of preceding year; subject to truing up.
- 18.4 If there is a short term requirement of power by the Distribution Licensee over and above the quantum as approved by the Commission and such requirement is on account of any factor beyond the control of the Licensee (shortage/non-availability of fuel, snow capping of hydro resources inhibiting power generation in sources stipulated in the plan, unplanned/forced outages of power generating units or acts of God), then the cost shall be directly passed on to the customer without prior approval of the Commission:

Provided that the cost of the additional power shall be allowed at the power exchange rate purchases.

Provided further that in such a case, the Distribution Licensee shall inform the Commission about the purchase of power over and above approved quantum with all of the supporting documents. Unless the Commission is satisfied that the additional power is capped by weighted average price of power exchange rates and bilateral market purchases for the same quarter, it may disallow the quantum and cost of this short term power procurement in the True Up order.

5.9.2 The Hon'ble Commission did not approve the power purchase quantum for the control period and has approved only the sources of power purchase for EDG. The relevant extracts of the Business Plan order are mentioned below.

"Power purchase is an uncontrollable parameter and has to be revisited every year by the commission based on the audited accounts and latest allocation available at the

prevailing rates. The Commission, therefore, finds it appropriate to review and approve the power purchase quantum and cost at the time of finalization of MYT order/APR orders only. The Commission for the purposes of the business plan has considered approving the sources of power purchase for the utility. The Commission shall determine the exact quantum and thereby the power purchase cost based on the merit order principles, latest allocation orders, audited accounts, latest orders by CERC, latest variable costs, interstate transmission charges at the time of finalization of the MYT order."

- 5.9.3 The Commission has also considered following plants which are scheduled to be commissioned in the control period for projection.
 - a) Solapur 2*660 MW
 - b) Mauda II 2*660 MW
 - c) Lara I & II 2*800 MW and 3*800 MW
 - d) Gadarwara I 2640 MW
- 5.9.4 EDG has considered the assumptions as discussed in the upcoming sections for projecting power purchase cost for the first control period.
 - Share Allocation: The petitioner has considered the firm allocation and allocation from the unallocated quota from the above stations as per the notification of the Southern Region Power Committee vide WRPC letter: WRPC/Comml-I/ABTREA/2015/12.0 dated, 30.10.2015.
 - *Fixed Charges:* The Tariff Regulations for the tariff period FY 2014-19 have been notified by CERC and fixed charges have been taken in line with earlier projections.
 - Variable Charges: EDG has considered the actual average variable cost of H1 of FY 2015-16 for consideration of per unit variable charges for various plants and has escalated the cost for projections by 5% during the control period to take care of fuel escalations.
 - No other costs such as ED, Cess, Incentive, MOPA etc and supplementary charges are considered during MYT Control period and would be treated under FPPCA as and when they are billed to EDG.
 - EDG has considered the nuclear plants, as must run and has not subjected them

to merit order dispatch. Also, KAPS, TAPS have been considered as must run and not subject to merit order principles. Earlier EDG has proposed KAPS III & IV but not projected for computation of cost as there is a delay in the commission of the project and No PPA has been signed till date.

- For determining the power purchase cost, merit order dispatch principles have been applied. The must-run stations have been assumed at the top of the merit order and variable cost incurred for meeting the energy requirement within the state has been calculated from the plants at the top of the merit order.
- Hydro Power (New Sources): EDG has considered power purchase projection in FY 2017-18 and FY 2018-19 from Lower Subansiri and Kameng Hydro based on information received from developers/ generating companies. However the cost aspect information is yet to be received and hence EDG has not considered any cost for such projects in FY 2017-18 and FY 2018-19. EDG requests Hon'ble Commission to suitable guide on this aspect.
- **PGCIL losses:** Losses have been assumed at 4.5% for WR and 7.5% for SR based on the RTA reports of WR and actual losses calculated for SR.
- Co-generation sources: The power purchase cost and quantum of Co-generation sources has been projected based on the H2 of FY 2015-16. The variable cost per unit for Co-Generation Stations (existing as well as upcoming) has been taken at Rs. 2.40 / unit in line with the PPA signed with the Generators.

• RPO Cost for the Control Period:

- The Hon'ble Commission in the Business Plan order at Table 6.19, page 87 has approved RPO % & quantum for Solar and Non-Solar based on sales approved in Business Plan. EDG has assumed same RPO % and project revised RPO quantum for Solar and Non-Solar on revised projected sales.
- Transmission Charges: The petitioner has considered the transmission chargesfor FY2015-16 as a base rate and has accordingly calculated the transmission charges with 5% year on year escalation. The transmission charges for KPTCL are projected considering 2.5 paisa per unit on power from Ramagundam plant. Other fees and charges of SLDC, SCADA and reactive charges are considered twice of cost estimated in H2 of FY 2015-16.

5.9.5 EDG would now discuss the power purchase cost for MYT control period for main sources.

Power purchase cost for Central Sector Stations:

5.9.5.1 The table below shows the source wise power purchase quantum and cost for MYT control period projected based on above discussed assumptions.

Table 5-6: Power Purchase cost for CGS for MYT Period

Particulars	FY 201	6-17	FY 2017-18		FY 2018-19		
	Units (MU's)	Rs. Crores	Units (MU's)	Rs. Crores	Units (MU's)	Rs. Crores	
	(Central Sector	Power Stations				
NTPC	3,447.35	883.64	3,619.46	974.13	3,762.68	1,076.10	
KSTPS	1,525.32	268.22	1,525.32	282.58	1,525.32	300.48	
KSTPS-III	38.81	10.09	38.81	10.25	38.81	10.46	
VSTPS - I	273.91	66.98	273.91	70.14	273.91	75.01	
VSTPS - II	98.58	21.96	98.58	22.94	98.58	23.99	
VSTPS -III	84.24	21.50	84.24	22.16	84.24	22.84	
VSTPS-IV	97.14	30.18	97.14	31.05	97.14	32.07	
VSTPS-V	42.40	14.54	42.40	15.27	42.40	16.03	
KGPP	65.79	30.43	65.79	31.59	65.79	32.7 9	
GGPP	68.92	33.84	68.92	35.08	68.92	36.74	
SIPAT- I	169.36	46.47	169.36	47.61	169.36	48.87	
RSTPS	721.72	236.89	721.72	248.36	721.72	261.33	
SIPAT- II	80.60	21.67	80.60	22.24	80.60	22.85	
Mouda	100.10	52.95	95.18	53.01	100.10	56.98	
Mouda II	25.41	7.72	101.65	30.90	101.65	30.90	
Solapur	35.57	13.84	-	-	138.30	53.80	
Lara I & II	19.48	6.37	155.84	50.96	155.84	50.96	
NPCIL	203.06	57.05	203.06	59.90	203.06	62.90	
KAPS	116.54	30.12	116.54	31.63	116.54	33.21	
TAPS	86.52	26.93	86.52	28.28	86.52	29.69	
Hydro Power	-	ı	5.08	1	25.40	ı	
Kameng HEP	-	-	5.08	-	5.08	-	
Subansiri (Lower) HEP	-	_	-		20.32	-	
Total	3,650.41	940.69	3,827.60	1,034.04	3,991.14	1,139.00	

Power purchase cost for Open Market / Exchange:

- 5.9.5.2 As mentioned in APR chapter, the energy received under banking arrangement is to be returned in Q2 of FY 2016-17. The same has been considered in projections.
- 5.9.5.3 Further the quantum shortfall for FY 2016-17 as per energy balance is proposed to be met from open market/ exchange. EDG would like to submit that it has already finalized the traders under short term arrangement for supply of power in Q1 of FY 2016-17. The details of the LOIs finalized are given below:

Table 5-7: LOIs finalised for Q1 of FY 2016-17 under short term

LOI issued for Power in Q1 of 2016-17								
Month	Total Units	Grid	Grid Loss in	Net units	Rate/	Total Amount		
		Loss	kWh	received	kWh	(Rs)		
		(%)			(Rs.)			
April '16	204,00,000	2.5	5,10,000	198,90,000	3.05	606,64,500		
May '16	210,80,000	2.5	5,27,000	205,53,000	3.02	620,70,060		
June '16	204,00,000	2.5	5,10,000	198,90,000	3.02	600,67,800		
Total	618,80,000		15,47,000	603,33,000	3.03	1828,02,360		

5.9.5.4 The net power purchase cost under open market / exchange/ banking arrangement for MYT control period is given in the table below:

Table 5-8: Power Purchase cost for Open Market for MYT Period

Particulars	FY 2016-17		FY 2017-18		FY 2018-19	
	Units (MU's)	Rs. Crores	Units (MU's)	Rs. Crores	Units (MU's)	Rs. Crores
Trader/ Open Market	70.10	26.81	46.20	13.86	46.56	13.97
Short Term						

Power purchase cost for RPO:

5.9.5.5 The following table shows the Renewable Purchase Obligation for Solar and Non Solar for EDG, corresponding REC Certificates to be purchased for the respective years and the backlog quantum as shown in projections for MYT (Format 4).

Table 5-9: Details of RPO Obligation for EDG for entire control period

Particulars	FY 201	6-17	FY 2017-18		FY 2018-19	
	Units (MU's)	Rs. Crores	Units (MU's)	Rs. Crores	Units (MU's)	Rs. Crores
Solar RPO	51.36	21.65	54.00	27.15	55.74	32.54
NVVN Solar (power) - (pertains to backlog of Solar FY11 to FY15)	12.00	6.	12.00	4	13.74	
Solar Energy Corp. of	39.36	21.65	42.00	23.10	42.00	23.10
REC Certificates* - Solar	-	-	-	4.05	-	9.44
Non -Solar RPO	21.68	20.86	21.68	21.46	21.68	22.09
NVVNL Hydro	21.68	9.73	21.68	9.73	21.68	9.73
REC Certificates* - Non Solar	-	11.12	-	11.72	-	12.35
Total	73.04	42.50	75.68	48.60	77.42	54.62

- 5.9.5.6 The cost of power purchase for RPO backlog would be claimed under true-up of respective years and hence the same is unaccounted in MYT period. However the energy is reflected as it would be on actual basis and would affect energy balance.
- 5.9.5.7 The table below provides computation of RECs for Solar and Non-Solar for MYT period. The REC rates are taken as per CERC REC Order dated 30th December 2014 (SM/016/2014) for FY 2016-17 onwards.

Table 5-10: Computation of REC and REC Cost for MYT period

Description	FY 2016-17	FY 2017-18	FY 2018-19
Sale within State (MUs)	3,422	3,565	3,715
RPO Obligation in (%)			
Solar	1.15%	1.50%	1.85%
Non Solar	2.80%	2.80%	2.80%
RPO Obligation in (in MUs)			
Solar	39.36	53.47	68.73
Non Solar	95.82	99.82	104.02
RPO Compliance during the year (in Mus)			
Solar	39.36	42.00	42.00
Non Solar	21.68	21.68	21.68
Shortfall in RPO Compliance (in Mus)			
Solar	=	11.47	26.73
Non Solar	74.14	78.14	82.34
REC Certificate Purchase (in Mus)			
Solar	-	11.47	26.73
Non Solar	74.14	78.14	82.34
REC Certificate Price (Rs./Unit)			
Solar	3.53	3.53	3.53
Non Solar	1.50	1.50	1.50
REC Certificate Cost (Rs. Crores)			
Solar	-	4.05	9.44
Non Solar	11.12	11.72	12.35
Total	11.12	15.77	21.79

<u>Power purchase cost for Co-generations:</u>

5.9.5.8 The power purchase cost of Co-generation sources has been projected based on the actual price per unit being paid during the first half of FY 2015-16. The variable cost per unit for Co-Generation Stations (existing as well as upcoming) has been taken at Rs. 2.40 / unit in line with the PPA signed with the Generators.

Table 5-11: Power purchase cost for Co-Generation sources for MYT

Particulars	FY 2016-17		FY 201	7-18	FY 2018-19		
	Units (MU's)	Rs. Crores	Units (MU's)	Rs. Crores	Units (MU's)	Rs. Crores	
CO- GENERATION	167.24	40.26	167.24	40.26	167.24	40.26	
Goa Energy Private	107.52	25.92	107.52	25.92	107.52	25.92	
Limited							
Goa Sponge & Power	4.72	1.13	4.72	1.13	4.72	1.13	
Limited							
Sesa Goa Limited	55.00	13.20	55.00	13.20	55.00	13.20	

Transmission Charges:

5.9.5.9 The following table shows the transmission charges computed for withdrawal of power for the first control period based on the assumptions mentioned earlier.

Table 5-12: Transmission Charges for Withdrawal of Power

Financial Year	Southern Region			Western Region				SR + WR	
	Annual Escalation %	Rates Rs/MW/ Month	Monthly Quantum (MW)	Total Charges (Rs.Crs)		Rates Rs/Mw/ Month	Monthly Quantum (MW)	Total Charges (Rs.Crs)	Total Charges (Rs.Crs)
FY 2015-16		92,904				3,31,780			
FY 2016-17	5.0%	97,549	93.28	10.92	5.0%	3,48,369	434.91	181.81	192.73
FY 2017-18	5.0%	1,02,427	93.28	11.47	5.0%	3,65,787	472.91	207.58	219.05
FY 2018-19	5.0%	1,07,548	93.28	12.04	5.0%	3,84,077	481.41	221.88	233.92

As per RTA Bill of Oct 2015 and inclusive of POC, RSC and HVDC Charges

5.9.5.10 The following table shows the summary of transmission charges which are arrived based on the POC transmission charges for the entire control period.

Table 5-13: Summary of Transmission Charges for the control period

Particulars	FY 16-17 (Rs.Crs)	FY 17-18 (Rs.Crs)	FY 18-19 (Rs.Crs)
POC Transmission Charges	192.73	219.05	233.92
KPTCL Wheeling Charges	1.80	1.80	1.80
Fees and charges of SLDC - WR	0.49	0.49	0.49
Fees and charges of SLDC - SR	0.41	0.41	0.41
SCADA & Reactive charges	0.75	0.75	0.75
	-	-	-
Total Transmission Charges	196.18	222.50	237.37

Summary of Power Purchase Cost:

5.9.5.11 The following table summarizes the quantum and power purchase cost from different sources for the control period.

Table 5-14: Power Purchase Quantum and Cost for the entire control period

Sources	FY 2016-17		FY 2016-17		FY 2016-17	
	Gross	Rs.Crs	Gross	Rs.Crs	Gross	Rs.Crs
	(Mus)		(Mus)		(Mus)	
NTPC	3,447	883.64	3,619	974.13	3,763	1,076.10
NPCIL	203	57.05	203	59.90	203	62.90
Hydro Power	ı	1	5	-	25	1
Renewable Power	73	42.50	76	48.60	77	54.62
Traders/ Open Market	70	26.81	46	13.86	47	13.97
Co-generation	167	40.26	167	40.26	167	40.26
Transmission Charges		196.18		222.50		237.37
Total	3,961	1,246.44	4,117	1,359.26	4,282	1,485.21
Average Cost (Rs/kWh)		3.15		3.30		3.47

5.9.6 The Hon'ble Commission is kindly requested to approve the total power purchase cost for the first control period as stated in the table above. The details of the Power Purchase Expenses for FY 2016-17 to FY 2018-19 are provided in **Format 4 of Tariff Filing Formats**.

5.10 Operation & Maintenance (O&M) Expenses:

O&M expenses are the part of revenue expenditure made by EDG which consists of Employee expenditure, Administrative & General Expenses, Repair & Maintenance Expenses.

- 5.10.1 Operation and Maintenance (O&M) Expenses comprising of Employee Expenses, Administration & General (A&G) Expenses and Repairs & Maintenance (R&M) Expenses are now linked to certain parameters provided in MYT Regulations 2014. Department has proposed norms in the Business Plan mentioning that JERC may approve norms in such a manner that the O&M expenses for future years should not be less than that of actual of previous year plus inflation plus arrears plus pay revisions if any and pension/ gratuity etc.
- 5.10.2 The JERC (Multi Year Distribution Tariff) Regulations, 2014 notifies that the Hon'ble Commission will stipulate a separate trajectory of norms for each of the component of O&M expenses viz., Employee cost, R&M expense and A&G expense. The relevant extract of the Regulation is mentioned as follows.

"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
- (b) Norms shall be defined in terms of combination of number of personnel per 1000 consumers and number of personnel per substation along with annual expenses per personnel for Employee expenses; combination of A&G expense per personnel and A&G expense per 1000 consumers for A&G expenses and R&M expense as percentage of gross fixed assets for estimation of R&M expenses:
- (c) One-time expenses such as expense due to change in accounting policy, arrears paid due topay 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.
- (f) The norms in the trajectory shall be specified over the control period with due consideration to productivity improvements.
- (g) The norms shall be determined at constant prices of base year and escalation on account of inflation shall be over and above the baseline.
- (h) The Distribution Licensee specific trajectory of norms shall be identified by the Commission on the basis of absolute and relative analysis.
- (i) In absolute analysis, Distribution Licensee's audited accounts of operations for last three years, expenses claimed for control period, historically approved cost, and prudence check shall be used by the Commission to estimate values of norms.
- (j) In relative analysis, performance parameters of other Distribution Licensees within the same state or in other states shall be considered by the Commission to estimate norms.

Provided that other Distribution Licensees so chosen shall have similar profile as that of the Distribution Licensee under consideration in terms of consumer mix, type of license area (city, state, etc.) type of distribution networks, viz., underground/overhead, HT-LT ratio, etc.

- (k) Suitable average of outcomes of absolute and relative analysis shall be taken by the Commission to fix the norms over the control period for the Distribution Licensee.
- 5.10.3 Based on the norms specified in the Business Plan, EDG has derived the O&M expenses for entire control period. The expenses are further escalated with an

escalation factor as specified in the MYT Regulations, 2014. The relevant clause for escalation on Employee Cost, R&M and A&G are specified as below.

"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:

EMPn = (EMPb * WPI inflation) + Provision....

"21.2 Repairs and Maintenance Expenses

Repairs and Maintenance (R&M) expenses shall be calculated as percentage (as per the norm defined) of Opening Gross Fixed Assets for the year governed by following formula:

R&Mn = Kb* GFAn* Inflation Index

Where:....

.....Inflation Index is CPI: WPI:: 60:40

CPI is Consumer Price Index issued by Govt. of India & these indices are for immediately preceding three years

WPI is whole sale price Index issued by Govt. of India & these indices are for immediately preceding three years

"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&Gn = (A&Gb * WPI inflation) + Provision

5.10.4 As seen from the above extract, Employee expenses and A&G expenses are to be escalated at WPI Inflation rate, whereas R&M expenses are to be escalated at a rate which is weighted average of WPI and CPI inflation index at 40:60 ratios. The following table shows the inflationary impact for O&M expenses considered for the control period.

Particulars	Computation of WPI Inflation Computation of		tion of CP	of CPI Inflation		
	Average	Increase	3 Yrs	Average	Increase	3 Yrs
	WPI	%	Average	CPI	%	Average
FY 2014-15	181.18	1.99%	5.11%	250.83	6.29%	8.80%
FY 2013-14	177.64	6.00%		236.00	9.68%	
FY 2012-13	167.58	7.33%		215.17	10.44%	
FY 2011-12	156.13	-	-	194.83	-	1
Weightage			0.40			0.60
Weighted Index			2.04%			5.28%
Combined Inflation		7.32%				

5.11 Employee Expense

5.11.1 The Hon'ble Commission has provisionally approved norms for employee expenses in Business Plan order in page 90 which are tabulated below for reference:

Table 5-16: Employee norms approved for the MYT Control Period

S.No	Component	Norm
1	Cost per Employee	Rs. 2.80 Lacs
2	No. of employees per 1000 consumers	4.35
3	No. of employees per substation	74.73

5.11.2 However, the commission has directed EDG to re-propose O&M norms by considering audited accounts of FY 2009-10 and FY 2010-11, provisional accounts of FY 2011-12 and FY 2012-13 and compiled accounts of FY 2013-14 and FY 2015-16 along with the MYT petition. It is submitted that pending audited accounts as well as considering the learning to be adopted by EDG under performance based norms, the approved parameters are considered on provisional basis for MYT projection. EDG suggests that O&M norms may be implemented from 2nd control period with modifications as required based on the actuals of 1st control period. This will ensure that EDG attempts to perform within normative parameter as well as recover its actual costs.

Table 5-17: Employee expense based on approved norms for the MYT Control Period (Rs. Crs.)

Employee Expenses	Unit	Norm	FY 16-17	FY 17-18	FY 18-19
Computation of No. of Employees			6,822	6,947	7,072
No. of Empl. per substation	Nos	74.73	4,221	4,296	4,371
No. of Employees/ 1000 Consumers	Nos	4.35	2,601	2,651	2,701
Annual expenses per Employee	(Rs. Lakh/ employee)	2.80	19,103	19,451	19,802
Total	Rs.Crs		191.03	194.51	198.02
Total Employee Expenses with Inflation	Rs.Crs	5.11%	200.79	204.45	208.14

5.11.3 The impact of 7th pay Commission, Pension liability, Gratuity, DA Increase etc. are

required to be considered over and above the employee expenses arrived as per norms. EDG estimates such expense to the tune of Rs.50 Crores in every year of control period.

5.11.4 Based on above submissions, the employee cost for the control period is as follows.

Year FY 2016-17 FY 2017-18 FY 2018-19 **Employee Expenses** 200.79 204.45 208.14 Less: Amount capitalized Net amount 200.79 204.45 208.14 Add: Pension/DA 56.39 56.76 57.40 **Total Employee** 257.18 261.20 265.54 **Expenses**

Table 5-18: Total Employee expense for MYT Control Period (Rs. Crs.)

5.11.5 EDG requests the Hon'ble Commission to approve the employee expenses as projected for the Control Period.

5.12 A&G Expense

5.12.1 As per the provision 21 (b) of the Multi Year Distribution Tariff Regulations 2014, norm for A&G Expenses shall be defined in terms of combination of A&G expense per personnel and A&G expense per 1000 consumers. The norms are approved by the Commission based on 3 year average from FY 12-13 to FY 14-15 in Business Plan order in pages 91 and 92. The same are tabulated as under for reference:

S.No Component Norm

1 A&G Expenses per '000 consumers Rs.1.38 Lacs

Linking 50% to Consumers Rs.0.69 Lacs

2 A&G Expenses per employee Rs.0.12 Lacs

Linking 50% to Employees Rs.0.06 Lacs

Table 5-19: A&G norms approved for the MYT Period

5.12.2 However, the Commission has directed EDG to re-propose O&M norms by considering audited accounts of FY 2009-10 and FY 2010-11, provisional accounts of FY 2011-12 and FY 2012-13 and compiled accounts of FY 2013-14 and FY 2015-16 along with the MYT petition. It is submitted that pending audited accounts as well as considering the learning to be adopted by EDG under performance based norms; the approved parameters are considered on provisional basis for MYT projection. EDG suggests that O&M norms may be implemented from 2nd control period with modifications as required based on the actuals of 1st control period. This will ensure that EDG attempts to perform within normative parameter as well as recover its

actual costs.

Table 5-20: A&G expense based on approved norms for the MYT Control Period (Rs. Crs.)

A&G Expenses	Unit	Norm	FY 16-17	FY 17-18	FY 18-19
Expenses per '000 consumers	Rs.Crs	1.38	8.25	8.41	8.57
Linked to Consumers 50%	Rs.Crs	0.69	4.13	4.20	4.28
Expenses per Employee	Rs.Crs	0.12	8.19	8.34	8.49
Linked to No. of Employees	Rs.Crs	0.06	4.09	4.17	4.24
A&G Expenses	Rs.Crs		8.22	8.37	8.53
Total A&G Expenses with Inflation	Rs.Crs	5.11%	8.64	8.80	8.96

- 5.12.3 The expenses under professional fees, legal fees, regulatory filing fees, annual license fees etc have increased and considering the fact that audited accounts are pending, EDG has estimated an additional amount of Rs. 5.00 Crores every year in the control period over and above the amount computed based on norms.
- 5.12.4 Based on above submissions, the A&G expense for the control period is as follows.

Table 5-21: Total A&G expense for the MYT Control Period (Rs. Crs.)

Year	FY 2016-17	FY 2017-18	FY 2018-19
A&G Expenses	8.64	8.80	8.96
Add/ Deduct share	-	-	-
of others			
Total expenses	8.64	8.80	8.96
Less: Capitalized	-	ı	-
Net expenses	8.64	8.80	8.96
Add: Other	5.00	5.00	5.00
expenses			
Total A&G Expenses	13.64	13.80	13.96

5.12.5 EDG requests the Hon'ble Commission to approve the A&G expense projected for the MYT Control Period.

5.13 Repair and Maintenance Expenses

- 5.13.1 As per the Regulation 21 (b) and 21.2 of the Multi Year Distribution Tariff Regulations 2014, norm for R&M Expenses shall be defined in terms of percentage of opening gross fixed assets for estimation of R&M expenses.
- 5.13.2 Based on the past trendof R&M expenses in % to GFA, and on the petitioners request the Commission has approved k-factor of 2.92% in Business Plan order in page 93 for the control period. The R&M expense for the control period based on opening GFA, k-factor and inflation index of 7.32% (60:40 of CPI:WPI) is as follows.

Table 5-22: R&M Expenses for the Control Period (Rs. Crs.)

R&M Expenses	Unit	Norm	FY 16-17	FY 17-18	FY 18-19
R&M Expenses (Linked to Op. GFA)	% of Op.GFA	2.92%			
R&M Expenses	Rs.Crs		44.10	49.43	66.35
Total R&M Expenses with Inflation	Rs.Crs	7.32%	47.33	53.05	71.21

- 5.13.3 EDG requests the Hon'ble Commission to approve the R&M expense as projected for the Control Period.
- 5.13.4 The overall O&M expenses for control period are summarized below:

Table 5-23: O&M Expenses for MYT Period (Rs. Crs.)

O&M Eexpenses	Escalation	FY 16-17	FY 17-18	FY 18-19
Employee Expenses	5.11%	257.18	261.20	265.54
A&G Expenses	5.11%	13.64	13.80	13.96
R&M Expenses	7.32%	47.33	53.05	71.21
Total Expenses		318.14	328.05	350.71

5.14 Capital Expenditure & Capitalisation

5.14.1 The Hon'ble Commission has approved Capital Expenditure, Capitalisation and Funding of the schemes for MYT control period in the Business Plan order at Para/ Table 5.21, 5.23 page 63. EDG has considered the same for MYT projections and would like to summarise as under:

Table 5-24: Approved CAPEX and Capitalization for the Control Period (Rs. Crs.)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19
CAPEX	576.55	1,208.54	1,158.26
Capitalization	182.55	579.54	685.27

5.15 Gross Fixed Assets and Depreciation

- 5.15.1 Based on the above approved capitalisation and opening GFA as per submissions in Review, the depreciation is worked out for MYT period. The principles adopted for depreciation are in line with MYT Regulations and earlier Tariff Orders.
- 5.15.2 The following table shows the depreciation projected by EDG for the entire control period.

Table 5-25: Depreciation for FY 2016-17 to FY 2018-19 (Rs. Crs.)

Sr.	Particulars (Rs. Crores)	Ensuing Year (Projections)			
No.		FY16-17	FY17-18	FY18-19	
1	Opening Gross Fixed Asset	751.63	838.18	1,317.72	
2	Add: Assets added during year (excl	86.55	479.54	559.50	
	grant & ED Fund component)				
3	Less: Withdrawal during year	-	-	1	
4	Closing Gross Fixed Asset	838.18	1,317.72	1,877.22	
5	Average Gross Fixed Asset	794.91	1,077.95	1,597.47	
6	Average Depreciation Rate	5.28%	5.28%	5.28%	
	Total Depreciation for year	41.97	56.92	84.35	

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

5.16 Interest on Loan

5.16.1 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."
- 5.16.2 The rate of interest considered is 11.60% (Short term rate minus 3%) for computation of normative interest costs.
- 5.16.3 Along with the normative interest calculated and claimed in the table highlighted above, it is submitted that certain financial charges are also incurred by the department which are related to charges claimed by the bank charges, finance charges, etc. which are claimed along with the interest in the Petition.
- 5.16.4 The Interest on loan for the Control Period based on MYT regulations, 2014 is tabulated below.

Table 5-26: Interest on Loan for the Control Period (in Rs. Crores)

Sr. No.	Particulars	Ensuing Year (Projections)		
		FY16-17	FY17-18	FY18-19
1	Opening Normative Loan	452.55	471.16	749.93
2	Add: Normative Loan during year	60.59	335.68	391.65
3	Less: Normative Repayment	41.97	56.92	84.35
4	Closing Normative Loan	471.16	749.93	1,057.23
5	Average Normative Loan	461.86	610.54	903.58
6	Rate of Interest	11.60%	11.60%	11.60%
7	Interest on Normative Loan	53.58	70.82	104.81
8	Add: Letter of Credit Charges	3.05	3.05	3.05
9	Total Interest & Finance	56.62	73.87	107.86

5.16.5 The Hon'ble Commission is requested to approve the Interest & Finance Charges proposed during the MYT Control period and as provided in **Format 10 of the Tariff Filing Formats**.

5.17 Interest on Working Capital

- 5.17.1 As per Regulation 25 of JERC MYT Regulations, 2014, interest on Working Capital for retail supply activity of the licensee shall consist of for one month:
 - 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.
- 5.17.2 EDG has considered same Interest rate as projected in FY 2015-16 and accordingly computed the interest on working capital for MYT period.

Table 5-27: Interest on working capital for the MYT Period

Sr.	Particulars	Ensuing year (Projection)		
No.		2016-17	2017-18	2018-19
1	Power Purchase Cost - 1 Month	103.87	113.27	123.77
2	Employee Cost - 1 Month	21.43	21.77	22.13
3	Administration & General Expenses - 1 Month	1.14	1.15	1.16
4	R&M Cost - 1 Month	3.94	4.42	5.93
5	Less: Security Deposit Opening Balance	87.97	89.43	90.57
6	Total	42.41	51.18	62.42
7	Interest Rate *	14.60%	14.60%	14.60%
8	Interest on working capital	6.19	7.47	9.11

5.17.3 The Hon'ble Commission is requested to approve the Interest on working capital proposed during the MYT Control period and as provided in **Format 19 of the Tariff Filing Formats**.

5.18 Provision for Bad Debts

5.18.1 As per Clause 32 of MYT Regulations, 2014 it is stated that

Bad and doubtful debt shall be limited to 1% of the receivables in the true-up, subject to the condition that amount of bad and doubtful debt is actually written-off in the licensee's books of accounts.

5.18.2 Since the amount is to be claimed at the time-up of true-up limited to 1% of the receivables, the same is not claimed in the MYT Petition and may be claimed at the time of true-up in case such cost has been incurred.

5.19 Interest on Security Deposits

- 5.19.1 EDG submits that MYT Regulations 2014 is silent for claiming of interest on security deposit however, clause 29 (b) of the Regulations under the head "Non-Tariff Income" states that Interest on security deposits, in excess of the rate specified by the Commission shall be considered as Non-Tariff income of the Licensees.
- 5.19.2 EDG feels that there is a contradiction to the clause and the amount to be claimed under the Interest on Security Deposit and therefore, EDG has claimed interest on security deposit in line with the Regulation 25of JERC (for the State of Goa and Union Territories (Terms and Conditions for Determination of Tariff) Regulations, 2009. The

provision of interest on security deposits is to be made at the bank rate and therefore the Bank rate of 8.50% as on 01st April, 2015 is considered.

Table 5-28: Interest on Security Deposit for MYT Control Period

Sr. No.	Particulars	Ensuing year (Projection)		ection)
		2016-17	2017-18	2018-19
1	Opening Security Deposit	87.97	89.43	90.57
2	Add: Deposits during the Year	1.46	1.14	1.16
3	Less: Deposits refunded	-	1	-
4	Closing Security Deposit	89.43	90.57	91.73
5	Bank Rate	8.5%	8.5%	8.5%
6	Interest on Security Deposit	7.60	7.70	7.80

5.19.3 The Hon'ble Commission is requested to approve the Interest on Security Deposit as proposed in the MYT Petition and as provided in **Format 19A of the Tariff Filing Formats**.

5.20 Return on Capital Base/ Net Fixed Assets

- 5.20.1 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.
- 5.20.2 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 MYT Control Period.

Table 5-29: Return on Equity for Control Period

Sr. No.	Particulars	Ensuing Year (Projections)		
		FY16-17	FY17-18	FY18-19
1	Opening Equity	204.19	230.15	374.01
2	Add: Equity for the year	25.97	143.86	167.85
	(30% of Capitalisation)			
3	Closing Equity	230.15	374.01	541.86
4	Average Equity	217.17	302.08	457.94
5	Rate of Equity	16.00%	16.00%	16.00%
6	Return on Equity *	34.75	48.33	73.27

^{*} Return on Equity principle is adopted from FY16-17 onwards

5.20.3 EDG submits that the RoE claimed during each year of the control period is calculated on an average basis and therefore, the capital base of FY 2015-16. In view of above, the Hon'ble Commission is requested to kindly allow the above Return on Equity as submitted in the petition for the MYT control Period.

5.21 DSM Expenses

- 5.21.1 EDG has already discussed in detail about DSM in the earlier chapter along with relevant financial calculations. The DSM expenses projected in MYT are as under:
 - ✓ FY 2016-17: Rs. 508,04,369
 - ✓ FY 2017-18: Rs. 433,72,995
 - ✓ FY 2018-19: Rs. 384,18,745

5.22 Non-Tariff Income

- 5.22.1 The amount received by the licensee on account of non-tariff Income shall be deducted from the aggregate revenue requirement in calculating the net revenue requirement of such licensee. The non-tariff Income comprises of metering, late payment charges, interest on staff loans, income from trading, reconnection fee, UI sales/ Sales to Exchanges and miscellaneous income among others and is considered same as FY 2015-16.
- 5.22.2 EDG requests the Hon'ble commission to approve the non-tariff income of Rs. 6.74 Crores for each year of the Control Period. The details of Non-Tariff Income are provided in Format 21 of the Tariff filing formats

5.23 Revenue from Sale of Power at Existing Tariff

- 5.23.1 As per the business plan order dated 22nd December, 2015, the retail tariff proposal is to be submitted only for the first year of the control period i.e. FY 2016-17 whereas ARR calculations are to be submitted for the full control period FY 2016-17 to FY 2018-19.
- 5.23.2 The Revenue from Tariff for first year (FY 2016-17) of the control period based on the existing tariff is outlined below for assessing the Revenue gap / (surplus) for the Control period.

Table 5-30: Revenue from Sale of Power for FY 2016-17 for the MYT Control Period

Sr.	Category of Consumer	Revenue (Rs Crore)			Average
No.		Fixed	Energy	Total	Revenue
		Charges	Charges		(Rs/kWh)
Α	Low Tension Supply	26.93	452.55	479.48	3.45
1(a)	Tariff LTD/Domestic and Non-Commercial	15.85	250.34	266.19	3.07
	0-100	4.89	10.22	15.11	1.92
	101-200	3.06	34.34	37.40	2.07
	201-300	3.51	47.63	51.14	3.33
	301-400	1.71	32.70	34.41	3.26
	401-500	0.95	27.24	28.19	3.73
	Above 500 Units	1.73	98.21	99.94	3.66
1(b)	Tariff LTIG/Low Income Group	0.11	_	0.11	1.00
1(c)	Tariff LTDM/Domestic Mixed	0.26	4.27	4.52	3.69
	First 400 Units	0.19	3.26	3.46	3.44
	Above 400 Units	0.06	1.00	1.07	4.78
2	Tariff-LTC/Commercial	5.36	117.79	123.15	4.17
	0-20 kW Commercial Consumers	5.27	98.10	103.37	4.21
	0-200 Units	5.16	75.10	80.26	4.17
	201-400 Units	0.11	21.82	21.93	4.32
	Above 400 Units	0.00	1.18	1.18	4.71
	>20-90 kW Commercial Consumers	0.09	19.70	19.78	4.01
	0-200 Units	0.08	15.08	15.16	3.92
	201-400 Units	0.00	4.38	4.38	4.30
	Above 400 Units	0.00	0.24	0.24	4.70
3 (a)	Tariff-LTI/Industries	4.16	43.62	47.78	3.81
	0-500 Units	0.22	2.04	2.26	3.43
	Above 500 Units	3.94	41.58	45.52	3.83
4	Tariff-LTP/Mixed (Hotel Industries)	0.15	1.98	2.13	4.85
5	Tariff-LTAG/Agriculture	0.50	3.10	3.60	1.51
6	Tariff-LTPL/Public Lighting	0.46	14.41	14.87	4.02
7	Tariff-LTH/ Hoardings & Signboards	0.00	0.24	0.24	6.97
8	Tariff-LTTS/Temporary Supply	0.09	16.79	16.89	7.65
	Temporary Domestic	0.06	12.23	12.29	7.03
	Temporary Commercial	0.03	4.57	4.60	9.97
В	High Tension Supply	196.89	787.54	984.43	4.84
9	Tariff HTI/Industrial	137.54	531.19	668.74	4.90
	Connected at 11/33 kV	114.18	476.35	590.52	4.83
	Connected at 110 kV	23.37	54.85	78.21	5.42
10	H.T.Industrial (Ferro Mettallurgical/ Steel Melting/ Power Intensive)	44.75	213.25	258.01	4.60
11	Tariff-HTC/Commercial	12.27	30.75	43.02	6.15
12	Tariff-HTAG/Agriculture	0.35	0.85	1.20	1.98
13	Tariff-HTD/Domestic	0.04	0.11	0.14	5.87
14	H.T. MES/Defence Establishments	1.49	9.95	11.44	4.25
15	HTTS/ Temporary Supply	=	-	-	-
16	HTP/Ports	0.45	1.43	1.88	5.00
		-	-	-	-
	Total LT + HT	223.83	1,240.09	1,463.91	4.28

5.23.3 The Hon'ble Commission is requested to kindly allow Revenue at existing tariff as proposed for FY 2016-17.

5.24 ARR for the Control Period

5.24.1 Based on the parameters discussed above, the projection of Annual Revenue Requirement (ARR) of EDG for the MYT Control Period is as follows:

Table 5-31: ARR for the MYT Control Period

Sr.	ltem of expense	Ensuing Year (Projections)		
No.		2016-17	2017-18	2018-19
1	Cost of power purchase	1,246.44	1,359.26	1,485.21
2	Employee costs	257.18	261.20	265.54
3	R&M expenses	47.33	53.05	71.21
4	Administration and General	13.64	13.80	13.96
	expenses			
5	Depreciation	41.97	56.92	84.35
6	Interest on Loan & Finance	56.62	73.87	107.86
	charges			
7	Interest on Working Capital	6.19	7.47	9.11
8	Interest on Security Deposit	7.60	7.70	7.80
9	Return on NFA /Equity	34.75	48.33	73.27
10	Provision for Bad Debt	-	1	-
11	DSM Budget/ Expenses	5.08	4.34	3.84
12	Total Revenue Requirement	1,716.80	1,885.94	2,122.16
13	Less: Non Tariff Income	6.74	6.74	6.74
14	Net Revenue Requirement	1,710.06	1,879.20	2,115.42
	(12-13)			

5.24.2 The Annual Revenue Requirement for the control period is based on business plan order dated 22nd December, 2015, certain assumptions with respect to current projection and expected strategic plans to be undertaken in future. However, the impacts of any uneven internal or external parameters have not been considered in the current projections. While EDG would pursue the goals envisaged in the Petition, however a change in such assumed parameters may impact the operational performance. Hence it is requested to allow such expenses, if any under review/ true-up as the case may be.

5.25 Revenue Gap for FY 2016-17

5.25.1 The revenue gap as calculated on the basis of the projection for FY 2016-17 is shown in the table below:

Table 5-32: Revenue Gap for FY 2016-17 at Existing Tariff

Particulars	FY 2016-17
Net Revenue Requirement	1,710.06
Revenue from Retail Sales at Existing Tariff including FPPCA	1,439.78
Charges	
	_
Net Gap	270.28

5.25.2 In view of above, the Hon'ble Commission is requested to kindly allow the revenue gap of Rs. **270.28** Crs to be recovered during FY 2016-17.

CHAPTER 6. PROPOSAL TO MEET ARR AND REVENUE GAP FOR FY 2016-17

This chapter discusses the Revenue Gap and its treatment to be adopted to meet the same for FY 2016-17.

6.1 Cumulative Revenue Gap of FY 2016-17

- 6.1.1 It is submitted that that revenue gap for past years 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 petition would be filed before JERC or may be merged in subsequent tariff filing petitions.
- 6.1.2 The following table shows the cumulative revenue gap up to FY 2016-17 based on the ARR projected and revenue at existing tariff arrived in previous chapters.

Table 6-1: Cumulative Revenue Gap up to FY 2016-17

			<u>Rs Crore</u>
Sr.	Itam of avenues	Rev. Estimates	Projection
No.	Item of expense	FY 2015-16	FY 2016-17
1	Net ARR for FY	1,522.96	1,710.06
2	Less: Revenue at Existing Tariff	1,387.42	1,439.78
3	Gap at Existing Tariff	135.53	270.28
4	Add: Previous year Gap	-	Ī
5	Total Revenue Gap to be met	135.53	270.28

- 6.1.3 As seen from the above table, the cumulative revenue gap after performance review of FY 2015-16 and ARR of FY 2016-17 comes to Rs. **405.82** Crores.
- 6.1.4 EDG states that recovery of entire gap of Rs. **405.82** Crores during FY 2016-17 will lead to tariff shock to consumers and therefore it is not viable to recover the entire gap in one year.
- 6.1.5 EDG therefore is proposing a marginal average increase in revenue of around **5%** through revision in tariffs as proposed in the Tariff Schedule in the upcoming section. However the brief comparison chart is presented in the table below:

Table 6-2: Tariff Comparison Existing vs Proposed for FY 2016-17

Sr. No.	Category of Consumer	Fixed charge basis	Existir	ng Tariff	Propos	sed Tariff
			Fixed charges (Rs)	Energy Charges (Rs/kWh)	Fixed charges (Rs)	Energy Charges (Rs/kWh)
1	2		3	4	6	7
Α	Low Tension Supply					
1(a)	Tariff LTD/Domestic and Non- Commercial					
	0-100	Rs/Conn/Month	20	1.30	20	1.30
	101-200	Rs/Conn/Month	20	1.90	20	1.90
	201-300	Rs/Conn/Month	45	3.10	45	2.40
	301-400	Rs/Conn/Month	45	3.10	45	3.10
	401-500	Rs/Conn/Month	45	3.60	45	3.20
	Above 500 Units	Rs/Conn/Month	45	3.60	45	3.60
1(b)	Tariff LTIG/Low Income Group	Rs/Conn/Month	30	-	30	-
1(c)	Tariff LTDM/Domestic Mixed					
	First 400 Units	Rs/Conn/Month	45	3.25	45	3.25
	Above 400 Units	Rs/Conn/Month	65	4.50	65	4.50
2	Tariff-LTC/Commercial					
	0-20 kW Commercial Consumers					
	0-200 Units	Rs/Conn/Month	50	3.90	50	3.90
	201-400 Units	Rs/Conn/Month	50	4.30	50	4.30
	Above 400 Units	Rs/Conn/Month	50	4.70	50	4.70
	>20-90 kW Commercial Consumers					
	0-200 Units	Rs/Conn/Month	50	3.90	50	3.90
	201-400 Units	Rs/Conn/Month	50	4.30	50	4.30
	Above 400 Units	Rs/Conn/Month	50	4.70	50	4.70
3 (a)	Tariff-LTI/Industries					
	0-500 Units	Rs/HP/Month	30	3.10	30	3.10
	Above 500 Units	Rs/HP/Month	30	3.50	30	3.50

Sr. No.	Category of Consumer	Fixed charge basis	Existir	ng Tariff	Propos	ed Tariff
			Fixed charges (Rs)	Energy Charges (Rs/kWh)	Fixed charges (Rs)	Energy Charges (Rs/kWh)
4	Tariff-LTP/Mixed (Hotel Industries)	Rs/kW/Month	30	4.50	30	4.50
5	Tariff-LTAG/Agriculture (A)	Rs/HP/Month	12	1.30	12	1.30
	Tariff-LTAG/Agriculture Allied (B)	Rs/HP/Month	-	-	20	2.10
6	Tariff-LTPL/Public Lighting	Rs/kW/Month	40	3.90	40	3.90
7	Tariff-LTH/ Hoardings & Signboards	Rs/kVA/Month	60	6.90	60	9.00
8	Tariff-LTTS/Temporary Supply					
	Temporary Domestic	Rs/kW/Month	60	7.00	60	7.00
	Temporary Commercial	Rs/kVA/Month	100	9.90	100	9.90
9	Tariff-LTE/Education					
	0-1000 Units	Rs/Conn/Month	-	-	35	3.50
	Above 1000 Units	Rs/Conn/Month	-	-	35	4.00
В	High Tension Supply					
10	Tariff HTI/Industrial					
	Connected at 11/33 kV	Rs/kVA/Month	250	3.90	250	4.30
	Connected at 110 kV	Rs/kVA/Month	250	3.80	250	4.20
11	H.T.Industrial (Ferro Mettallurgical/ Steel Melting/ Power Intensive)	Rs/kVA/Month	325	3.80	325	4.20
12	Tariff-HTC/Commercial	Rs/kVA/Month	250	4.40	250	5.50
13	Tariff-HTAG/Agriculture (A)	Rs/kVA/Month	35	1.40	35	1.40
	Tariff-HTAG/Agriculture Allied (B)	Rs/kVA/Month	-	-	150	2.25
14	Tariff-HTD/Domestic	Rs/kVA/Month	150	4.40	150	4.40
15	H.T. MES/Defence Establishments	Rs/kVA/Month	175	3.70	175	5.00
16	HTTS/ Temporary Supply	Rs/kVA/Month	120	9.90	120	9.90
17	HTP/Ports	Rs/kVA/Month	-	-	250	7.00
18	HTE/Education	Rs/kVA/Month	-	-	200	3.50

6.1.6 The additional revenue expected through this proposed tariff hike is Rs. **77.01** Crores. The table below provides category wise Revenue at proposed tariff for FY 2016-17:

Table 6-3: Revenue from sale of Power at Proposed Tariff for FY 2016-17

Sr. No.	Category of Consumer	Revenue (Rs Crore)			Average
		Fixed	Energy	Total	Revenue
		Charges	Charges		(Rs/kWh)
Α	Low Tension Supply	26.93	438.84	465.77	3.35
1(a)	Tariff LTD/Domestic and Non- Commercial	15.85	236.56	252.40	2.91
	0-100	4.89	10.22	15.11	1.92
	101-200	3.06	34.34	37.40	2.07
	201-300	3.51	36.88	40.39	2.63
	301-400	1.71	32.70	34.41	3.26
	401-500	0.95	24.22	25.16	3.33
	Above 500 Units	1.73	98.21	99.94	3.66
1(b)	Tariff LTIG/Low Income Group	0.11	-	0.11	1.00
1(c)	Tariff LTDM/Domestic Mixed	0.26	4.27	4.52	3.69
	First 400 Units	0.19	3.26	3.46	3.44
	Above 400 Units	0.06	1.00	1.07	4.78
2	Tariff-LTC/Commercial	5.36	117.79	123.15	4.17
	0-20 kW Commercial Consumers	5.27	98.10	103.37	4.21
	0-200 Units	5.16	75.10	80.26	4.17
	201-400 Units	0.11	21.82	21.93	4.32
	Above 400 Units	0.00	1.18	1.18	4.71
	>20-90 kW Commercial Consumers	0.09	19.70	19.78	4.01
	0-200 Units	0.08	15.08	15.16	3.92
	201-400 Units	0.00	4.38	4.38	4.30
	Above 400 Units	0.00	0.24	0.24	4.70
3 (a)	Tariff-LTI/Industries	4.16	43.62	47.78	3.81
	0-500 Units	0.22	2.04	2.26	3.43
	Above 500 Units	3.94	41.58	45.52	3.83
4	Tariff-LTP/Mixed (Hotel Industries)	0.15	1.98	2.13	4.85
5	Tariff-LTAG/Agriculture	0.50	3.10	3.60	1.51
6	Tariff-LTPL/Public Lighting	0.46	14.41	14.87	4.02
7	Tariff-LTH/ Hoardings & Signboards	0.00	0.32	0.32	9.07
8	Tariff-LTTS/Temporary Supply	0.09	16.79	16.89	7.65
	Temporary Domestic	0.06	12.23	12.29	7.03
	Temporary Commercial	0.03	4.57	4.60	9.97
В	High Tension Supply	196.89	877.00	1,073.89	5.28
9	Tariff HTI/Industrial	137.54	585.82	723.37	5.30
	Connected at 11/33 kV	114.18	525.20	639.38	5.23
	Connected at 110 kV	23.37	60.62	83.99	5.82
10	H.T.Industrial (Ferro Mettallurgical/				
10	Steel Melting/ Power Intensive)	44.75	235.70	280.45	5.00
11	Tariff-HTC/Commercial	12.27	38.44	50.71	7.25
12	Tariff-HTAG/Agriculture	0.35	0.85	1.20	1.98
13	Tariff-HTD/Domestic	0.04	0.11	0.14	5.87
14	H.T. MES/Defence Establishments	1.49	13.45	14.93	5.55
15	HTTS/ Temporary Supply	-	-	-	-
16	HTP/Ports	0.45	2.63	3.08	8.20
		-	-	-	-
	Total LT + HT	223.83	1,315.84	1,539.67	4.50
	Less: Revenue due to DELP	-	-	22.88	2.91
	Grand Total LT + HT		-	1,516.78	4.54

- 6.1.7 EDG has also proposed certain rationalization in the existing Tariff Structure. The modification and changes in consumer categories proposed by EDG has been detailed out in the Chapter for Tariff Philosophy.
- 6.1.8 The following table shows the balance revenue gap to be met based on the proposed tariffs and proposed tariff structure as specified in the Chapter of Tariff Schedule.

Table 6-4: Revenue Gap after Tariff Revision with Proposed Tariff

Rs Crore

Sr. No.	Item of expense	Rev. Estimates FY 2015-16	Projection FY 2016-17
1	Net ARR for FY	1,522.96	1,710.06
2	Less: Revenue at Existing Tariff	1,387.76	1,439.78
3	Gap at Existing Tariff	135.20	270.28
4	Add: Previous year Gap	-	-
5	Total Revenue Gap to be met	135.20	270.28
6	Less: Additional Revenue from	-	77.01
	Revised Tariffs		
7	Less: Budgetary Support	-	-
8	Balance Revenue Gap	135.20	193.28

- 6.1.9. As seen from the above table additional revenue derived from proposed tariffs and proposed tariff structure is Rs. **77.01** Crores (28% of revenue gap for FY 2016-17) which leads to the unmet revenue gap of Rs. **328.81** Crores.
- 6.1.10. GED proposes to meet the above revenue gap for FY 2015-16 entirely by budgetary support of Rs. 135.53 crores and for FY 2016-17, partially through Tariff Increases (approx. 5%) and balance by Budgetary Support by Government of Goa (Rs. 193.28 crores).
- 6.1.11. However ED-Goa 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 7. TARIFF PHILOSOPHY& TARIFF SCHEDULE FOR FY 2016-17

This chapter discusses the approach and philosophy for rationalisation of categories, increases in tariffs and schedule of miscellaneous and general charges.

7.1 Present Tariff Structure

- a) The petitioner submits that the tariffs of the petitioner in the license area are lower as compared to other licensees in the country with similar area and load profile;
- b) The distribution losses are also lower and comparable with better performing utilities which again help in keeping tariffs lower;
- c) Presently there are number of categories which have almost similar tariffs with difference in only tariff applicability clauses. Some of the slabs in the categories or basis of fixed charge need to be in synch with practices in other states.
- d) The tariff structure between fixed/ demand charge and energy charge is lopsided and the recovery from fixed/ demand charges is less than the fixed payments obligation.
- e) In some of the categories, the applicability clauses needed more clarity for better implementation.

7.2 Tariff Philosophy

7.2.1 Tariff Rationalisation

The consumer categories are rationalised keeping in mind the consumers suggestions and practices in neighbouring states.

- ✓ ED-Goa has increased the slabs in LTD/Domestic category;
- ✓ Professionals operating from Residences and having monthly consumption within 300 units would be treated under LTD/Domestic;
- ✓ Educational Institutions other than those covered under LTD/Domestic & HTD/Domestic are proposed under New Category with tariffs lower than Commercial/ Industry category as the case may be;

- ✓ Agricultural category is further sub-categorised into Agricultural and Other Allied Activities;
- ✓ New Category for Ports consumer is created considering their nature of business;

7.2.2 Changes in Applicability Clauses

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

7.2.3 Monthly Minimum Charges

Considering consumer suggestions in previous hearing etc, EDG has proposed to remove Monthly Minimum Charges (MMC) for all categories.

7.2.4 Revision in Tariffs

The petitioner has proposed marginal tariff increase in certain categories corresponding to the cost increases in power purchase, transmission charges and O&M expenses. The additional revenue from proposed tariffs would meet partial revenue gap for FY 2016-17.

7.2.5 Schedule of Miscellaneous Charges

There is no change proposed in Schedule of General & Miscellaneous charges for FY 2016-17 and are proposed to be retained at FY 2015-16 level.

7.3 General Conditions and Definitions

1) These tariffs are proposed to be made applicable from 1st April 2016 and shall be subject to revision by the Regulatory Commission from time to time.

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 for a month.
- 5) If 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 higher tariff is applicable, it will be deemed as unauthorized use of electricity and shall be dealt with for assessment under the provisions of section 126 of the Electricity Act, 2003 and Supply Code Regulation 2010 notified by JERC.

Provided that,

- (a) If a portion of the domestic premises limited to only one room is used for running small household business having connection under domestic category, such connection shall be billed under domestic mixed category provided that the total monthly consumption of the consumer (including consumption for above mentioned small household business) does not exceed 150 kWh.
- (b) If either more than one room or only one room having monthly consumption exceeding 150 kWh for consecutive three months is detected in the domestic premises being used for mixed purposes having domestic connection, such connection shall further be billed under commercial category until a separate connection of appropriate tariff is taken for that portion used for non-domestic purpose.
- 6) If connected load of a domestic category is found to be at variance from 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. Fixed charges, wherever applicable, will be double as and when bi-monthly billing is carried out and will be proportionately calculated as per the no. of days of billing, Similarly slabs of energy consumption will also be considered accordingly in case of bi-monthly or periodic billing.
- 8) The consumption for factory lighting/pump house lighting will 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 by adding the energy consumption of main energy meter and factory lighting meter.

- 9) LT Connection is applicable with Sanctioned Load of less than 80 KVA or 70 KW or 95 HP as the case may be and HT Connection is applicable with Contract Demand of 80kVA and above.
- 10) Supply of power in all cases shall be subject to the execution of Agreement between Electricity Department, Goa and consumers and as per JERC (Electricity Supply Code) Regulation 2010. 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

11) Billing Demand and Billing of extra Demand:

The billing shall be on the maximum demand recorded during the month or 75% of contracted demand whichever is higher. If in any month, the recorded maximum demand of the consumer exceeds its contracted demand, that portion of the demand in excess of the contracted demand shall be billed at double the normal rate. Similarly, energy consumption corresponding to excess demand shall also be billed at double the normal energy rate.

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

7.4 Miscellaneous and General Charges

7.4.1 Fuel & Power Purchase Cost Adjustment (FPPCA) Formula

The FPPCA charge will be determined based on the formula approved by Hon'ble Commission vide order dated 27th June 2012 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.

7.4.2 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/

7.4.3 Power Factor Calculation

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

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-

Wherein the kVAh is =
$$\sqrt{\sum (kWh)^2 + \sum (RkVAh)^2}$$

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

7.4.4 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 0.9 (lagging), such consumer shall pay a surcharge in addition to his normal tariff as 1 % of monthly bill including energy charges, FPPCA, and fixed/ Demand Charges but excluding Taxes and duties for each fall of 0.01 in power factor upto 0.7 (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.

7.4.5 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 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.

7.4.6 Payment Rebates:

<u>Advance Payment Rebate:</u> 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.

<u>Prompt Payment Rebate:</u> 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.

7.4.7 Delayed Payment Charges (DPC):

In case the electricity bills are not paid within the due date mentioned on the bill, delayed payment charges of two percent (2%) (Computed on daily basis on outstanding bill from the due date till date of payment) shall be levied on the bill

amount. However, if a consumer makes part payment of a bill (in exceptional circumstances, with prior approval of the Chief Electrical Engineer), within the due date, then the delayed payment charges shall be applicable only on the amount which was not paid within the due date.

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

If the consumer fails to pay the energy bill presented to him by the due date the department shall have the right to disconnect the supply after giving 15 days notice as per provision of the Electricity Act 2003 and Supply Code Regulations 2010 of JERC as amended from time to time.

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

7.4.8 Time of Day tariff (ToD):

- i) Under the Time of Day (ToD) Tariff, electricity consumption and maximum demand in respect of HT/EHT consumers for different periods of the day, i.e. normal period, peak load period and off-peak load period, shall be recorded by installing a ToD meter.
- ii) The maximum demand and consumption recorded in different periods shall be billed at the following rates on the tariff applicable to the consumer.

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

7.5 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

7.5.1 LT 1(A): Tariff LTD/Domestic

Existing Applicability Clause	Proposed Applicability Clause
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.	This schedule shall apply to private residential houses, government residential quarters, educational institutions aided by State / Central Board, colleges aided by Goa University for consumption of energy using normal domestic appliances. Residential premises used by professionals (like Lawyers, Doctors {only those using OPD/consultancy}, Professional Engineers, Chartered Accountants, etc.) in furtherance of their professional activity in their residences for consumption of energy for mixed purposes with monthly consumption less than 300 units (and subject to overall yearly reconciliation of 3600 units), would be billed under this category.

l. Tariff

E	Existing Tariff FY 2015-16			Proposed Tariff FY 2016-17			
	Consumption Slab Fixed Charges (Rs/Connection /month) Energy Charges (Rs/kWh)		Consumption Slab (Rs/Connection/		Energy Charges (Rs/kWh)		
a)	0 – 100 units	Single Phase –	1.30	a) 0 – 100 units	Single Phase –	1.30	

Existing Tariff FY 2015-16			Proposed Tariff FY 2016-17			
Consumption Slab	Fixed Charges (Rs/Connection /month)	Energy Charges (Rs/kWh)	Consumption Slab	Fixed Charges (Rs/Connection/ month)	Energy Charges (Rs/kWh)	
b) 101–200 units	Rs. 20/Month	1.90	b) 101– 200 units	Rs. 20/Month	1.90	
c) 201 – 400 units	Three Phase –	3.10	c) 201 – 300 units	Three Phase – Rs. 45/Month	2.40	
d) Above 400 units (balance units)	Rs. 45/Month	3.60	d) 301 – 400 units		3.10	
			e) 401 – 500 units		3.20	
			f) Above 500 units		3.60	

Note:

a. 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/-.

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

Existing Applicability Clause	Proposed Applicability Clause	
This schedule shall apply to consumers of low Income Group who	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	have a sanctioned load of up to 0.1 kW (primarily 2 points with 2 x	
40 watts) and who consume upto 30 units per month only.	40 watts) and who consume upto 30 units per month only.	

I. Tariff:

Description	Rs./ Connection/month	
	Existing Charges Proposed Charge FY 2015-16 FY 2016-17	
Consumption Up to 30 Units p.m.	30.00	30.00

Note:1) 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.

7.5.3 LT I (C): LTDM/Domestic Mixed

Existing Applicability Clause	Proposed Applicability Clause
This schedule shall apply to Houses with rent back facilities, Government hospitals, residential premises used by professionals (like Lawyers, Doctors {only those using OPD/consultancy}, Professional Engineers, Chartered Accountants, etc.) in furtherance of their professional activity in their residences for consumption of energy for mixed purposes.	Government hospitals, residential premises used by professionals (like Lawyers, Doctors {only those using OPD/consultancy}, Professional Engineers, Chartered Accountants, etc.) in furtherance

I. Tariff:

Consumption	Fixed C (Rs./connect	Energy Charges (Rs/kWh)		
	Existing Charges FY 2015-16	Proposed Charges FY 2016-17	Existing Charges FY 2015-16	Proposed Charges FY 2016-17
First 400 Units	Single Phase			3.25
Above 400 Units	– Rs.45/Month Three Phase – Rs.65 /Month	Rs.45/MonthThree PhaseRs.65 / Month	4.50	4.50

7.5.4 LT II: LTC/Commercial

Existing Applicability Clause	Proposed Applicability Clause		
This category would apply to a LT category not specifically included	This category would apply to a LT category not specifically included		
elsewhere and also to a LT category although specifically included	elsewhere and also to a LT category although specifically included		
elsewhere, in a category commanding lower tariff, is misused and	elsewhere, in a category commanding lower tariff, is misused and		
used for commercial purpose. It would include non-residential, non-	used for commercial purpose. It would include non-residential, non-		
industrial premises and/or commercial premises where electricity is	industrial premises and/or commercial premises where electricity is		
used for commercial purposes. It would include the following	used for commercial purposes. It would include the following		
categories but not limited to:	categories but not limited to:		
Commercial Complexes and Business premises, including	Commercial Complexes and Business premises, including		
Shopping malls/show rooms, offices / shops;	Shopping malls/show rooms, offices / shops;		
Combined lighting and power services for Entertainment	Combined lighting and power services for Entertainment		

Existing Applicability Clause

including film studios, cinemas and theatres, including multiplexes, Race Course, Meeting/Town Halls, Clubs, all types of Guest houses;

- Offices including Government Offices, Commercial Establishments;
- Marriage Halls (including halls attached to religious places),
 Hotels / Restaurants (without boarding facilities), Ice-cream
 parlours, Bakery, Coffee Shops, private educational institutions,
 private hospitals, private messes, Internet / Cyber Cafes, Mobile
 Towers, Microwave Towers, Satellite Antennas used for
 telecommunication activity, Telephone Booths, Fax / Xerox
 Shops, X-ray installation, bars and cold drink houses, Tailoring
 Shops, Computer Training Schools, Typing Institutes, Photo
 Laboratories, Photo Studio, Laundries, Beauty Parlour & Saloons,
 all types of nurseries, dry cleaners etc
- Automobile and any other type of repair centres, Retail Gas Filling stations, Petrol Pumps & Service Stations including Garages, Tyre Vulcanizing units, Battery Charging Units, Tyre vulcanizing centres etc;
- Banks, Telephone Exchanges, TV Station, Micro Wave Stations, All India Radio (AIR) Stations, ATM Centres etc;
- For common facilities, like Water Pumping / Street Lighting / Lifts / Fire Fighting Pumps / Premises (Security) Lighting, etc. in Commercial Complexes;

Proposed Applicability Clause

including film studios, cinemas and theatres, including multiplexes, Race Course, Meeting/Town Halls, Clubs, all types of Guest houses;

- Offices including Government Offices, Commercial Establishments;
- Marriage Halls (including halls attached to religious places),
 Hotels / Restaurants (without boarding facilities), Ice-cream
 parlours, Bakery, Coffee Shops, private hospitals, private messes,
 Internet / Cyber Cafes, Mobile Towers, Microwave Towers,
 Satellite Antennas used for telecommunication activity,
 Telephone Booths, Fax / Xerox Shops, X-ray installation, bars and
 cold drink houses, Tailoring Shops, Computer Training Schools,
 Typing Institutes, Photo Laboratories, Photo Studio, Laundries,
 Beauty Parlour & Saloons, all types of nurseries, dry cleaners etc
- Automobile and any other type of repair centres, Retail Gas Filling stations, Petrol Pumps & Service Stations including Garages, Tyre Vulcanizing units, Battery Charging Units, Tyre vulcanizing centres etc;
- Banks, Telephone Exchanges, TV Station, Micro Wave Stations, All India Radio (AIR) Stations, ATM Centres etc;
- For common facilities, like Water Pumping / Street Lighting / Lifts
 / Fire Fighting Pumps / Premises (Security) Lighting, etc. in Commercial Complexes;
- Sports Club, Health Club, Gymnasium, Swimming Pool;

E	Existing Applicability Clause		Proposed Applicability Clause				
•	Sports Club, Health Club, Gymnasium, Swimming Pool;		Research & Development units situated outside Industrial				
•	• Tissue Culture, Mushroom activities, Aquaculture, Floriculture,		premises;				
	Fisheries, Sericulture etc		Airports, Railways, Railway Station, Bus stand of KTC etc;				
•	Research & Development units situated outside Industrial						
	premises;						
•	Airports, Railways, Railway Station, Bus stand of KTC etc;						

I. Tariff

	Existing Tariff FY2015-16			Proposed Tariff FY2016-17			
Consumption Slab	Fixed Charges	Energy Charges (Rs/kWh)	Consumption Slab	Fixed Charges	Energy Charges (Rs/kWh)		
a) 0 – 200 units	0-20 kW - Rs.50/Conn/ Month	3.90	a) 0 – 200 units	0-20 kW - Rs.50/Conn/ Month	3.90		
b) 201–400 units	Above 20kW-90 kW Rs.50/Conn/month +	4.30	b) 201–400 units	Above 20kW-90 kW Rs.50/Conn/month +	4.30		
c) Above 400 units	additional Rs.55/kW for every kW increase above 20 kW	4.70	c) Above 400 units	additional Rs.55/kW for every kW increase above 20 kW	4.70		

7.5.5 LT III: LTI/Industry

Existing Ap	plicability	y Clause
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This tariff shall apply to consumers as industrial units engaged in industrial activities, manufacturing process etc. It would include the following categories but not limited to:

- Flour Mills, wet grinding, Dal Mills, Rice Mills, Poha Mills, Masala Mills, Saw Mills, Power looms including other allied activities like Warping, Doubling, Twisting, etc.
- Ice Factory, Ice Cream Manufacturing units/ Plants, Diary
 Testing Process, Milk Diaries, Milk Processing / Chilling Plants
 (Dairy) etc;
- Engineering workshops, Engineering Goods Manufacturing units,
 Printing Press, Transformer repairing Workshops, Tyre retreading units, Motive Power Load etc;
- Mining, Quarry & Stone Crushing units etc;
- Garment Manufacturing units,
- LPG/ CNG Bottling plants etc;
- Sewage Water Treatment Plant/ Common Effluent Treatment Plant owned, operated and managed by Industrial Association and situated within industrial area.
- Pumping of water for public water supply, Sewage Treatment
 Plants, activities related with public water Supply Schemes and Sewage Pumping Stations.
- Use of electricity / power supply for activities/ facilities

Proposed Applicability Clause

This tariff shall apply to consumers as industrial units engaged in industrial activities, manufacturing process etc. It would include the following categories but not limited to:

- Flour Mills, wet grinding, Dal Mills, Rice Mills, Poha Mills, Masala Mills, Saw Mills, Power looms including other allied activities like Warping, Doubling, Twisting, etc.
- Ice Factory, Ice Cream Manufacturing units/ Plants, Diary Testing Process, Milk Diaries, Milk Processing / Chilling Plants (Dairy) etc;
- Engineering workshops, Engineering Goods Manufacturing units, Printing Press, Transformer repairing Workshops, Tyre retreading units, Motive Power Load etc;
- Mining, Quarry & Stone Crushing units etc;
- Garment Manufacturing units,
- LPG/ CNG Bottling plants etc;
- Sewage Water Treatment Plant/ Common Effluent Treatment Plant owned, operated and managed by Industrial Association and situated within industrial area.
- Pumping of water for public water supply, Sewage Treatment Plants, activities related with public water Supply Schemes and Sewage Pumping Stations.
- Use of electricity / power supply for activities/ facilities

Exis	Existing Applicability Clause		Proposed Applicability Clause		
	exclusively meant for employees of the industry within the		exclusively meant for employees of the industry within the		
	premises of the Industry.		premises of the Industry.		
•	IT Industry, IT parks etc	•	IT Industry, IT parks etc		

I. Tariff:

Existing	Charges FY 2015-	16	Proposed Charges FY 2016-17		
Existing Slabs (Rs./HP/month) Cha		Energy Charges (Rs/kWh)	Proposed Slabs	Proposed Slabs Fixed Charges (Rs./HP/month)	
0 to 500 Units	30	3.10	0 to 500 Units	30	3.10
Above 500 Units	30	3.50	Above 500 Units	30	3.50

7.5.6 LT IV: LTP Mixed (Hotel Industries)

Existing Applicability Clause	Proposed Applicability Clause	
 This schedule shall apply to Hotels/ restaurants with lodging and 	This schedule shall apply to Hotels/ restaurants with lodging and	
boarding facilities.	boarding facilities.	

I. Tariff:

Fixed Charges (Rs/kW/Month)		Energy Charges (Rs/kWh)	
Existing Charges	Proposed	Existing	Proposed
FY 2015-16	Charges	Charges	Charges
	FY 2016-17	FY 2015-16	FY 2016-17
30	30	4.50	4.50

Note: Hotel Industry consumers intending to avail the facility of this tariff should produce the certificate from Tourism Department stating that the intending applicant is registered under Goa Registration of Tourist Trade Act, 1982 and in Hotel business on regular basis. Such tariff shall be made applicable only from the date of receipt of such certificate. In case of failure to produce the certificate, the same shall be considered under Commercial category.

7.5.7 LT V: LTAG/Agriculture and other Allied Activities

a. LT-Agriculture (A)

Existing Applicability Clause	Proposed Applicability Clause
This schedule shall apply to establishments for Irrigation pumping and Agricultural purposes. It would include the following categories but not limited to: Poultry, Piggery etc Horticulture, Green Houses, Plantations etc; Cane crusher and/or fodder cutter for self-use for agricultural processing purpose, but shall not be applicable for operating a flour mill, oil mill or expeller in the same premises, either operated by a separate motor or change of belt drive.	This schedule shall apply to establishments for Irrigation pumping, De-watering & Lift Irrigation for cultivation of food crops such as cereals, pulses, vegetables & fruits etc and Cane crusher and/or fodder cutter for self-use for agricultural purposes.

Tariff

Fixed Charges		Energy Charges (Rs/kWh)	
(Rs/HP/Month)			
Existing	Proposed	Existing Propos	
Charges Charges		Charges	Charges
FY 2015-16	FY 2016-17	FY 2015-16	FY 2016-17
12	12	1.30	1.30

Note:

- 1. 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.
- 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.

b. LT-Agriculture Allied Activities (B)

Existing Applicability Clause	Proposed Applicability Clause		
	This schedule shall apply to establishments for other allied activities related to Agriculture and shall include but not limited to: Poultry farms, Livestock farms, Combination of livestock farms with dairy, Piggery etc		

Existing Applicability Clause	Proposed Applicability Clause
	Horticulture, Green Houses, Plantations etc
	Fish farms including ornamental fish farms, prawn farms, other aqua farms etc
	Tissue culture, Mushroom activities, Aquaculture, Floriculture, Fisheries, Sericulture, Floricultural nurseries, hatcheries etc
	 Any other agricultural activity not falling under LT-Agriculture (A) shall be covered under this category

I. Tariff

Fixed Charges (Rs/HP/Month)		Energy Charges (Rs/kWh)	
Existing	Proposed	Existing Propose	
Charges	Charges	Charges	Charges
FY 2015-16	FY 2016-17	FY 2015-16	FY 2016-17
-	20.00	-	2.10

Note: 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.

7.5.8 LT VI: LTPL/Public Lighting

Existing Applicability Clause	Proposed Applicability Clause		
This schedule shall apply to public lighting systems. It would include the following categories but not limited to:	This schedule shall apply to public lighting systems. It would include the following categories but not limited to:		
 Market Places Road, Pathways and Parking Lighting belonging to local authorities such as Municipality/ Panchayats/ Government; Lighting in Public Garden; Traffic Signals and Traffic Islands; State Transport Bus Shelters; 	 Market Places Road, Pathways and Parking Lighting belonging to local authorities such as Municipality/ Panchayats/ Government; Lighting in Public Garden; Traffic Signals and Traffic Islands; State Transport Bus Shelters; 		
 Public Sanitary Conveniences; and Public Water Fountain and such other Public Places open for general public free of charge. 	 Public Sanitary Conveniences; and Public Water Fountain and such other Public Places open for general public free of charge. 		
 Street lighting in the colony of a factory which is situated separately from the main factory. This shall also be applicable to public lighting of Government/ Semi-Government Establishments but shall not be applicable in case of private establishment. 	separately from the main factory. This shall also be applicable to public lighting of Government/		

I. Tariff

Fixed Charges (Rs/kW/Month)		Energy Charges (Rs/kWh)	
Existing Proposed		Existing	Proposed
Charges Charges		Charges	Charges
FY 2015-16 FY 2016-17		FY 2015-16	FY 2016-17
40	40	3.90	3.90

7.5.9 LT VII: LTH/Hoarding & Sign Boards

Existing Applicability Clause	Proposed Applicability Clause
This schedule shall apply for lighting advertisements, hoardings and	This schedule shall apply for lighting advertisements, hoardings and
displays at departments stores, malls, multiplexes, theatres, clubs,	displays at departments stores, malls, multiplexes, theatres, clubs,
hotels, bus shelters, Railway Stations etc and shall be separately	hotels, bus shelters, Railway Stations etc and shall be separately
metered and charged at the tariff applicable for "Hoardings / Sign	metered and charged at the tariff applicable for "Hoardings / Sign
Board" category. However use of electricity for displays for the	Board" category. However use of electricity for displays for the
purpose of indicating / displaying the name and other details of the	purpose of indicating / displaying the name and other details of the
shop, on commercial premises itself, shall be covered under the	shop, on commercial premises itself, shall be covered under the
prevailing tariff for such shops or commercial premises.	prevailing tariff for such shops or commercial premises.

I. Tariff

Fixed Charges (Rs/kVA/Month)		Energy Charges (Rs/kWh)	
Existing Charges Proposed Charges		Existing Charges	Proposed Charges
FY 2015-16	Y 2015-16 FY 2016-17		FY 2016-17
60	60	6.90	9.00

7.5.10 LT VIII: LTTS/ Temporary Supply

Existing Applicability Clause	Proposed Applicability Clause		
a) LT Temporary Domestic: This schedule shall apply to usage of	a) LT Temporary Domestic: This schedule shall apply to usage of		
electricity for all religious purposes or public functions for non-	electricity for all religious purposes or public functions for non-		
commercial purposes. It shall also apply for construction of own	commercial purposes. It shall also apply for construction of own		
house by an individual with single tenement	house by an individual with single tenement		
b) LT Temporary Commercial: This schedule shall apply to usage of	b) LT Temporary Commercial: This schedule shall apply to usage		
electricity for any of the activities not covered under LT	of electricity for any of the activities not covered under LT		
Temporary Domestic.	Temporary Domestic.		
It would include but not limited to:	It would include but not limited to:		
All other Constructions including renovation, of all type of	All other Constructions including renovation, of all type		
structure/ infrastructure, including buildings, bridge,	of structure/ infrastructure, including buildings, bridge,		
flyover, dam, power stations, road, aerodrome, tunnels	flyover, dam, power stations, road, aerodrome, tunnels		
laying of pipe line for all purpose	laying of pipe line for all purpose		

I. Tariff

Categories	Energy Charges (Rs/ Kwh)		Minimum / Fixed Charges (Rs./kW/day)		
	Existing	Proposed	Existing Charges	Proposed Charges	
	Charges	Charges	FY 2015-16	FY 2016-17	
	FY 2015-16	FY 2016-17			
Temporary Domestic	7.00	7.00	Rs 60 per kW per month or part thereof subject to a minimum of Rs.300/- per connection per month or part thereof.	or part thereof subject to a minimum of Rs.300/- per connection	
Temporary Commercial	9.90	9.90	Rs 100 per kVA per month or part thereof subject to a minimum of Rs.500/- per connection per month or part thereof.	month or part thereof subject to a minimum of Rs.500/- per connection	

Note: -

- (i) The above temporary connection shall be released through a proper meter
- (ii) The above temporary tariffs are applicable for temporary supply for a period not exceeding three month 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.

7.5.11 LT IX: LTE/Education

Existing Applicability Clause	Proposed Applicability Clause		
	This schedule shall apply to educational institutions (private Educational Institutions) which are not covered in above		
	LTD/Domestic category.		

I. Tariff

	Existing Tariff FY2015-16		Proposed Tariff FY2016-17		
Consumption Slab	Fixed Charges	Energy Charges (Rs/kWh)	Consumption Slab	Fixed Charges	Energy Charges (Rs/kWh)
-		-	a) 0 – 1000 units	0-20 kW - Rs.35/Conn/ Month	3.50
-	-	-	b) Above 1000 units	Above 20kW-90 kW Rs.35/Conn/month + additional Rs.40/kW for every kW increase above 20 kW	4.00

7.6 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

7.6.1 HT I: HTI / Industrial

. Tariff

Consumer category	Fixed Charges		Energy Charges	
/ Voltage Level	(Rs./KVA/month)		(Rs/kWh)	
	Existing Proposed		Existing	Proposed
	Charges	Charges	Charges	Charges
	FY 2015-16	FY 2016-17	FY 2015-16	FY 2016-17
11 / 33 kV	250	250	3.90	4.30
110 kV	250	250	3.80	4.20

7.6.2 HT II: MES/Defence Establishments:

Existing Applicability Clause	Proposed Applicability Clause	
H.T. MES/Defence Establishments: This schedule shall apply to	H.T. MES/Defence Establishments: This schedule shall apply to	
supply of power for defence installation establishments, having	supply of power for defence installation establishments, having	
mixed load with predominantly lighting or non-industrial load of	mixed load with predominantly lighting or non-industrial load of	
more than 50% of connected load.	more than 50% of connected load.	

I. Tariff

Consumer category	Fixed Charges (Rs./KVA/month)		Energy Charges (Rs/kWh)	
	Existing Charges Proposed Charges FY 2015-16 FY 2016-17		Existing Charges FY 2015-16	Proposed Charges FY 2016-17
MES/ Defense	175	175	3.70	5.00

7.6.3 HT III: HTC/ Commercial

Existing Applicability Clause

This tariff is applicable to any HT supply activity not specifically covered in any other HT 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:

- Commercial Complexes and Business premises, including Shopping malls/show rooms, offices / shops;
- Combined lighting and power services for Entertainment including film studios, cinemas and theatres, including multiplexes, Race Course, Meeting/Town Halls, Clubs, all types of Guest houses;
- Offices including Government Offices, Commercial Establishments:
- Marriage Halls (including halls attached to religious places), Hotels
 / Restaurants (without boarding facilities), Ice-cream parlours,
 Bakery, Coffee Shops, private educational institutions, private
 hospitals, private messes, Internet / Cyber Cafes, Mobile Towers,
 Microwave Towers, Satellite Antennas used for
 telecommunication activity, Telephone Booths, Fax / Xerox Shops,

Proposed Applicability Clause

This tariff is applicable to any HT supply activity not specifically covered in any other HT 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:

- Commercial Complexes and Business premises, including Shopping malls/show rooms, offices / shops;
- Combined lighting and power services for Entertainment including film studios, cinemas and theatres, including multiplexes, Race Course, Meeting/Town Halls, Clubs, all types of Guest houses;
- Offices including Government Offices, Commercial Establishments;
- Marriage Halls (including halls attached to religious places), Hotels / Restaurants (without boarding facilities), Ice-cream parlours, Bakery, Coffee Shops, private hospitals, private messes, Internet / Cyber Cafes, Mobile Towers, Microwave Towers, Satellite Antennas used for telecommunication activity, Telephone Booths, Fax / Xerox Shops, X-ray installation, bars and cold drink houses, Tailoring Shops, Computer Training Schools, Typing Institutes,

Existing Applicability Clause	Proposed Applicability Clause		
 X-ray installation, bars and cold drink houses, Tailoring Shops, Computer Training Schools, Typing Institutes, Photo Laboratories, Photo Studio, Laundries, Beauty Parlour & Saloons, all types of nurseries, dry cleaners etc Automobile and any other type of repair centres, Retail Gas Filling stations, Petrol Pumps & Service Stations including Garages, Tyre Vulcanizing units, Battery Charging Units, Tyre vulcanizing centres etc; Banks, Telephone Exchanges, TV Station, Micro Wave Stations, All India Radio (AIR) Stations, ATM Centres etc; For common facilities, like Water Pumping / Street Lighting / Lifts / Fire Fighting Pumps / Premises (Security) Lighting, etc. in Commercial Complexes; Sports Club, Health Club, Gymnasium, Swimming Pool; Tissue Culture, Mushroom activities, Aquaculture, Floriculture, Fisheries, Sericulture etc. Research & Development units situated outside Industrial premises; Airports, Railways, Railways Station, Bus stand of KTC etc; 	 Automobile and any other type of repair centres, Retail Gas Filling stations, Petrol Pumps & Service Stations including Garages, Tyre Vulcanizing units, Battery Charging Units, Tyre vulcanizing centres etc; Banks, Telephone Exchanges, TV Station, Micro Wave Stations, All India Radio (AIR) Stations, ATM Centres etc; For common facilities, like Water Pumping / Street Lighting / Lifts / Fire Fighting Pumps / Premises (Security) Lighting, etc. in Commercial Complexes; Sports Club, Health Club, Gymnasium, Swimming Pool; Research & Development units situated outside Industrial premises; 		

I. Tariff

Particulars	Fixed Charges (Rs./KVA/month)		Energy Charges (Rs/kWh)	
	Existing Proposed Charges Charges		Existing Charges FY 2015-16	Proposed Charges FY 2016-17
For All Units	FY 2015-16 250	FY 2016-17 250	4.40	5.50

7.6.4 HT IV: HTFS/ Industrial (Ferro Metallurgical/Steel Melting/Power Intensive/ Steel Rolling)

Existing Applicability Clause	Proposed Applicability Clause
This schedule shall apply to supply of power having a Contract	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	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,	at 33 KV for Steel rolling industry and Metal Alloy, Steel Melting,
Ferro Alloy, and Ferro metallurgical industries all types of Ferro alloy	Ferro Alloy, and Ferro metallurgical industries all types of Ferro alloy
units where melting is involved using electric power.	units where melting is involved using electric power.

I. Tariff

Particulars	Fixed Charges		Energy Charges	
	(Rs./KVA/month)		(Rs/kWh)	
	Existing Proposed		Existing	Proposed
	Charges	Charges	Charges	Charges
	FY 2015-16 FY 2016-17		FY 2015-16	FY 2016-17
For All Units at 11kV / 33 kV	325	325	3.80	4.20

7.6.5 HT V: HTAG / Agriculture and other Allied Activities

a. HT-Agriculture (A)

Existing Applicability Clause	Proposed Applicability Clause	
This schedule shall apply to establishments for Irrigation pumping	This schedule shall apply to establishments for Irrigation pumping,	
and Agricultural purposes. It would include the following categories	De-watering & Lift Irrigation for cultivation of food crops such as	
but not limited to:	cereals, pulses, vegetables & fruits etc and Cane crusher and/or	
Poultry, Piggery etc	fodder cutter for self-use for Agricultural purposes.	
■ Horticulture, Green Houses, Plantations etc;		
Cane crusher and/or fodder cutter for self-use for agricultural		
processing purpose, but shall not be applicable for operating a		
flour mill, oil mill or expeller in the same premises, either		
operated by a separate motor or change of belt drive.		

I. Tariff

Fixed Charges (Rs./KVA/month)		Energy Charges(Rs/kWh)		
Existing Charges	Existing Charges Proposed Charges		Proposed Charges	
FY 2015-16	FY 2016-17	FY 2015-16	FY 2016-17	
35	35	1.40	1.40	

Note:

1 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.

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.

b. HT-Agriculture Allied Activities (B)

Existing Applicability Clause	Proposed Applicability Clause	
- 3	This schedule shall apply to establishments for other allied activities related to Agriculture and shall include but not limited to:	
	 Poultry farms, Livestock farms, Combination of livestock farms with dairy, Piggery etc Horticulture, Green Houses, Plantations etc 	
	Fish farms including ornamental fish farms, prawn farms, othe aqua farms etc	
	 Tissue culture, Mushroom activities, Aquaculture, Floriculture, Fisheries, Sericulture, Floricultural nurseries, hatcheries etc Any other agricultural activity not falling under HT-Agriculture 	
	(A) shall be covered under this category	

II. Tariff

Fixed Charges (Rs/kVA/Month)		Energy Charges (Rs/kWh)	
Existing	Proposed	Existing	Proposed
Charges	Charges	Charges Charges	
FY 2015-16	FY 2016-17	FY 2015-16	FY 2016-17
-	150.00	-	2.25

Note: 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.

7.6.6 HT VI: HTD/Domestic

Existing Applicability Clause	Proposed Applicability Clause
This schedule shall apply to individual residential consumers of	This schedule shall apply to individual residential consumers of
Bungalows, Villas, Cottages, etc. using normal domestic appliances	Bungalows, Villas, Cottages, etc. using normal domestic appliances,
and whose contract demand falls within the threshold limit of HT	educational institutions aided by State / Central Board, colleges aided
category.	by Goa University and whose contract demand falls within the
	threshold limit of HT category.

. Tariff

Particulars	Fixed Charges		Energy Charges	
	(Rs./KVA/month)		(Rs/kWh)	
	Existing Proposed		Existing	Proposed
	Charges Charges		Charges	Charges
For All Units	150	150	4.40	4.40

7.6.7 HT VII: HTTS/ Temporary Supply

Existing Applicability Clause	Proposed Applicability Clause
This schedule shall apply to usage of electricity for all temporary	This schedule shall apply to usage of electricity for all temporary
purposes.	purposes.

I. Tariff

Categories	Energy Charges (Rs/ kWh)		Minimum / Fixed Charges (Rs./kVA/day	
	Existing Charges FY 2015-16	Proposed Charges FY 2016-17	Existing Charges FY 2015-16	Proposed Charges FY 2016-17
Temporary Supply	9.90	9.90	Rs. 120 per kVA per day or part thereof.	Rs. 120 per kVA per month or part thereof.

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.

7.6.8 HT VIII: HT SPS Single Point Supply

Existing Applicability Clause	Proposed Applicability Clause		
This schedule shall apply to a group of consumers who desire to take	This schedule shall apply to a group of consumers who desire to take a		
a HT connection at single point for consumption of energy within a	HT connection at single point for consumption of energy within a		
Residential Complex – Group Housing Societies, Residential Housing	Residential Complex – Group Housing Societies, Residential Housing		
Colonies, Cooperative Group Housing Societies, Township Area;	Colonies, Cooperative Group Housing Societies, Township Area;		
Commercial Complexes, including Malls; Industrial Complexes,	Commercial Complexes, including Malls; Industrial Complexes,		
including IT Park, Bio-Parks or other entities classified as industries by	including IT Park, Bio-Parks or other entities classified as industries by		
Government of Goa	Government of Goa		

Note: 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) An all LT consumer mix area
- (ii) All HT consumer mix area
- (iii) HT+LT consumer mix area

. Tariff

The SPS applicant shall pay to ED-Goa the tariff as mentioned below, corresponding to the demand¹ and the input energy at the HT end of such supply:

Categories	Fixed Charges (Rs./kVA/day)		A/day) Energy Charges (R	
	Existing Charges Proposed Charges FY 2015-16 FY 2016-17		Existing Charges FY 2015-16	Proposed Charges FY 2016-17
Residential Complexes (RC)	100	100	3.25	3.25
Commercial Complexes (CC)	200	200	4.50	5.50
Industrial Complexes (IC)	200	200	3.90	4.30

Note:

- a) The General Conditions, Miscellaneous & General Charges would also be applicable for all SPS categories.
- b) Based on technical and administrative feasibility, the EDG 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 complex² / Association of Persons (AOP) / Developer of the complex or any other such similar person.
- d) The SPS arrangement would be considered by EDG only if the minimum sanctioned cumulative contracted demand of the complex (group of consumers) is 1.15 MVA/ 1 MW.

¹ Billing Demand would be as per pt 11 of 'General Conditions and Definitions' in the Chapter 8.1 of the MYT Petition

² Once the society is formed, the developer has to change the applicant's name in favour of the society

- e) The complete cost of erection and O&M for the sub-transmission and distribution infrastructure within such complex would need to be borne by the said SPS applicant.
- f) The SPS applicant would be required to develop and maintain an efficient, co-ordinated 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.
- g) For Residential Complexes, SPS application shall be entertained for group 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, such as commercial complex, industrial activity, and recreation club, along with the connected load to the licensee at the time of seeking 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%.
- h) Individual Domestic HT consumers in a residential complex that opts for SPS shall need to apply separately under HT Domestic category.
- i) The SPS applicant shall not charge tariff to the downstream consumers higher than stipulated above.
- j) The applicant shall be obliged to pay the total tariff (total billed amount) due to EDG, as measured at HT end of SPS. However, to cover energy transformation losses and other O&M expenses, such applicant would be eligible to get rebates from ED-Goa on full bill payment, within the due time:
 - i. 5% on the overall billed amount in all cases of LT & HT consumers.
 - ii. Any other loss would be to account of the applicant.

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 & Commercial load is say around 30%, then separate Individual SPD connection may be taken for each such group as per activity.

The implementation of SPS arrangement should be in accordance with the Electricity Act, 2003 and APTEL judgements in this regard.

7.6.9 HT IX: HTE/Education

Existing Applicability Clause	Proposed Applicability Clause
- 1 - /	This schedule shall apply to Bulk supply of power at 11 KV and
	above to educational institutions (Private Educational
	Institutions) not covered in above HTD/Domestic Category

II. Tariff

Particulars	Fixed Charges (Rs./KVA/month)			y Charges s/kWh)
	Existing Proposed Charges Charges FY 2015-16 FY 2016-17		Existing Charges FY 2015-16	Proposed Charges FY 2016-17
For All Units	-	200	-	3.50

7.6.10 HT X: HTP/ Ports

Existing Applicability Clause	Proposed Applicability Clause
-	This schedule shall apply to all ports connected on High Tension

II. Tariff

Particulars	Fixed Charges (Rs./KVA/month)		Energy Charges (Rs/kWh)	
	Existing Proposed Charges Charges		Existing Charges	Proposed Charges
For All Units	-	250	-	7.00

7.7 Schedule of Miscellaneous Charges for FY 2016-17

The Hon'ble Commission had approved Schedule of Charges in previous tariff order. ED-Goa proposes no changes in Schedule of General & Miscellaneous charges for FY 2016-17.

Table 7-1: Proposed Schedule of Miscellaneous Charges

Description	Existing Charge	Proposed Charges		
1) Monthly Meter Rental Charges(as per provisions of Regulation 7.3 (1) of JERC				
(Electricity Supply Code) Regulations 2010	1			
Single Phase LT meter	Rs.10/month	Rs.10/month		
Three Phase LT meter	Rs.20/month	Rs.20/month		
Three Phase LT meter with CTs	Rs.50/month	Rs.50/month		
LT Meter with MD Indicator	Rs.30/month	Rs.30/month		
Tri-vector Meter	Rs.1000/month	Rs.1000/month		
Temporary Supply	Shall be twice as	Shall be twice as		
	applicable in above	applicable in above		
	meter types	meter types		
Changing or moving a Meter board	Actual Cost + 15%	Actual Cost + 15%		

Note:

- (a) For all domestic and other LT loads less than 50 kW loads in Urban and Rural areas
- Static single phase / three phase meters
- (b) For LT (contracted load \geq 50 KW) / HT / EHT consumer Static, 3 Phase Tri-vector meters with MDI (MD Display)

2) Reconnection Charges

(as per provisions of Regulation 9.3 (c) of JERC (Electricity Supply Code) Regulations 2010

LT Services – At Cut outs		
Single Phase	Rs.25/-	Rs.25/-
Three Phase	Rs.50/-	Rs.50/-
LT Services – At Overhead Mains		
Single Phase	Rs.30/-	Rs.30/-
Three Phase	Rs.50/-	Rs.50/-
LT Services – At Underground Mains		
Single Phase	Rs.75/-	Rs.75/-
Three Phase	Rs. 125/-	Rs. 125/-
HT Services	Rs.200/-	Rs.200/-

Note:

If the same consumer seeks reconnection within 12 months from the date of reconnection or disconnection, 50% will be added to above charges

3) Re-Rating of Installations		
Lighting Installation	Rs.25/-	Rs.25/-

Description	Existing Charge	Proposed Charges
Motive Power Installation	Rs.50/-	Rs.50/-
4) Testing Fee for Various Metering Equipme (as per provisions of Regulation 7.4 of JERC (E		Regulations 2010
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	Rs.150/energy	Rs.150/energy
Meters	meter	meter
H.T & E.H.T. metering equipment	Rs 10000/- at site	Rs 10000/- at site
Transformer Oil	Rs.200/- per sample	Rs.200/- per
		sample
$3 - \emptyset$ Phase Tri-vector Meter Industrial LT	Rs.1000/- for	Rs.1000/- for
Consumer	laboratory testing	laboratory testing
3 − Ø Phase Tri-vector Meter 11 KV& 33kV	Rs.5000/- at site	Rs.5000/- at site
HT Consumer		
Three Phase Tri-Vector Meter 110 KV EHT	RS.1000/-at site	RS.1000 / -at site
Consumers		
Combined CTPT Unit for 11kV & 33kV	Rs 2500/-	Rs 2500/-
Consumer		
110KV CT / PT Unit	Rs10000/-	Rs10000/-
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
5) Service Connection Charges (as per provisions of Regulation 3.3 (3) of J 2010		
Single Phase 1 φ	Rs.250	Rs.250
Three Phase 3 φ	Rs.500 to Rs.1200	Rs.500 to Rs.1200
HT (First 500 KVA)	Rs.10000	Rs.10000
HT (Beyond 500 KVA)	Rs.20000	Rs.20000
Extra Length for 1 φ (beyond 30 metres)	Rs.50 /meter	Rs.50 /meter
Extra Length for 1 φ for agricultural consumers (beyond 300 meters)	Rs.50 /meter	Rs.25 /meter
Extra Length for 3 φ (beyond 30 metres)	Rs.100 /meter	Rs.100 /meter
Extra Length for 3 φ for agricultural consumers (beyond 300 metres)	Rs.100 /meter	Rs. 50 /meter

Description	Existing Charge	Proposed Charges
6) Testing Consumer's installation		
(as per provisions of Regulation 4.10 (6) of	JERC (Electricity Suppl	ly Code) Regulations
2010		
For first test of the new installation on or off	NIL	NIL
an extension to an existing installation if the		
installation is found to be defective.		
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 + ST
LS/BS/RT (loads Above 70kW)	Rs.8000 + ST	Rs.8000 + ST
7) Changing the Meter or its position in the		
same premises at the request of the		
consumer when no additional material is		
required (as per provisions of Regulation 6.3 c) of		
JERC (Electricity Supply Code) Regulations		
2010		
Single phase	Rs.100/-	Rs.100/-
3-phase without C.Ts	Rs.200/-	Rs.200/-
L.T. meter with C.T.s	Rs.500/-	Rs.500/-
	Rs. 8000 + ST	Rs. 8000 + ST
H.T & E.H.T. metering equipment 8) Re-sealing charges irrespective of the	KS. 6000 + 31	RS. 8000 + 31
8) Re-sealing charges irrespective of the number of seals involved against each		
item below and where seals found to		
have been broken by the consumer		
Meter cupboard / Meter Cubical / Box	Rs.50/-	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	Rs.50/-	Rs.50/-
phase).		
Maximum demand Indicator or C.T.s	Rs.50/-	Rs.50/-
chamber		
9) Service Charges		
General Supply		
Single Phase	Rs.10/-	Rs.10/-
Three phase below 70kW	Rs.20/-	Rs.20/-
Three phase above 70kW	Rs.50/-	Rs.50/-

Description	Existing Charge	Proposed Charges
Industrial/bulk/ agriculture /Street Lightning		
Supply		
• Upto70kW	Rs.25/-	Rs.25/-
Above 70kW	Rs.50/-	Rs.50/-
10) Replacement of broken glass		
Replacement of broken glass of meter	Rs.50/-	Rs.50/-
cupboard (When there is default on		
Consumer Side)		
Replacement of broken Glass of single phase	Rs.50/-	Rs.50/-
meter if the consumer has broken or tamper		
and with meter.		
Replacement of broken Glass of three phase	Rs.50/-	Rs.50/-
meter if the consumer has broken or tamper		
and with meter		
11) Supply of duplicate copies of electricity bills		
Domestic Consumers	Rs.5 per bill or	Rs.5 per bill or
	Rs.10 per statement	Rs.10 per
		statement
		-
Non Domestic consumers		
LT Industrial upto 20kW & AP Consumer		
H.T Industrial & Bulk supply consumer	Rs.5 per bill or	Rs.5 per bill or
	Rs.10 per statement	Rs.10 per
		statement

CHAPTER 8. SEGREGATION OF WHEELING AND RETAIL SUPPLY BUSINESS

8.1 Allocation Policy

8.1.1 EDG submits that as per Regulation 33 of MYT Regulations 2014 the allocation policy has been proposed in the Business Plan. The summary of the allocation statement based on which ARR/ MYT has been segregated into wheeling and retail supply business is given in the table below:

Table 8-1: Allocation Statement Wheeling & Retail Supply

Sr.	Cost Elements	Wheeling %	Retail Supply %
1	Power Purchase Cost & Transmission Charges	30%	70%
2	Employee Expenses	90%	10%
3	Administrative and General Expunses	75%	25%
4	Repairs and Maintenance Expenses	95%	5%
5	Depreciation	95%	5%
6	Interest on Loan	95%	5%
7	Interest on Working Capital	95%	5%
8	Return on Equity	95%	5%
9	DSM Expenses	25%	75%
10	Interest on Security Deposit	10%	90%
11	Non-Tariff Income	75%	25%

8.2 Segregation of Wheeling & Retail Supply ARR for Control Period

8.2.1 EDG submits that ARR for the control period has been projected in Chapter 5. Based on the above allocation statement, the segregation of ARR into wheeling & retail supply business for the control period is given in the table below:

Table 8-2: Segregation of ARR into Wheeling & Retail Supply for Control Period (Rs.Crs)

Sr.	Particulars	FY 20	FY 2016-17 FY 2017-18		FY 2018-19		
No.		Wheeling	Retail	Wheeling	Retail	Wheeling	Retail
			Supply		Supply		Supply
1	Cost of power purchase	374	873	408	951	446	1,040
2	Employee costs	231	26	235	26	239	27
3	R&M expenses	45	2	50	3	68	4
4	Administration & General	10	3	10	3	10	3
	expenses						
5	Depreciation	40	2	54	3	80	4
6	Interest on Loan & Finance	54	3	70	4	102	5
	charges						
7	Interest on Working Capital	6	0	7	0	9	0
8	Interest on Security Deposit	1	7	1	7	1	7
9	Return on NFA /Equity	33	2	46	2	70	4
10	DSM Expenses	1	4	1	3	1	3
11	Total Revenue Requirement	795	922	883	1,003	1,025	1,097
12	Less: Non Tariff Income	5	2	5	2	5	2
13	Net Revenue Requirement	790	920	878	1,002	1,020	1,095

8.2.2 The Hon'ble Commission is requested to approve the segregation of wires & supply ARR for the control period as per above table.

CHAPTER 9. OPEN ACCESS CHARGES FOR FY 2016-17

9.1 Approach for computation of Open Access Charges

- 9.1.1 EDG submits that as per Regulation 36 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.
- 9.1.2 In absence of relevant data for computation of open access charges, EDG requests Hon'ble Commission to consider the same approach as approved in Tariff Order FY 2015-16.
- 9.1.3 Accordingly, EDG has computed open access charges has considering the following wheeling losses for HT & EHT and allocation % for wheeling cost between HT & LT as approved in Tariff Order FY 2015-16.
 - Wheeling Loss at HT & EHT Level 3.636% (balance losses attributable to LT Level)
 - Wheeling Cost allocation for HT & EHT: LT = 53: 47

9.2 Computation of Wheeling Charges & Losses

9.2.1 Based on above and the projections for Sales and Wheeling ARR for FY 2016-17, the wheeling charges and losses for HT/EHT & LT are given in the table below:

Table 9-1: Wheeling Charges and Losses for FY 2016-17

Particulars	UoM	Amount
Total Input	MU	3,767.56
Input for HT & EHT Sales	MU	2,110.54
Losses for HT & EHT	%	3.6360%
Losses	MU	76.74
Sales at 11 kV & above	MU	2,033.80

Input for LT	MU	1,657.02
Losses at LT Level	MU	20.9%
Losses	%	347.11
Sales at LT Level (after	MU	1,309.91
DELP Savings)		
Balance	MU	-

Particulars	UoM	S.No.	FY 2016-17
Wheeling Cost	Rs.Crs	а	790.12
Wheeling Cost at EHT & HT	Rs.Crs	b=ax53%	420.69
Wheeling Cost at LT	Rs.Crs	c=ax47%	369.43
Energy Input at Discom Periphery	%	d	3,767.56
Wheeling Charge at EHT & HT Level	Rs/kWh	e=b/dx10	1.12
EHT and HT Losses	%	f	3.64%
EHT and HT Losses	MU	g	136.99
Sales at EHT and HT Level	MU	h	2,033.80
Energy Input at LT	MU	i=d-g-h	1,596.77
Wheeling Charge at LT Level	Rs/kWh	j=c/ix10	2.31
Sales at LT Level	MU	k	1,309.91
LT Losses	MU	l=i-k	286.86
Total Losses	MU	m=g+l	423.85
	%	n	11.25%

9.3 Computation of Cross Subsidy Surcharge

9.3.1 The open access consumers are liable to pay cross subsidy surcharge to compensate the distribution utility for any loss of revenue due to shifting of its consumer to the open access system. The cross subsidy surcharge for open access consumers for the year 2016-17 is calculated as per the following recommended formula in the Tariff Policy.

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

Where,

S = Surcharge

T = Tariff payable by the relevant category of consumers

C = Weighted average cost of power purchase of top 5% at the margin excluding liquid fuel based generation and renewable power.

D = Wheeling charges (Transmission and Distribution)

L = System losses for the applicable voltage level, expressed as a percentage.

9.3.2 The computation of top 5% power for FY 2016-17 is given below:

Table 9-2: Computation of Top 5% Power for FY 2016-17

S No	Source	Ex-bus Purchase (MU)	Reasons	VC (Ps/Unit)	Total Cost (Rs.Crs)	(Ps/Unit)	Top 5% Energy (MU)	Cost of Top 5% Energy (Rs Cr)
1	Renewable Energy Sources	73.04	Renewable	870.49	61.09	836.44		-
2	Solapur	35.57		389.00	13.84	389.00	35.57	13.84
3	Mouda	100.10		351.88	52.95	529.01	100.10	52.95
4	VSTPS -V	42.40		343.00	14.54	343.00	42.40	14.54
5	KGPP	65.79	RLNG	335.51	30.43	462.51		1
6	GGPP	68.92	RLNG	332.63	33.84	490.96		-
7	Lara I & II	19.48		327.00	6.37	327.00	19.48	6.37
8	TAPS Unit 3 and 4	86.52	Must Run	311.27	26.93	311.27		-
9	Mouda II	25.41		304.00	7.72	304.00	0.49	0.15
10	Traders / Open Market	89.36		300.00	26.81	300.00		-
11	RSTPS	721.72		260.74	236.89	328.23		-
12	KAPS Unit 1 and 2	116.54	Must Run	258.44	30.12	258.44		-
13	Goa Energy Private Ltd	107.52		241.11	25.92	241.11		-
14	Goa Sponge & Power Ltd	4.72		240.00	1.13	240.00		-
15	Sesa Goa Limited	55.00		240.00	13.20	240.00		-
16	VSTPS - I	273.91		161.45	66.98	244.51		-
17	VSTPS - II	98.58		157.79	21.96	222.76		-
18	VSTPS -IV	97.14		155.18	30.18	310.65		-
19	VSTPS -III	84.24		153.11	21.50	255.26		-
20	SIPAT- II	80.60		141.40	21.67	268.84		-
21	SIPAT- I	169.36		139.56	46.47	274.39		-
22	KSTPS	1,525.32		109.50	268.22	175.84		-
23	KSTPS-III	38.81		108.34	10.09	259.99		-
24	Baking Energy (returned)	(19.26)		-	-	-		
25	Total	3,960.79			1,068.85		198.04	87.85
Top 5% Volume of Energy 198.04 Must Run plants, Renewable and RLNG are not considered				ered while				
Cost	of Top 5% Energy	87.85	determining	Top 5% Po	wer Purcha	se Cost.		
Per U	Per Unit Cost 4.4361							

9.3.3 The computation of 'C' and Cross Subsidy Surcharge for important consumer categories is provided in the table below:

Table 9-3: Computation of Total Cost for FY 2016-17

	Calculation of Total Cost - Based on ARR FY 2016-17						
	Particulars Unit Upto 33 11 kV LT Le						
			kV				
C =	Weighted average cost of power purchase of 5% at the margin excluding UI and renewable power	Rs./Unit	4.44	4.44	4.44		
D =	Wheeling Charges	Rs./Unit	1.12	1.12	2.31		
L =	System Losses for the	%	3.64%	3.64%	20.95%		
	applicable voltage level						
Total	[C (1+ L / 100) + D]	Rs./Unit	5.71	5.71	7.68		

Table 9-4: Computation of Cross Subsidy Surcharge for FY 2016-17

Computation of Cross Subsidy Surcharge - FY 2016-17						
Major Co	onsumer Categories	Proposed	Surcharge	Surcharge	Surcharge at	
		Tariff	upto 33 kV	at 11 kV	LT Level	
		(Rs/kWh)	(Rs/kWh)	(Rs/kWh)	(Rs/kWh)	
1	Tariff HTI/Industrial	5.297	-	ı	-	
2	Tariff HTFS/ HT Industrial (Ferro	4.997	-	-	-	
	Mettallurgical/ Steel Melting/			71.77	10.0	
	Power Intensive/Steel Rolling)					
3	Tariff-HTC/Commercial	7.255	1.541	1.541	-	
4	Tariff-LTC/Commercial	4.172	-	-	_	
5	Tariff-LTI/Industries	3.811	-	-	-	

9.3.4 The Hon'ble Commission is requested to consider the above computations and approve appropriate CSS for FY 2016-17.

CHAPTER 10. COMPLIANCE OF THE DIRECTIVES OF HON'BLE COMMISSION

This section lists the directives issued by the Hon'ble Commission in the previous tariff order and the status of their compliances.

10.1 Status of Compliance of Old Directives

Table 10-1: Status of Compliance of Old directives

Sr.	Directives	Commission Comments in Tariff Order	Response to Directive
No.			
1.	The true up petition	The Commission has given time till 30 th Sept	It is to be submitted to the Hon'ble commission that the
	and audited accounts	2015 for completion of Audited Accounts till	status of Audited reports for the previous years is as
	submission	FY 2012-13 and also FY 2013-14.	follows:
			FY 2010-11: Audit Report from CAG available
			FY 2011-12: Reply from CAG awaited
			FY 2012-13: Draft FS would be submitted to CAG by 20 th
			Feb 2016 and it is targeted to finalise by 31 st March 2016.
			FY 2013-14 and 2014-15: Data collection from divisions is
			in the process. It is estimated that Audit of FY 2013-14 and
			FY 2014-15 would be completed by Sep 2016.
			ED-Goa submits that though there is delay in finalization,
			the efforts and the results are significant as the same was
			pending since FY 2007-08. ED-Goa also submits that unless
			previous year accounts are closed, the subsequent FY
			cannot be audited / initiated by Independent Auditors/

Sr.	Directives	Commission Comments in Tariff Order	Response to Directive
No.			
			CAG as the closing balances of previous year become
			opening balances for subsequent year.
2.	Preparation of Asset	Action taken is noted.	It is to be submitted to the Hon'ble commission that the
	and Depreciation	The ED-Goa is directed to expedite	status of FAR for the previous years is as follows:
	Register	preparation of the Fixed Asset Register for	FY 2013-14 and 2014-15: Data collection is in the process.
	(Ref. 7.1(A).2-page 215	FY 2013-14 and to submit a copy of the	The same will be informed to the Commission, once they
	of T.O.)	same by 30th September, 2015. GIS	are available.
		mapping of the assets should also be done	
		on a regular basis.	It is also submitted to the Hon'ble commission that, GIS
			mapping of the assets will be completed as the part of R-
			APDRP Part A by March 31 st , 2016.
3.	Energy Audit & T&D	The Commission directs ED-Goa;	It is submitted to the Hon'ble Commission that, Complete
	Losses	a) To provide meters at all feeders and	metering at feeder and transformer level will be
	(Ref. 7.1(A).3-page 217	report compliance by 30th September,	completed by March 31 st , 2016 as the part of R-APDRP
	of T.O.)	2015.	Part A. Once the meters are available the department shall
		b) To carry out energy accounting/audit on	carry out Energy Accounting on regular basis.
		Monthly basis and Quarterly basis for DT	
		wise.	Once the feeder and DT level metering is complete, it is
		c)To operationalize divisions/subdivision as	proposed that divisions and sub divisions will be given set
		business/cost centers	targets and eventually divisions and sub divisions will be
		Reports for FY 2014-15 to be submitted by	treated as business centers to increase professionalism in

Sr.	Directives	Commission Comments in Tariff Order	Response to Directive
No.			
		30 th Sept 2015.	operations.
4.	Employee Cost /	JERC directs that EDG will undertake a	It is submitted to the Hon'ble Commission that, Consultant
	Manpower study.	systemic manpower study report to identify	appointment file is under approval process by the
	(Ref. 7.1(A).4-page 220	areas where there is excess and work out a	Government of Goa. The report will be submitted to the
	of T.O.)	systemic plan to reduce the same. The	Commission once the study is completed.
		revised Manpower Study report to be	
		submitted by Sept 2015.	
5.	Interest on Security	The ED-Goa is directed to pursue the issue	It is submitted to the Hon'ble commission that the security
	Deposit	with the Government and pay the interest	deposit are paid to the Consumers as credit and the same
	(Ref. 7.1(A).5-page 222	to the consumers and send a report to the	is deducted from the bills on regular basis. It is being
	of T.O.)	Commission by June 30th, 2015.	rolled out in Panaji (Sample bill provided in the Annexure
			12) and will be eventually rolled out throughout the
			license area to all the consumers. The budget allocation is
			also done for paying security deposits to the consumers
			(Copy of letter for Budget allocation is attached with
			Annexure 10). The details of Interest accrued on security
			deposit are as follows.
			FY 2011-12 – Rs 1623821/-
			FY 2012-13 – Rs 28816581/-
			FY 2013-14 – Rs 41197534/-
6.	Action plan for	The Petitioner has not replied to the	It is submitted to the Hon'ble Commission that, the coal
	Alternative	directive given in the Tariff Order dated	block allocated to KSK Mahanadi is cancelled, with which
	arrangements for	April 15th, 2014. The petitioner is directed	MoU (PPA) had been signed. Hence the PPA signing with
	Supply of power	to report details of PPA for purchase of	KSK is ruled out till any further decision/ clarity on the

Sr.	Directives	Commission Comments in Tariff Order	Response to Directive
No.			
	(Ref. 7.1(B).1-page 223	100MW power from Chhattisgarh between	earlier allotted coal block.
	of T.O.)	the Government and KSK Mahanadi for	
		providing supply to the consumers by June	As an alternative, in order to secure power supply to the
		30th, 2015.	state, process has been initiated to tie up with UMPPs proposed in Chhattisgarh and commitment charges of Rs. 2 crores (Rs. 1 crore per 100 MW) are paid. However the project is deferred and it has been almost 6 years now without any concrete advancement.
			It is also submitted that the current supply availability of the state is 99% and the remaining peak load will be catered through power from Exchanges, traders and Banking arrangement.
7.	Details of Power Purchase from PPAs (Ref. 7.1(B).2-page 225 of T.O.)	The Commission reiterates its directives given and directs to furnish the details of PPA as called for. The ED-Goa is directed to report whether the IPP is supplying power directly to the consumer.	It is submitted to the Hon'ble Commission that the PPA signed with Reliance IPP has already expired in August 2014. ED-Goa has taken over the consumers in Reliance area and supplying power directly.

10.2 Status of Compliance of New Directives issued in T.O. FY 2015-16

Table 10-2: Status of Compliance of New Directives

Sr. No.	Directives	Commission Comments in Tariff Order	Response to Directive
1.	Creation of Separate Bank Account	The Commission directs that separate bank account be created for all earnings and expenditure of the Goa Electricity Department immediately. The Government of Goa will file a compliance report in this regards by end of May 2015. All the Government consumption of electricity and Government budgetary support, if any, would also need to be deposited into this account. However, the expenditure of EDG borne by Government in form of Plan and Non-Plan grants could be through normal	financial arrangements to be made in this regard are
2.	Unbundling of ED	a) As per the provisions of the Electricity Act 2003, the State Government should undertake unbundling of Electricity Department into various business functions so as to increase accountability and efficiency of the distribution and transmission functions. b) The State Government should also notify separate State Transmission Utility and	(Transmission) and Addl. CEE II (Distribution) posts are created in order to monitor the distribution function and

Sr.	Directives	Commission Comments in Tariff Order	Response to Directive
No.			
		SLDC.	
3.	Sub Divisions as Strategic Business Unit	The Commission suggests EDG to introduce the system of Cost-Revenue Centre Oriented Sub Divisions at least in two Divisions in its operational area and report results of the experiment to the Commission.	It is submitted to the Hon'ble Commission that pilot study is yet to be started. However, Once the feeder and DT level metering is complete, it is proposed that divisions and sub divisions will be given set targets and eventually divisions and sub divisions will be treated as business centers to increase professionalism in operations. The same will be informed to the Hon'ble Commission when it is taken up and results will be reported subsequently.
4.	Installation of Pre Paid Meters	The Commission directs EDG to obtain a copy of specification approved by CEA for pre-paid meters and to start implementation of pre-paid meters on pilot basis for Government offices in Town areas.	It is submitted to the Hon'ble Commission that, installation and implementation of Pre-paid meters for Government offices is under consideration and the status of the same will be informed to the Commission when accorded. However, the payments of the electricity bills charged to the Govt. offices are done through book adjustments.
5.	Capital Investment Plan and Monitoring	The Commission directs that petitioner would engage a Project Monitoring Consultants (PMC) for all projects costing more than Rs. 5 crores. The third party quality auditors will also be appointed for all projects costing more than Rs. 50 lakhs. The Commission also directs setting-up of Project Monitoring Cell for projects, to	It is submitted to the Hon'ble Commission that, PMC for the projects costing more than Rs.5 crores has been appointed. REC-PDCL a Government of India enterprise has been appointed as PMC for all the projects. (Copy of work order attached with Annexure 9)

Sr. No.	Directives	Commission Comments in Tariff Order	Response to Directive
		monitor the progress of these schemes on	
		real time basis, where PMC is not	
		appointed.	
6.	Arrears of Govt.	EDG is directed to provide details of Arrears	It is submitted to the Hon'ble Commission that, the
	Department	of Government Departments.	Arrears of the Government departments for the year FY
		The money owed by these Government	2013-14 and FY 2014-15 are Rs.40.61 Crores and Rs.35.29
		Departments should be directly deducted	crores respectively. It is also submitted that payments of
		from the budget of these Departments and	such arrears are done through Book adjustments.
		transferred directly to the separate bank of	
		EDG proposed in earlier direction.	
7.	Create a Central	ED-Goa is directed to Create a Central	It is submitted to the Hon'ble Commission that a
	Contracts/Tender Cell	Contracts/tender cell to promote	Contracts/tender cell is proposed to be created which
		transparency in the process of tendering	deals with tendering and awarding contracts for all the
		and project awarding, to ensure project are	projects above 2 crores. The proposal is in the final stages
		viable and awarded at a reasonable	of approval and will be intimated to the commission once
		minimum cost. The status of action taken	accorded.
		may be reported.	
8.	Strengthening of	Commission suggests that ED-Goa may	It is submitted to the Hon'ble Commission that the EDG
	Regulatory &	either strengthen its regulatory &	has already appointed Consultants for regulatory works.
	Commercial Cell	commercial team or engage consultant for	However, the existing setup of EDG is effectively/timely
		the same. The status of action taken may be	addressing all the JERC issues.
		reported.	
9.	Power Purchase	ED-Goa should finalize long term contracts	It is submitted to the Hon'ble commission that, the

Sr. No.	Directives	Commission Comments in Tariff Order	Respo	onse to Directive			
	Strategy	for power purchase, including the	currei	nt supply availa	bility of the s	state is 99%	and the
	,	competitive bidding immediately		r demand is me	•		
		, ,	•	tions are expec	•		
				ning peak load			
			Excha	nges, Power trac	ders and Banki	ng arrangeme	nt.
10.	MIS and Database	ED has to submit the Terms of Reference	It is s	ubmitted to the	Hon'ble com	mission that	MIS and
	Management	for the selection of experts for	DBMS	s issues will be	addressed thre	ough R-APDR	P Part A
	System(DBMS)	development / improvement of its MIS &	schen	ne. The status o	of the same wi	ll be informe	d to the
		DBMS to the Commission, for its review and	Comn	nission.			
		approval.					
11.	Electricity Duty Fund	ED-Goa is directed to submit details of	It is s	submitted to the	e Hon'ble Con	nmission that	the ED
		amount collected as electricity duty since FY	collec	ted by the Gove	rnment is as fo	llows:	
		2011-12 till FY 2015-16 and amount utilized	Sr.	Fin .Year	ED	ED Spent	
		for infrastructure development	No.		Collected	(Rs.Crs)	
					(Rs.Crs)		
			1	FY 2008-09	67.12	0.53	
			2	FY 2009-10	101.91	4.62	
			3	FY 2010-11	105.79	58.81	
			4	FY 2011-12	103.15	44.15	
			5	FY 2012-13	129.45	35.25	
			6	FY 2013-14	139.77	32.69	
			7	FY 2014-15	143.23	25.28	
			8	Total	790.42	200.8	

Sr.	Directives	Commission Comments in Tariff Order	Response to Directive
No.			
12.	Renewable Energy	ED-Goa in association with Goa Energy	It is submitted to the Hon'ble Commission that, GEDA in
	Obligation	Development Agency should try to explore	association with EDG is in process of preparation of Solar
		opportunities to develop Renewable Energy	Policy (a series of high level meetings were held in this
		in the State and should finalise the	regard) and the policy is the draft stage and the same will
		renewable energy policy for the State.	be in place very soon.
13.	Street Light Switching	ED-Goa is directed to make arrangements	It is submitted to the Hon'ble Commission that, the
	on and off	to Install electronic 'Timer Switches' for	installation of Timer switches is in the final stages of
		Streetlight installations for switching 'on'	Implementation and only MoU needs to be signed
		and 'off' at the required timings.	between EESL and EDG. As per the scheme, a Centralized
			Controlled and Monitoring System (CCMS) will be in place
			through which all the street lights will be switched ON
			and OFF using GPS technology. The scheme is named as
			Street Light National Program (SLNP). The details of the
			same will be informed to the commission once the MoU is
			signed.

10.3 Directives issued in the Business Plan order dated 22.12.2015

Table 10-3: Status of Compliance of Business Plan Directives

Sr. No.	Directives	Commission Comments in Tariff Order	Response to Directive
1.	Audit Accounts from FY	The Commission directs the Petitioner that the	It is to be submitted to the Hon'ble commission that the status
	2011-12 to FY 2014-15	finalisation of the audited accounts from the FY	of Audited reports for the previous years is as follows:

Sr. No.	Directives	Commission Comments in Tariff Order	Response to Directive
IVO.		2011-12 to FY 2014-15 be expedited and the	FY 2010-11: Audit Report from CAG available
		true-up Petition be submitted along with the	FY 2011-12: Reply from CAG awaited
		MYT Petition for the control period from the FY	FY 2012-13: Draft FS would be submitted to CAG by 20 th Feb
		2016-17 to FY 2018-19	2016 and it is targeted to finalise by 31 st March 2016.
		2010-17 to F1 2018-19	,
			FY 2013-14 and 2014-15: Data collection from divisions is in the
			process. It is estimated that Audit of FY 2013-14 and FY 2014-15
			would be completed by Sep 2016.
			ED-Goa submits that though there is delay in finalization, the
			efforts and the results are significant as the same was pending
			since FY 2007-08. ED-Goa also submits that unless previous year
			accounts are closed, the subsequent FY cannot be audited /
			initiated by Independent Auditors/ CAG as the closing balances
			of previous year become opening balances for subsequent year.
2.	Submission of Status	Petitioner to submit month-wise details of such	It is submitted to the Hon'ble Commission that, the status of
	report	incidents (related to electric shock - deaths) for	the same is readily available with the department and is
		past 2 years by 31st January 2016 after which	attached at Annexure V of this petition.
		the Commission shall take appropriate action.	
		The Commission directs the petitioner to	
		submit the status report of the physical	
		progress of R-APDRP Part A by September 30,	
		2016	
3.	Billing and Collection	The Commission directs the petitioner to	It is submitted to the Hon'ble Commission that, the department
	Efficiency	submit the quarterly report on the status of	will submit the quarterly report on status of collection and
		collection of arrears along with action plan of	arrears from the next financial year on regular basis.

Sr. No.	Directives	Commission Comments in Tariff Order	Response to Directive
		liquidating the arrears, if any.	
4.	Fulfillment of RPO	All pending RPO obligations up to FY 2015-16, if	It is submitted to the Hon'ble Commission that, the request
		any, must be fulfilled by the Petitioner by 31st	from EDG has been sent to the Hon'ble Commission regarding
		March 2016 and no backlog would be allowed	the current scenario in fulfilling the previous RPO in the current
		to be carried forward to the control period FY	financial year. EDG has ensured fulfilment of RPO for previous
		2016-17 to FY 2018-19. The Commission	year and the same was intimated to Hon'ble Commission vide
		expects that the Petitioner would give priority	letter no. 120/3/JERC/MYT/CEE/Tech/1664, dated 19.01.2016.
		to obtaining physical solar and non-solar power.	
5.	Capital Expenditure	The Commission directs the Petitioner to submit	It is submitted to the Hon'ble Commission that, the schemes
		the details of schemes duly approved by the	details will be submitted to the Hon'ble Commission once the
		Government in respect of the remaining	administration approval is accorded.
		schemes of Rs 83.18 Crores, for its	
		consideration (Schedule Tribe Development	It is submitted to the Hon'ble Commission that, the actual
		Scheme (P))	status of capitalization and Capital expenditure will be
		The Commission directs the Petitioner to submit	submitted along with ARR petitions of respective years.
		scheme wise actual progress with annual tariff	
		filings and the Commission will accordingly	It is submitted to the Hon'ble Commission that the department
		revisit the requirement of capital expenditure	will submit the details of the Capital expenditure for the works
		and capitalization for the ensuing years.	costing more than Rs.10 crores for the new schemes in line with
		The Commission directs the Petitioner to submit	the regulation 22(b) of the MYT Regulations 2014.
		the details of capital expenditure schemes of	
		Rs. 10 crores and more for prior approval of the	
		commission in line with Regulation 22(b) of the	
		MYT Regulations 2014.	
6.	Sales Connected Load and	The Commission directs the Petitioner to submit	The status of audited accounts is already submitted in earlier
	Number of Consumers	the projections again based on audited counts	response to directive.

Sr. No.	Directives	Commission Comments in Tariff Order	Response to Directive
		of FY 2011-12 and FY 2012-13 along with the	
		MYT Petition, along with newly created	
		categories along with MYT petition.	
7.	Norms for O&M norms	The Commission directs the Petitioner to submit	The status of audited accounts is already submitted in earlier
		the O&M norms again along with audited	response to directive. It is requested to retain the approved
		counts of FY 2009-10 and FY 2010-11;	figures and the actual figures will be submitted to the Hon'ble
		provisional accounts for FY 2011-12 and FY	Commission at the time of True-ups.
		2012-13 along with the MYT Petition	
8.	Unbundling and	The transmission and Distribution activities are	The status on Unbundling and Corporatization is submitted in
	Corporatization	to be separated and independent corporations	earlier response to directive.
		to be formed.	
		The companies formed under the Companies	
		Act will have a distinct legal identity, apart from	
		providing the management with financial	
		autonomy and more delegation of powers.	
		Further the new management structure ensures	
		financial accountability and better consumer	
		satisfaction.	
		The petitioner is directed to speed-up its efforts	
		in this regard and submit quarterly progress	
		report.	

CHAPTER 11. PRAYER TO THE HON'BLE COMMISSION

11.1 Prayer to the Hon'ble Commission

- 11.1.1 The Electricity Department, Government of Goa (EDG) respectfully prays to the Hon'ble Commission to:
 - a) Accept the petition for Annual Performance Review of FY 2015-16 and Multi Year Tariff for the Control Period of FY 2016-17 to FY 2018-19 and Tariff Proposal for FY 2016-17 which is in line with the principles laid by Joint Electricity Regulatory Commission contained in MYT Regulations 2014 and Tariff Regulations 2009;
 - b) Approve the Review of Revenue Requirement for FY 2015-16 at Rs. **1,522.96** Crores, ARR for FY 2016-17 at Rs. **1,710.06** Crores, ARR for FY 2017-18 at Rs. **1,879.20** Crores and ARR for FY 2018-19 at Rs. **2,115.42** Crores.
 - c) Approve the proposed Revenue Gap for FY 2015-16 amounting to Rs. 135.53 Crores on provisional basis and this revenue gap 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 2016-17;
 - e) Approve the proposed Revenue Gap of Rs. **270.28** Crores, Tariff Increase of Rs. **77.01** Crores and remaining revenue gap to be met by 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.
 - f) The delay in filing this MYT Petition may please be condoned and the Hon'ble Commission is requested to accept this Petition and process the same.
 - g) Pass suitable orders with respect to APR for FY 2015-16 and MYT for FY 2016-17 to FY 2018-19 for the expenses to be incurred by ED Goa for serving its consumers;
 - h) Approve DELP scheme as DSM initiate by the department under DSM Regulations 2014 and also approve the energy saving potential under this scheme

- i) Condone any inadvertent omissions/errors/shortcomings and permit EDG to add/change/modify/alter this filing and make further submissions as may be required at a future date.
- j) Pass such further orders, as the Hon'ble Commission may deem fit and appropriate keeping in view the facts and circumstances of the case.

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 I: CGS share allocations for peak hours and off peak hours

			CALCULA	ATIONS F	OR ALLO	CATION C	GIONAL PO DE SHARE IS (FROM 1	S WITH E	FFECT from	m 00:00 H	rs 30.10.20	15				
		KSTPS	иетпе і	VSTPS-II	метре и	KGPP	GGPP	SIPAT-II	KAPP	TAPP 3&4	KSTPS-7	SIPATH	VSTPS-IV	MSTPS-I	VSTPS-V	TOTAL
Installed Capacity (MW)		2100.00	1260.00	1000.00	1000 00	656.20	657.39	1000.00	440,00	1080.00	SOC GC	1980.00	1000.00	1000.00	500.00	14173.55
Firm allocation		1790.00	1070.90	850.00	850.00	558.DC	558.00	850.00	374.00	918.00	350 00	1683.00	850.00	850.00	425.00	11976_DD
Power to be sold outside long Un-allocated share	term PPA	310.00	190.00	150.00	150.00	98.20	99 29	180.00	66.DD	162.D3	75/3D 75/30	257.00	160.D3	160.00	75.DD	75 DD 2122.59
Allocation of bundling with	eolar Doume			100.00	100,00	90.20	59 59	180.60	00.00	102.04	75/36	257.00	100.03	100.00	15.00	2122.09
Maharashtra (NVVN coal pow		3.84	2.35	1.86	1.86			1.86			D.93	3.68	1.8E	1.86	0.93	21.00
Rajgarfi solar PV Project to M	IPPMCL	9.13	5.60	4.42	4.42			4.42			2.21	8.75	4.42	4.42	2.21	50,00
Chaitlisgath(NVVN Coal Pows	er'i	4.57	2.80	2.21	2.21 141.51	50.00	00.70	2.21	50 BD	-60.00	1.11	4.38	2.21	2.21	1,11	25 DD
Balance un-allocated share Specific allocation out of Ur	nationated ob	292.45	179.25	141.51	141,51	58.20	99.29	141,51	66.DD	162.D0	7D.7E	2E0.2D	141.61	*41.51	70,76	2D26.59
Allocation to DD	ilanouatou ui	40.00				28.99	29 31		4.00							102.30
Allocation to DNH		18,00				55.99	56.46									122.45
Allocation to Powerprid (HVDA			2.52													2.52
Allocation to Powergrid (HV5) BARC Facilities (TAPS-384)	C-VIN)	2.00	9.76 0.00	0.00		0	0			10.03						0.76 70.00
Allocation to Goa		2.472	6.00	6.00		12.37	12.63			18.09						25.00
Madnya Prapesh		52.63	32.2E	25.47	25.47			25.47	11.21	27.50						200.00
Heavy Water Plant of DAE									14.00							14 00
NVVN A'd BPD6		40.00	10.000	15.00	15.00	D	D	20.00	0.00	5.D0	20.00	0.00	3d.d	0.00	70.00	100.00
Balance un-allocated share FIRM ALLOCATION IN MW		149.83	133.71	101.05	101.05	0.85	0.99	96,05	36.75	124.50	70.76	286.20	141.51	141.51	70.76	1449.56
Gujaral		360.00	230.00	239.00	266.00	187.00	237.00	273.00	125.00	274.00	96.00	540.00	239.92	239.92	53,45	3400.29
Madhya Pradesh		400.00	385.00	273.00	200.00	140.00	117.00	143.00	93.00	180.00	52.50	283.00	255.41	156,41	127.66	2817.18
Ohhalt sgam		210.00	0.00	0.00	105.00	0.00	0.00	158.00	0.00	4E.D1	75.0£	313.00	62.55	62.55	40.20	1074.3D
Maharashtra		610.00	410.00 35.00	319.00	258/00 10/00	204.00	200.00	258.00	137.00	393.DI	10E.20 4.50	510.00 20.00	270.48	370.48		4197.05
GOA DD		210.00	5.00	12.00 3.00	5/3D	2,00	0.00 2.00	10.00 4.00	: 5.00 2.50	11.00 5.00	1 6D	8.00	11.20 3.85	11.20 3.89	5.18 3.87	355.08 49.25
DNH		0.00	5.00	4.00	6/JD	25.00	2.00	4.D3	2.00	7.D3	2.20	9.00	5.65	5.55	5.55	82.85
													850.00			
TOTAL		1790,00	1070.00	850.00	850.00	558.00	558.00	850.00	374.00	318.00	350.00	1683.00	850.00	850.00	425.00	11976.00
Power to be sold outside to	ASS met ge						_				_				_	
BEPHCL											75.00					79.00
ALLOCATION OF 15% UNAI	LLOCATED S	HARE IN MY	V													
Gujarat	0.00 %	0.00	0.00	0.00	DAID	0.00	0.00	0.00	0.00	E.D/3	0.00	0.00	0.00	0.00	0.00	0.00
Madhya Prapesh Chhathsgam	17.22 % 0.00 %	25.80 0.00	23.D3 D.DD	17.40 0.00	17.40 0.00	0.55 0.00	0.17 0.00	16.54 0.00	6.34 0.00	21.44 0.00	12.18 0.00	48.25 0.00	24.37 0.00	24.37 0.00	12.18 0.00	249 61 0.00
Maharashtra	37.17 %	55.69	45.70	37.58	37.56	D.32	0.37	35.70	13.58	45.28	26.30	104.15	52.60	52.60	26.30	538.82
COA	D.37 %	£.55	0.49	0.37	D.37	0.80	0.00	0.36	0.14	0.45	D.26	1.0△	0.62	4.52	D.26	5.36
DD	2.54 %	3.81	3.40	2.57	2.57	0.02	0.03	2.44	4.53	2.15	1.80	7.12	3.55	3.59	1.60	36 E2
DD - Specific Allocation	35.80 %	△0.00 53.64	6.00 47.87	0.00 38.17	0.00 36.17	28.99 0.30	29.21 0.35	0.00	≏.00 13.17	0.00 44.57	0.00	0.50	0.00	0.00 90.66	0.00	102.30 518.94
DNH - Specific alocation	35.80 %	10.00	0.00	86.17 0.00	36.17 D/JD	55.99	56.46	34.38 0.00	0.00	6.00	25.33 0.00	100.31 0.00	50.66 0.00	4.00	25.33 0.00	518.94 122.45
Goa - Specific allocation		0.00	E.DC	0.00	DAID	12.37	12.63	0.03	9.00	5.03	0.00	0.00	20.DE	4.03	0.00	25.DD
Madhya Prapesh		52.52	32.2E	25.47	25.47	0.20	0.00	25.47	61.21	27.51	0.00	0.00	0.00	0.00	0.00	200/00
Allocation to Powergrid (HVD)			2.52													2 52
Allocation to Powergrid (HV BARC Facilities (TAPS-384)		0.00	0.76	0.00	0.00	0.00	0.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.76
Heavy Water Plant of DAE	,	u.1011	0.00	0.00	0.00	0.00	0.00	0.00	14.00	18.00	0.04	ν.υν	0.00	0.00	0.00	14.00
Maharashtra(NVVN coal por	wer)	3.84	2.351	1.86	1.86			1.86	17.00		0.93	3.68	1.86	1.86	0.53	21.00
Jammu and Kashmir	·	10.34	9.22	6.97	6.37	0.06	0.07	6.63	2.54	8.53	4 88	19.33	9.76	9.76	4.88	100.00
NVVN AJe BPDB	MORRES	40.00	10.00	15.00 4.42	15/00 4.42	0.00	0.00	20.00 4.42	0.00	0.00	0.00	0.00	0.00 4.42	0.00	0.00 2.21	100.00
Rajgarh solar PV Project to Chattiagarh(NVVN Coal Pov		3.13 4.57	5.60 2.80	2.21	2.21	0.00	0.00	2.21	0.00	0.00	2.21	8.75 4.38	2.21	4,42 2,21	1.11	50.00 25.00
BSPHCL	na	4-41	2.00	E.C.1	2.21	0.00	0.00	2.21	0.00	9.00	75.00	4.40	2.21	2.21	1,41	75.00
TOTAL		2100.00	1260.00	1000.00	1000.00	656.20	657.39	1000.00	440.00	1880.00	500.00	1380.00	1000.00	1000.00	500.00	14173.55
Sharse in %																
Constituents		KSTPS 17.1428	VSTPS-I 18.2540	VSTP\$4I 23.9000	VSTP\$-III 26 6000	KGPP 28 4974	GGPP 36.0517	\$IPAT 27,3000	KAPP 28,4091	TAPP 3&4 25.3704	KSTPS 7 19.2000	\$IPAT1 27.2727	VSTP\$HV 23.9920	MSTPS 23.9920	VSTPS-V 18.6900	
Gujarat Madhya Pradash		22.7625	34.9431	23.9000 31.5667	24.2867	21.3574	17.8236	18,5006	25,1231	25.3104	14.5368	19,7298	28.0779	18.0779		
Chhattisgarh		10.0000	0.0000	0.0000	10.5000	0.0000	0.0000	15,8000	0.0000	4.4444	15.0000	15.8080	6.2550	6.2550	8.0400	
Maharashtra		31.6997	36.4844	35 6560	29 5560	31,1362	30,4792	29,3702	34.2448	40.6738	26.5003	31.0178	32,3083	42.3083	35.0383	
G04		10.0263	2.8170	1.2374	1.0374	1.8856	1.9218	1.0355	3,4400	1.0611 0.7558	0.8524	1.0625	1,1724	1,1724	1.0884	
DD DNH		2.0860 3.0305	0.6664 4.1560	0.5567 4.0175	0.7567 4.2175	4,7259 12,3886	4,7666 8,9467	0.6440 3.8385	1.5760 3.4483	4,7750	0.6794 5.5062	0.7635 5.5288	0.7483 5.6212	0.7483 5.6212	1.1333 6.1762	
Allocation to Powergrid (HV	/DC-BHD)	secretal	0.2000			,,,,,,,,	-,091					2.02.00	0.0000	0.0000		
Allocation to Powergrid (HV	/DC-VIN)		0.0603										0.0000	0.0000	0.0000	
BARC Facilities (TAPS-384)		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000 3.1818	1.9259	0.0000	0.0000	0.0000 0.0000	0.0000	0.0000	
Heavy Water Plant of DAE Maharaehtra(NVVN coal por	MARC)	0.1627	0.1866	0.1656	0.1656	0.0000	0.0000	0.1856	3,1818 0.0000	0.0000	0.1856	0.1856	0.0000 0.1856	0.0000	0.0000 0.1856	
Jammu and Kashmir		0.4922	0.7321	0.6971	0.6971	0.0089	0.0104	0.6626	0.5769	0.7952	0.9763	0.9763	0.9763	0.9763	0.9763	
NVVN A/C BPDB		1,5048	0.7987	1.5000	1.5000	0.0000	0.0000	2.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
Rajgarh solar PV Project to		0.4350	0.4443	0.4420	0.4420	0.0000	0,0000	0.4420	0.0000	0.0000	0.4420	0.4420	0.4420	0.4420	0.4420	
Chattlegarh(NVVN Coal Pov BSPHCL	Met	0.2175	0.2221	0.2218	0.2210	0.0000	0.0000	0.2210	0.0000	0.0000	0.2210 15.0000	0.2210	0.2210	0.2210	0.2210 0.0000	
TOTAL		100.0000	100.0000	100 0000	100 0000	100,0000	100.0000	100.0000	100.0000	100.0000	100.0000	100,0000	100.0000	100.0000		
-																

Note: (I) Allocation from unallocated quots of coal based stations of NTPC for unbunding solar power under JLNNSM (Phase-I) in WR changed as per MOP Letter No.13/06/OM dated 12.02.2013 8 NovN/SO 8 Commit/JNNSM/Phase-1 dated 25.02.2013

SHEET NO 1

VINSUIS

REA_Share_alloctating_VSIPS-V_501015

			CALCULA FOR	TIONS FOR	R ALLOCA	ATION OF	SHARES	WITH EFF HOURS &	ECT from	00:00 Hrs 1 FO 2400 H	of 30.10.20 IOURS)	115				
		KSTPS	VSTPSH	VSTPSHI	VSTPSHII	KGPP	GGPP	SIPAT-II	KAPP	TAPP 384			VSTPS-IV	MSTPSH	VSTPS-V	
Installed Capacity (MW)		2400.DC	1250.00	1000.00	1000.00	656,20	657.39	1000.00	440.00	1050.00	500.D0	1990.00	1000.00	1000,00	500 00	
Firm alliceation Power to be soid outside long.	Iem EPA	1730.00	1070.00	850.00	850,00	558_00	558,00	850_00	374.00	915,00	350 00 75 D2	1683.00	850.00	850.00	425 00	1197E.00 75.00
Un-allocated share		310.00	198,30	163.03	160,03	58.20	99,39	150,50	66.30	162.50	75.00	297 05	150.50	150 00	75,00	2122.59
Affectation of bungling with a																
Maharashta (NVVN coal pow Rasgarti solar ™ Project to Mi		3.84 9.13	2.35 5.60	1.86 4.42	1.86 4.42			1 56 4 42			2.21	3 68 8 75	1.86 4.42	1.85	0.53 2.21	21 90 50 00
Chattisgarh/NVVN Coal Powe		4.57	2.80	2.21	2.21			2 21			1.10	4 38	2.21	2.21	110	25 OC
Balance un-allocated ahare		292.4E	179.25	141.51	41.51	98.20	99.39	141.51	66.00	182.00	70.76	280.25	141.51	141.51	70.76	2026.59
Specific allocation out of Un A ocation to DD	sillocated er	40.00				28.99	29.31		4.00							102 30
A ocation to DNH		10.00				55.29	59.45									122:45
A ocation to Powergrid (HVD)			2 52													2.52
Allocation to Powergrid (HVDX	C-MN)	8.78	0.75	7.07		7.50	7.07			. 7.50						5.75
BARC Facilities (TAPS-384) A ocation to Goa		0.00	0.00	d.D3		0.50 12.37	12.63			: 0.50						10.00 25.00
Madhya Pradesh		52.53	37.25	25.47	25.47			25.47	11.21	27.50						200 00
Heavy Water Plant of DAE									14.00							14.00
NVVN A/c BPD5 Balance un-allocated share		40.00 149.83	10 DOC 133.71	15.00 101.05	15.03 101.05	0.85	0.55	20 00 96 05	5.00 36.73	0.50 124.50	70.76	0 00 280.28	0.53 141.51	0.65 141.51	70.76	100:00 14:03:56
FIRM ALLOCATION IN MIN		140.00	1567.7.1	101.00	101.00	0.03	u.s	24 112	36.73	124 30	ru.ru	200.20	141,31	141.71	10.76	14-64-34
Sujarat		360.00	230,00	239.00	266.00	187.00	237.00	273 90	125.00	274 00	96.00	5≜0 0€	239.92	239.92	53.45	3400.29
Madhya Praciesh		400.00	385 00	273.00	2D0_D0	140.00	117,00	143 DD	93.00	180.00	62.50	283 00	256 41	15E 41	127 86	2E17.18
Chriatragam Maharashtra		210.00 610.00	0.00 410.00	3.00 319.00	105.00 258.00	0.50 264.00	0.00 200.00	158.00 258.00	0.90 137.00	48.00 393.00	75.00 106.20	313.00 510.00	62.55 270.48	62.55 370.48	40.20 148.89	1074.30 4197.05
GOA		210.00	35.00	12.00	10.00	0.00	0.00	10.00	15.00	11.00	4.50	20.00	11.20	11.20	5.1B	355 08
DD		0.00	5 00	3.00	5.00	2.00	2.00	4.00	2.00	5.00	1.60	8.30	3.69	3 89	3.E7	49.25
CNH		0.00	5 00	4.00	6.00	25 DO	2.00	4.00	2.00	7.69	2.20	9 00	5.55	5 55	5.55	82 85
TOTAL		1790.08	1070.00	8:50.00	850,00	558 DO	558,00	850,00	374.00	918.00	350.00	1683.00	850.00	850.00	425 00	11576.00
Power to be sold autaids for	ng term PPA															
BSPHCL	ng sommer -	1						1 1			75.00		1 1		7.0	75.00
	_							1			75.00					/5.001
ALLOCATION OF 15% UNAL SUBJECT	LOCATED:	D.00	D.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Madhya Praciesa	19.54 %	29.28	25 13	19.74	19.74	0.17	0.19	18,77	7.19	24.33	13.83	54.75	27.65	27.65	1383	283.24
Christisgam	0.00 %	0.00	0.00	0.00	4.00	D.D0	0.00	0.00	0.00	0.80	0.00	0.00	0.00	DDD	0.00	0.00
Maharashta	27.07 %	55.54	49,57	37.45	37,46	D.32	0.37	35 E1	13 64	46.15	25.23	103.87	52.46	52.4E	26.23	537.37
GOA CD	1.47 % 6.98 %	2.20 10.45	1 97 9 33	1.49 7.05	1.49 7.05	0.01 0.06	0.01 0.07	1.41 6.70	0.54 2.57	1.53 8.59	1 D4 4 94	4 12 19 56	2.08 9.88	2.08 9.88	1 54 4 54	21.31
DD - Specific Allocation	0.50 %	40.00	0.00	0.00	9.00	28.99	29.31	0.20	4.00	0.00	DIDD	19 36	9,00	5.00	4 54	192.38
ONH	28.54 %	42.01	37.49	28.33	28.33	0.24	G.28	26.53	10.32	34.91	19.84	78.57	39.68	35.68	1934	406.46
DNH - Specific allocation		10.00	0.00	0.00	9.00	55.59	56.46	0.00	0.00	0.00	0.00	0.00	0.00	E.DC		122.45
Goal- Specific adocation Madhya Pracesh		0.00 32.53	0.00 32.28	0.00 25.47	0.00 25.47	12.37	12.63 6.60	0.50 25.47	1:12:	0.00 27.50	0.DD	0.00	0.00 0.00	D.DC	0.20	25.00 200.00
A location to Powergnd (HVEX	C-BHD(00.00	2.53	20,47	20,47	0.00	0.00	20,41	17.21	27.00	4,04	5.50	0.50	D-00	0.0	5.55
A location to Powergnd (HVEK			3.76													9.7€
BARC Facilities (TAPS-584)		5.00	5,05	9.03	4.00	0.20	0.00	0.00	0.00	193.E0	2.00	0.00	0.00	0.05		10.00
Heavy Waler Plant of DAE									14.00							14 00
Jammu and Kashmir	6.90 %	15.34	8.22	6.97	6.97	0.26	0.07	6.E3	2.54	3.59	4.85	19.33	9.76	5.7E	4.88	102.02
NWW AR EPOB		45.00	10.00	15.00	15.00	3.50	0.00	20.00	0.00	0.60	2.00	0.00	0.00	D.GC	0.00	100.00
Total		292.4G	179.25	141.51	141.51	88.20	99.39		66.00	162.00	70.76	280.20	141,51	141,51	70.76	2026 59
Total ABocation (Firm + Spe Gujarat	CITIC SHOCAE	360.00	230 00	239.00	266.00	187.00	6 BOIG OUT		125.00	274.00	96.00	540.00	299.92	255.52	93.45	3400.29
Madhya Pradeah		481.91	443 39	318.21	245.21	140.17	117, 19	187.23	111.40	231.83	76 33	337.75	284.06	184.06	141.69	3300 42
Chhaltlegarh		210.00	0.00	0.00	105.00	0.00	0.00	158.00	0.00	48.00	75.00	3134040	62.55	62 55	40.20	1074 30
Maharsehtra GO4		665.54 212.20	459.57 36.97	356.46 13.43	295.46 11.49	264 32 12.36	200.37 12.64	293_61 11.41	150.64 15.54	439.15 12.83	134.43 5.54	613.87 24.12	322 54 13.28	422 94 13.28	175.12 6.22	473442
DD		212.20 50.46	36.91 14.33	10.05	12.05	31.05	31.38	10.70	15.54 8.57	13.65	6.54	27.56	13.28	13.28	6.22	252.73
DNH		52.01	42 A9	32.33	34,33	81.23	58,74	30.93	12.32	41.91	22.04	87.57	45.23	45.23	25.39	611,76
Allecation to Powergrid (HV	DC-BHD)		2.52													2.52
Allocation to Powergrid (HV BARC Facilities (TAPS-\$&4)	UC-VIN)	0.00	0.76 0.00	0.00	0.00	0.60	0.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00		0.76 10.00
Heavy Water Plant of DAE		0.00	0.00	0.00	4.50	0.00	0.50	0.00	14.00	142.00	u.s/u	5.50	4.04	0.40		14.00
Maharaahtra(NVVN coal por	VBF)	3.84	2.35	1.86	1.86			1.86			0.93	3.66	1.86	1.86	0.93	21.00
Jammu and Kashmir		10.34	9.22	6.97	6.97	0.06	0.07	6.63	2.54	8.59	4.68	19.33	9.76	9.76	4 B8	100.00
NVVN A/c BPDB Raigarh solar PV Project to I	MPPMCI	46.00 9.13	10.00 5.60	15.00 4.42	15.00 4.42	0.00 0.00	0.00	20_B0 4_42	0.00 0.00	0.00	0.00 2.21	0.00 6.75	0.00 4.42	8.00 4.42	2.21	100.00 50.00
Chattiagarh(NVVN Coal Pow		4.57	2.80	2.21	2.21	0.00	0.00	2.21	0.00	0.00	1.10	4 36	2.21	2.21	1.10	25 00
BSPHCL											75.00					75.00
TOTAL Sharee in %		2100.00	1260.00	1000.00	1000.00	E56.20	657.39	1000.00	440.00	1080.00	500.00	1380.00	1000.00	1000.00	500.00	14173.59
Congtituerris		KSTPS	VSTPS-I	VSTPSHI	VSTPSHII	KGPP	GGPP	SIPAT	KAPP	TAPP 384	KSTPS 7	SIPAT1	VSTPS4V	MISTPS 4V	VSTPS-V	1
Gujarat		17.1428	18,2540	23.9000	26.6000	28.4974	36.0517		28.4091	25.3784	19.2000	27.2727	23.9920	23.9920	18.6900	
Madhya Pradeah		22 9480	35.1693	31.8212	24,5211	21,3683	17,6271	18,7235	25,3171	21_4658	15 2651	17.0581	28.4062	18.4062	28.3372	
Chisclingarh Maharaphtra		10 0000 31 6926	0.8088 36 4738	0.0000 35.6460	18.5808 29.5460	0.0000 31.1361	8.0000 30.4791		0.0000 34.2364	40,6622	15.0000 26.8861	15.8081 31.0037	6.2550 32.2940	6.2550 42.2940	8.8400 35.0240	
		10.1049		1.3484	1.1485	1,6870	1.9234		3.5320	1 1881	1.1080	1.2181	1.3280	1.3280	1.2440	
1904		2 4028	1.1376	1.0053	1,2053	4.7317	4.7733	1.07.04	1 3473	1.2976	1.3078	1 3918	1.3768	1.3768	1.7618	1
GO4 DD				3.2334	3.4334	12.3786	8.9350	3.0532	2,7994	3,8804	4.4061	4 4226	4.5231	4,5231	5,0781	
DD DNH	no nem	2,4767	3.3725	3.2300											p mage	
DD DNH Allocation to Powergrid (HV	DC-BHD)	2.4767	0.2000	2.2.00											0.0000 0.0000	
DD DNH Allocation to Powergrid (HV Allocation to Powergrid (HV	DC-VIN)	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.9259	0.0000	0.0000	0.0000	0.0000	0.0000 0.0000 0.0000	
DD DNH Allocation to Powergrid (HV Allocation to Powergrid (HV BARC Facilities (TAPS 384) Heavy Water Plant of DAE	DC-VIN)	0.0000	0.0000 0.0000 0.0000	0.0000	0.0000				3 1818						0.0000 0.0000 0.0000	
DD DNH Glicotton to Perwergrid (HV Allocation to Perwergrid (HV BARC Facilities (TAPS -38-4) Heavy Water Plant of DAE Waharsahtra(NVVN coal por	DC-VIN)	0 0000 0.1827	0.2000 0.0603 0.0000 0.0000 0.1866	0.0000 0.1856	0.0000	0.0000	0.0000	0.1856	3 1818 0 0000	0.0000	D.1856	0.1656	0.1856	0.1856	0.0000 0.0000 0.0000 0.1856	
DD DNH Glicostion to Powergrid (HV Allocation to Powergrid (HV BARC Facilities (TAPS-384) Heavy Wafer Plant of DAE Maharsehtra(NVVN coal pow Jammy and Kaehnir	DC-VIN)	0 0000 0 1827 0 4522	0.2000 0.0603 0.0000 0.0000 0.1866 0.7321	0.0000 0.1856 0.6971	0.0000 0.1856 0.6871	0.0000	0.0000	0.1856 0.6626	3 1818 0 0004 0 5769	0.0000 0.7952	0.1856 0.3763	0.1656 0.9763	0.1856 0.9763	0.1856 0.9763	0.0000 0.0000 0.0000 0.1856 0.9763	
DD DNH Allocation to Polwergrid (HV Allocatio	DC-VIN) VBF)	0 0000 0 1827 0 4922 1 3048 0 4349	0.2000 0.0903 0.0000 0.0000 0.1966 0.7321 0.7937 0.4443	0.0000 0.1856 0.6971 1.5900 0.4420	0.0000 0.1856 0.6971 2.5800 0.4420	0.0000 0.0085 0.0000	0.0000 0.0104 0.0000 0.0000	0.1856 0.6626 2.0000 0.4420	3 1818 0.0000 0 5769 0.0000 0.0000	0.0000 0.7952 0.0000 0.0000	0.1856 0.9763 0.9900 0.4420	0.1656 0.9763 0.0000 0.4420	0.1856 0.9763 0.0000 0.4420	0.1856 0.3763 0.0000 0.4420	0.0000 0.0000 0.1356 0.9763 0.0000 0.4420	
DD DNH Calecation to Pewerprid (HV Alecation to Pewerprid (HV Alecation to Pewerprid (HV Alecation to Pewerprid (HV BARC Facilities (TAPS-348) Heavy Wafer Plant of DAE Rearrasehtra(NV-VN coal pow Jammu and Kashmir NV-VN AX; BPDB Ragarih solar PV Project to: Chattlegarih(NV-VN Coal Pow	DC-VIN) VBF)	0 0000 0 1827 0 4922 1 3048	0.2000 0.0903 0.0000 0.0000 0.1966 0.7321 0.7937 0.4443	0.0000 0.1856 0.6371 1.5900	0.0000 0.1856 0.6871 2.5800	0.0000 0.0085 0.0000	0.0000 0.0104 0.0000	0.1856 0.6626 2.0000	3 1818 0.0004 0.5769 0.0004	0.0000 0.7952 0.0000	0.1856 0.9763 0.9000 0.4420 0.2210	0.1656 0.9763 0.0000	0.1856 0.9763 0.0000	0.1856 0.3763 0.0000	0.0000 0.0000 0.1356 0.9763 0.0000 0.4420	
DD DNH Allocation to Polwergrid (HV Allocatio	DC-VIN) VBF)	0 0000 0 1827 0 4922 1 3048 0 4349	0.2000 0.0903 0.0000 0.0000 0.1965 0.7321 0.7337 0.4443 0.2221	0.0000 0.1856 0.6971 1.5900 0.4420	0.0000 0.1856 0.6971 2.5800 0.4420	0.0000 0.0085 0.0000	0.0000 0.0104 0.0000 0.0000 0.0000	0.1856 0.6626 2.0000 0.4420	3 1818 0.0000 0 5769 0.0000 0.0000	0.0000 0.7952 0.0000 0.0000 0.0000	0.1856 0.9763 0.9900 0.4420	0.1656 0.9763 0.0000 0.4420	0.1856 0.9763 0.0000 0.4420 0.2210	0.1856 0.3763 0.0000 0.4420	0.0000 0.0000 0.1356 0.9763 0.0000 0.4420 0.2210	

Note: (i) Allocation from unallocated quote of poal based stations of NTPC for unbunding solar power under JLNNSM (Phase-1) in WR changed as per MOP Letter No.13/06/0M dated 12.02.2013 & NVVN/SD & Comm///NNSM/Phase-1 dated 25.02.2013

NO 2

Annexure II: Power Purchase Details for FY 2015-16 (H1)

NTPC LIMITED

WESTERN REGION HEADQUARTERS, MUMBAI- 400093

SUMMARY OF FY 2015-16 April 2015-September 2015

FAX to: Executive Engineer, Div-3 0832-2317810 /2313780

Bill No. WR:15-16: GOA CUSTOMER: GOA

SI.No.	PARTICULARS	KSTPS	KSTPS 3	VSTPS1	VSTPS2	VSTPS3	VSTPS4	Mouda I	KGPS	JGPS	SIPAT-1	SIPAT-2	FSTPS	KhSTPS 1	TSTPS	KhSTPS 2	RSTPS	Total Units
	Energy scheduled(KWH) Energy Charges(Ps/KWH)	7959,28,432	212,45,435	1257,09,880	464,49,628	467,51,745	614,25,172	67,87,248	8,38,339	11,08,082	928,47,831	456,81,840					3728,75,178	1617648810.34
	and go of an and go of an and go																	AMT(Rs)
01.	Capacity Charges	383875019	32569185	81972799	30883207	48031844	79794379	98328731	33235633	42569230	130690502	54707542	0	0	0	0	201854167	1218512238
02.a.	Basic Energy Charges	830023366	21921210	193292948	69802614	68171029	90778634	22745724	2678812	3510343	123410416	61519250	0	0	0	0	925937577	2413791923
02.c.	Incentive	25049800	0	0	0	0	3048545	0	0	0	0	0	0	0	0	0	8271637	36369982
03.	ED&Cess on APC	54191599	1451216	8539549	3254903	3342371	4169141	0	0	0	6056680	2981444	0	0	0	0	0	83986903
04.a.	ED&Cess on Sales																	0
04.b.																		
	Total (Main Bills) Rs.	1293139784	55941611	283805296	103940724	119545244	177790699	121074455	35914445	46079573	260157598	119208236	0	0	0	0	1136063381	3752661046
05.	Supplementary Charges	(103904632)	(8763193)	7837702	2968136	2433502	32735338	50387710	(4348069)	(6852853)	(10010548)	(2089365)	0	(138)	(63)	5	(30223119)	(69829587)
	URS	0	0	198917	(32517)	35308	2268705	0	0	301224	0	0	0	0	0	0	0	2771637
	less rebate additonal																	(4290827)
																		0
06.	LC Bill (Gross) Rs.	1189235152	47178418	291841915	106876343	122014054	212794742	171462165	31566376	39527944	250147050	117118871	0	(138)	(63)	5	1105840262	3681312269

									IMITED									
REF:	REA/2015-16/4.0	DATED:	6-May-15			WEST		N HEADQUAF RAISED IN TH								FAX to:	Executive Er 0832-2317810	
Bill No.	WR:15-16: GOA	DATED:	7-May-15										CUSTOMER:	G	OA			
SI.No.	PARTICULARS	KSTPS	KSTPS 3	VSTPS1	VSTPS2	VSTPS3	VSTPS4	MSTPS1	KGPS	JGPS	SIPAT-1	SIPAT-2	BTPS1	FST-1	BST2	KhSTPS 2	RSTPS	
	Energy scheduled(KWH)	109768860	4360980	21660884	9592931	8601296	9693148	4686458	APM: 299798 N-APM:71625 Lq: 0 RLNG: 0	APM: 363359 RLNG: 0 N- APM: 33728 APM : 303.7	11722202	8556498				in.	65438872	
	Energy Charges(Ps/KWH)		92.60	168.30	158.80	158.90	158.90	348.40	N-APM : 335.5 Lq : 0 RLNG : 0	RLNG: 798.4 N-APM: 329.8	142.90	142.80					255.500	AMT(Rs)
01.	Capacity Charges	60642009	6025324	14167315	5556002	8309840	12358813	13467495	5867050	7627483	17188799	9479934				0 0	0.10001111	195283235
02.a.	Energy Charges	102963191	4038267	36455268	15233574	13667459	15402412	16327620	1163380	1214756	16751027	12218679				0 0		402631951
02.b.	MOPA Charges	0	0	0	0	0	0	0	0	0	0	0		0		0 0	0	0
03.	Incentive	0	327 199	0	438302	575034	418794	0	0	0	0	639570					3073887	5472786
04.a.	ED&Cess on APC	8673702	296231	1361934	669687	543972	625671				964706	499956						13635859
04.b.	ED&Cess on Sales	0	0	0	0	0	0				0	0						0
	Total (Main Bills) Rs.	172278902	10687021	51984517	21897565	23096305	28805690	29795115	7030430	8842239	34904532	22838139				0 0	204863376	617023831
05.	ECR Rvsn & MOPA Mar15, CC Rvsn-BST2	(1455369)	(54224)	42108	20705	25228	19344	7772	212	0	197193	101752		0		0 0	TITLE	3021945
06.	WRLDC Charges - Feb15	93674	4071	18548	7361	6294	7331	7371	7686	7843	11176	6243				(102913	280511
07.	Annual adjustment of energy charges	2405359	81075	383203	173658	163437	157782				447236	194469				(2000010	6357198
08.	Annual SFC adjustment	(17005640)	(525734)	3303368	996518	688776	(957530)	238356			(4221288)	950596					7522802	(9009776)
09.	KST ECR Rvsn -Nov12-Feb14	14538470	331401															14869871
10.	Walter Cess															(1	0
11. 12.	MOPA - Feb15																	U
13.																		0
14																	5	5
1-1.	Total supplementary	(1423506)	(163411)	3747227	1198242	883735	(773073)	253499	7898	7843	(3565683)	1253060	0	0		0 0	_	•
15.	LC Bill (Gross) Rs.	170855396	10523610	55731744	23095807	23980040	28032617	30048614	7038328	8850082	31338849	24091199				0 0		632543585
16.			10020010	***********	2000000	200000	20002011	100,100,14	1,111020	1	0.0000	2.00.700				<u> </u>	-10001200	3323,3300
17.	Net LC Bill (Gross-Rebate)	170855396	10523610	55731744	23095807	23980040	28032617	30048614	7038328	8850082	31338849	24091199	0	0		0 0	218957299	632543585
Details o	· · · · · · · · · · · · · · · · · · ·												İ	Credit for URS	scheduled b			(134275)
i ii	Rate of FC for URS@ (Ps/Kwh) URS in KWH	54.34 0	163.75	66.32 (125000)	65.80 (78077)	113.85	143.37 0	156.25	78.03	99.34 0	142.73 0	131.29						(
iii	URS in Rs	<u> </u>	L 0	(82900)	(51375)	C49C97045	L V	<u> </u>	1 0	<u> </u>	U U	I ^U	TOTAL DAVA	DIE MED LOD	\ don the m	41.		620.40024.0
	Pooled Energy Charges (Ps/KWh)	1.58		REBATABLE	Rs.	618627215 13782095								BLE (WR + SR)				632409310
	Pooled Capacity Charges (Ps/kWh)	0.77 2.35		NON-REBATA Total Bill	ABLE Rs. Rs.								NET PAYABL		KS 631/9/) B	ill dtd. 07.03.15		631797 631777513
	Pooled Total Charges (Ps/kWh)	2.00		TOTAL DIII	KS.	032403310							INE I PATABL	, ,	If a CNITTO 1 4-1	1		031111313
														For & on beha	HOTNIPC LTO	1.		

									LIMITED									
										IMBAI- 400093								
						L	C BILL RAIS	SED IN THE	MONTH OF	JUN 2015						FAX to:	Executive E	
REF:	REA/2015-16/5.0		9-Jun-15														0832-231781	0 /2313780
Bill No.	WR:15-16 : GOA	DATED:											CUSTOMER:	GO				
SI.No.	PARTICULARS	KSTPS	KSTPS 3	VSTPS1	VSTPS2	VSTPS3	VSTPS4	MSTPS1	KGPS APM: 0	JGPS	SIPAT-1	SIPAT-2	BTPS1	FST-1	BST2	KhSTPS 2	RSTPS	
									N-APM: 0	APM: 0 RLNG:								
	-	10070000	4400444	00000705	0700040	0.0504.00	40000044	044400	Lq: 0	0 N-APM: 0	10000100	0.4.40.500					00005040	
	Energy scheduled (KWH)	138792828	4469144	22939765	9739842	8652102	10322044	911439	RLNG: 0		13089132	8443523					68395648	
									APM: 309.3 N-APM: 336.9	APM : 301.5								
									Lq : 0	RLNG : 798.4								
	Energy Charges(Ps/KWH)	100.60	99.50	155.70	147.20	146.80	147.10	298.30	RLNG: 0	N-APM : 331.2	148.70	149.00					262.800	
																		AMT(Rs)
01	Capacity Charges	71270837	6033763	14173784	5561276	8317663	12931848	13485389	5867050	7627484	18801298	9488956	0	0	0	0	34784252	208343600
02.a.	Energy Charges	139625585	4446798	35717214	14337047	12701286	15183727	2718823	3180	0	19463539	12580849	0	0	0	0	179743763	436521811
02.b.	MOPACharges	0	0	0	0	0	0		0	0	0	0	0	0	0	0		0
03.	Incentive	0	316981	0	556969	515485	626114	0	0	0	0	459508		•		•	5797344	8272401
04.a.	ED&Cess on APC	7058482	280429	1343975	595025	533450	601168				720456							11677013
04.b.	ED&Cess on Sales	0	0	0	0	0	0				0	0						0
1	Total (Main Bills) Rs.	217954904	11077971	51234973	21050317	22067884	29342857	16204212	5870230	7627484	38985293	23073341	0	0	0	0	220325359	664814825
05.	ECR/REARvsn & MOPA- Apr15	(1976987)	(78482)	17225	2617	626	750	268273	(9616)	(3588)	854		0	0	0	0	0	(1786897)
06.	WRLDC Charges - Mar15	89644	3929	17793	7071	6047	7042	7081	7404	7555	10697	5997		_		_	99835	270095
07.	VST ECR Rvsn (Dec14-Mar15)			5388012	2959559	2491416	2909008											13747995
08.	FERV & Hedging cost 1415 / FST-0914		279629	144611		1069706					4071649	1571860		1				7137456
09.	Pollution charges																	0
10.	Retund of RLDC Charges & Interest (2009-14)	(1078843)	(36624)	(205051)	(79373)	(67745)	(17985)	(17471)	(80180)	(81768)	(78025)	(67698)		(210)	(63)	(36	(1088884)	(2899857)
11.	Retund of RLDC Charges & Interest-TST1																	
12.	Retund of RLDC Charges & Interest-Khs1																	
13.																		0
14.																	(2)	(2)
	Total supplementary bills	(2966186)	168452	5362590	2889874	3500050	2898815	257883	(82392)	(77801)	4005175		0	(209)	(63)	(36	, ,	
15.	LC Bill (Gross) Rs.	214988718	11246423	56597563	23940191	25567934	32241672	16462095	5787838	7549683	42990468	24574931	0	(209)	(63)	(36)	219336308	681283516
16.	N (10 Pill (0 P L (1)	044000740	11010100	50507500	00040404	05507004	00044070	10 100005	5707000	75 40 000	40000 400	0.4574004		(000)			0.40000000	201000510
17.	Net LC Bill (Gross-Rebate)	214988718	11246423	56597563	23940191	25567934	32241672	16462095	5787838	7549683	42990468	24574931	0	(209)	0	0	219336308	081283516
Details (E101	400.75	60.00	05.00	440.05	440.07	450.05	70.00	00.04	440.70	404.00						0
[Rate of FC for URS@ (Ps/Kwh) URS in KWH	54.34	163.75 0	66.32	65.80 0	113.85	143.37	156.25		99.34	142.73	131.29						
lii liii	URS in KWH URS in Rs	"	"	١	0		0	1	0	0	0	,						
	Pooled Energy Charges (Ps/KWh)	1.53		REBATABLE		662845096	0		1 0	l 0	l 0	I 0	TOTAL DAVA	BLE (WR + SR)	for the marth			681283516
1	Pooled Capacity Charges (Ps/kWh)	0.73		NON-REBAT		18438420										dtd. 06.04.15 + A	ddl rehate @	1287797
	Pooled Total Charges (Ps/kWh)	2.26		Total Bill	ADLE NS. Rs.								NET PAYABL		וום נטוו פטט פט	utu. 00.04. IJ T P	iuui ienaie (Ø	679995719
	i oolog rotal ollaiges (i sinsai)	2.20		Total Dill	No.	001200010								For & on behalf	of NTPC Ltd			01 33331 13
	Total of Defial Of NT G Edu.																	

NTPC LIMITED WESTERN REGION HEADQUARTERS. MUMBAI- 400093 FAX to: LC BILL RAISED IN THE MONTH OF JUL 2015 Executive Engineer, Div-3 REF: REA/2015-16/6.0 DATED: 3-Jul-15 0832-2317810 /2313780 Bill No. WR:15-16: GOA DATED: 6-Jul-15 CUSTOMER GOA SI.No. PARTICULARS KSTPS KSTPS 3 VSTPS1 VSTPS2 VSTPS3 VSTPS4 MSTPS1 KGPS **JGPS** SIPAT-1 SIPAT-2 BTPS1 FST-1 BST2 KhSTPS 2 **RSTPS** APM: 274553 APM: 176128 N-APM: 15338 RLNG: 0 N-APM: 20556 1305107 16408083 Energy scheduled(KWH) 139721555 18434075 5165766 8131119 10370567 785990 7710271 62756134 RLNG: 0 APM: 314 APM: 305.5 N-APM: 341.6 RLNG: 798.4 Lq : 714.1 N-APM: 335.8 98.80 98.30 141.50 134.30 134.30 Energy Charges(Ps/KWH) 149.90 141.50 141.50 297.40 RLNG: 1030.6 256.800 AMT(Rs) Capacity Charges 60020898 4013390 12642628 4815060 7384654 11022867 12003771 4883717 6029648 22622945 8380546 31273206 185093330 0 0 | Energy Charges 138044896 1282920 27632678 7309559 11505533 14674352 2337534 914491 607098 22036055 10354894 161157752 397857762 02.b. MOPA Charges (644180) (995271 384643 216035 907382 Incentive 8705407 68118 8642134 04.a. ED&Cess on APC 298585 1545061 656007 582744 695220 820657 533477 14404537 9272786 04.b. ED&Cess on Sales Total (Main Bills) Rs. 216043987 4950715 41820367 11785355 19541049 26777082 14341305 5798208 6636746 45479657 19484952 193338340 605997763 ECR Rvsn & MOPA May15 693964 22346 458795 185057 164390 196119 18228 (222515) (135096 5129674 6510964 88178 4300 1798 7379 6379 7647 7534 7292 7441 11524 6311 271239 WRLDC Charges - Apr 15 97406 11247889 Deterred Tax Liability(2014-15) 11150483 Income Tax Retund FY 2005-06 (62549970 (1085104 (59273 (28212 (33331161 (106819656 AFC Rvsn - 1415 (25454169) (258871) (640288 (302599 (374456 (5241044) (5892029) (9660110 (4459705 (93659417 Water Cess 501773 501773 41 71 Rvsn- Retund of ERLDC Charges (2009-14) Rvsn- Retund of ERLDC Charges-TST1 & Khs1 41 7108625 13. VST ECR Rvsn(Sep-Nov14, Feb15-Apr15) 320999 134918 119817 1351269 14 (2562064) (1484378) (2375615 (3686009) (4290747 (4588490) (43664446) (87221997) (2416667 (5866267) (6810803) (9871101) 71 41 Total supplimentary bills 0 0 LC Bill (Gross) Rs. 128821990 2388651 39403700 10300977 17165434 23091073 8475038 1507461 (174057) 35608556 14896462 71 41 149673894 431159291 Net LC Bill (Gross-Rebate) 128821990 2388651 39403700 10300977 17165434 23091073 8475038 1507461 (174057) 35608556 14896462 149673894 431159291 0 71 Details of URS Debit for URS scheduled from other SEBs 1937124 Rate of FC for URS@ (Ps/Kwh) 157.72 62.86 109.60 150.53 73.67 126.17 52.71 63.94 138.25 92.40 137.54 1075000 URS in KWH 705249 0 0 URS in Rs 450936 1486188 0 0 Pooled Energy Charges (Ps/KWh) 1.47 Rs. 511553483 TOTAL PAYABLE (WR + SR) for the month 433096415 Less: Addl rebate @ 0.1% (Rs 662845) Bill dtd. 10.06.15 Pooled Capacity Charges (Ps/kWh) (78457068) 662845 0.68 NON-REBATABLE Rs. Pooled Total Charges (Ps/kWh) 2.15 Total Bill Rs. 433096415 NET PAYABLE (Rs.) 432433570 For & on behalf of NTPC Ltd.

									LIMITE	_	_							
									,	IUMBAI- 40009	93							
						L	C BILL RAIS	SED IN THE	MONTH OF	JUL 2015						FAX to:	Executive Eng	
REF:	REA/2015-16/6.0		3-Jul-15														0832-2317810	/2313780
Bill No.	WR:15-16 : GOA	DATED:											CUSTOMER:	GO				
SI.No.	PARTICULARS	KSTPS	KSTPS 3	VSTPS1	VSTPS2	VSTPS3	VSTPS4	MSTPS1	KGPS	JGPS	SIPAT-1	SIPAT-2	BTPS1	FST-1	BST2	KhSTPS 2	RSTPS	
									APM: 274553 N-APM:15338	APM: 176128								
									Lq : 0	RLNG: 0 N-								
	Energy scheduled(KWH)	139721555	1305107	18434075	5165766	8131119	10370567	785990	RLNG: 0	APM: 20556	16408083	7710271					62756134	
									APM: 314	APM : 305.5								
									N-APM : 341.6	RLNG: 798.4								
	Energy Charges(Ps/KWH)	98.80	98.30	149.90	141.50	141.50	141.50	297.40	Lq: 714.1 RLNG: 1030.6	N-APM: 335.8	134.30	134.30					256.800	
	Ellelgy Charges(F5/NWH)	90.00	90.30	149.90	141.50	141.50	141.50	291.40	KLNG . 1030.0		134.30	134.30					230.000	
																		AMT(Rs)
01.	Capacity Charges	60020898	4013390	12642628	4815060	7384654	11022867	12003771	4883717	6029648	22622945	8380546	0	-	0		31273206	185093330
02.a.	Energy Charges	138044896	1282920	27632678	7309559	11505533	14674352	2337534	914491	607098	22036055	10354894	0	0	0		161157752	397857762
02.b.	MOPA Charges	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03.	Incentive	8705407	(644180)	0	(995271)	68118	384643	0	0	0	0	216035					907382	8642134
04.a.	ED&Cess on APC	9272786	298585	1545061	656007	582744	695220			11	820657	533477						14404537
04.b.	ED&Cess on Sales	0	0	0	0	0	0				0	0						0
	Total (Main Bills) Rs.	216043987	4950715	41820367	11785355	19541049	26777082	14341305	5798208	6636746	45479657	19484952	0		0	0	193338340	605997763
05.	ECR Rvsn & MOPA- May15	693964	22346	458795	185057	164390	196119	18228	2		(222515)	(135096)	0	0	0	0	5129674	6510964
06.	WRLDC Charges - Apr15	88178	4300	17985	7379	6379	7647	7534	7292	7441	11524	6311					99269	271239
07.	Deferred Tax Liability(2014-15)	0	0	11150483	0	0	0	0	0	97406	0	0						11247889
08.	Income Tax Retund FY 2005-06	(62549970)		(10851040)					(59273)	(28212)							(33331161)	(106819656)
09.	AFC Rvsn -1415	(25454169)	(2588710)	(6402882)	(3025999)	(3744563)	(5241044)	(5892029)	(4238768)	(6887438)	(9660110)	(4459705)					(16064000)	(93659417)
10.	Water Cess													74			501773	501773
11.	Rvsn- Retund of ERLDC Charges(2009-14)													71		41		71 41
12. 13.	Rvsn- Retund of ERLD C Charges-TST1 & Khs1			3209992	1349185	1198179	1351269											7108625
14.	VST ECR Rvsn(Sep-Nov14, Feb15-Apr15)	0		3209992	1349103	1130173	1301209										(1)	
14.		(87221997)	(2562064)	(2416667	(1484378)	(2375615)	(3686009)	(5866267)	(4290747)	(6810803)	(9871101)	(4588490)	0	71	0	41	1.7	()
15.	Total supplimentary bils LC Bill (Gross) Rs.	128821990	2388651	39403700	10300977	17165434	23091073	8475038	1507461	(174057)	35608556	14896462	0		0		,	431159291
16.	LC Bill (Gloss) Ns.	120021330	2300031	33403700	10300377	17100404	23031073	04/ 3030	1307401	(174037)	33000330	14030402	•		•	41	143073034	431133231
17.	Net LC Bill (Gross-Rebate)	128821990	2388651	39403700	10300977	17165434	23091073	8475038	1507461	(174057)	35608556	14896462	0	71	0	1	149673894	431159291
Details of		1 .23021000		1 33 1001 00				1 2 11 0000	.301.101	(11-501)	1 22300000	1				1937124		
i	Rate of FC for URS@ (Ps/Kwh)	52.71	157.72	63.94	62.86	109.60	138.25	150.53	73.67	92.40	137.54	126.17	1	DUDIE IOI ONO	oonoudiou iit	0		1001 124
ľi	URS in KWH	0	0	705249	0	0	1075000	0	0	0	0	0						
l"iii	URS in Rs		l ő	450936	0	٥	1486188	J 0	ő	0	ا آ	l ő						1
<u> </u>	Pooled Energy Charges (Ps/KWh)	1.47	·	REBATABLE	Rs.	511553483		ı ,	·	· ·	· · · · ·	·	TOTAL PAYA	BLE (WR + SR)	for the montl	h		433096415
	Pooled Capacity Charges (Ps/kWh)	0.68		NON-REBAT		(78457068)								ebate @ 0.1% (I				662845
	Pooled Total Charges (Ps/kWh)	2.15		Total Bill	Rs.	, ,							NET PAYABL					432433570
	For & on behalf of NTPC Ltd.																	

LIMITED WESTERN REGION HEADQUARTERS. MUMBAI- 400093 LC BILL RAISED IN THE MONTH OF AUG 2015 FAX to: Executive Engineer, Div-3 REF: REA/2015-16/7.0 DATED: 7-Aug-15 0832-2317810 /2313780 Bill No. WR:15-16: GOA DATED: 8-Aug-15 CUSTOMER: SI.No. **PARTICULARS** KSTPS 3 VSTPS3 FST-1 KhSTPS 2 KSTPS VSTPS1 VSTPS2 VSTPS4 MSTPS1 KGPS **JGPS** SIPAT-1 SIPAT-2 BTPS1 BST2 RSTPS APM: 0 APM: 51222 N-APM:0 RLNG: 0 N-Lq: 0 APM: 0 Energy scheduled(KWH) 133959814 2495124 22102964 4496312 9083117 10071854 18001350 5989260 56053823 RLNG: 0 N-APM: 341.9 APM : 304.4 Lq : 0 RLNG: 916.9 147.30 136.10 141.70 297.60 131.60 239.400 Energy Charges(Ps/KWH) 110.70 110.60 148.00 RLNG: 915.5 N-APM 131.70 AMT(Rs 63980425 3847756 13663024 3290506 8009072 11936677 12985552 5539272 7094872 25700700 9119369 33748690 198915915 Capacity Charges **Energy Charges** 148293514 2759607 32557666 6654542 12362122 14271817 155920 23707778 7881866 0 134192852 382837684 0 02.b. MOPA Charges 3807696 0 837447 (341809) 0 (1315113 (4990500) (2002279 Inc entive 1334873 374070 ED&Cess on APC 10823720 101102 588801 750968 1159539 554088 15687161 ED&Cess on Sales 226905355 6708465 47555563 10319118 21797442 26617653 12985552 5539272 7250792 50568017 16240210 162951042 595438481 Total (Main Bills) Rs. ECR Rvsn & MOPA- Jun15 (419164) (30017 221209 61989 97574 114077 (18078 3641 4807 (311753) (161916 251025 (186606 87047 7181 7328 4232 17739 7276 6289 7485 7428 11376 6221 265882 WRLDC Charges - May15 (138793 ECR Rvsn - KST-May15 (138793 1723 2327 2206 9176 741 4052 2070 66515 REA Rvsn- Jan14- Dec14 1423 (96495 (95072 Water Cess 10. 12. 13. 14. (433429)244665 70988 123768 12876 (296325) (153625) 250802 (24763 106190 (51)10822 Total supplementary LC Bill (Gross) Rs. 226471926 6683702 47800228 10390106 21903632 26741421 12985501 5550094 7263668 50271692 16086585 Λ 163201844 595350399 16. Net LC Bill (Gross-Rebate) 226471926 6683702 47800228 10390106 21903632 26741421 12985501 5550094 7263668 50271692 16086585 163201844 595350399 Debit for URS scheduled from other SEBs 427939 Rate of FC for URS@ (Ps/Kwh) 52.71 157.72 63.94 62.86 109.60 138.25 150.53 73.67 137.54 126.17 92.40 URS in KWH (439497) 32215 487266 URS in Rs 0 35308 673645 (281014) TOTAL PAYABLE (WR + SR) for the month 595778338 Pooled Energy Charges (Ps/KWh) 1.46 REBATABLE 579435833 Pooled Capacity Charges (Ps/kWh) 0.76 NON-REBATABLE 16342505 Less: Addl rebate @ 0.1% (Rs 511553) Bill dtd. 06.07.15 511553 Pooled Total Charges (Ps/kWh) NET PAYABLE (Rs.) 595266785 2.22 Total Bill 595778338 For & on behalf of NTPC Ltd.

										IITED								
	REA/2015-16/8.0		4-Sep-15			LC BILL F		VESTERN REGIO IE MONTH OF	ON HEADQUARTE SEP 2015	•						FAX to:	Executive Engineer, 0832-2317810 /2313	
	WR:15-16 : GOA		7-Sep-15									CUSTOMER:	GOA					
SI.No.	PARTICULARS	KSTPS	KSTPS 3	VSTPS1	VSTPS2	VSTPS3	VSTPS4	MSTPS1	KGPS	JGPS	SIPAT-1	SIPAT-2	BTPS1	FST-1	BST2	KhSTPS 2	RSTPS	
	Energy scheduled (KWH)	131279454	4506357	18983501	8804775	6144458	10716641	0	APM: 0 N- APM:0 Lq: 0 RLNG: 0	APM: 0 RLNG: 0 N-APM: 0 APM: 306.2		6882203				0	68733107	
	Energy Charges (Ps/KWH)	110.90	109.80	148.90	149.50	142.40	147.80	299.20	N-APM:340.8 Lq:703.6	RLNG: 929.3 N APM: 335.1	121.00	120.50				261.80	243.800	
																		AMT(Rs
)1.	Capacity Charges	63978542			5652677	8005308	11924011	12989861	5539272	7094871	24587213	9120814	0	0		0	0 33741601	202551308
)2 a.	Energy Charges	145588914	4947980	28266433	13163139	8749708	15839196	0	0	0	22217626	8293055	0	0		0	0 167571315	414637366
02 b.	MOPA Charges	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0 0	0
)3.	Incentive	2468135	0	0	0	(1996084)	802246	0	0	0	0	0					9193224	10467521
)4 a.	ED&Cess on APC	9901916	184433	1574011	320195	646833	717243		1		1219567	401361						14965559
04 b	ED&Cess on Sales	0	0	0	0	0	0	11	41		0	0						0
	Total (Main Bills) Rs.	221937507	11387863	43502132	19136011	15405765	29282696	12989861	5539272	7094871	48024406	17815230	0	0		0	0 210506140	642621754
)5.	ECR Rish & MOPA Jul 15	(4956513)	(132241)	0	0	0	0	0	0	8559	(252019)	(89839)	0	0		0	0 0	(5422053
)6.	WRLDC Charges - Jun15	86985	4198	17685	7244	6263	7429	7397	7134	7280	11367	6197					92466	261645
)7.	KST-III AFC Rvsn CERC Order dt 31.08.15		(4835638)															(4835638)
)8.	Water Cess	278008	7897								17647	10566						314118
)9.	Interest on KST-III AFC Rvsn		(978242)															(978242)
10.																		0
11.																		0
12																		0
13.																		0
14.		(124:		4=		46				45		/F0.05 ::1		_			5	5
4.5	Total Supplementary Bills	(4591520)	. ,	17685	7244	6263	7429	7397		15839	(223005)	(73076)	0			0	0 92471	
10.	LC Bill (Gross) Rs.	217345987	5453837	43519817	19143255	15412028	29290125	12997258	5546406	7110710	47801401	17742154	0	0		0	0 210598611	631961589
lb.	N (LOPILO D.L.)	047045007	F 450007	10510617	40440655	45140000	00000407	40007070	FF 10 10 0	7446740	17004 /01	4774045 1					040500044	004004704
	Net LC Bill (Gross-Rebate)	217345987	5453837	43519817	19143255	15412028	29290125	12997258	5546406	7110710	47801401	17742154	0	0		0	0 210598611	631961589
Details o		7471	450.05	00.01		400.00	400.07	450.50	70.07	00.10	1 407.54		Debit for URS	scneduled from	other SEBs			127730
	Rate of FC for URS@ (Ps/Kwh)	52.71	153.25	63.94	1	109.60	138.25	150.53	73.67	92.40		126.17						
I	URS in KWH	0	0	,	30000	0	78750 108872	0	0	١ ٪	0							
ii	URS in Rs	U U	Į Ū	DEDATAC: 5	18858	0	1088/2	0	Į Ū	<u> </u>		l "	TOTAL DAVAS	E AND LOCK C	4 4			00000011
	Pooled Energy Charges (Ps/KWh)	1.51 0.74		REBATABLE		617398502							TOTAL PAYABI			0 00 45		632089319
	Pooled Capacity Charges (Ps/kWh)	0.74 2.25		NON-REBAT. Total Bill		14690817 632089319							Less : Addi rei NET PAYABLE		s 579436) Bill dtd. 0	0.00.13		579436 631509883
	Pooled Total Charges (Ps/kWh)	2.20		TOTAL BIII	Rs.	032069319							NET PATABLE	(r.s.)				031009883

							N T	PC	LIMITED									
						WESTE			RTERS. MU	MDAL ADDO	12							
						LC BILL RAI			*		70					EAVA	F	-i Di- 2
REF:	REA/2015-16/9.0	DATED	6-Oct-15			LC DILL KA	ISED IN THE		001 2013							FAX to:	Executive Er 0832-2317810	
Bill No.	WR:15-16 : GOA	DATED										CUSTOMER:	GOA				0032-231701	712313100
SI.No.	PARTICULARS	KSTPS	KSTPS 3	VSTPS1	VSTPS2	VSTPS3	VSTPS4	MSTPS1	KGPS	JGPS	SIPAT-1	SIPAT-2	BTPS1	FST-1	BST2	KhSTPS 2	RSTPS	
51.NO.	TANTICOLANO	ROTTO	ROTTOS	¥01101	¥311 32	¥01100	101104	MOTIOI	APM: 166821		OII AT-1	Oll A1-2	DITOT	101-1	DOTE	KIIOTI O Z	Notio	
									N-APM:3610	APM: 440686 RLNG: 16608								
	Energy scheduled(KWH)	142405921	4108723	21588691	8650002	6139653	10250918	403361	Lq : 0	N-APM: 5795	15265390	8100085				l ₀	51497594	
	Energy seriedated (News)	142400021	4100720	21000001	0000002	0100000	10230310	400001	RLNG: 5650		10200000	0100000				0	01407004	
									APM: 319.8	APM : 312.1								
									N-APM: 347.4	RLNG : 827.3 N-APM :								
	Francisch and a (Da Wildell)	400.00	400.00	454.00	454.50	440.00	450.00	227.00	Lq : 0 RLNG: 915.5	341.5	400.00	405.00				204.00	205 400	
	Energy Charges(Ps/KWH)	109.20	108.20	151.30	151.50	149.60	150.30	337.60	KLNG : 910.0	***	126.00	125.80				291.80	225.400	
																		AMT(Rs
01.	Capacity Charges	63982308	6393502	13664360	6007686	8005307	19620163		5539272	7094872	21789547	9117923	0	0	0	(33713247	228324850
02.a.	Energy Charges	155507266	4445638	32663689	13104753	9184921	15407130	1361747	597761	1532569	19234391	10189907	0	0	0	(116075577	379305349
02.b.	MOPA Charges	0	0	0	0	0	0	0	0	0	0	0	0	0	0	(0	0
03.	Incentive	10068562	0		-	0	1158557	0	0	0	0	0					(5709700)	5517419
04.a.	ED&Cess on APC	8460993	290436	1379695	639919	446571	778871				1171755	448534						13616774
04.b.	ED&Cess on Sales	0	0	0	0	0	0				0	0						0
	Total (Main Bills) Rs.	238019129	11129576	47707744	19752358	17636799	36964721	34758410	6137033	8627441	42195693	19756364	0	0	0	<u> </u>	144079124	626764392
05.	ECR Rvsn & MOPA- Aug15	(7220369	(247850)	512555	211314	159756	267916				(55085)	(27529)	0	0	0	(92070	(6307222)
06.	WRLDC Charges - Jul 15	86343	4118	17494	7153	6182	7322	7301	7015	7157	11280	6116				()	167481
07.	VST-IV AFC Rvsn CERC Order dt 02.09.15						29646997											29646997
08.	MST-I AFC Rvsn CERC Order dt 21.09.15						0007440	51781051										51781051
09.	Interest on VST-IV & MST-I AFC Rvsn						3987116	3830038										7817154
10. 11.	FRRV & Hedging for VST-IV & MST-I	(133968)	(3649)	(23597)	(8738)	(7472)	92537	125609 (8750)	(7799)	(7964)	(15804)	(7411)				((98886)	218146 (332740
12.	WRLDC Charges refund (2014-15) Water Cess	(100900)	(3049)	(20091)	(0/30)	(1412)	(0102)	(0/30,	(1199,	(1904)	(10004)	(7411)						(332140
13.	ECR Rvsn July 15			375750	76437	154413	171222									<u> </u>		777822
14.	Edit (Various) 10			0/0/00	70407	101110	171222										(2)	(2)
	Total Supplementary Bils	(7267994	(247381)	882202	286166	312879	34164408	55735249	(784)	(807)	(59609)	(28824)	0	0	0	1 (,
15.	LC Bill (Gross) Rs.	230751135	10882195	48589946	20038524	17949678	71129129	90493659	6136249	8626634	42136084	19727540	0	0	0		<u> </u>	710533079
16.	20 2 (6.000) 1.0.	200.01.00	10002.00	10000010	20000021	110 10010			0100210	0020001	12100001	10.2.0.0		•	•		111012000	. 10000010
17.	Net LC Bill (Gross-Rebate)	230751135	10882195	48589946	20038524	17949678	71129129	90493659	6136249	8626634	42136084	19727540	0	0	0	(144072306	710533079
Details o	, ,	<u> </u>	-		1								Debit for UR	S scheduled fro	m other SEB	s		413119
i	Rate of FC for URS@ (Ps/Kwh)	52.71	153.25	63.94	62.86	109.60	153.01	189.96	73.67	92.40	137.54	126.17						
lii	URS in KWH	0	0	175000	0	0	0	0	0	326000	0	0						
iii	URS in Rs	0	0	111895	0	0	0	0	0	301224	0	0						
	Pooled Energy Charges (Ps/KWh)																	710946198
	Pooled Capacity Charges (Ps/kWh)	0.85		NON-REBATA		21992003								rebate @ 0.1% (I	Rs 617399) Bi	II dtd. 07.09.15		617399
	Pooled Total Charges (Ps/kWh)	2.26		Total Bill	Rs.	710946198							NET PAYABL	. ,				710328799
														For & on behalf	of NTPC Ltd.			

Statement of Power Purchased Expenditure during the year 2015-16- NPCIL TAPS

SR.		Units		
No	Name of the Supplier/Agency	Purchased	Amount	Remarks
		(Kwh)		
1	2	3	4	5
	M/s NPCIL Tarapur, Thane			
1	April'2015	8226129	23486257	Energy bill
			6880	Rldc fees
			479130	Water cess for July'2014 to Oct'14
2	May'2015	8854355	25278298	Energy bill
	,		6792	Rldc fees
			160325	Consent to operate for 2015-2016
3	June'2015	9431256	26925293	Energy bill
				Rldc fees
				ROE adjustment due to change in effetive tax rate
			4563279	April2014-March'2015
4	July 2015	9739648	27905724	Energy bill
-	July'2015	9739040	27003721	Chergy bill
			6683	Rldc fees
5	August'2015	9669698	27606021	Energy bill
_ <u> </u>	August 2013	3003030		Revision in REA for Jan-2014 to Dec 2014
				RIdc fees
			558115	Water cess November'2014 to March'2015
6	September'2015	9235816	26362528	Energy bill
			6591	Rldc fees
			-73174	Refund of WRLDC for year 2009-14
	Total	55156902	163509996	

Statement of Power Purchased Expenditure during the year 2015-16NPCIL KAPS

SR.		Units		
No	Name of the Supplier/Agency		Amount	Remarks
INO	Name of the Supplier/Agency		Amount	Remarks
1	2	(Kwh) 3	4	5
		3	4	5
-	M/s NPCIL Kakrapar, Surat			
1	April'2015	5478587	13003426	Energy bill
2	May'2015	6498258	15424265	Energy bill
3	June'2015	9813749	23314523	Energy bill
			3229892	ROE adjustment due to change in effetive tax rate April2014- March'2015
			-92441	credit for refund of RLDC charges period April09 to March-14
			25151	Revision in heavy water make up price year 2015-16
				, , , , ,
6	July'2015	5304213	12601219	Energy bill
7	August'2015	5253681	12480645	Energy bill
8	September'2015	5024836	11937000	Energy bill
			65312	reimbursement of fees for period April'2015 to September2015
	Total	37373324	91988992	

Power Purchased from PTC under STOA

SR. No	Units Purchased	Rate/Kwh	Amount	Remarks
	(Kwh)	including trading margin		
1		5190480	19464300	Energy bill for period 01/05/2015 to 08/05/2015
2		5184760	19442850	Energy bill for period 09/05/2015 to 15/05/2015
3		8291520	31093200	Energy bill for period 16/05/2015 to 23/05/2015
4		8637420	32390325	Energy bill for period 24/05/2015 to 31/05/2015
		27304180	102390675	

Details of Power Purchase from IEX Sale

Sr.No	Delivery Period	Quantum of Energy sold (MWH)	Net receivable Amount (₹)
1	2	3	4
1	31/03/2015 to 04/04/2015	532500	10,78,675.09
2	05/04/2015 to 09/04/2015	756250	20,27,578.37
3	10/04/2015 to 14/04/2015	1207500	27,36,423.82
4	15/04/2015 to 19/04/2015	1335310	27,75,372.59
5	20/04/2015 to 24/04/2015	783750	19,35,269.24
6	25/04/2015 to 29/04/2015	1336635	27,04,400.97
7	30-04-2015 to 04-05-2015	2701698	57,29,497.33
8	05-05-2015 to 09-05-2015	1582798	38,17,615.54
9	10-05-2015 to 14-05-2015	1149545	28,71,806.41
10	15-05-2015 to 19-05-2015	1576848	35,78,727.51
11	20-05-2015 to 24-05-2015	1174508	27,53,206.57
12	25-05-2015 to 29-05-2015	1150355	29,20,855.32
13	30-05-2015 to 31-05-2015	612500	13,36,160.13
14	01-06-2015 to 03-06-2015	О	-
15	04-06-2015 to 08-06-2015	0	-
16	09-06-2015 to 13-06-2015	0	-
17	14-06-2015 to 18-06-2015	0	-
18	19-06-2015 to 23-06-2015	0	-
19	24-06-2015 to 28-06-2015	О	-
20	29-06-2015 to 03-07-2015	О	-
21	04-07-2015 to 08-07-2015	741245	13,91,258.84
22	09-07-2015 to 13-07-2015	1035000	20,95,696.96
23	14-07-2015 to 18-07-2015	1220000	26,84,680.64
24	19-07-2015 to 23-07-2015	595000	13,06,324.90
25	24-07-2015 to 28-07-2015	0	-
26	29-07-2015 to 02-08-2015	0	-
27	03-08-2015 to 07-08-2015	0	-
28	08-08-2015 to 12-08-2015	1010000	23,44,192.25
29	13-08-2015 to 17-08-2015	1167028	23,48,795.45
30	18-08-2015 to 22-08-2015	812090	15,84,332.71
31	23-08-2015 to 27-08-2015	858208	16,91,351.27
32	28-08-2015 to 01-09-2015	1305000	32,18,383.11
33	02-09-2015 to 06-09-2015	832500	23,84,968.73
34	07-09-2015 to 11-09-2015	347500	14,04,287.91
35	12-09-2015 to 16-09-2015	687500	23,31,634.65
36	17-09-2015 to 21-09-2015	1520000	42,46,273.92
37	22-09-2015 to 26-09-2015	865000	21,86,121.59
	Total	28896265	67483892

Details of Power Purchase from NVVNL, Noida for Solar

	Name of the	Units		ase from tev vite, itoliaa for solai
SR. No	Supplier/Agency	Purchased	Amount	Remarks
		(Kwh)	Rs.	
1	2	4	5	
	M/s NVVNL Noida			
		524400	4189956	Energy bill Period 01/04/2015 to 15/04/2015
		524400	4189956	Energy bill Period 16/04/2015 to 30/04/2015
		-5890	-47061	March'2015, Adjustment.
			239933	Open access Solar Power April'2015
			243932	Open access Solar Power May'2015
		494700	3952653	Energy bill Period 01/05/2015 to 15/05/2015
		527600	4215524	Energy bill Period 16/05/2015 to 31/05/2015
		40749	325585	April'2015, Adjustment.
			169784	Open access Solar Power June'2015
		469200	3748908	Energy bill Period 01/06/2015 to 15/06/2015
		469200	3748908	Energy bill Period 16/06/2015 to 30/06/2015
		6510	52015	May2015, Adjustment.
			170169	Open access Solar Power July'2015
		446700	3569133	Energy bill Period 01/07/2015 to 15/07/2015
		476480	3807075	Energy bill Period 16/07/2015 to 31/07/2015
		2700	21573	June 2015, Adjustment.
			157327	Open access Solar Power August'2015
		392400	3135276	Energy bill Period 01/08/2015 to 15/08/2015
		418560	3344294	Energy bill Period 16/08/2015 to 31/08/2015
		8990	71830	July 2015, Adjustment.
			153945	Open access Solar Power September 2015
		402150	3213179	Energy bill Period 01/09/2015 to 15/09/2015
		402150	3213179	Energy bill Period 15/09/2015 to 30/09/2015
	-	5600999	45887072	

Details of Power Purchase from NVVNL, Noida for Hydro

	Name of the	Units		
SR. No	Supplier/Agency	Purchased	Amount	Remarks
		(Kwh)	Rs.	
1	2	4	5	
	M/s NVVNL Noida			
		116820	524522	Energy Bill 01/09/2015 to 08/09/2015
		102060	458249	Energy Bill 09/09/2015 to 15/09/2015
		933120	4189709	Energy Bill 16/09/2015 to 23/09/2015
		815760	3662762	Energy Bill 24/09/2015 to 30/09/2015
	·	1967760	8835242	

Details of Power Purchase from IEX

	Details of 1 office	Quantum of Energy	
Sr.No	Delivery Period	Purchased (KWH)	Net Payable Amount (₹)
1	2	3	4
1	31/03/2015 to 04/04/2015	21,30,000	60,82,586.06
2	05/04/2015 to 09/04/2015	19,56,563	66,27,074.63
3	10/04/2015 to 14/04/2015	17,33,800	49,76,740.87
4	15/04/2015 to 19/04/2015	18,85,000	50,93,093.93
5	20/04/2015 to 24/04/2015	25,88,123	75,77,928.73
6	25/04/2015 to 29/04/2015	14,00,000	34,53,236.75
7	30-04-2015 to 04-05-2015	1600000	45,92,550.31
8	05-05-2015 to 09-05-2015	675000	18,80,850.44
9	10-05-2015 to 14-05-2015	1125000	32,53,382.33
10	15-05-2015 to 19-05-2015	О	-
11	20-05-2015 to 24-05-2015	О	-
12	25-05-2015 to 29-05-2015	О	-
13	30-05-2015 to 31-05-2015	О	-
14	01-06-2015 to 03-06-2015	415155	9,74,812.61
15	04-06-2015 to 08-06-2015	1433750	39,81,528.66
16	09-06-2015 to 13-06-2015	1875000	54,82,989.04
17	14-06-2015 to 18-06-2015	1130000	30,31,120.98
18	19-06-2015 to 23-06-2015	64027.5	2,04,760.10
19	24-06-2015 to 28-06-2015	0	-
20	29-06-2015 to 03-07-2015	2226302.5	61,58,733.06
21	04-07-2015 to 08-07-2015	2070000	51,55,549.64
22	09-07-2015 to 13-07-2015	2160000	58,22,326.66
23	14-07-2015 to 18-07-2015	2176217.5	60,93,418.04
24	19-07-2015 to 23-07-2015	2350000	59,77,695.82
25	24-07-2015 to 28-07-2015	2460000	63,00,200.04
26	29-07-2015 to 02-08-2015	2540000	66,36,553.19
27	03-08-2015 to 07-08-2015	3264040	90,82,595.63
28	08-08-2015 to 12-08-2015	2149452.5	67,68,080.69
29	13-08-2015 to 17-08-2015	1725000	51,54,408.71
30	18-08-2015 to 22-08-2015	3270000	92,95,496.81
31	23-08-2015 to 27-08-2015	2854542.5	87,54,821.74
32	28-08-2015 to 01-09-2015	2000855	70,54,913.91
33	02-09-2015 to 06-09-2015	1712500	65,92,710.78
34	07-09-2015 to 11-09-2015	3157817.5	154,93,772.62
35	12-09-2015 to 16-09-2015	2409972.5	100,65,594.21
36	17-09-2015 to 21-09-2015	1735000	63,50,780.10
37	22-09-2015 to 26-09-2015	3130000	107,23,777.85
	Total:	63403117.5	194694085

Annexure III: Details of Transmission Charges for FY 2015-16 (H1)

Statement of Western Region Transmission Charges during the year 2015-16

SR.	Amount	Remarks
INO	Amount	remarks
1	82590002	POC charges April'2015
2	890264	ULDC charges March'15 & April'15
3	679874	ULDC charges May'15 & licensce fees
4	80932678	POC charges May'2015
5	59770	calibration charges for SEM meter
6	81246651	POC charges June'2015
7	49751639	Bill-3 Jan'15 to March'2015
8	212737	ULDC charges June'2015 & refund of licensce fees.2015-16
9	445132	ULDC charges July'2015
10	822125	Bill-4 deviation charges January'15 to March'15
11	116568085	POC charges July'2015
12	116121053	POC charges August'2015
13	94205681	Bill-3 April'15 toJune'2015& revision in RTA for period May'15 & June'15
14	445132	ULDC charges August'2015
15	445132	ULDC charges September'2015
16	100521609	POC charges September'2015
	725937564	
	1 20001 004	

Statement of Southern Region Transmission Charges during the year 2015-16

SR. No	Amount	Remarks
1	2	3
1	14957638	POC charges April'2015
2	14656009	POC charges May'2015
3	14717852	POC charges June'2015
4	7689105	Bill-3 Jan'15 to March'2015
5	7313685	POC charges July'2015
6	7285207	POC charges August'2015
7	7636729	POC charges September'2015
8	719168	Bill-4 deviation charges January'15 to March'15
	74975393	

Statement of KPTCL Wheeling Charges during the year 2015-16

SR.	Name of the	Units		
No	Supplier/Agency	Purchased	Amount	Remarks
		(Kwh)		
1	2	3	4	5
	M/s KPTCL, Banglore (Wheeling char	ges)	
1			4593923	Biling for March
2			4540882	Billing for April
3			2931356	Billing for May and June
4			1397817	July
5			1712886	
	Total	0	15176864	

Summary of Transmission Charges (WR + SR + KPTCL + Others) for FY 2015-16

S.no	Name of the Supplier/ Agency	Amount	Remarks
1	M/s PGCIL WR, Nagpur	725937564	POC Charges
2	M/s PGCIL SR, Banglore	74975393	POC Charges
3	M/s KPTCL, Banglore	15176864	wheeling charges
4	M/s POSOCO WR	2464123	Fees and charges of SLDC
5	M/s POSOCO SR	2031436	Fees and charges of SLDC
6	M/s POSOCO WR	3740268	SCADA charges
7	M/s MSEDCL	0	reactive charges
8	M/s POSOCO WR	0	Reactive charges
9	M/s MSETCL (RGPPL)	0	wheeling charges
	Total	824325648	

SR. No	Name of the Supplier/Agency	Opening Balance	Units Purchase d	Amount	Remarks
			(Kwh)		
1	2	3	4	5	11
	M/s POSOCO WR (fees & Charges)				
1	Apr-15			423663	
2	May-15			418051	
3	Jun-15			411697	
4	Jul-15			405361	
5	Aug-15			406088	
6	Sep-15			399263	
	Total		0	2464123	

Statement of Power Purchased Expenditure during the year 2015-16

SR. No	Name of the Supplier/Agency	Opening Balance	Units Purchase d	Amount
	11 , 5 ,		(Kwh)	
1	2	3	4	5
	M/s POSOCO SR (fees & Charges)			
1	Apr-15			354514
2	May-15			345111
3	Jun-15			345114
4	Jul-15			333308
5	Aug-15			328753
6	Sep-15			324636
	Total		0	2031436

Details of Power Purchase from SESA Sterlite

	Name of the	Opening	Units	
SR. No	Supplier/Agency	Balance	Purchased	Amount
			(Kwh)	
1	2	3	4	5
	M/s SESA Sterlite			
1	Apr-15		7789000	18811379
2	May-15		9217000	22118080
3	Jun-15		6047000	14510080
4	Jul-15		8141000	19145466
5	Aug-15		10109000	24261600
6	Sep-15		6669000	16001180
	Total		47972000	114847785

Statement of Power Purchased Expenditure during the year 2015-16Goa Energy Pvt Ltd

SR.		Units	
No	Name of the Supplier/Agency	Purchased	Amount
		(Kwh)	
1	2	3	4
	M/s GEPL Amona/ptc		
1	Apr-15	9813950	23836574
2	May-15	9719790	23351457
3	Jun-15	8239760	19838402
4	Jul-15	9938680	23946064
5	Aug-15	8937333	21536899
6	Sep-15	7108898	17106433
	Total	53758411	129615829

Details of Power Purchased from Goa Energy Pvt. Ltd.

SR. No	Name of the	Opening Balance	Units Purchased	Amount
3K. NO	Supplier/Agency	barance		Amount
			(Kwh)	
1	2	3	4	5
	M/s GEPL Amona			
1	Apr-15		8391450	20322999
2	May-15		8232290	19677332
3	Jun-15		6923260	16586647
4	Jul-15		8469180	20316399
5	Aug-15		7461833	17892414
6	Sep-15		5815398	13911488
	Total		45293411	108707279

Details of Power Purchase from GEPL through PTC

SR. No	Name of the Supplier/Agency	Opening Balance	Units Purchased	Amount	
	11 7 0 7		(Kwh)		
1	2	3	4	5	
	M/s ptc				
1	Apr-15		1422500	3513575	
2	May-15		1487500	3674125	
3	Jun-15		1316500	3251755	
4	Jul-15		1469500	3629665	
5	Aug-15		1475500	3644485	
6	Sep-15		1293500	3194945	
	Total		8465000	20908550	

Annexure IV: Details of UI charges billed for FY 2015-16 (H1)

UI charges Western region

year-2015-16

Sr.no.	week	Ul payable	units	Rate	Ul receivable	units	Rate
			in Mus			in Mus	
1st	30/03/2015 to 05/04/2015	13502372	4.894	2.759			
2nd	06/04/2015 to 12/04/2015	21993161	4.288	5.129			
3rd	13/04/2015 to 19/04/2015	12124488	5.432	2.232			
4th	20/04/2015 to 26/04/2015	17189489	5.969	2.880			
5th	27/04/2015 to 03/05/2015	17419971	5.715	3.048			
6th	04/05/2015 to 10/05/2015	14462081	2.354	6.144			
7th	11/05/2015 to 17/05/2015	9575578	4.269	2.243			
8th	18/05/2015 to 24/05/2015	12188809	3.374	3.612			
9th	25/05/2015 to 31/05/2015	20986747	5.520	3.802			
10th	01/06/15 to 07/06/2015	14774190	3.890	3.798			
11th	08/06/2015 to 14/06/2015	2750651				0.41451	
12th	15/06/2015 to 21/06/2015				2370853	3.978269	0.596
13th	22/06/2015 to 28/06/2015	8456448	5.040	1.678			
14th	29/06/2015to 05-07-2015	10774032	3.266	3.299			
15th	06-07-2015 to 12-07-2015	15389702	4.938	3.116			
16th	13/07/2015 to 19/07/2015	8231856	3.608	2.281			
17th	20/07/2015 to 26/07/2015	8192353	3.629	2.258			
18th	27/07/2015 o 02/08/2015	10483899	4.724	2.219			
19th	03/08/2015 to 09/08/2015	3490118	1.379	2.530			
20th	10/08/2015 to 16/08/2015	2596093	0.360	7.218			
21st	17/08/2015 to 23/08/2015	8935838	4.192	2.132			
22nd	24/08/2015 to 30/08/2015	5146110	1.214	4.238			
23rd	31/08/2015 to 06/09/2015	9022713	1.457	6.191			
24th	07/09/2015 to 13/09/2015	14767494	3.950	3.738			
25th	14/09/2015 to 20/09/2015	487977				1.380	
26th	21/09/2015 to 27/09/2015						
Total A		262942170	83.464685	3.150	2370853	5.772707	0.411

UI chargesSouthernregion

year-2015-16

Sr.no.	week	UI payable	units	Rate	Ul receivable	units	Rate
			in Mus			in Mus	
1st	30/03/2015 to 05/04/2015	1428283	0.30	4.740			
2nd	06/04/2015 to 12/04/2015	1639630	0.51	3.233			
3rd	13/04/2015 to 19/04/2015	1512287	0.744	2.033			
4th	20/04/2015 to 26/04/2015	1552012	0.361	4.305			
5th	27/04/2015 to 03/05/2015	1022762				0.367	
6th	04/05/2015 to 10/05/2015	1790918	0.309	5.802			
7th	11/05/2015 to 17/05/2015	1954087	0.809	2.416			
8th	18/05/2015 to 24/05/2015	2545353	1.188	2.143			
9th	25/05/2015 to 31/05/2015	3273763	1.536	2.131			
10th	01/06/15 to 07/06/2015	1551738	0.272	5.713			
11th	08/06/2015 to 14/06/2015				1059839	0.859	1.233
12th	15/06/2015 to 21/06/2015				1039223	2.325	0.447
13th	22/06/2015 to 28/06/2015	1062999				0.085	
14th	29/06/2015to 05-07-2015	576192	0.085	6.768			
15th	06-07-2015 to 12-07-2015	2792545	1.323	2.111			
16th	13/07/2015 to 19/07/2015	156494				0.443	
17th	20/07/2015 to 26/07/2015				472672	0.618	0.765
18th	27/07/2015 o 02/08/2015				1294925	0.855	1.515
19th	03/08/2015 to 09/08/2015				2276989	1.308	1.741
20th	10/08/2015 to 16/08/2015				851859	0.627	1.359
21st	17/08/2015 to 23/08/2015	1421635	0.534	2.662			
22nd	24/08/2015 to 30/08/2015				79843	0.004	19.714
23rd	31/08/2015 to 06/09/2015	2591502	0.539	4.808			
24th	07/09/2015 to 13/09/2015	4230778	1.280	3.306			
25th	14/09/2015 to 20/09/2015	820114	0.225	3.643			
26th	21/09/2015 to 27/09/2015	2237569	0.788	2.840			
53rd							
Total A		34160661	10.7995583	3.163	7075350	7.4906058	0.945

Reactive Charges Payable by GED

		reactive		
Sr.no.	week	payable/receivable		
	30.03.15 TO 05.04.15	-7,087		
1st		· · · · · · · · · · · · · · · · · · ·		
2nd	06.04.15 TO 12.04.15	-17,266		
3rd	13.04.15 TO 19.04.15	-13,262		
4th	20.04.15 TO 26.04.15	-20,943		
5th	27.04.15 TO 03.05.15	-21,271		
6th	04.05.15 TO 10.05.15	-3,363		
7th	11.05.15 TO 17.05.15	-19,183		
8th	18.05.15 TO 24.05.15	-27,443		
9th	25.05.15 TO 31.05.15	-20,772		
10th	01.06.15 TO 07.06.15	-10,534		
11th	08.06.15 TO 14.06.15	-29,997		
12th	15.06.15 TO 21.06.15	-1,16,521		
13th	22.06.15 TO 28.06.15	-1,10,005		
14th	29.06.15 TO 05.07.15	-72,755		
15th	06.07.15 TO 12.07.15	-31,547		
16th	13.07.15 TO 19.07.15	-64,072		
17th	20.07.15 TO 26.07.15	-25,567		
18th	27.07.15 TO 02.08.15	-13,763		
19th	03.08.15 TO 09.08.15	-41,342		
20th	10.08.15 TO 16.08.15	-18,196		
21st	17.08.15 TO 23.08.15	-26,211		
22nd	24.08.15 TO 30.08.15	-20,170		
23rd	31.05.15 TO 06.09.15	-28,180		
24th	07.09.15 TO 13.09.15	-22,518		
25th	14.09.15 TO 20.09.15	-83,160		
26th	21.09.15 TO 27.09.15	-24,039		
	Total	-662641		

Annexure V: Details of Fatal Electrical Accidents for the years FY 2013-14 and FY 2014-15

Details of Fatal Electrical Accidents to non-departmental staff for the year <u>13-14,14-15.</u>

Name of the person	Date of Accident	Place of Accident	Cause of Accident	Amount paid
a) Shri Puttu Kushta 07-06-2011		Kajumol Mollem,	The person got electrocuted	Rs.2,00,000/- sanctioned
Kutkar		Dharbandora	due to meddling with 1Ø 2 wire line	on 22/04/2013
			& hooking the line for charging	
			the fencing to avoid the	
			entry of wild animals at night	
b) Mr. Sebastiao Fernandes	06-12-2013	Vigrebhat Vasvaddo	The nylon rope supporting the S/C	Rs.2,00,000/- sanctioned in
		Benaulim	wire having a joint snapped &	09 /10/2013
			the S/C wire had fallen on the GI sheet	
			roofing there by energingthe GI roof and	
			the supporting GI pipe.	
			The victim came in contact with the GI	
			pipe got severe electrical shock	
			& electrocuted on the spot.	
c) Shri. Kushali D.	06-11-2013	Nr. Sancoale Railway	The deceased came	Rs.2,00,000/- sanctioned in
Honawarkar		station	in contact with the	22/01/2014.
		Vasco.	live existing U/G cables while digging	
D) Shri. Ranganath	26/07/2013	Forgasttem opp.	Conductor snapped on the	Rs.2,00,000/- sanctioned in
Naik		Market Goa Velha-Goa	Panaji-Agassaim road due	31/07/2014.
			to falling of coconut leaf	

Annexure VI: RBI Bank Rate



भारतीय रिजर्व बैंक RESERVE BANKOF INDIA

www.rbi.org.in

RBI/2014-15/486 DBR.No.Ret.BC.73 /12.01.001/2014-15

March 04, 2015

All Scheduled Commercial Banks, Local Area Banks and RRBs

Dear Sir,

Change in Bank Rate

Please refer to <u>circular DBR.No.Ret.BC.61/12.01.001/2014-15 dated January 15, 2015</u> on the captioned subject.

- 2. As announced in the <u>Press Release 2014-2015/1847 dated March 04, 2015</u>, the Bank Rate stands adjusted by 25 basis points from 8.75 per cent to 8.50 per cent with effect from March 04, 2015.
- All penal interest rates on shortfall in reserve requirements, which are specifically linked to the Bank Rate, also stand revised as indicated in the Annex.
- 4. Please acknowledge receipt.

Yours faithfully

(Sudha Damodar) Chief General Manager

Encl: as above

वैंत्रिंग विनियमन विभाग, केंद्रीय कार्यांत्रय, सेंट्रर 1, कक्ष परेड, कोलावा, मुंबई - 400005 Department of Banking Regulation, Central Office, Centre 1, Cuffe Parade, Colaba, Mumbai - 400005 टेलिप्पोन /Tel No: 91-22-22189131 केंक्स नं./Fax No: 022-22150772 Email ID:cgmicdbr@rbi.org.in हिन्दी आसान है, इसका प्रयोग बढ़ाइए

"Caution: RBI never sends mails, SMSs or makes calls asking for personal information like bank account details, passwords, etc. It never keeps or offers funds to anyone. Please do not respond in any manner to such offers."



Annexure VIII: LOI for Banking of Power

OFFICE OF THE CHIEF ELECTRICAL ENGINEER ELECTRICITY DEPARTMENT GOVERNMENT OF GOA VIDYUT BHAVAN 3rd FLOOR

PANAJI - GOA No 0832- 22224680 / 2222354 / 7350622000 / 2426986 (Fax) / E-Mail ID: cee-elec goa@nic in Dated 29/1/2016

No. 102/17/Gen/CEE/Tech/1723

M/s Mittal Processors pvt ltd, Unit 46,-50,2FC-S, Ansal Plaza, Sector -1, Vaishali, Ghaziabad -201010.

Sub: L.O.I for Banking of power from February to March-2016. Ref: - 1) your offer No MPPL/PT/DEL/EDG/25885 dated 16/1/2016.

2) Your E-Mail dated 27/1/2016.

Sir.

3

The offer for power swap/banking arrangement proposed vide above reference is acceptable for implementation as per the following;

Supply of power to ED- Goa.

Sr No	Period	Duration	Quantum	Delivery Point
1	1-2-2016 To 31-3-2016	16.00 to 22.00 HRS	Up to 50 MW	Regional Periphery

Return of power by ED- Goa.

Sr No	Period	Duration	Quantum	Delivery Point
1	1-7-2016 To 30-09-2016	00.00 to 08.00 HRS	107 % of the banked energy @30 MW per day.	Regional Periphery

ED- Goa shall return the power as mutually decided by ED- Goa & Mittal on MU basis only.

It is requested to give your consent for the above and make necessary arrangements for schedule and Dispatch of power from 1-2-2016.

Your's faithfully,

(Dipak Bhai Chief Electrical Eng

Annexure IX: Work Order for appointment of PMC - Corrigendum

OFFICE OF THE
CHIEF ELECTRICAL ENGINEER,
3RD FLOOR, VIDYUT BHAVAN,
PANAJI-GOA.

Phone No: 0832- 2234155,224680,2426022

E-mail Id: cee.goa@nic.in

No: 60/2/CEE/TECH/R-APDRP-Part B/2015-16/ 158 6 Date: 7/12/2015

To,
The Chief Executive Officer,
REC Power Distribution Company Ltd,
Corporate office-1016-1023, 10th floor,
Devika Towers, Nehru Palace,
New Delhi-110019.

CORRIGENDUM

Sub: Detailed work order for the work of Survey, Preparation of DPR and PMC Services Under R-APDRP Scheme for Goa Electricity Department for four towns, in Goa State.

Ref: 1. This office work order No. No: 60/2/CEE/TECH/R-APDRP-Part B/2014-15/1514, dated: 26/11/2014

Sir(s),

In continuation to this office letter vide above cited reference, the Project Management Consultancy (PMC) services payable for IPDS, DDUGJY Schemes and other sub-transmission and distribution works, as identified in DPR prepared under the scheme R-APDRP- Part B, is limited to the total estimated amount of Rs.1000 crores (Thousand crores only).

All other terms and conditions will remain unchanged and will be governed as per the Agreement executed between RECPDCL and Goa Electricity Department.

Yours faithfully,

(Dipak S. Bhajekar) Chief Electrical Engineer

Annexure X: Letter for making Budget provision for Security Deposit of consumers

TIME BOUND / MOST URGENT

No. CEE/Accts-100(SD-Int)/2013-14/ 2786 Office of the Chief Electrical Engineer, Govt. of Goa,

Vidyut Bhavan, 4th floor, Panaji – Goa. Dated: |7 / to /2014

To,
The Dy. Director of Accounts,
A.C. & D Section,
Directorate of Accounts,
Panaji - Goa.

Sub:- Request for budget provision in Supplementary grants for the financial year 2014-15 for crediting interest on Security deposit of consumers.

Ref:- Govt. Circular No. 1/15/2013/Fin (Bud) dated 03/09/2013

Sir / Madam.

Please refer the above Government circular issued by the Finance Budget Department, Secretariat, Porvorim endorsed to your office vide this office circular No. CEE/Accts-4(Bud)/2013-14/2471 dated 17/09/2013 (Copy enclosed for ready reference).

As per the above Govi, circular, this Department has to credit the interest on Security Deposit of the consumers held by this department for the financial year ending 31/03/2012, 31/03/2013 and 31/03/2014. This interest amount has to be shown as credit in the consumers hills of May / June of 2015.

In this connection, you are requested to make the budget provision for total ₹ 8,62,46,936/- (Rupces eight crores sixty two lakks forty six thousand nine hundred thirty six only) in the supplementary grants for the financial year 2014-15 under the BH: 2049- Interest Payments, 60- Interest on Other obligation, 101- Interest on Deposits, 10-Interest on Consumers Security Deposits, 45- Interest (Charged) for payment of interest on the Security Deposits of the consumers held by this Department.

Further, as soon as the necessary funds are provided by Government in Supplementary grants for the year 2014-15, necessary adjustment transfer entry should be proposed by debiting 2049 and crediting 8336, under intimation this Department.

rours rainfully,

(Lekshmanan 6) Chief Electrical Engineer

Encl: Detailed statement of security deposit interest,



Annexure XI: Bill of Jan 2016 - Crediting of Interest on Security Deposit

Annexure XII: Budgetary Support – Government of Goa

TARIFF FILING FORMATS