

**PETITION TO
JOINT ELECTRICITY REGULATORY COMMISSION**

**ANNUAL PERFORMANCE REVIEW FOR FY 2014-15,
MULTI YEAR TARIFF (MYT) FOR FIRST CONTROL PERIOD OF
FY 2015-16 TO FY 2017-18 AND TARIFF PROPOSAL FOR FY
2015-16**

**OF
ELECTRICITY DEPARTMENT, GOA**

ARR PETITION & FORMATS

**Submitted to
JOINT ELECTRICITY REGULATORY COMMISSION,
GURGAON**

By



**ELECTRICITY DEPARTMENT, GOVERNMENT OF GOA
PANAJI**

JANUARY 2015

**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 Review of FY 2014-15, Multi Year Tariff for the First Control Period of FY 2015-16 to FY 2017-18 and Tariff Proposal for FY 2015-16 for the Electricity Department of Goa under Section 45, 46, 61, 62, 64 and 86 of the Electricity Act, 2003

AND

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

.....Petitioner

Electricity Department, Government of Goa (hereinafter referred to as "ED-Goa"), files petition for approval of Annual Performance Review of FY 2014-15 and Multi Year Tariff for Control Period of FY 2015-16 to FY 2017-18 and Tariff Proposal for FY 2015-16 under Section 45, 46, 61, 62, 64 and 86 of the Electricity Act, 2003.

**BEFORE THE JOINT ELECTRICITY REGULATORY COMMISSION FOR THE STATE OF GOA, &
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AND

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

AFFIDAVIT VERIFYING THE PETITION

I, Shri Lekshmanan S., son of Shri. Shridharan K. V. aged 60 years residing at, Vasco, Goa, the deponent named above do hereby solemnly affirm and state on oath as under:-

1. That I am Chief Electrical Engineer and Head of Electricity Department, Government of Goa and am authorised to sign and submit the said petition, and am acquainted with the facts deposed to below.
2. I say that on behalf of ED-Goa, I am now filing this Petition under The Electricity Act, 2003 for approval of Annual Performance Review of FY 2014-15 and Multi Year Tariff for the Control Period of FY 2015-16 to FY 2017-18 and Tariff Proposal for FY 2015-16 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 January 2015 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 of FY 2014-15, Multi Year Tariff for the First Control Period for FY 2015-16 to FY 2017-18 and Tariff Proposal for FY 2015-16 for the Electricity Department of Goa under Section 45, 46, 61, 62, 64 and 86 of the Electricity Act, 2003.

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 PETITION AND TARIFF PROPOSAL OF ELECTRICITY DEPARTMENT OF GOA (herein after referred to as "ED-Goa") FOR FY 2015-16.

The Petitioner respectfully submits as under: -

1. The Petitioner, The Electricity Department – Goa (ED-Goa) has been allowed to function as Distribution Utility for the State of Goa.
2. Pursuant to the enactment of the Electricity Act, 2003, ED-Goa 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. ED-Goa filed its ARR and Tariff petition for determination of tariff for FY 2014-15 on 13th January 2014 on the basis of the principles outlined in the Tariff Regulations 2009 notified by the Hon'ble Commission.



4. After conducting public hearings, the Hon'ble Commission issued Tariff order on 15th April 2014.
5. The Hon'ble Commission further issued Multi Year Tariff Distribution (MYT) Regulations notified on 29th May 2014 (hereinafter referred as MYT Regulations 2014).
6. ED-Goa hereby submits the present petition for approval of Annual Performance Review (APR/ Review) of FY 2014-15 and Multi Year Tariff for the Control Period of FY 2015-16 to FY 2017-18 and Tariff Proposal for FY 2015-16 based on the principles outlined in the Tariff Regulations 2009 and MYT Regulations 2014, notified by the Hon'ble Commission.
7. ED-Goa prays to the Hon'ble Commission to admit the attached petition for Annual Performance Review of FY 2014-15 and Multi Year Tariff for the Control Period of FY 2015-16 to FY 2017-18 and Tariff Proposal for FY 2015-16 and 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 ED-Goa in the recent past, and certain issues impacting the performance of ED-Goa in the Licensed Area.
- B. Broadly, in formulating the APR for FY 2014-15, 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 2015-16 to FY 2017-18 based on the principles specified by MYT Regulations 2014.
- D. In order to align the thoughts and principles behind the ARR/MYT and Tariff Petition, ED-Goa respectfully seeks an opportunity to present its case prior to the finalization of the Tariff Order. ED-Goa 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:

- Accept the petition for Annual Performance Review of FY 2014-15 and Multi Year Tariff for the Control Period of FY 2015-16 to FY 2017-18 and Tariff Proposal for FY 2015-16 which is in line with the principles laid by Joint Electricity Regulatory Commission contained in MYT Regulations 2014 and Tariff Regulations 2009;
- Approve the Review for FY 2014-15 at Rs. **1,565.59** Crores, ARR for FY 2015-16 at Rs. **1,650.60** Crores, ARR for FY 2016-17 at Rs. **1,808.02** Crores and ARR for FY 2017-18 at Rs. **2,048.75** Crores.
- To consider the Tariff Design Philosophy and approve the proposed changes in Tariff Schedule (rationalisation of tariff categories & changes in applicability clauses) for FY 2015-16 which is in line with previous directions of Hon'ble Commission;
- Approve the proposed Revenue Gap of Rs. 929.49 Crs, Tariff Increase of Rs. **224.07** Crs and Creation of Regulatory Asset for balance revenue gap;
- Examine the proposal submitted by the petitioner as detailed in the enclosed proposal for a favourable dispensation.
- 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.
- Pass suitable orders with respect to APR for FY 2014-15 and MYT for FY 2015-16 to FY 2017-18 for the expenses to be incurred by ED - Goa for serving its consumers;
- ED – Goa may also be permitted to propose suitable changes to the APR for 2014-15 and MYT for FY 2015-16 to FY 2017-18 and any such data/information related to it, prior to the final approval by the Hon'ble Commission of the petition submitted;
- Condone any inadvertent omissions/errors/shortcomings and permit ED – Goa to add/change/modify/alter this filing and make further submissions as may be required at a future date.
- 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: ___ January 2015



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TARIFF FILING FORMATS.....



List of Abbreviations

Sr. No	Abbreviations	Descriptions
1.	A&G	Administrative and General
2.	AC	Auxiliary Consumption
3.	ABR	Average Billing Rate
4.	APR	Annual Performance Review
5.	ARR	Aggregate Revenue Requirement
6.	CAGR	Compound Annual Growth Rate
7.	CAPEX	Capital Expenditure
8.	CERC	Central Electricity Regulatory Commission
9.	JERC	Joint Electricity Regulatory Commission
10.	CGS	Central Generating Station
11.	CoS	Cost of Supply/ Service
12.	CPPs	Captive Power Plants
13.	Crs	Crores
14.	CWIP	Capital Work in Progress
15.	DF	Distribution Franchisee
16.	DISCOM	Distribution Companies
17.	DPC	Delayed Payment Charges
18.	DSM	Demand Side Management
19.	DTC	Distribution Transformer
20.	EA	The Electricity Act 2003 (The Act)
21.	EDG/ED-Goa	Electricity Department-Goa
22.	FY	Financial Year
23.	GFA	Gross Fixed Assets
24.	G.O.G	Government Of Goa
25.	Gol	Government of India
26.	HR	Human Resource
27.	HT	High Tension
28.	IPP	Independent Power Producers
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.	LF	Load Factor
35.	LT	Low Tension
36.	MD	Maximum Demand



Sr. No	Abbreviations	Descriptions
37.	MOD	Merit Order Despatch
38.	MoP	Ministry of Power
39.	MOU	Memorandum of Understanding
40.	MU	Million Units (Million kWh)
41.	MVA	Mega Volt Ampere
42.	MW	Mega Watt
43.	MYT	Multi Year Tariff
44.	NEP	National Electricity Policy
45.	NTP	National Tariff Policy
46.	NTPC	National Thermal Power Corporation
47.	O&M	Operation & Maintenance
48.	PAF	Plant Availability Factor
49.	PF	Provident Fund
50.	PFC	Power Finance Corporation
51.	PLF	Plant Load Factor
52.	PLR	Prime Lending Rate
53.	PPA	Power Purchase Agreement
54.	R-APDRP	Restructured-Accelerated Power Development and Reform Programme
55.	REC	Rural Electrification Corporation
56.	R&M	Repair and Maintenance
57.	ROE	Return on Equity
58.	RPO	Renewable Purchase Obligation
59.	Rs	Rupees
60.	SBI	State Bank of India
61.	T&D	Intra State Transmission and Distribution
62.	w.e.f	With effect from
63.	Y-o-Y	Year on Year



CHAPTER 1. INTRODUCTION

1.1 Background of Electricity Department

1.1.1 The Electricity Department was formed in January 1963 under the Government of Goa, Daman & Diu. It is the only licensee now operating in the State of Goa for transmission and distribution of Electrical Energy. The Electricity Department of Goa does not have its own generation. The majority of the power requirement for the State of Goa is met through its share from Central Sector Power Stations of the National Thermal Power Corporation as allocated by the Central Government. The total firm allocation of power from central sector is approx **480 MW excluding share of RGPPL**. The power allocation statement is attached as **Annexure I** of this Petition. The peak demand recorded during September 2014 is **500 MW** and in summer months it is expected to reach **550 MW**. In addition, the department also purchases power from Co-generation, Exchange and Traders.

1.1.2 ED-Goa is under control of State Government and the maintenance of the accounts or Income and expenditure statement is on “cash” basis unlike other utilities/ licensees where it is being maintained on “accrual” basis. ED-Goa has already started preparing audited annual accounts for FY 2007-08 onwards on “accrual” basis.

1.1.3 The present unrestricted demand for the State of Goa is about 500-525 MW which is being met by power from various Central Sector Power Stations and generating stations within state (from traders, IEX, also). The Electricity Department of Goa caters to around 6 Lacs consumers with an annual energy consumption of approx 3000 MUs. The consumption of consumers of the Electricity Department of Goa is classified as under:

- Domestic (27% of consumption)
- Commercial (10% of consumption)
- Industrial (56% of consumption)
- Public Water Works (5% of consumption)

1.1.4 As seen from the above classification, the energy consumption of Industrial consumers is the highest (56%) amongst all these categories.

1.2 Filing of Petition

1.2.1 The Regulation 8 of Tariff Regulations 2009 provides for filing of Review before Commission.



8. Review and Truing Up

(1) The Commission shall undertake a review along with the next Tariff Order of the expenses and revenues approved by the Commission in the Tariff Order.

While doing so, the Commission shall consider variations between approvals and revised estimates/pre-actual of sale of electricity, income and expenditure for the relevant year and permit necessary adjustments/ changes in case such variations are for adequate and justifiable reasons. Such an exercise shall be called 'Review'.

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

1.2.2 The Regulation 4 of MYT Regulations 2014 provides for filing of MYT Petition and the framework.

4. Multi Year Tariff Framework

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:

4.2 The Multi-Year Tariff framework shall be based on the following elements, for calculation of Aggregate Revenue Requirement and expected revenue from tariff and charges for Distribution Business:

i. Control Period, before commencement of which a forecast of the Aggregate Revenue Requirement and expected revenue from existing tariff and charges shall be submitted by the applicant and approved by the Commission;

ii. A detailed Business Plan based on the Operational Norms and trajectories of performance parameters specified in these Regulations, for each year of the Control Period, shall be submitted by the applicant for the Commission's approval;

iii. Based on the Business Plan as approved by the Commission by order, the applicant shall submit a petition with the forecast of Aggregate Revenue Requirement and expected revenue from existing tariff for each year of the Control Period, and the Commission shall approve the tariff for each year of the Control Period;

iv. The mechanism for pass-through of approved gains or losses on account of uncontrollable factors as specified by the Commission in these Regulations;

v. The mechanism for sharing of approved gains or losses arising out of controllable factors as specified by the Commission in these Regulations;



“20.3 The information to be provided shall also include...

..... (c) A statement of the proposed tariff rate, price and charge, including a full statement of all applicable terms and conditions, as compared to those referred to (i) above. This statement should be shown in a form appropriate to the proposed tariff structure. Details should also be supplied of the publicity intended to be given to new tariff options when they are to be implemented.

(d) A statement of the expected full-year revenue of the proposed tariff for the year in which the tariff is to be implemented.....

- 1.2.3 ED-Goa filed the affidavit on 1st October 2014 seeking extension for filing Business Plan for the control period FY 2015-16 to FY 2017-18 up to 30th November 2014 as e-tendering process for appointment of consultant was in process and there was likely delay in finalisation of business plan. The Hon'ble Commission granted the extension up to 30th November 2014 vide its letter dated 17th October 2014.
- 1.2.4 Thereafter ED-Goa filed an affidavit on 17th November 2014 as there was change and re-shuffling of Government and also appointment of consultant was pending. ED-Goa sought an extension for filing of Business Plan and MYT Petition up to 31st January 2015. However Hon'ble Commission granted time up to 20th December 2014.
- 1.2.5 ED-Goa filed another affidavit on 18th December 2014 seeking extension up to 31st Jan 2015 as new Government was recently formed and also billing agency for LT was handed over to new agency M/s. Goa Electronics Ltd by replacing all other agencies. After the expiry of PPA with Reliance IPP, the consumers earlier being served by Reliance IPP have got shifted to ED-Goa's network. Pending availability of this data, MYT projections would have got affected as the consumption is substantial. The Hon'ble Commission vide its letter dated 19th Dec 2014 granted an extension for filing till 15th January 2015.
- 1.2.6 ED-Goa has prepared the MYT petition based on the norms, trajectories, forecasts provided in the Business Plan, which is filed 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 in 9th February 2010. In line with the same, ED – Goa 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 expected future performance. The JERC Tariff Regulations 2009 would be applicable for True-up of FY 2013-14 and Review of FY 2014-15.

The Hon'ble Commission further issued Multi Year Tariff Distribution (MYT) Regulations notified on 29th May 2014 (hereinafter referred as MYT Regulations 2014) which are applicable for the control period of FY 2015-16 to FY 2017-18.

2.1 Provisional Truing up for FY 2013-14

2.1.1 As specified in the Tariff Regulations, the Hon'ble Commission shall undertake the truing-up exercise for the previous year based on audited accounts. ED-Goa submits that it is in process of finalisation of audited accounts from FY 2010-11 to FY 2013-14. ED-Goa shall approach Hon'ble Commission for final truing-up of FY 2011-12 & FY 2013-14 at a later date when audited accounts are available. However at present the provisional figures of FY 2013-14 are made available based on unaudited accounts, for ARR & tariff petition exercise purpose in next chapter.

2.2 Annual Performance Review for FY 2014-15

2.2.1 As specified in the Tariff Regulations 2009, the Hon'ble Commission shall undertake the Annual Performance Review by considering variations between the approved and revised estimates of sale of electricity, income and expenditure for the relevant year.

2.2.2 Accordingly, ED – Goa is filing this Annual Performance Review petition for the year FY 2014-15 based on the actual performance during the 1st half of the year and the revised estimates for the second half of the year. The basis of estimates taken in the second half is detailed in the chapter for review of FY 2014-15.

2.3 Multi-year Tariff for FY 2015-16 to FY 2017-18 and Tariff Proposal for FY 2015-16

2.3.1 The MYT Regulations 2014 provide that MYT Petition shall be based on approved Business Plan by Hon'ble Commission. ED-Goa has submitted the Business Plan to Hon'ble Commission and has covered following elements in detail:



- a) Allocation Policy for Segregation of Wires & Supply ARR;
- b) Category wise Sales Projection
- c) Source wise Power Purchase Plan
- d) Transmission and Distribution Loss Trajectory
- e) Capital Investment Plan
- f) Operation & Maintenance Norms (for Employee Expenses, Administration & General Expenses and Repairs & Maintenance Expenses)

2.3.2 However considering delay in filing the petition of Business Plan, the figures submitted in the Business Plan are considered as the base for MYT projections.

2.3.3 Considering the above submissions in Business Plan, detailed Annual Revenue Requirement for each year of MYT has been projected.

2.3.4 ED-Goa has also submitted the tariff proposal for FY 2015-16 with proposed changes in tariff structure and tariff increase to recover part revenue gap. The details about the tariff structure are covered in Tariff Philosophy & Tariff Schedule chapter.

2.4 MIS Issues

2.4.1 ED-Goa submits that the meter reading, billing and collection process is being streamlined and is going through a transformation phase. In the past it was maintained by several different outsourced agencies separately in each division and each agency had its separate logic for calculation and bill generation.

2.4.2 However, now a common agency is taking over all the billing and collection data for HT and LT consumers and a common process will be followed for all the division to avoid ambiguity in the process and data. While this streamlining process is in progress, a lot of errors in the legacy data have been discovered and the error rectification process is going on.

2.4.3 It is therefore submitted that due to the above reasons, the actual T&D Loss may be different than what is being projected in this Petition. The Hon'ble Commission may allow ED-Goa to revise the T&D loss figures whenever the data gets finalized.



CHAPTER 3. PROVISION PERFORMANCE FOR FY 2013-14

3.1 Status of Truing-up for FY 2013-14

3.1.1 ED-Goa as per directive of Hon'ble Commission has appointed Consultant for preparation and finalisation of Financial Statements required for truing-up purposes. The compliance details are discussed at paragraph 11.5 of Directives chapter. ED-Goa is almost ready with the annual accounts for FY 2007-08 to FY 2009-10 for which queries of CAG audit are under process.

3.1.2 As mentioned in the approach, ED-Goa is not seeking Final truing-up of ARR for FY 2013-14 as audited accounts are pending.

3.2 Provision Energy Balance for FY 2013-14

3.2.1 ED-Goa in this chapter submits the provisional energy balance for FY 2013-14 as against approved figures by Hon'ble Commission.

Table 3-1: Provisional Energy Balance for FY 2013-14

In MUs

Sr. No.	Item	Submitted earlier in petition	Approved in T.O.	Provisional
1	2	3	4	5
1	Retail Sales to Consumers	3,018	2,962	2,977
	Add: Distribution Losses - %	12.50%	12.00%	13.86%
	Distribution Losses - MUs	431	404	479
2	Energy Requirement at Goa Periphery	3,449	3,366	3,456
3	Total Power Scheduled by ED-Goa			
	Scheduled Power from NTPC, RGPPL, NPCIL & RSTPS	3,351	3,385	3,396
	Add: Actuals of Over/Underdrawal	46	52	32
	Add: Power from Open Market/ Traders	78		
	Less: Sales through Exchanges & Traders	-		
	Total	3,475	3,437	3,428
4	Less: PGCIL Losses - %	4.79%	4.47%	4.69%
	PGCIL Losses - MUs	166	159	161
5	Total Power Purchased within Goa State			
	Add: Co-generation & Renewable Sources	29	29	74
	Add: Independent Power Producers (IPP)	112	59	115
	Total	141	88	189
6	Energy Input at Periphery after PGCIL Losses & State Power Purchase	3,449	3,366	3,456



3.2.2 The details of provisional energy input at periphery (3428-161=3267 MUs) are provided in the table below on monthly basis for Western & Southern region:

Table 3-2: Energy Input at Periphery for FY 2013-14

Month	Western Region (MUs)	Southern Region (MUs)	Total
Apr-13	226	61	287
May-13	231	64	295
Jun-13	213	41	254
Jul-13	210	42	252
Aug-13	226	40	267
Sep-13	211	47	258
Oct-13	234	43	278
Nov-13	214	53	267
Dec-13	215	61	276
Jan-14	218	60	278
Feb-14	203	56	258
Mar-14	238	59	297
Total	2,640	627	3,267

3.2.3 The details of Sales, Connected Load, and No. of Consumers are provided in **Tariff Filing Format -1**, Energy Balance at **Tariff Filing Format -2** & Source wise Power purchase cost at **Tariff Filing Format – 4**.

3.3 Provisional Financial Performance for FY 2013-14

3.3.1 The details of each and every parameter for FY 2013-14 on provisional basis have been provided in the Tariff Filing Formats.

3.3.2 However the summary of provisional ARR for FY 2013-14 as against revised approved figures by the Hon'ble Commission is provided in the table below for reference and future projections/trend purposes.



Table 3-3: Provisional ARR for FY 2013-14

Rs. Crores				
Sr. No.	Item of expense	ARR Projection (Rs.Crs)	Approved (Rs.Crs)	Revised Estimates (Rs.Crs)
1	Cost of power purchase	1,087.69	933.41	1,091.39
2	Employee costs	165.00	144.21	168.41
3	R&M expenses	23.38	19.61	25.57
4	Administration and General expenses	11.39	9.08	7.52
5	Depreciation	16.00	16.00	45.94
6	Interest on Loan & Finance charges	10.01	16.70	70.32
7	Interest on Working Capital	6.44	3.84	6.50
8	Interest on Security Deposit	5.49	5.42	7.28
9	Return on NFA /Equity	5.86	5.86	17.98
11	CGRF Expenses	0.56	0.56	0.33
12	Total Revenue Requirement	1,331.82	1,154.69	1,441.24
13	Less: Non Tariff Income	22.55	22.55	5.56
14	Less: Revenue from Sale of Power-Exchanges/UI Pool	5.09	8.38	-
15	Provision for RPO Obligation for previous year	-	29.42	
16	Net Revenue Requirement (13- 14-15-16)	1,304.18	1,153.18	1,435.69
17	Revenue from Retail Sales at Existing Tariff including FPPCA Charges	1,016.51	1,014.05	1,012.34
18	Budgetary Support (as per review order)	-	139.12	139.12
19	Net Gap (17-18-19)	287.67	0.00	284.22

3.3.3 The month wise breakup for each of the source/ element of Power Purchase and Transmission charges for the period April 2013 to March 2014 are provided in **Annexure II & Annexure III** respectively.

3.3.4 The other details related to capital expenditure, capitalisation, depreciation, interest on loan, O&M expenses etc are provided in **Tariff Filing Formats**.

3.3.5 The details of revenue gap and treatment to revenue gap for FY 2013-14 with approved and earlier projections figures are tabulated below:



Table 3-4: Revenue Gap for FY 2013-14

Sr. No.	Item of expense	Rs Crore		
		Projection FY 2013-14	Approved FY 2013-14	Revised FY 2013-14
1	Net ARR for FY 2013-14	1,304.18	1,153.18	1,435.69
2	Less: Revenue at Existing Tariff + FPPCA Charges	1,016.51	1,014.05	1,012.34
3	Gap at Existing Tariff	287.67	139.12	423.34
4	Less: Revenue from Revised Tariffs	-	-	-
5	Less: Budgetary Support	287.67	139.12	139.12
6	Balance Revenue Gap	-	-	284.22

- 3.3.6 It is submitted that that revenue gap of Rs. **284.22** Crores for FY 2013-14 is not being claimed in this petition as audited financial statements for FY 2013-14 are yet to be prepared. The same would be claimed once audited financial statements are ready for FY 2013-14 and separate petition would be filed before JERC or may be merged in subsequent tariff filing petitions.
- 3.3.7 ED-Goa submits Hon'ble Commission that it may approach separately for filing petition for true-up of FY 2012-13 and FY 2013-14 in September 2015 (depending on final status for Audited Statements till FY 2013-14) or would file true-up in subsequent petition in next year and claim the revenue gap.



CHAPTER 4. ANNUAL PERFORMANCE REVIEW FOR FY 2014-15

4.1 Background to FY 2014-15 Petition

4.1.1 ED – Goa 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 2014-15 and requests the Hon'ble Commission to review the performance for FY 2014-15. The Annual Performance Review for FY 2014-15 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.

4.2 Review for FY 2014-15

4.2.1 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’...”

4.2.2 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...”

4.2.3 The Hon'ble Commission had issued the Tariff Order for FY 2014-15 on 15th April 2014. For the purpose of ease of reference; the summary of approved ARR vis-a-vis submitted by ED – Goa for FY 2014–15 submitted in the previous filing is reproduced hereunder:



Table 4-1: ARR approved by JERC – FY 2014-2015

Sr. No.	Item of expense	ARR Projection (Rs.Crs)	Approved (Rs.Crs)
1	Cost of power purchase	1,065.53	933.95
2	Employee costs	177.14	152.42
3	R&M expenses	24.71	20.73
4	Administration and General expenses	9.97	9.60
5	Depreciation	24.42	24.42
6	Interest on Loan & Finance charges	8.96	24.35
7	Interest on Working Capital	4.32	2.85
8	Interest on Security Deposit	6.76	5.89
9	Return on NFA /Equity	11.12	11.12
11	CGRF Expenses	0.75	0.75
12	Total Revenue Requirement	1,333.68	1,186.08
13	Less: Non Tariff Income	23.22	23.22
14	Net Revenue Requirement (12-13)	1,310.46	1,162.86
15	Revenue from Retail Sales at Existing Tariff including FPPCA Charges	1,031.31	1,025.66
16	Net Gap (14-15)	279.15	137.20

ED-Goa would now discuss each of the elements of review in detail for H1 and H2 of FY 2014-15.

4.3 Number of Consumers

4.3.1 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. ED – Goa has been experiencing a constant and nominal growth rate in number of consumers over the last few years and foresees a similar kind of trend in the near future. Further, ED – Goa envisages very little increase in number of consumers which is also in line with that approved by the Hon'ble Commission in its Tariff Order. The table below shows category wise number of consumers for the 1st half (provisional) and at the end of the year FY 2014-15 (Revised Estimates).



Table 4-2: Number of Consumers – FY 2014-2015

Sr. No.	Category of Consumer	FY14-15 (Apprvd)	H1 FY15 (Prov.)	FY 14-15 (Rev.Est)
1	2	3	4	5
A	Low Tension Supply	588,218	591,534	602,750
1(a)	Tariff LTD/Domestic and Non-Commercial	446,515	469,503	478,893
	<i>First 60 Units</i>		100,512	102,523
	<i>61 to 250 Units</i>		282,784	288,440
	<i>251 to 500 Units</i>		67,964	69,323
	<i>Above 500 Units</i>		18,243	18,607
1(b)	Tariff LTD/Low Income Group	14,321	11,547	11,547
1(c)	Tariff LTD/Domestic Mixed	51	1,405	1,405
	<i>First 400 Units</i>		1,150	1,150
	<i>Above 400 Units</i>		255	255
2	Tariff-LTC/Commercial	96,414	87,335	89,081
	<i>First 100 Units</i>		42,463	43,312
	<i>From 101 to 1000 Units</i>		39,082	39,863
	<i>All Consumption above 1000 Units</i>		5,790	5,906
3 (a)	Tariff-LTP/Motive Power	9,622	6,912	6,981
	<i>Connected Load upto 50 HP</i>		363	366
	<i>Connected Load above 50 HP</i>		6,549	6,615
3 (b)	Tariff-LTP/ Ice Manufacturing	45	63	66
	<i>Connected Load upto 100 HP</i>		63	66
3(a)	Tariff-LTP/Mixed (Hotel Industries)	126	141	148
4	Tariff-LTAG/Agriculture	11,105	11,145	11,145
5	Tariff-LTPL/Public Lighting	9,466	2,740	2,740
6	Tariff-LT PWW/Public Water Works	553	744	744
B	High Tension Supply	839	811	817
7	Tariff HT-Mixed	206	168	168
8(a)	Tariff HTI/Industrial	493	392	396
8(b)	Tariff HTI/Hotel Industries	-	109	110
8(c)	Tariff HTI/Ice Manufacturing	2	2	2
9	H.T.Industrial (Ferro Metallurgical/ Steel Melting/ Power Intensive/ Steel Rolling)	40	37	37
	<i>First 300 Units/kVA</i>		20	20
	<i>Next 200 Units/kVA</i>		14	14
	<i>Above 500 Units/kVA</i>		3	3
10	Tariff-HTAG/Agriculture	42	41	41
11	EHTI/Industrial	4	5	5
12	H.T. PW/Public Water Supply and Sewage	31	34	35
13	H.T. MES/Defence Establishments	13	12	12
14	H.T. Industrial (Steel Rolling)	-	-	-
	<i>First 200 Units/kVA</i>		-	-
	<i>Next 100 Units/kVA</i>		-	-
	<i>Above 300 Units/kVA</i>		-	-
15	Tariff HT-Industries (IT High Tech).	8	11	12
			-	-
C	Temporary Supply	4,163	5,033	5,033
16	Tariff-LT/Temporary	4,163	4,929	4,929
17	Tariff-HT/Temporary	-	-	-
18	Hoarding / Sign Board	-	104	104
	Total Number of Consumers	593,220	597,378	608,601



4.4 Connected Load

- 4.4.1 The category wise connected load for the 1st half and revised estimates for FY 2014-15 is provided in the table below. It has been observed that connected load for ED-Goa has not shown significant variance over the past five years. Therefore ED-Goa has considered a nominal growth of **0.5%** for LT-Domestic and LT-Commercial Consumer over H1 of FY 2014-15 to project connected load of H2 of FY 2014-15. ED-Goa has not considered any growth rate on connected load for rest of the categories and has considered connected load of H2 same as that of H1 of FY 2014-15.



Table 4-3: Connected Load – FY 2014-15

Sr. No.	Category of Consumer	FY14-15 (Apprvd)	H1 FY15 (Prov.)	FY 14-15 (Rev.Est)
1	2	3	4	5
A	Low Tension Supply (in kW/ HP)			
1(a)	Tariff LTD/Domestic and Non-Commercial	1,131,655	1,626,303	1,634,435
	<i>First 60 Units</i>	242,267	348,163	349,904
	<i>61 to 250 Units</i>	681,602	979,531	984,429
	<i>251 to 500 Units</i>	163,816	235,420	236,597
	<i>Above 500 Units</i>	43,971	63,190	63,506
1(b)	Tariff LTD/Low Income Group	1,206	2,046	2,046
1(c)	Tariff LTD/Domestic Mixed	2,198	3,191	3,191
	<i>First 400 Units</i>	1,798	2,611	2,611
	<i>Above 400 Units</i>	400	580	580
2	Tariff-LTC/Commercial	334,998	275,886	277,265
	<i>First 100 Units</i>	162,879	134,138	134,809
	<i>From 101 to 1000 Units</i>	149,910	123,458	124,075
	<i>All Consumption above 1000 Units</i>	22,209	18,290	18,382
3 (a)	Tariff-LTP/Motive Power	1,011,331	165,019	165,019
	<i>Connected Load upto 50 HP</i>	53,064	8,658	8,658
	<i>Connected Load above 50 HP</i>	958,267	156,360	156,360
3 (b)	Tariff-LTP/ Ice Manufacturing	1,882	3,072	3,072
	<i>Connected Load upto 100 HP</i>	1,882	3,072	3,072
3(a)	Tariff-LTP/Mixed (Hotel Industries)	3,315	4,569	4,569
4	Tariff-LTAG/Agriculture	64,226	61,326	61,326
5	Tariff-LTPL/Public Lighting	9,047	9,598	9,598
6	Tariff-LT PWW/Public Water Works	21,548	5,600	5,600
B	High Tension Supply (in kVA)	657,938	573,529	573,529
7	Tariff HT-Mixed	67,649	74,767	74,767
8(a)	Tariff HTI/Industrial	234,192	240,374	240,374
8(b)	Tariff HTI/Hotel Industries	122,763	41,559	41,559
8(c)	Tariff HTI/Ice Manufacturing	364	364	364
9	H.T.Industrial (Ferro Metallurgical/ Steel Melting/ Power Intensive/ Steel Rolling)	93,223	111,840	111,840
	<i>First 300 Units/kVA</i>	50,341	60,389	60,389
	<i>Next 200 Units/kVA</i>	35,425	42,328	42,328
	<i>Above 500 Units/kVA</i>	7,458	9,123	9,123
10	Tariff-HTAG/Agriculture	8,202	8,258	8,258
11	EHTI/Industrial	76,519	51,833	51,833
12	H.T. PW/Public Water Supply and Sewage	26,852	30,796	30,796
13	H.T. MES/Defence Establishments	6,812	7,080	7,080
14	H.T. Industrial (Steel Rolling)	16,204	-	-
	<i>First 200 Units/kVA</i>	11,505	-	-
	<i>Next 100 Units/kVA</i>	3,727	-	-
	<i>Above 300 Units/kVA</i>	972	-	-
15	Tariff HT-Industries (IT High Tech).	5,159	6,658	6,658
C	Temporary Supply (in kW/kVA)	16,464	8,025	8,025
16	Tariff-LT/Temporary	16,464	7,502	7,502
17	Tariff-HT/Temporary	-	-	-
18	Hoarding / Sign Board		523	523

Note: All LT Connections except 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



4.5 Energy Sales

- 4.5.1 ED – Goa has projected the sales by considering the actual consumption for the 1st half of FY 2014-15, i.e. April 2014 to Sep 2014. The sales forecast for the remaining period is based on the trends observed in sales pattern over the previous years during the corresponding 2nd half of the respective years.
- 4.5.2 ED – Goa has shown considered higher sales during the 2nd half of FY 2014-15 as compared to the first half. This is on account of the peak season of tourism which commences from the month September onwards and continues till the month of January/ February. Hence, there is a substantial amount of consumption of power during this period.
- 4.5.3 It is submitted that there is a backlog in billing for LT consumers during first half of FY 2014-15 which is expected to cover up during second half of FY 2014-15 and therefore sales of H2 (in terms of billing only) is estimated on higher side than H1 of FY 2014-15.
- 4.5.4 It is submitted that Reliance IPP was providing electricity supply directly to approx 55 industrial consumers on its own network. The said PPA with Reliance IPP has expired on 13th August 2014 and all the industrial consumers are now being supplied power by ED-Goa. Therefore ED-Goa expects an increase in sales of H2 as compared to H1 of FY 2014-15.
- 4.5.5 The following table shows the overall sales projected by ED – Goa for the year FY 2014-15.



Table 4-4: Sales for FY 2014-15

Sr. No.	Category of Consumer	FY14-15 (Apprvd)	H1 FY15 (Prov.)	H2 FY15 (Est) Mus	FY 14-15 (Rev.Est)
1	2	3	4	5	6
A	Low Tension Supply	1,258	578	652	1,230
1(a)	Tariff LTD/Domestic and Non-Commercial	904	339	383	722
	<i>First 60 Units</i>	189	73	82	155
	<i>61 to 250 Units</i>	543	204	231	435
	<i>251 to 500 Units</i>	136	49	55	105
	<i>Above 500 Units</i>	35	13	15	28
1(b)	Tariff LTD/Low Income Group	2	3	4	7
1(c)	Tariff LTD/Domestic Mixed	5	3	4	7
	<i>First 400 Units</i>	4	3	3	6
	<i>Above 400 Units</i>	1	1	1	1
2	Tariff-LTC/Commercial	224	124	140	264
	<i>First 100 Units</i>	110	60	68	128
	<i>From 101 to 1000 Units</i>	101	56	63	118
	<i>All Consumption above 1000 Units</i>	13	8	9	18
3 (a)	Tariff-LTP/Motive Power	84	70	79	149
	<i>Connected Load upto 50 HP</i>	5	4	4	8
	<i>Connected Load above 50 HP</i>	79	66	75	141
3 (b)	Tariff-LTP/ Ice Manufacturing	-	3	3	7
	<i>Connected Load upto 100 HP</i>	-	3	3	7
3(a)	Tariff-LTP/Mixed (Hotel Industries)	5	1	1	3
4	Tariff-LTAG/Agriculture	16	12	13	25
5	Tariff-LTPL/Public Lighting	15	18	21	39
6	Tariff-LT PWW/Public Water Works	2	3	3	6
B	High Tension Supply	1,761	879	921	1,800
7	Tariff HT-Mixed	290	65	66	130
8(a)	Tariff HTI/Industrial	616	284	320	604
8(b)	Tariff HTI/Hotel Industries	-	66	67	133
8(c)	Tariff HTI/Ice Manufacturing	-	1	1	1
9	H.T.Industrial (Ferro Metallurgical/ Steel Melting/ Power Intensive/ Steel Rolling)	506	281	284	566
	<i>First 300 Units/kVA</i>	273	152	154	306
	<i>Next 200 Units/kVA</i>	192	87	88	176
	<i>Above 500 Units/kVA</i>	41	13	13	27
10	Tariff-HTAG/Agriculture	5	2	2	5
11	EHTI/Industrial	144	87	88	175
12	H.T. PW/Public Water Supply and Sewage	110	68	69	137
13	H.T. MES/Defence Establishments	34	13	14	27
14	H.T. Industrial (Steel Rolling)	49	-	-	-
	<i>First 200 Units/kVA</i>	35	-	-	-
	<i>Next 100 Units/kVA</i>	11	-	-	-
	<i>Above 300 Units/kVA</i>	3	-	-	-
15	Tariff HT-Industries (IT High Tech).	7	10	11	21
C	Temporary Supply	15	19	19	39
16	Tariff-LT/Temporary	14	19	19	38
17	Tariff-HT/Temporary	1	-	-	-
18	Hoarding / Sign Board		0	0	0
	Total Energy Sales	3,034	1,476	1,592	3,068

Note: HTI/Industrial is expected to increase in H2 due to increase in consumers from Reliance IPP



4.5.6 ED-Goa submits that the sales estimated for FY 2014-15 as seen from the table above is very much in line with that approved by the Hon'ble Commission in last tariff order.

4.5.7 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 2014-15 are provided in **Format 1 of Tariff Filing Formats**.

4.6 T&D Loss & Energy Requirement

4.6.1 **T&D Loss H1:** The Distribution Loss for the 1st half of the year FY 2014-15 (i.e. Apr 14 – Sep 14) based on the actual data available comes to **18.66%**.

4.6.2 **Energy Input H1:** The actual measured energy input at periphery for H1 from WR and SR is provided in the table below:

Table 4-5: Energy Input for WR & SR: FY 14-15 – H1

Month	WR (MU's)	SR (MU's)	TOTAL (MU's)
Apr-14	252.19	64.59	316.79
May-14	258.61	54.18	312.79
Jun-14	247.46	51.67	299.13
Jul-14	230.30	44.40	274.70
Aug-14	221.00	52.51	273.51
Sep-14	246.53	46.41	292.94

4.6.3 **Energy Balance H1:** The Energy Balance for the 1st half of the year FY 2014-15, based on the provisional figures is shown in the table below:



Table 4-6: Energy Balance for H1 MU's

Sr. No.	Item	April-Sep (Prov. Actual) - WR	April-Sep (Prov. Actual) - SR	April-Sep (Prov. Actual) WR + SR
		FY 2014-15 H1	FY 2014-15 H1	FY 2014-15 H1
1	2	3	4	5
1	Energy Input at Goa Periphery	1,456	314	1,770
2	Total Power Scheduled/ Purchased by ED-Goa			
	Total Schedule Billed Drawal - CGS	1,317	353	1,671
	Add: Overdrawal	106	10	117
	Add: Power purchase from Traders/ Open Market	105		105
	Less: Underdrawal	9	8	17
	Less: Power diverted to Exchange	-	-	-
	Total	1,520	356	1,876
3	PGCIL Losses - MUs	64	42	106
	PGCIL Losses - %	4.23%	11.82%	5.67%
4	Total Power Purchased within Goa State			
	Add: Co-generation and Renewable	66	-	66
	Add: Independent Power Producers (IPP)	(21)	-	(21)
	Total	45	-	45
5	Total Power Purchase availability after PGCIL Losses	1,501	314	1,815
	Less: Retail Sales to Consumers			1,476
	T&D Losses - MUs			339
6	T&D Losses - %			18.66%

4.6.4 **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 2014-15. This is due to the following reasons:

- i. The Power Scheduled from the SR originates from Ramagundam Periphery, which is located in Andhra Pradesh.
- ii. Hence, the power which shall be made available at Goa periphery is subjected to substantial amount of losses viz Intra State Loss of Andhra Pradesh and Inter State Losses between regions.
- iii. Thus, the PGCIL loss for the southern region tends to be more than the Western Region in H1.

4.6.5 **Distribution Loss for overall FY 14-15:** The Distribution Loss for the year FY 2014-15 on overall basis is estimated to be around 14.00%. ED – Goa has been trying to minimize the Distribution Loss and shall continue with the efforts in reducing the Distribution Loss further.

4.6.6 The figures of AT&C loss and Distribution Loss for FY 2014-15 are provided in **Format 2 of Tariff Filing Formats.**



4.6.7 **PGCIL Losses for H2 of FY 14-15:** As discussed in above Para, the total PGCIL Losses are considered for both the regions, i.e. WR & SR. And as explained in the reasons above, the PGCIL losses for SR is more than WR. The PGCIL loss for the SR for FY 2014-15 are considered at **12.00%** (Andhra Intra State Transmission Loss + Interstate Losses between regions). On the other hand PGCIL losses for the WR are considered as the average of actual weekly losses of second half of FY 2013-14 at **3.80%** (source: WRPC Website) and details are provided in the table below:

Table 4-7: PGCIL Losses for WR for H2 FY 2013-14

Sr.No.	Period from - to	Loss %
1	300913-061013	4.04
2	071013-131013	3.48
3	141013-201013	3.56
4	211013-271013	3.58
5	281013-031113	3.62
6	041113-101113	3.96
7	111113-171113	3.50
8	181113-241113	3.98
9	241113-011213	3.92
10	021213-081213	4.40
11	091213-151213	4.20
12	161213-221213	3.88
13	231213-291213	3.78
14	301213-050114	3.86
15	060114-120114	3.92
16	130114-190114	3.86
17	200114-260114	4.08
18	270114-020214	3.74
19	030214-090214	3.76
20	100214-160214	4.12
21	170214-230214	3.52
22	240214-020314	3.80
23	030314-090314	3.64
24	100314-160314	3.62
25	170314-230314	3.64
26	240314-300314	3.44
Average Losses		3.80
Average Losses in %		3.80%

4.6.8 ED-Goa submits that it has projected power purchase quantum for H2 of FY 2014-15 based on the following assumptions.

- Percentage Allocation arrived for each of CGS station from WRPC data
- PLF of CGS station considered for H2 is same as that of H1 of FY 2014-15
- Auxiliary consumption for CGS stations is taken from revised CERC tariff Regulations 2014.
- WR losses are considered as 3.8% and SR loss at 12%



- Based on the above assumption 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 2014-15. A new co-generation plant i.e. M/s Sesa Sterlite Limited is considered to be commissioned during H2. The power purchase quantum from this plant is considered at **27.50 MU's** which half of **55 MU's** is as approved by Hon'ble Commission for FY 2014-15 in last tariff order.
- Quantum of Power Purchase from traders is considered in line with the LOI issued by ED-Goa for second half of FY 2014-15.
- Recently, Department is also drawing/ injecting power into Power Exchanges. However the impact of the same is not considered as the framework of Review is based on actual of first six months and estimates for next six months. Further the transactions carried out on exchanges are already part of overall power purchase and sales projections for the period from October 2014 to March 2015.

4.6.9 ED-Goa has therefore estimated the power purchase quantum for H2 of FY 2014-15 and has integrated with actual quantum of H1 to arrive at energy balance for entire year of FY 2014-15.

4.6.10 ED-Goa while computing Energy balance for entire FY 2014-15 has considered actual of Deviation Settlement Mechanism during first half of FY 2014-15. Thus, on the basis of the foregoing paras, the Energy Balance for the year FY 2014-15 is computed by ED-Goa and shown in the table below.



Table 4-8: Energy Balance for FY 14- 15

Sr. No.	Item	Apr-Mar (Rev.Est) - WR	Apr-Mar (Rev.Est) - SR	Apr-Mar (Rev.Est) WR + SR
		FY 2014-15	FY 2014-15	FY 2014-15
1	2	3	4	5
1	Retail Sales to Consumers			3,068
	Add: T&D Losses - %			14.00%
	T&D Losses - MUs			499
2	Energy Requirement at Goa Periphery			3,567
3	Total Power Scheduled by ED-Goa			
	Scheduled Power from NTPC, RGPPL, NPCIL & RSTPS	2,633	691	3,324
	Add: Actuals of Over/Underdrawal, Traders and Sale to exchange - H1			100
	Add: Power from Open Market during peak/ (Surplus Power diversion to exchange during off-peak)			199
	Total	2,633	691	3,622
4	Less: PGCIL Losses - %	4.34%	11.95%	5.43%
	PGCIL Losses - MUs	114	83	197
5	Total Power Purchased within Goa State			
	Add: Co-generation & Renewable	163	-	163
	Add: Independent Power Producers (IPP)	(21)	-	(21)
	Total	142	-	142
6	Energy Input at Periphery after PGCIL Losses & State Power Purchase	2,660	608	3,567

4.6.11 The table below provides the comparison of Energy Balance with approved and revised estimates for FY 2014-15.



Table 4-9: Comparison of Energy Balance for FY 14- 15

In MUs				
Sr. No.	Item	Submitted earlier in petition	Approvevd in T.O.	Revised Estimates
1	2	3	4	5
1	Retail Sales to Consumers	3,177	3,078	3,068
	Add: T&D Losses - %	12.25%	11.50%	14.00%
	T&D Losses - MUs	444	400	499
2	Energy Requirement at Goa Periphery	3,621	3,478	3,567
3	Total Power Scheduled by ED-Goa			
	Scheduled Power from NTPC, RGPPL, NPCIL & RSTPS	3,375	3,565	3,324
	Add: Actuals of Over/Underdrawal, Traders and Sale to exchange - H1	297	-	100
	Add: Power from Open Market during peak/ (Surplus Power diversion to exchange during off-peak)	-	-	199
	Total	3,673	3,565	3,622
4	Less: PGCIL Losses - %	4.85%	4.68%	5.43%
	PGCIL Losses - MUs	178	171	197
5	Total Power Purchased within Goa State			
	Add: Co-generation & Renewable Sources	84	84	163
	Add: Independent Power Producers (IPP)	42	-	(21)
	Total	126	84	142
6	Energy Input at Periphery after PGCIL Losses & State Power Purchase	3,621	3,478	3,567

4.6.12 The Hon'ble Commission is requested to approve the Energy Balance for the year FY 2014-15 as provided in the above tables. 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 2014-15 (H1 and overall for FY 2014-15) are provided in **Format 3 of Tariff Filing Formats**.

4.7 Power Purchase Quantum & Cost for FY 14-15

Power Purchase Cost for H1 FY 2014-15

4.7.1 ED-Goa meets its total energy requirement from its allocation from the Central Generating Stations (CGS), State based Co-generation facilities, Power Exchanges etc. ED-Goa 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.



4.7.2 The table below shows the summary of Power Purchase from various sources along with their costs for the 1st half of FY 2014-15 including Transmission Charges, Deviation Settlement Mechanism (DSM Power) and purchase from traders:

Table 4-10: Power Purchase Quantum & Cost for H1 – FY 14-15

Sr. No	Particulars	Purchase (Mus)	Cost (Rs.Crs)	Rate
		MUs	Rs. Cr	Rs./unit
1	NTPC	1,534.56	371.20	2.42
2	RGPPL	-	7.55	-
3	NPCIL	136.28	26.28	1.93
4	Traders	105.38	37.94	3.60
5	Overdrawal	100.03	51.21	5.12
6	Co - Generation	65.47	15.78	2.41
7	IPP	(21.40)	(2.76)	1.29
8	RE Purchase & RPO for Solar & Non-Solar	0.75	0.63	8.37
9	Transmission Charges	-	65.47	-
	Grand Total	1,921.06	573.30	2.98

4.7.3 It is submitted that ED-Goa has supplied power to Reliance IPP from April 2014 to August 2014 (till the expiry date of PPA). However the billing rate for such power supplied by ED-Goa to Reliance IPP is under examination. The issues involved are not strictly dealt by PPA between EDG and Reliance IPP. The present rates considered in the petition are tentative. The impact of final agreed rates would be submitted to Hon'ble Commission on finalisation of matter.

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

4.7.5 Further, the month wise breakup for each of the source/ element of Power Purchase for the period April-September 2014 are provided at **Annexure IV** of this Petition.

4.7.6 ED – Goa 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 4-11: DSM Power (Over Drawl & Under Drawl) charges for FY 15 – H1

Region	Overdrawal		Underdrawal	
	Rs. Cr	MUs	Rs. Cr	MUs
Western	46.01	106.35	1.03	8.70
Southern	6.37	10.19	0.14	7.81
Total	52.38	116.54	1.17	16.51
Avg Rate (Rs/kWh)		4.49		0.71

4.7.7 However the underdrawal and the revenue from it are shown separately in ARR format (not netted off from power purchase cost).

4.7.8 **Transmission Charges H1:** The transmission charges for the 1st half of FY 2014-15 comprises of transmission charges for Western Region, Southern Region, KPTCL and MSETCL. The Transmission charge comes to around **Rs. 65.47 Crores**, the details of which are shown in the table below:

Table 4-12: Transmission Charges for FY 2014-15 H1

S.no	Name of the Supplier/ Agency	Amount	Remarks
1	M/s PGCIL WR, Nagpur	495,547,896	POC Charges
2	M/s PGCIL SR, Bangalore	110,493,881	POC Charges
3	M/s KPTCL, Bangalore	26,682,910	wheeling charges
4	M/s POSOCO WR	2,575,771	Fees and charges of SLDC
5	M/s POSOCO SR	2,302,940	Fees and charges of SLDC
6	M/s POSOCO WR	3,655,781	SCADA charges
7	M/s MSEDCL	-	reactive charges
8	M/s POSOCO WR	151,045	Reactive charges
9	M/s MSETCL (RGPPL)	13,300,002	wheeling charges
	Total	654,710,226	

4.7.9 The month wise details of transmission charges for various heads are provided at **Annexure V** of this Petition.

Power Purchase Cost for H2 FY 2014-15

4.7.10 **Power Purchase Fixed Cost for H2 FY 2014-15:** The Fixed charges for CGS has been taken in line with the cost actually incurred by ED-Goa during the first half of FY 2014-15. The fixed cost has been considered only for CGS stations.



4.7.11 **Power Purchase Variable Cost for H2 FY 2014-15:** The variable cost for CGS stations for FY 2014-15 has been computed considering per unit cost from the invoices submitted for the month of Oct and Nov 2014. 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.

4.7.12 **Power Purchase cost of Traders for FY 2014-15:** The cost for power purchase from traders for H2 is considered as per LOI issued by ED-Goa. The cost for power purchase from traders for H2 is considered as per LOIs issued by ED-Goa and as explained in below table

Table 4-13: Power Purchase from Short Term Traders for H2 of FY 2014-15

Source - Adani	No of Days	Time Slots	Hours	Quantum (MW)	MU's	Price (Rs./unit)	Cost (Rs. Crores)
1/12/2014 to 31/12/2014	31.00	10:00 to 18:00	8.00	50.00	12.40	3.58	4.44
1/12/2014 to 31/12/2014	31.00	18:00 to 22:00	4.00	50.00	6.20	3.58	2.22
1/12/2014 to 31/12/2014	31.00	22:00 to 24:00	2.00	50.00	3.10	3.58	1.11
Total			14.00		21.70		7.77

Source - Adani	No of Days	Time Slots	Hours	Quantum (MW)	MU's	Price (Rs./unit)	Cost (Rs. Crores)
1/1/2015 to 31/1/2015	31.00	10:00 to 18:00	8.00	50.00	12.40	3.58	4.44
1/1/2015 to 31/1/2015	31.00	18:00 to 22:00	4.00	50.00	6.20	3.58	2.22
1/1/2015 to 31/1/2015	31.00	22:00 to 24:00	2.00	50.00	3.10	3.58	1.11
Total			14.00		21.70		7.77

Source - Adani	No of Days	Time Slots	Hours	Quantum (MW)	MU's	Price (Rs./unit)	Cost (Rs. Crores)
1/2/2015 to 28/2/2015	28.00	10:00 to 18:00	8.00	50.00	11.20	3.58	4.01
1/2/2015 to 28/2/2015	28.00	18:00 to 22:00	4.00	50.00	5.60	3.58	2.00
1/2/2015 to 28/2/2015	28.00	22:00 to 24:00	2.00	50.00	2.80	3.58	1.00
Total			14.00		19.60		7.02

Source - Adani	No of Days	Time Slots	Hours	Quantum (MW)	MU's	Price (Rs./unit)	Cost (Rs. Crores)
1/3/2015 to 31/3/2015	31.00	10:00 to 18:00	8.00	70.00	17.36	3.16	5.49
1/3/2015 to 31/3/2015	31.00	18:00 to 22:00	4.00	70.00	8.68	3.16	2.74
1/3/2015 to 31/3/2015	31.00	22:00 to 24:00	2.00	70.00	4.34	3.16	1.37
Total			14.00		30.38		9.60

Power Purchase from Renewable Energy Sources:

4.7.13 **Solar RPO:** As regards fulfilment of Solar RPO is concerned, PPA has been executed by the Government with M/s NNVNL, 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 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, has allocated 10 MW of Solar power to the State and also submitted Power Sale Agreement (PSA). The PSA to be executed with SECI has been submitted to the Government for approval for execution. The SECI will be supplying solar power of 10 MW @ Rs 5.50 per unit, including its commission of Rs. 0.05 per unit exclusive of transmission charges for a period of 25 years. It is anticipated that PSA will be executed shortly after negotiations on legal clauses and shall fulfil the solar RPO from 2015-16 till next 25 years.

Non-Solar RPO: Tender was invited by the Electricity Department – Goa for fulfilment of non-solar RPO of FY 2014-15 and further 4 years period. There were three offers against the tender. The lowest offer was @ Rs 6.10 per unit at Goa Periphery but the commencement of supply was from 1/4/2015. Another offer was @ Rs. 7.25 at Goa periphery for commencement of power from current year itself.

As the rates offered were on higher side and considering miniscule business of ED-Goa, it is decided to purchase RECs to meet Non Solar RPO for FY 2014-15 and subsequent financial years. ED-Goa has planned to purchase RECs equivalent to ~ 85 MUs in FY 2014-15.



Table 4-14: Solar & Non-Solar RPO Status FY14-15

Sr.No.	Description	FY 2013-14	FY 2014-15
1	Sale within State	2,977.29	3,067.92
2	RPO Obligation in (%)		
	Solar	0.40%	0.60%
	Non Solar	2.60%	2.70%
3	RPO Obligation in (in MUs)		
	Solar	11.91	18.41
	Non Solar	77.41	82.83
4	Shortfall of RPO Obligation in Past Years (in MUs)		
	Solar	19.78	-
	Non Solar	-	-
5	Total RPO Obligation including Past Years (in MUs)		
	Solar	31.69	18.41
	Non Solar	77.41	82.83
6	RPO Compliance during the year (in Mus)		
	Solar	-	4.75
	Non Solar	-	-
7	Shortfall in RPO Compliance (in Mus)		
	Solar	31.69	13.66
	Non Solar	77.41	82.83
8	REC Certificate Purchase (in Mus)		
	Solar	-	-
	Non Solar	-	85.00
9	Cumulative Shortfall in RPO Compliance (in Mus)		
	Solar	31.69	45.35
	Non Solar	77.41	75.24
10	REC Certificate Price (Rs./Unit)		
	Solar	-	9.30
	Non Solar	-	1.50
11	REC Certificate Cost (Rs. Crores)		
	Solar	-	-
	Non Solar	-	12.75
	Total	-	12.75

4.7.14 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. The Petitioner submits that it has ensured the compliance of RPO in MYT period.



4.7.15 **Transmission Charges FY 15 – H2:** The Transmission Charges for FY 2014-15 are considered as per POC computation, i.e. Part A - Transmission charge for withdrawal of power and Part B - Transmission charges of generators. Further, the transmission charge has also been considered factoring the wheeling charges pertaining to KPTCL. The transmission charges from KPTCL have been worked out by considering wheeling charge of **7.50 paise/unit** on power drawl from Ramagundam Plant.

4.7.16 The transmission charges for 2nd half of FY 14-15 are computed based on the rates provided in Regional Transmission Account Statement for November 2014. The computation of transmission charges for Part-A and part-B is provided in the table below.

Table 4-15: Transmission Charges Part-A for FY 2014-15 H2

Regions	Rates Rs/Mw/ Month *	Monthly Quantum (MW)	Monthly Charges (Rs.Crs)	Total Charges for 6 months (Rs.Crs)
Southern Region*	88,067.00	93.28	0.82	4.93
Western Region*	118,067.00	388.01	4.58	27.49
Unallocated (3 Months 20 MW)	118,067.00	100.00	1.18	3.54
Total		581.29		35.96

* Figures of MW as per Nov 2014 RTA bill (SR + WR)

Table 4-16: Transmission Charges Part-B for FY 2014-15 H2

Stations	Rates Rs/Mw/ Month **	Monthly Quantum (MW) *	Monthly Charges (Rs.Crs)	Total Charges for 6 months (Rs.Crs)
RSTPS - SR	88,067.00	100.00	0.88	5.28
CGS - WR				
KSTPS	103,067.00	211.93	2.18	13.11
KORBA - III	103,067.00	5.41	0.06	0.33
VSTPS - I	103,067.00	36.73	0.38	2.27
VSTPS - II	103,067.00	13.30	0.14	0.82
VSTPS -III	103,067.00	11.30	0.12	0.70
VSTPS -IV	103,067.00	13.02	0.13	0.81
KGPP	118,067.00	12.38	0.15	0.88
GGPP	118,067.00	12.64	0.15	0.90
SIPAT-2	103,067.00	11.24	0.12	0.69
KAPS 1 & 2	118,067.00	15.47	0.18	1.10
TAPS 3 & 4	118,067.00	12.60	0.15	0.89
SIPAT-1	103,067.00	23.61	0.24	1.46
Unallocated (3 Months 20 MW)	103,067.00	20.00	0.21	0.62
Mauda	88,067.00	13.02	0.11	0.69
Total - (Rs.)		512.64	5.19	30.54

* Figures of MW other than Peak Hours allocation

** POC charges as per Nov 2014 RTA bill (SR + WR)



4.7.17 Accordingly, the Transmission Charges for 2nd half of FY 2014-15 is summarized in the table below:

Table 4-17: Summary of Transmission Charges for H2 FY 2014-15

Particulars	FY14-15 - H2 (Rs.Crs)
Part - A Transmission Charges (Oct14-Mar 2015)	35.96
Part - B Transmission Charges (Oct14-Mar 2015)	30.54
KPTCL Wheeling Charges (FY2014-15 H2)	2.53
Fees and charges of SLDC - WR	0.26
Fees and charges of SLDC - SR	0.23
SCADA & Reactive charges	0.38
MSETCL (RGPPL)	1.33
Total Transmission Charges (Oct14-Mar 2015)	71.23

The other charges are proposed same as FY2014-15 H1 actuals

4.7.18 Thus, the total Transmission charge works out to be Rs. **71.23** Crores.

4.7.19 **Power Purchase Cost summary FY 14-15:** In line with the foregoing paragraphs, the total Power Purchase for FY 2014-15 is summarized in the table below:

Table 4-18: Power Purchase Summary for FY 2014-15

Sr. No	Particulars	FY 2014-15		FY 2014-15		FY 2014-15 (Rev.Est)	
		Purchase (Mus)	Total Cost (Rs.Crs)	Purchase (Mus)	Total Cost (Rs.Crs)	Purchase (Mus)	Total Cost (Rs.Crs)
1	NTPC	3,159	717.54	3,216	676.43	3,088	753.45
2	RGPPL	28	8.36	154	55.39	-	7.55
3	NPCIL	189	51.21	194	50.58	235	52.17
4	Traders	297	89.20		-	199	70.09
5	Overdrawal				-	100	51.21
6	Co - Generation	84	19.86	84	19.86	158	38.10
7	IPP	42	50.13		7.44	(21)	(2.76)
8	Renewable Energy Source				29.64	5	16.73
9	Transmission Charges		129.22		94.61	-	136.70
	Grand Total	3,799	1,065.53	3,649	933.95	3,764	1,123.23
	Total P.U. (Rs/kWh)		2.81		2.56		2.98

4.7.20 The power purchase details for H1 and H2 and for FY 2014-15 (H1+H2) are provided in **Tariff Filing Format 4**.

4.7.21 The deviation in power purchase cost for FY 2014-15 as compared to approved is due to the following reasons.



- Higher transmission charges as compared to approved since the Hon'ble Commission had not allowed any escalation on transmission charges while estimating cost for FY 2014-15.
- Purchase of power from short term sources and grid overdraw as envisaged/ approved power quantum from NTPC and RGPPL was unavailable
- Renewable energy cost has been on the lower side due to non fulfilment of RPO Obligation for FY 2014-15.

4.7.22 It is requested Hon'ble Commission to approve the power purchase cost including transmission charges at Rs. 1,123.23 Crores for FY 2014-15 as per revised workings and at an average cost of Rs. **2.98** /kWh. Further the Regional Energy Accounts (REA) and Regional Transmission Accounts (RTA) for the period from April 2014 to September 2014 are provided in soft format along with the petition for verification and scrutiny of the Commission.

4.8 Operation & Maintenance Expenses

4.8.1 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.

4.8.2 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.....”*

4.8.3 **Employee Expenses for FY 2014-15:** ED – Goa has computed the O&M (**Employee Expense**) expense for FY 2014-15 based on the actual employee expenses till September 2014. Further ED-Goa considered employee expenses for second half of FY 2014-15 based on the increase in number of employees during the second half. The total employee cost is re-estimated at Rs. **231.00** Crores for FY 2014-15. The above amount includes pension provision of Rs. **5.28** Crores which is computed for permanent employees at the rate of average yearly contribution of Rs. **11 Lakhs**.

4.8.4 The employee cost for FY 2014-15 has been on higher side as compared to approved due to increase in number of employees resulting into increase in salaries and dearness allowance, increase in HRA and travel allowance.

4.8.5 The head wise actual information for employee expenses has been provided in **Format 16 of Tariff Filing Format**.

4.8.6 **Repairs & Maintenance Expenses for FY 2014-15:** ED – Goa 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.

4.8.7 ED-Goa has actually incurred amount of Rs. **16.34** Crores in the first six months period from April-September 2014. Further ED-Goa has considered the revised budget estimates submitted to Government of Goa for the purpose of revised projections of FY 2014-15 in this petition. The R&M expenses based on provisional and revised estimates for the year FY 2014-15 computes to Rs. **44.33** Crores.



- 4.8.8 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 meters and metering equipment cost.
- 4.8.9 **Administration & General expenses for FY 2014-15:** As mentioned earlier, Administrative expenses mainly comprise of rents, telephone and other communication expenses, professional charges, conveyance and travelling allowances and other debits.
- 4.8.10 The Commission in the tariff order for FY 2014-15 had approved A&G expenses based on inflation over FY 2013-14. The actual expense for first six months period from April-September 2014 is Rs. **3.27** Crores.
- 4.8.11 Further ED-Goa has considered the revised budget estimates submitted to Government of Goa for the purpose of revised projections of FY 2014-15 in this petition. The A&G expenses based on provisional and revised estimates for the year FY 2014-15 computes to Rs. **9.46** Crores. The Hon'ble Commission is requested to approve A&G expenses as per revised projections for FY 2013-14.
- 4.8.12 The A&G expenses are estimated on higher side as compared to H1 of FY 2014-15 due to higher cost estimated for regulatory expenses and legal and professional fees.
- 4.8.13 **O&M Expenses Summary FY 2014-15:** Based on the foregoing paragraphs, the revised O&M expenses for the year FY 2014-15 vis-a-vis the approved level by the Hon'ble Commission is shown in the table below:

Table 4-19: O&M Expenses for FY 2014-15

Particulars	FY 2014-15	FY 2014-15	FY 2014-15
	Rs.Crs	Rs.Crs	Rs.Crs
	Projection	Approved	(Rev. Est)
Employee Expense	177.14	152.42	231.00
R&M Expense	24.71	20.73	44.33
A&G Expense	9.97	9.60	9.46
Total	211.82	182.75	284.80

- 4.8.14 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 2014-15 are provided in the **Formats 14, 16 & 17** of the Tariff Filing Formats.



4.9 Capital Work in Progress, GFA and Depreciation

- 4.9.1 The Capital Work In Progress (CWIP), Gross Fixed Asset (GFA) and Depreciation for FY 2014-15 are discussed hereunder.
- 4.9.2 ED-Goa would like to submit that the Gross Block considered in FY 2014-15 is based on the Fixed Asset Register (FAR) prepared by the Petitioner up to FY 2012-13. ED-Goa submits that the audited accounts initially were available up to FY 2006-07. Based on the same, FAR was prepared for the period of FY 2007-08 to FY 2012-13 by considering asset addition per year in each of the 17 divisions in the State. ED-Goa submits that the assets created under account head no. 8229 (Electricity Duty fund) are NIL up to FY 2012-13. Once the asset register up to FY 2012-13 was prepared, Gross block for subsequent years was derived based on asset addition during the year. Due to this there is a sudden jump in the opening GFA of ED-Goa for FY 2014-15 as compared to last submitted and approved by Hon'ble Commission in last tariff order.
- 4.9.3 ED-Goa in due course of time would submit the FAR from FY 2008-09 to FY 2012-13 for perusal of the Hon'ble Commission. Therefore it is submitted that there is a huge deviation in the gross block considered by the Petitioner and that approved by the Hon'ble Commission in last tariff order.
- 4.9.4 ED – Goa hereby submits a gist on the Capital Expenditure & Capitalisation for the year FY 2014-15.



Table 4-20: Capital Expenditure & Capitalisation for FY 2014-15

Rs. Crores

Name of Schemes	FY 2014-15	
	Capital Expenditure	Capitalization
Development Schemes	55.09	35.07
Schedule Tribe Development Scheme (P)	40.00	20.00
Infrastructure development through Electricity Duty (Plan)	70.00	62.81
Erection Augmentation and Strengthening	21.25	37.25
Normal Development Schemes (Plan)	15.02	15.00
System Improvement Schemes (Plan)	4.00	4.00
Construction of staff quarters and office buildings (Plan)	1.50	1.50
Erection of 220/33 KV 1X50 MVA Sub-Station at Cuncolim	3.00	3.00
Erection of 220 KV line from Xeldem to Cuncolim	4.00	4.00
Strengthening of 220 KV Transmission Network	10.00	10.00
Erection of 2nd 100 MVA transformer at Xeldem 220/110 KV S/S	0.25	0.25
APDRP(State Schemes)	16.00	16.00
Restructured Accelerated Power Development and Reforms Programme Part A	42.50	
Research training and human research development	0.10	
Underground Cabling	25.00	25.00
(R-APDRP) during Eleventh Plan period	-	
Public Lighting Scheme	1.00	1.00
Total	236.44	182.63

4.9.5 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 2014-15 as per revised estimates is Rs. **236.44** Crores and Rs. 182.63 Crores respectively. The detail of capital expenditure schemes for FY 2014-15 is provided in the **Format 5** of Tariff Filing Formats.

4.9.6 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 4-21: CWIP for FY 2014-15

Sr. No	Particulars	FY 2014-15 (Rs.Crs)	FY 2014-15 (Rs.Crs)	FY 2014-15 (Rs.Crs)
		Projection	Approved	Rev. Est
1	Opening balance	504.55	504.55	488.13
2	Add: New investments	288.30	288.30	236.44
3	Total	792.85	792.85	724.57
4	Less investment capitalized	127.50	127.50	182.63
5	Closing balance	665.35	665.35	541.94

4.9.7 The Opening Balance of GFA for FY 2014-15 comes to around Rs. **961.50** Crores. The additions to GFA are estimated to be around Rs. **182.63** Crores; the details of which are provided in the table below:

Table 4-22: Details of GFA for FY 2014-15

Sr. No	Particulars	FY 2014-15 (Rs.Crs)	FY 2014-15 (Rs.Crs)	FY 2014-15 (Rs.Crs)
		Projection	Approved	Rev. Est
1	Opening Value of Assets at the beginning of the year	398.74	398.74	961.50
2	Additions during the year	127.50	127.50	182.63
3	Gross Fixed Assets at the end of year	526.24	526.24	1,144.13

Note: Opening Balance of Gross Block has been revised based on the Fixed Asset Register prepared till FY 2012-13

4.9.8 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, ED – Goa has calculated the depreciation at Rs. **51.91** Crores. The table below shows the working of Depreciation.

Table 4-23: Depreciation for FY 2014-15

Sr. No	Particulars	FY 2014-15 (Rs.Crs)	FY 2014-15 (Rs.Crs)	FY 2014-15 (Rs.Crs)
		Projection	Approved	Rev. Est
1	Opening Value of Assets at the beginning of the year	398.74	398.74	961.50
2	Additions during the year	127.50	127.50	182.63
3	Gross Fixed Assets at the end of year	526.24	526.24	1,144.13
4	Rate of Depreciation	5.28%	5.28%	5.28%
5	Depreciation	24.42	24.42	55.59



4.9.9 The detail of GFA & Depreciation for FY 2014-15 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 2014-15.

4.10 Interest & Finance Charge

4.10.1 The Regulation 29 provides for Interest and Finance Charges on Loan. ED-Goa 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. ED-Goa 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

4.10.2 The opening normative loan balances are also re-instated as per actual balance of GFA arrived in FAR up to FY 2012-13. ED-Goa submits that 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 **60%** grant. However since the schemes are not coming under FY 2014-15, it has not been considered during FY 2014-15. The GFA considered is also after deducting assets created from ED funds. Normative loan repayments are considered same as depreciation amount for FY 2014-15.

4.10.3 The rate of Interest has been considered @ **11.75%** for FY 2014-15 based on actual loan portfolio of ED-Goa. The details of actual loan are provided at **Tariff Filing Format 10**.

4.10.4 ED – Goa has also considered the Letter of Credit charges for payment security charges. The total Interest and Finance Charges for the year FY 2014-15 are Rs. **77.39** Crores. The table below shows the Interest and Finance Charges vis-a-vis approved by the Hon'ble Commission.



Table 4-24: Interest & Finance Charges for FY 2014-15

Sr. No	Particulars	FY 2014-15 (Rs.Crs)	FY 2014-15 (Rs.Crs)	FY 2014-15 (Rs.Crs)
		Projection	Approved	Rev. Est
1	Opening Normative Loan	77.29	256.67	600.35
2	Normative Additions during the year	-	89.25	83.87
3	Less: Loan Repayment	11.62	25.67	55.59
4	Closing Normative Loan	65.67	320.25	628.64
5	Average Normative Loan	71.48	288.46	614.49
6	Interest Rates - actual	10.72%	7.99%	11.75%
7	Interest on Loan	7.66	23.05	72.42
8	Finance Charges	1.30	1.30	4.97
9	Interest on Loan & Finance	8.96	24.35	77.39

4.10.5 The Hon'ble Commission is requested to approve the Interest & Finance Charges as shown in the table for FY 2014-15. The details of Interest & Finance charges are provided in **Format 6 of the Tariff Filing Formats**.

4.11 Interest on Working Capital

4.11.1 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.
- ii) Employees Cost.
- iii) Administration & General Expenses &
- iv) Repair & Maintenance Expenses.

4.11.2 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.*



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

4.11.3 The Interest Rate is considered equivalent to the SBI PLR for the year FY 2014-15 which is at 14.75%. The SBI PLR rate has been attached as **Annexure VI** to this Petition.

4.11.4 In line with the aforesaid regulation, the Interest on Working Capital works out to Rs. **5.38** Crores for FY 2014-15 which is provided in the table below:

Table 4-25: Interest on Working Capital for FY 2014-15

Sr. No	Particulars	FY 2014-15	FY 2014-15	FY 2014-15
		(Rs.Crs)	(Rs.Crs)	(Rs.Crs)
		Projection	Approved	Rev. Est
1	Power Purchase Cost - 1 Month	88.79	77.83	93.60
2	Employee Cost - 1 Month	14.76	12.70	19.25
3	Administration & General Expenses- 1 Month	0.89	0.80	0.83
4	R&M Cost - 1 Month	2.06	1.73	3.69
5	Less: Security Deposits (in cash)	77.25	73.73	80.88
6	Total	29.26	19.33	36.50
7	Interest Rate as on 1st April	14.45%	14.75%	14.75%
8	Interest on Working Capital	4.23	2.85	5.38

4.11.5 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 2014-15 are provided in **Format 19 of the Tariff Filing Formats**.

4.12 Interest on Security Deposit

4.12.1 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 **9.00%** as notified by Reserve Bank of India vide circular dated 28th January 2014. The notification of RBI is provided at **Annexure VII** of this Petition.



4.12.2 In lieu of the above, Interest on Security Deposit is calculated at Rs. **8.16** Crores on cash security deposit amounts excluding Bank Guarantee & Fixed Deposit Receipts. The table below shows details of Interest on Security Deposit for FY 2014-15:

Table 4-26: Interest on Security Deposit for FY 2014-15

Sr. No	Particulars	FY 2014-15 (Rs.Crs)	FY 2014-15 (Rs.Crs)	FY 2014-15 (Rs.Crs)
		Projection	Approved	Rev. Est
1	Opening Security Deposit	77.25	73.73	80.88
2	Add: Deposits during the Year	15.96	15.96	10.90
3	Less: Deposits refunded	2.86	2.86	1.07
4	Closing Security Deposit	90.36	86.83	90.71
5	Bank Rate	8.75%	8.50%	9.00%
6	Interest on Security Deposit	6.76	5.89	8.16

4.12.3 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 2014-15 are provided in **Format 19-A** of the Tariff Filing Formats.

4.13 Return on Capital Base/ Net Fixed Assets

4.13.1 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, ED – Goa has calculated the return on capital base at **3%**.

4.13.2 The opening balance of assets and accumulated depreciation are re-instated as per actual arrived in FAR up to FY 2012-13.

4.13.3 The table below shows Return on Capital Base for FY 2014-15:

Table 4-27: Return on Capital Base for FY 2014-15

Sr. No	Particulars	FY 2014-15 (Rs.Crs)	FY 2014-15 (Rs.Crs)	FY 2014-15 (Rs.Crs)
		Projection	Approved	Rev. Est
1	Gross block at beginning of the year	398.74	398.74	961.50
2	Less accumulated depreciation	28.12	28.12	263.36
3	Net block at beginning of the year	370.62	370.62	698.14
4	Less accumulated consumer contribution	-	-	-
5	Net fixed assets at beginning of the year	370.62	370.62	698.14
6	Reasonable return @3% of NFA	11.12	11.12	20.94



4.13.4 The Hon'ble Commission is requested to approve the Return on Capital Base at Rs. **20.94** Crores as shown in the table above. The details of Return on Capital Base for FY 2013-14 are provided in **Format 6 of the Tariff Filing Formats**.

4.14 Non Tariff Income

4.14.1 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 2014-15 comes to Rs. **6.74** Crores.

4.14.2 The details of Non Tariff Income for FY 2014-15 are provided in **Format 21 of the Tariff Filing Formats**.

4.15 Revenue from Retail Sale of Power

4.15.1 The provisional revenue from sale of power including FPPCA charges for H1 of FY 2014-15 is Rs. 539.84 Crores. The category wise details of revenue are provided in Format 29 Rev FY15 H1 of the Tariff Filing Formats.

4.15.2 The estimated revenue from sale of power for H2 of FY 2013-14 is Rs. **550.87** Crores. The category wise details of revenue are provided in **Format 30 REV FY14 of the Tariff Filing Formats**.

4.15.3 The overall revenue from sale of power for FY 2014-15 computes to Rs. **1,090.71** Crores and Hon'ble commission is requested to approve the same.



Table 4-28: Revenue from Sale of Power for FY 2014-15

Sr. No.	Category of Consumer	Energy Sales (MUs)	Total Revenue (Rs Crore)	Avg Tariff (Rs/kWh)
1	2	3	4	5
A	Low Tension Supply	1,230	325.22	2.64
1(a)	Tariff LTD/Domestic and Non-Commercial	722	140.13	1.94
1(b)	Tariff LTD/Low Income Group	7	0.76	1.05
1(c)	Tariff LTD/Domestic Mixed	7	2.41	3.37
2	Tariff-LTC/Commercial	264	101.05	3.82
3 (a)	Tariff-LTP/Motive Power	149	58.82	3.95
3 (b)	Tariff-LTP/ Ice Manufacturing	7	2.42	3.72
3(a)	Tariff-LTP/Mixed (Hotel Industries)	3	1.23	4.53
4	Tariff-LTAG/Agriculture	25	4.27	1.70
5	Tariff-LTPL/Public Lighting	39	12.08	3.07
6	Tariff-LT PWW/Public Water Works	6	2.05	3.35
B	High Tension Supply	1,800	744.07	4.13
7	Tariff HT-Mixed	130	59.79	4.59
8(a)	Tariff HTI/Industrial	604	260.84	4.32
8(b)	Tariff HTI/Hotel Industries	133	54.77	4.11
8(c)	Tariff HTI/Ice Manufacturing	1	0.39	3.79
9	H.T.Industrial (Ferro Metallurgical/ Steel Melting/ Power Intensive)	566	203.80	3.60
10	Tariff-HTAG/Agriculture	5	0.98	2.06
11	EHTI/Industrial	175	76.86	4.38
12	H.T. PW/Public Water Supply and Sewage	137	54.50	3.97
13	H.T. MES/Defence Establishments	27	10.40	3.84
14	H.T. Industrial (Steel Rolling)	-	13.28	-
15	Tariff HT-Industries (IT High Tech).	21	8.46	4.03
C	Temporary Supply	39	21.42	5.54
16	Tariff-LT/Temporary	38	21.24	5.53
17	Tariff-HT/Temporary	-	-	-
18	Hoarding / Sign Board	0	0.18	7.24
	Total	3,068	1,090.71	3.56

4.16 Aggregate Revenue Requirement for FY 2014-15

4.16.1 Based on the submissions made in the foregoing paragraphs, the net Aggregate Revenue Requirement for the year FY 2014-15 and the revenue gap is shown in the table below:



Table 4-29: Aggregate Revenue Requirement for FY 2014-15

Sr. No.	Item of expense	ARR Projection (Rs.Crs)	Approved (Rs.Crs)	Revised Estimates (Rs.Crs)
1	Cost of power purchase	1,065.53	933.95	1,123.23
2	Employee costs	177.14	152.42	231.00
3	R&M expenses	24.71	20.73	44.33
4	Administration and General expenses	9.97	9.60	9.46
5	Depreciation	24.42	24.42	51.91
6	Interest on Loan & Finance charges	8.96	24.35	77.39
7	Interest on Working Capital	4.32	2.85	5.38
8	Interest on Security Deposit	6.76	5.89	8.16
9	Return on NFA /Equity	11.12	11.12	20.94
11	CGRF Expenses	0.75	0.75	0.51
12	Total Revenue Requirement	1,333.68	1,186.08	1,572.33
13	Less: Non Tariff Income	23.22	23.22	6.74
14	Net Revenue Requirement (12-13)	1,310.46	1,162.86	1,565.59

4.16.2 The Hon'ble Commission is requested to approve the net ARR of FY 2014-15 computed at Rs. **1,565.59** Crores as per revised projections.

Table 4-30: Revenue Gap for FY 2014-15

Rs Crore				
Sr. No.	Item of expense	Projections FY 2014-15	Approved FY 2014-15	Rev. Estimates FY 2014-15
1	Net ARR for FY 2014-15	1,310.46	1,162.86	1,565.59
2	Less: Revenue at Existing Tariff + FPPCA Charges	1,031.31	1,025.66	1,090.71
3	Gap at Existing Tariff	279.15	137.20	474.88
4	Less: Revenue from Revised Tariffs	85.55	78.16	-
5	Less: Budgetary Support	193.60	59.04	59.04
6	Balance Revenue Gap	-	-	415.84

4.16.3 ED-Goa submits that the budgetary support already committed at Rs. **59.04** Crs is retained and balance revenue gap of Rs. **415.84** Crores is carried forward to next year for appropriate treatment.



CHAPTER 5. MUTLI YEAR TARIFF FOR FY 2015-16 TO FY 2017-18

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 MYT Regulations, 2014 has defined control period in the following manner.

“3.1.6. “Control Period” means multi-year period comprising of three financial years of FY 2015-16 to FY 2017-18, 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 2015-16 (ensuing year for which tariff proposal is being submitted) up to FY 2017-18.

5.1.5 ED-Goa therefore submits Aggregate Revenue Requirement for the second control period from FY 2015-16 to FY 2017-18 based on the parameters defined in the MYT Regulations, 2014 which are proposed to be approved by the Hon'ble Commission.

5.2 Principles of ARR

5.2.1 This chapter summarizes the Aggregate Revenue Requirement (ARR) for the first control period FY 2015-16 to FY 2017-18. The projections for the control period have been made based on the parameters specified in the MYT Regulations, norms proposed 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 ED-Goa has proposed for rationalization of tariff categories including merger and modification of consumption slabs. 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 2015-16, the same are provided in Tariff Filing Formats for revenue calculation.

5.3 Number of Consumers

5.3.1 The Petitioner has adopted compounded annual growth rate (CAGR) of past years of each consumer category as per the provisional figures till FY 2013-14, revised projection figures of FY 2014-15 and has forecasted the number of consumers for the control period FY 2015-16 to FY 2017-18.

5.3.2 The Petitioner has adopted the methodology mentioned by the Commission and has taken the compounded annual growth rate (CAGR) of past years of each consumer category as per the provisional figures till FY 2013-14, revised projection figures of FY2014-15 and has forecasted the no. of consumers for the control period FY 2015-16 to FY 2017-18.

5.3.3 The detailed explanation for estimating number of consumers for FY 2015-16 to FY 2017-18 is provided in Section **6.2** and **6.3** of Business Plan for ED-Goa for first control period.

5.3.4 The following table summarises the number of consumers projected for the entire control period.



Table 31: Number of Consumers for FY 2015-16 to FY 2017-18

Sr. No	Consumer Category	Projection for Number of Consumers (Nos.)		
		FY 2015-16	FY 2016-17	FY 2017-18
1(a)	Tariff LTD/Domestic and Non-Comm.	488,471	498,240	508,205
1(b)	Tariff LTD/Low Income Group	11,547	11,547	11,547
1(c)	Tariff LTD/Domestic Mixed	1,405	1,405	1,405
2	Tariff-LTC/Commercial	90,863	92,680	94,534
3 (a)	Tariff-LTP/Motive Power	7,051	7,121	7,193
3 (b)	Tariff-LTP/ Ice Manufacturing	69	73	77
3(a)	Tariff-LTP/Mixed (Hotel Industries)	155	163	171
4	Tariff-LTAG/Agriculture	11,145	11,145	11,145
5	Tariff-LTPL/Public Lighting	2,740	2,740	2,740
6	Tariff-LT PWW/Public Water Works	744	744	744
	Total LT Category	614,190	625,859	637,760
7	Tariff HT-Mixed	168	168	168
8(a)	Tariff HTI/Industrial	400	404	408
8(b)	Tariff HTI/Hotel Industries	111	112	113
8(c)	Tariff HTI/Ice Manufacturing	2	2	2
9	H.T.Industrial (Ferro Metallurgical/ Steel Melting/ Power Intensive)	37	37	37
10	Tariff-HTAG/Agriculture	41	41	41
11	EHTI/Industrial	5	5	5
12	H.T. PW/Public Water Supply & Sewage	35	36	37
13	H.T. MES/Defence Establishments	12	12	12
14	H.T. Industrial (Steel Rolling)	-	-	-
15	Tariff HT-Industries (IT High Tech).	12	13	13
	Total HT Category	824	830	837
		-	-	-
C	Temporary Supply	5,033	5,033	5,033
16	Tariff-LT/Temporary	4,929	4,929	4,929
17	Tariff-HT/Temporary	-	-	-
	Total No. of Consumers	620,047	631,722	643,630

5.4 Connected Load

- 5.4.1 The Petitioner has observed that there has not been significant increase in connected load/ contract demand of consumers during the last five years, therefore nil growth has been considered for all categories except LT Domestic and LT Commercial categories. For LT Domestic and LT Commercial categories a conservative growth rate of **0.5%** is adopted.
- 5.4.2 The detailed explanation for estimating connected load/ contract demand for FY 2015-16 to FY 2017-18 is provided in Section **6.4** of Business Plan for ED-Goa for first control period.



5.4.3 The following table summarises the connected load projected for the entire control period.

Table 32: Connected Load for FY 2015-16 to FY 2017-18

Sr. No.	Consumer Categories	Connected Load for Consumers (KW/KVA/HP)		
		FY 2015-16	FY 2016-17	FY 2017-18
1(a)	Tariff LTD/Domestic and Non-Comm.	1,642,607	1,650,820	1,659,074
1(b)	Tariff LTD/Low Income Group	2,046	2,046	2,046
1(c)	Tariff LTD/Domestic Mixed	3,191	3,191	3,191
2	Tariff-LTC/Commercial	278,652	280,045	281,445
3 (a)	Tariff-LTP/Motive Power	165,019	165,019	165,019
3 (b)	Tariff-LTP/ Ice Manufacturing	3,072	3,072	3,072
3(a)	Tariff-LTP/Mixed (Hotel Industries)	4,569	4,569	4,569
4	Tariff-LTAG/Agriculture	61,326	61,326	61,326
5	Tariff-LTPL/Public Lighting	9,598	9,598	9,598
6	Tariff-LT PWW/Public Water Works	5,600	5,600	5,600
	Total LT Category	2,175,680	2,185,286	2,194,940
7	Tariff HT-Mixed	74,767	74,767	74,767
8(a)	Tariff HTI/Industrial	240,374	240,374	240,374
8(b)	Tariff HTI/Hotel Industries	41,559	41,559	41,559
8(c)	Tariff HTI/Ice Manufacturing	364	364	364
9	H.T.Industrial (Ferro Metallurgical/ Steel Melting/ Power Intensive)	111,840	111,840	111,840
10	Tariff-HTAG/Agriculture	8,258	8,258	8,258
11	EHTI/Industrial	51,833	51,833	51,833
12	H.T. PW/Public Water Supply & Sewage	30,796	30,796	30,796
13	H.T. MES/Defence Establishments	7,080	7,080	7,080
14	H.T. Industrial (Steel Rolling)	-	-	-
15	Tariff HT-Industries (IT High Tech).	6,658	6,658	6,658
	Total HT Category	573,529	573,529	573,529
		-	-	-
C	Temporary Supply	8,025	8,025	8,025
16	Tariff-LT/Temporary	7,502	7,502	7,502
17	Tariff-HT/Temporary	-	-	-

Note: All LT Connections except 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

5.5 Energy Sales Forecast

5.5.1 It has been observed that the historical trend method has proved to be a reasonably accurate and well accepted method for estimating the load, number of consumers and energy consumption. Therefore ED-Goa has estimated the parameters for all consumer categories primarily based on the CAGR trend during past years.



5.5.2 For sales forecasting, ED-Goa has taken compounded annual growth rate (CAGR) of past years of sales of each consumer category as per the provisional sales till FY 2013-14, revised projection figures of FY 2014-15 and has forecasted the sales for the control period FY 2015-16 to FY 2017-18.

5.5.3 The detailed explanation for estimating category wise sales for FY 2015-16 to FY 2017-18 is provided in Section 6.5 of Business Plan for ED-Goa for first control period.

Table 33: Sales Projection for FY 2015-16 to FY 2017-18

Sr. No.	Consumer Categories	Sales in Mus (FY)	% Growth considered	Sales Projection in Mus		
				FY 2015-16	FY 2016-17	FY 2017-18
1(a)	Tariff LTD/Domestic and Non-Comm.	722.12	5%	758.22	796.13	835.94
1(b)	Tariff LTD/Low Income Group	7.24	0%	7.24	7.24	7.24
1(c)	Tariff LTD/Domestic Mixed	7.16	0%	7.88	8.67	9.53
2	Tariff-LTC/Commercial	264.23	5%	277.45	291.32	305.88
3 (a)	Tariff-LTP/Motive Power	149.11	5%	156.56	164.39	172.61
3 (b)	Tariff-LTP/ Ice Manufacturing	6.51	0%	6.51	6.51	6.51
3(a)	Tariff-LTP/Mixed (Hotel Industries)	2.71	10%	2.98	3.28	3.60
4	Tariff-LTAG/Agriculture	25.06	0%	25.06	25.06	25.06
5	Tariff-LTPL/Public Lighting	39.32	0%	39.32	39.32	39.32
6	Tariff-LT PWW/Public Water Works	6.11	5%	6.42	6.74	7.07
	Total Low Tension	1,229.56		1,287.62	1,348.64	1,412.76
7	Tariff HT-Mixed	130.37	2%	133.16	136.02	138.94
8(a)	Tariff HTI/Industrial	603.69	5%	675.15	709.46	745.51
8(b)	Tariff HTI/Hotel Industries	133.22	5%	139.88	146.88	154.22
8(c)	Tariff HTI/Ice Manufacturing	1.03	0%	1.03	1.03	1.03
9	H.T.Industrial (Ferro Metallurgical/ Steel Melting/ Power Intensive)	565.75	2%	577.07	588.61	600.38
10	Tariff-HTAG/Agriculture	4.76	0%	4.76	4.76	4.76
11	EHTI/Industrial	175.39	0%	174.72	174.04	173.37
12	H.T. PW/Public Water Supply & Sewage	137.34	5%	144.49	152.02	159.93
13	H.T. MES/Defence Establishments	27.11	0%	27.11	27.11	27.11
14	H.T. Industrial (Steel Rolling)	-	1%	-	-	-
15	Tariff HT-Industries (IT High Tech).	21.00	0%	21.00	21.00	21.00
	Total High Tension	1,799.68		1,898.39	1,960.94	2,026.27
16	Tariff-LT/Temporary	38.43	0%	38.43	38.43	38.43
17	Hoarding / Sign Board	0.25	0%	0.25	0.25	0.25
	Total Sales	3,067.92		3,224.70	3,348.27	3,477.72

5.5.4 The details of Number of Consumers, Connected Load and Sales for FY 2015-16 to FY 2017-18 are provided in **Format 1 of Tariff Filing Formats**.

5.6 T&D Loss

5.6.1 The proposed transmission and distribution loss trajectory by ED-Goa for the control period is mentioned below.



Table 34: T&D Loss Trajectory for First Control Period

Particulars	FY 2015-16	FY 2016-17	FY 2017-18
T&D loss (%)	13.75%	13.25%	12.75%

- 5.6.2 ED-Goa has considered a loss reduction of 0.50% for every year for the first control period.
- 5.6.3 ED-Goa submits that the meter reading, billing and collection process is being streamlined and is going through a transformation phase. In the past it was maintained by several different agencies separately in each division and each agency had its separate logic for bill calculation and bill generation.
- 5.6.4 However, now a common agency is taking over all the billing and collection data for HT and LT consumers and a common process will be followed for all the division to avoid ambiguity in the process and data. While this streamlining process is in progress, a lot of errors in the legacy data have been discovered and the error rectification process is going on.
- 5.6.5 It is therefore submitted that due to the above reasons, the actual T&D Loss may be different than what is being projected in this Petition. The Hon'ble Commission may allow ED-Goa to revise the T&D loss figures after authenticated data starts flowing from the new billing system and getting energy audit results after installation of necessary meters at feeder and DT level.

5.7 Energy Balance

- 5.7.1 The following table shows the Energy Balance projected by ED-Goa for the first control period.



Table 35: Energy Balance for the Entire Control Period

Sr. No.	Particulars	Energy Balance		
		FY 2015-16	FY 2016-17	FY 2017-18
1	Retail Sales to Consumers	3,225	3,348	3,478
	Add: T&D Losses - %	13.75%	13.25%	12.75%
	T&D Losses - MUs	514	511	508
2	Energy Requirement at Goa Periphery	3,739	3,860	3,986
3	Total Power Scheduled by ED-Goa			
	Scheduled Power from NTPC, RGPPL, NPCIL & RSTPS	3,647	3,691	3,691
	Add: Power from Open Market (tied-up)	62	156	282
	Add: Power from Open Market (for shortfall)	15	-	-
	Total			
4	Less: PGCIL Losses - %	5.33%	5.20%	5.04%
	PGCIL Losses - MUs	198	200	200
5	Total Power Purchased within Goa State			
	Add: Co-generation	186	186	186
	Add: Renewable Energy Sources	27	27	27
	Add: Independent Power Producers (IPP)	-	-	-
	Total	213	213	213
6	Energy Input at Periphery after PGCIL Losses & State Power Purchase	3,739	3,860	3,986

- 5.7.2 Considering the retail sales to the consumers and adding the distribution loss, the net energy requirement for the first control period has been estimated in the table above.
- 5.7.3 The energy required by ED-Goa at State Periphery for FY 2015-16, FY 2016-17 and FY 2017-18 is 3,739 MU's, 3,860 MU's and 3,986 MU's respectively.
- 5.7.4 **Transmission Loss:** PGCIL losses are on account of two regions – Western Region (WR) and Southern Region (SR). Therefore while computing the PGCIL losses, the losses at **3.8%** and **12%** are considered for WR and SR respectively.
- 5.7.5 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.



5.8 Power Purchase Quantum and Cost

5.8.1 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 trueing 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.

Provider 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.

5.8.2 ED-Goa has provided the detailed description of projection of power purchase quantum for entire first control of FY 2015-16 to FY 2017-18 in **Chapter 7** of Business Plan submitted for the first control period.

5.8.3 The following table shows the power purchase quantum projected by ED-Goa for FY 2015-16 to FY 2017-18.



Table 36: Power Purchase Quantum for FY 2015-16 to FY 2017-18

Particulars	MU's		
	FY 2015-16	FY 2016-17	FY 2017-18
Central Sector Power Stations			
NTPC	3,200.30	3,200.30	3,200.30
<i>KSTPS</i>	<i>1,472.90</i>	<i>1,472.90</i>	<i>1,472.90</i>
<i>KSTPS-III</i>	<i>35.27</i>	<i>35.27</i>	<i>35.27</i>
<i>VSTPS - I</i>	<i>264.26</i>	<i>264.26</i>	<i>264.26</i>
<i>VSTPS - II</i>	<i>95.73</i>	<i>95.73</i>	<i>95.73</i>
<i>VSTPS -III</i>	<i>81.34</i>	<i>81.34</i>	<i>81.34</i>
<i>VSTPS-IV</i>	<i>77.91</i>	<i>77.91</i>	<i>77.91</i>
<i>KGPP</i>	<i>56.90</i>	<i>56.90</i>	<i>56.90</i>
<i>GGPP</i>	<i>61.17</i>	<i>61.17</i>	<i>61.17</i>
<i>SIPAT- I</i>	<i>162.93</i>	<i>162.93</i>	<i>162.93</i>
<i>RSTPS</i>	<i>643.44</i>	<i>643.44</i>	<i>643.44</i>
<i>SIPAT- II</i>	<i>77.54</i>	<i>77.54</i>	<i>77.54</i>
<i>Mouda</i>	<i>84.87</i>	<i>84.87</i>	<i>84.87</i>
<i>Barh-II</i>	<i>86.04</i>	<i>86.04</i>	<i>86.04</i>
	-		
NPCIL	248.40	290.64	290.64
<i>KAPS Unit 1 and 2</i>	<i>111.75</i>	<i>111.75</i>	<i>111.75</i>
<i>TAPS Unit 3 and 4</i>	<i>77.79</i>	<i>77.79</i>	<i>77.79</i>
<i>KAPS Unit 3 and 4</i>	<i>58.85</i>	<i>101.09</i>	<i>101.09</i>
	-		
Solar RPO	27.00	27.00	27.00
<i>NVVN Solar</i>	<i>10.00</i>	<i>10.00</i>	<i>10.00</i>
<i>Solar Energy Corp. of India</i>	<i>17.00</i>	<i>17.00</i>	<i>17.00</i>
	-		
Short Term Power (tied-up)	62.26	-	-
	-		
Trader/Open Market Short Term	14.89	155.80	282.05
	-		
Within State Generations	-	-	-
CO- GENERATION	185.94	185.94	185.94
<i>Goa Energy Private Limited</i>	<i>124.27</i>	<i>124.27</i>	<i>124.27</i>
<i>Goa Sponge & Power Limited</i>	<i>6.68</i>	<i>6.68</i>	<i>6.68</i>
<i>Sesa Goa Limited</i>	<i>55.00</i>	<i>55.00</i>	<i>55.00</i>
Total Energy Availability	3,738.79	3,859.68	3,985.93

5.8.4 **Power Purchase Cost:** ED-Goa has considered the assumptions as discussed in the upcoming sections for projecting power purchase cost for the first control period.

Fixed Cost and Variable Cost for Central Generating Stations: ED-Goa has considered fixed cost of the Central Generating Station based on the petition filed by each of the respective stations for their control period of FY 2014-15 to FY 2018-19 before the Hon'ble CERC. ED-Goa has applied the allocation percentage on the total fixed cost filed by each of the generating stations to arrive at fixed cost of each station pertaining to ED-Goa.



ED-Goa has considered variable charge per unit for each of the Central Generating Stations based on the actual power purchase bills received for the month of October 2014 and November 2014. The following table shows the variable and fixed cost considered for entire control period.

Table 37: Fixed Cost and Variable Cost for CGS for entire control period

Name of Plant	FY 2015-16		FY 2016-17		FY 2017-18	
	Fixed (Rs. Crores)	Variable (Rs./unit)	Fixed (Rs. Crores)	Variable (Rs./unit)	Fixed (Rs. Crores)	Variable (Rs./unit)
KSTPS	902.25	0.92	1,002.79	0.92	1,062.39	0.92
KSTPS-III	541.04	0.91	543.99	0.91	539.09	0.91
VSTPS - I	663.21	1.78	780.65	1.78	813.47	1.78
VSTPS - II	464.42	1.68	481.47	1.68	496.79	1.68
VSTPS -III	761.44	1.68	761.32	1.68	762.32	1.68
VSTPS-IV	1,134.85	1.68	1,159.95	1.68	1,169.30	1.68
KGPP	440.80	2.97	442.87	2.97	445.82	2.97
GGPP	527.13	2.85	567.57	2.85	572.52	2.85
SIPAT- I	1,908.24	1.37	1,915.27	1.37	1,911.39	1.37
FSTPS	-	-	-	-	-	-
RSTPS	947.29	2.40	1,022.90	2.40	1,066.13	2.40
SIPAT- II	912.00	1.34	914.24	1.34	914.11	1.34
Mouda	1,325.23	3.89	1,361.71	3.89	1,370.50	3.89
Barh	1,467.12	3.85	1,490.15	3.85	1,509.18	3.85
KAPS	-	2.38	-	2.38	-	2.38
TAPS	-	2.88	-	2.88	-	2.88

Source: Fixed Charges from Petitions for FY15-19 control period and Variable Charges as per Oct & Nov 2014 Invoices

Solar RPO Status:

As regards fulfilment of Solar RPO is concerned, PPA has been executed by the Government with M/s NVVNL, New Delhi on 22th 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. 28-08-2014.

Further 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, has allocated 10 MW of Solar power to the State and also submitted Power Sale Agreement (PSA). The PSA to be executed with SECI has been submitted to the Government for approval for execution. The SECI will be supplying solar power of 10 MW @ Rs 5.50 per unit exclusive of transmission charges for a period of 25 years. It is anticipated that PSA will be executed shortly after negotiations on legal clauses and shall fulfil the solar RPO from 2015-16 till next 25 years.



To meet Solar RPO, ED-Goa will also purchase RECs in control period to ensure there is no carry forward of Solar RPO in second control period.

Non-Solar RPO Status:

Tender was invited by the Electricity Department – Goa for fulfilment of non-solar RPO of FY 2014-15 and further 4 years period. There were three offers against the tender. The lowest offer was @ Rs 6.10 per unit at Goa Periphery but the commencement of supply was from 1st April 2015. Another offer was @ Rs. 7.25 at Goa periphery for commencement of power from current year itself.

As the rates offered were substantially higher, ED-Goa decided to purchase RECs to meet Non Solar RPO for FY 2014-15 and subsequent financial years. ED-Goa has planned to purchase RECs equivalent to ~ 85 MUs in FY 2014-15. Similarly it would also purchase RECs in control period to ensure there is no carry forward of Non-Solar RPO to the second control period.

The following table shows the Renewable Purchase Obligation for Solar and Non Solar for ED-Goa and the corresponding REC Certificates to be purchased for the respective years. The RPO obligation not met in any of the years is transferred to the ensuing year.



Table 38: Details of RPO Obligation for ED-Goa for entire control period

Sr.No.	Description	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18
1	Sale within State	2,977.29	3,067.92	3,224.70	3,348.27	3,477.72
2	RPO Obligation in (%)					
	Solar	0.40%	0.60%	0.85%	1.15%	1.50%
	Non Solar	2.60%	2.70%	2.70%	2.80%	2.80%
3	RPO Obligation in (in MUs)					
	Solar	11.91	18.41	27.41	38.51	52.17
	Non Solar	77.41	82.83	87.07	93.75	97.38
4	Shortfall of RPO Obligation in Past Years (in MUs)					
	Solar	19.78	-	-	-	-
	Non Solar	-	-	-	-	-
5	Total RPO Obligation including Past Years (in MUs)					
	Solar	31.69	18.41	27.41	38.51	52.17
	Non Solar	77.41	82.83	87.07	93.75	97.38
6	RPO Compliance during the year (in Mus)					
	Solar	-	4.75	27.00	27.00	27.00
	Non Solar	-	-	-	-	-
7	Shortfall in RPO Compliance (in Mus)					
	Solar	31.69	13.66	0.41	11.51	25.17
	Non Solar	77.41	82.83	87.07	93.75	97.38
8	REC Certificate Purchase (in Mus)					
	Solar	-	-	10.00	25.00	47.43
	Non Solar	-	85.00	120.00	120.00	113.44
9	Cumulative Shortfall in RPO Compliance (in Mus)					
	Solar	31.69	45.35	35.76	22.26	-
	Non Solar	77.41	75.24	42.31	16.06	-
10	REC Certificate Price (Rs./Unit)					
	Solar	-	9.30	5.80	5.80	5.80
	Non Solar	-	1.50	1.50	1.50	1.50
11	REC Certificate Cost (Rs. Crores)					
	Solar	-	-	5.80	14.50	27.51
	Non Solar	-	12.75	18.00	18.00	17.02
	Total	-	12.75	23.80	32.50	44.53

Note: Price for Solar and Non Solar is taken as per CERC REC Order dated 13th June 2011 (142/2011) for FY 2014-15 and as per CERC REC Order dated 30th December 2014 (SM/016/2014) for FY 2015-16 onwards.

Price for Solar and Non Solar is taken as per CERC REC Order dated 13th June 2011 (142/2011) for FY 2014-15 and as per CERC REC Order dated 30th December 2014 (SM/016/2014) for FY 2015-16 onwards.



Power Purchase cost for Traders: The power purchase cost of traders have been projected based on the price per unit quoted under Letter of Intent (LOI) issued by ED-Goa for respective months of purchase.

Co-generation sources: 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 2014-15. 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.

PGCIL Transmission Charges: The transmission charges have been projected based on the charges mentioned in Regional Transmission Account vide WRPC circular no. WRPC/Comml-I/RTA/2014/11.0/10968 dated 4th December 2014 for injection and drawl of western region power and Regional Transmission Account vide letter No. SRPC/SE-1/5(RTA)/2014/ dated 3rd December 2014 for injection and drawl of southern region power as base figures over which escalation is assumed for FY 2015-16 and onwards.

The transmission charges for FY 15-16 onwards are computed based on the said RTA statement wherein rates and capacity in MW are considered and withdrawal charges have been arrived for ED-Goa. ED-Goa has worked out transmission charges for the last three years and calculated 3 year CAGR and year on year CAGR for reference. The working of transmission charges and considered escalation is shown in the table below.



Table 39: Escalation for Transmission Charges

Regions	Nov-11	Nov-12	Nov-13	Nov-14	3 Yr CAGR %	Nov-13/Nov 14 %	Annual Escalation Assumed
Withdrawal Charges							
<i>Southern Region</i>	80,000	74,520	101,818	88,067	4.9%	-13.5%	5.0%
<i>Western Region</i>	70,000	79,968	109,391	118,067	29.9%	7.9%	10.0%
Injection Charges							
Ramagundam - SR	80,000	59,520	71,818	88,067	4.9%	22.6%	5.0%
CGS - WR							
KSTPS	85,000	109,968	94,391	103,067	10.1%	9.2%	10.0%
KORBA - III	85,000	109,968	94,391	103,067	10.1%	9.2%	10.0%
VSTPS - I	100,000	109,968	109,391	103,067	1.5%	-5.8%	5.0%
VSTPS - II	100,000	109,968	109,391	103,067	1.5%	-5.8%	5.0%
VSTPS -III	100,000	109,968	109,391	103,067	1.5%	-5.8%	5.0%
VSTPS -IV	-	-	109,391	103,067	0.0%	-5.8%	5.0%
KGPP	70,000	79,968	109,391	118,067	29.9%	7.9%	10.0%
GGPP	70,000	79,968	109,391	118,067	29.9%	7.9%	10.0%
SIPAT-2	100,000	109,968	94,391	103,067	1.5%	9.2%	5.0%
KAPS 1 & 2	70,000	79,968	109,391	118,067	29.9%	7.9%	10.0%
KAPS 3 & 4	-	-	-	118,067	0.0%	0.0%	10.0%
TAPS 3 & 4	100,000	79,968	79,391	88,067	-6.2%	10.9%	5.0%
SIPAT-1	100,000	109,968	94,391	103,067	1.5%	9.2%	5.0%
Mauda	-	-	79,391	88,067	0.0%	10.9%	10.0%
Barh-II	-	-	-	-	0.0%	0.0%	0.0%
RGPPL	-	109,968	109,391	118,067	0.0%	7.9%	5.0%

Sources: RTA of WR & SR for respective month

The following table shows the transmission charges computed for withdrawal of power for the first control period based on the above escalation considered.

Table 40: Transmission Charges for Withdrawal of Power

Financial Year	Southern Region				Western Region				SR + WR Total Charges (Rs.Crs)
	Annual Escalation %	Rates Rs/MW/ Month	Monthly Quantum (MW)	Total Charges (Rs.Crs)	Annual Escalation %	Rates Rs/Mw/ Month	Monthly Quantum (MW)	Total Charges (Rs.Crs)	
FY 2014-15	0.0%	88,067	93.28	9.86	0.0%	118,067	388.01	54.97	64.83
FY 2015-16	5.0%	92,470	93.28	10.35	10.0%	129,874	388.01	60.47	70.82
FY 2016-17	5.0%	97,094	93.28	10.87	10.0%	142,861	388.01	66.52	77.39
FY 2017-18	5.0%	101,949	93.28	11.41	10.0%	157,147	388.01	73.17	84.58

Furthermore ED-Goa has considered POC charges as per November 2014 RTA bill for each of the generators and therefore derived monthly charges for each of the generators based on MW capacity. ED-Goa has then considered annual escalation on the cost arrived through this mechanism. The following table shows the transmission charges arrived for the control period on the generator end.



Table 41: Transmission Charges for Generators

Stations	Rates Rs/Mw/ Month *	Monthly Quantum (MW) *	Monthly Charges (Rs.Crs)	Annual Inflation %	FY 2015-16 (Rs.Crs)	FY 2016-17 (Rs.Crs)	FY 2017-18 (Rs.Crs)
RSTPS - SR	88,067.00	100.00	0.88	0.05	11.10	11.65	12.23
CGS - WR	-	-	-	-	-	-	-
KSTPS	103,067.00	211.93	2.18	0.10	28.83	31.72	34.89
KORBA - III	103,067.00	5.41	0.06	0.10	0.74	0.81	0.89
VSTPS - I	103,067.00	36.73	0.38	0.05	4.77	5.01	5.26
VSTPS - II	103,067.00	13.30	0.14	0.05	1.73	1.81	1.90
VSTPS - III	103,067.00	11.30	0.12	0.05	1.47	1.54	1.62
VSTPS - IV	103,067.00	13.02	0.13	0.05	1.69	1.78	1.86
KGPP	118,067.00	12.38	0.15	0.10	1.93	2.12	2.33
GGPP	118,067.00	12.64	0.15	0.10	1.97	2.17	2.38
SIPAT-2	103,067.00	11.24	0.12	0.05	1.46	1.53	1.61
KAPS 1 & 2	118,067.00	15.47	0.18	0.10	2.41	2.65	2.92
KAPS 3 & 4	118,067.00	12.60	0.15	0.10	1.96	2.16	2.38
TAPS 3 & 4	118,067.00	15.68	0.19	0.05	2.33	2.45	2.57
SIPAT-1	103,067.00	23.61	0.24	0.05	3.07	3.22	3.38
Mauda	88,067.00	13.02	0.11	0.10	1.51	1.66	1.83
Barh - II	-	13.20	-	-	-	-	-
Total - (Rs.)	-	521.52	5.17	-	66.97	72.28	78.06

* POC charges as per Nov 2014 RTA bill (SR + WR)

Considering the above escalations for drawl and injection charges, ED-Goa has projected the transmission charges for control period.

The transmission charges for KPTCL are projected considering **7.5 paise per unit** on power from Ramagundam plant. Other fees and charges of SLDC, SCADA and reactive charges and MSETCL charges are considered twice of cost estimated in H2 of FY 2014-15.

The following table shows the summary of transmission charges which are arrived based on the transmission charges for generation and withdrawal of power for the entire control period.

Table 42: Summary of Transmission Charges for the control period

Particulars	FY 15-16 (Rs.Crs)	FY 16-17 (Rs.Crs)	FY 17-18 (Rs.Crs)
Part - A Transmission Charges	70.82	77.39	84.58
Part - B Transmission Charges	66.97	72.28	78.06
KPTCL Wheeling Charges	11.48	11.48	11.48
Fees and charges of SLDC - WR	0.52	0.52	0.52
Fees and charges of SLDC - SR	0.46	0.46	0.46
SCADA & Reactive charges	0.76	0.76	0.76
MSETCL (RGPPL)	2.66	2.66	2.66
Total Transmission Charges	153.67	165.55	178.52



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

Table 43: Power Purchase Quantum and Cost for the entire control period

Particulars	FY 2015-16		FY 2016-17		FY 2017-18	
	Units (MU's)	Rs. Crores	Units (MU's)	Rs. Crores	Units (MU's)	Rs. Crores
Central Sector Power Stations						
NTPC	3,200.30	816.45	3,200.30	835.55	3,200.30	845.17
KSTPS	1,472.90	231.57	1,472.90	241.65	1,472.90	247.63
KSTPS-III	35.27	8.49	35.27	8.51	35.27	8.47
VSTPS - I	264.26	67.46	264.26	70.77	264.26	71.70
VSTPS - II	95.73	22.49	95.73	22.70	95.73	22.89
VSTPS -III	81.34	22.10	81.34	22.10	81.34	22.11
VSTPS-IV	77.91	26.90	77.91	27.20	77.91	27.31
KGPP	56.90	25.90	56.90	25.94	56.90	25.99
GGPP	61.17	28.23	61.17	29.00	61.17	29.10
SIPAT- I	162.93	43.45	162.93	43.52	162.93	43.48
RSTPS	643.44	220.65	643.44	224.26	643.44	226.31
SIPAT- II	77.54	20.23	77.54	20.25	77.54	20.25
Mouda	84.87	49.85	84.87	50.27	84.87	50.38
Barh-II	86.04	49.14	86.04	49.37	86.04	49.56
NPCIL	248.40	65.43	290.64	75.87	290.64	75.87
KAPS Unit 1 and 2	111.75	27.61	111.75	27.61	111.75	27.61
TAPS Unit 3 and 4	77.79	23.28	77.79	23.28	77.79	23.28
KAPS Unit 3 and 4	58.85	14.54	101.09	24.98	101.09	24.98
Solar RPO	27.00	17.34	27.00	17.34	27.00	17.34
NVVN Solar	10.00	7.99	10.00	7.99	10.00	7.99
Solar Energy Corp. of India	17.00	9.35	17.00	9.35	17.00	9.35
Short Term Power (tied-up)	62.26	23.02	-	-	-	-
Trader/Open Market Short Term	14.89	5.51	155.80	62.32	282.05	112.82
Within State Generations						
CO- GENERATION	185.94	44.63	185.94	44.63	185.94	44.63
Goa Energy Private Limited	124.27	29.82	124.27	29.82	124.27	29.82
Goa Sponge & Power Limited	6.68	1.60	6.68	1.60	6.68	1.60
Sesa Goa Limited	55.00	13.20	55.00	13.20	55.00	13.20
REC Certificates Cost	-	18.00	-	18.00	-	17.02
PGCIL Transmission Charges	-	153.67	-	165.55	-	178.52
Total Power Purchase	3,738.79	1,144.05	3,859.68	1,219.25	3,985.93	1,291.37

5.8.5 The Hon'ble Commission is kindly requested to approve the total power purchase cost of for the first control period as stated in the table above. The details of the Power Purchase Expenses for FY 2015-16 to FY 2017-18 are provided in **Format 4 of Tariff Filing Formats**.



5.9 Operation and Maintenance (O&M Expenses)

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

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

5.9.2 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.

5.9.3 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 to pay commissions etc., shall be excluded from the norms in the trajectory.

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



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

(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.

Emphasis added

5.9.4 ED-Goa has made the detailed description of all components of O&M expenses along with the norms specified for derivation of the expenses. The details are provided in **Chapter 9** of Business Plan for first control period submitted by ED-Goa where norms are proposed for approval of Hon'ble Commission.

5.9.5 Based on the norms specified in the Business Plan, ED-Goa 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:

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

“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:

$$R\&M_n = K_b * GFAn * \text{Inflation Index}$$

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:

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

- 5.9.6 As seen from the above extract, Employee expenses and A&G expenses are to be escalated at WPI Inflation rate, where as 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.



Table 44: Inflation Considered for FY 2015-16 to FY 2017-18

Particulars	Computation of WPI Inflation			Computation of CPI Inflation		
	Average WPI	Increase %	3 Yrs Average	Average CPI	Increase %	3 Yrs Average
FY 2014-15	177.64	6.00%	7.42%	236.00	9.68%	9.50%
FY 2013-14	167.58	7.33%		215.17	10.44%	
FY 2012-13	156.13	8.94%		194.83	8.39%	
FY 2011-12	143.33	-	-	179.75	-	-
Weightage			0.40			0.60
Weighted Index			2.97%			5.70%
Combined Inflation	8.67%					

5.9.7 As seen from the above table Employee and A&G expenses are escalated at a rate of **7.42%** and R&M expenses are escalated at a rate of **8.67%** for the entire control period.

5.9.8 The following table summarises the operation and maintenance expenses projected for the first control period based on the norms specified and the inflationary impact for future years.

Table 45: Operation and Maintenance Expense for FY 2015-16 to FY 2017-18

O& M Expenses	Unit	Norm	FY 14-15	FY 15-16	FY 16-17	FY 17-18
Sales	MUs		3,068	3,225	3,348	3,478
No of Consumers	Nos		608,601	620,047	631,722	643,630
Opening GFA	Rs.Crs		961.50	1,144.13	1,619.63	2,431.13
No. of Employees (at the end of FY)	Nos		7,387			
No. of Substations (33/11KV)	Nos		53	55	56	57
WPI Index for Employee & A&G Expenses	%	7.42%				
CPI: WPI Index for R&M Expenses	%	8.67%				
Employee Expenses						
Computation of No. of Employees			225.72	7,007	7,136	7,266
No. of Empl. per substation	Nos	76.00		4,217	4,293	4,369
No. of Employees/ 1000 Consumers	Nos	4.50		2,790	2,843	2,896
Annual expenses per Employee	(Rs. Lakh/ employee)	3.00		21,022	21,408	21,797
Total	Rs.Crs			210.22	214.08	217.97
Total Employee Expenses with Inflation	Rs.Crs		225.72	225.83	229.97	234.15
Total Employee Expenses with Inflation and Pension Provision	Rs.Crs		231.00	232.45	236.72	241.26
A&G Expenses						
Linked to Consumers	Rs.Lakh/ 1000 Cons.	1.20	9.97	7.44	7.58	7.72
Linked to No. of Employees	(Rs. Lakh/ employee)	0.11		7.71	7.85	7.99
A&G Expenses	Rs.Crs			15.15	15.43	15.72
Total A&G Expenses with Inflation	Rs.Crs		9.97	16.27	16.58	16.88
R&M Expenses						
R&M Expenses (Linked to Op. GFA)	% of Op.GFA	3.0%	44.33			
R&M Expenses	Rs.Crs			34.32	48.59	72.93
Total R&M Expenses with Inflation	Rs.Crs		44.33	37.30	52.80	79.26
Total O&M Expenses	Rs.Crs		280.03	279.40	299.35	330.29



- 5.9.9 ED-Goa has arrived at pension provision for the first control period; which is computed for permanent employees (As shown in Tariff Format No.15) at the rate of average yearly contribution of Rs. **11 Lakhs**. The same has been added to the employee expenses as derived above after considering inflationary impact.
- 5.9.10 It is submitted to the Hon'ble Commission that the number of employees calculated in the above table for FY 2015-16 to FY 2017-18 are as per norms specified in the MYT Regulations, 2014. However the number of employees projected by ED-Goa for the first control period is on a higher side as compared to that given in the table above.
- 5.9.11 ED-Goa submits that necessary post needs to be filled up as per requirement and hence it's an uncontrollable factor. The number of employees projected by ED-Goa for FY 2015-16 to FY 2017-18 is submitted in **Format 15** of Tariff Filing Formats.
- 5.9.12 The Hon'ble Commission is kindly requested to approve the total O&M Expenses for the first control period as stated in the table above. The Hon'ble Commission is also requested to ensure that norms may be approved in such a manner that ED-Goa gets at least additional amount over its previous years as these are base cost and it cannot get reduced by mere application of norms or change of Tariff Regulations.

5.10 Capital Expenditure

- 5.10.1 The MYT Regulations, 2014 specifies the following provisions for projection of capital expenditure.

"22 Capital Investment Plan

(a) Capital expenditure shall be considered on scheme wise basis.

(b) For capital expenditure greater than Rs. 10 Crore (Rupees Ten Crore), the Distribution Licensee shall seek prior approval of the Commission.

(c) The Distribution Licensee shall submit detailed supporting documents while seeking approval from the Commission.

Provided that supporting documents shall include but not limited to necessity and purpose of investment, capital structure, capitalization schedule, financing plan and cost benefit analysis:



d) The approval of the capital expenditure by the Commission for the ensuing year shall be in accordance with load growth, system extension, rural electrification, distribution loss reduction or quality improvement as proposed in the Distribution Licensee's supporting documents.

(e) The Commission may also undertake a detailed review of the actual works compared with the works approved in the previous Tariff Order while approving the capital expenditure for the ensuing year.

(f) In case the capital expenditure is required for emergency work, the licensee shall submit an application, containing all relevant information along with reasons justifying the emergent nature of the proposed work, seeking post facto approval by the Commission.

(g) The Distribution Licensee shall take up the work prior to receiving the approval from the Commission provided that the emergent nature of the scheme has been certified by its competent authority.

(h) If capital expenditure is less than Rs. 10 Crore (Rupees Ten Crore), the Distribution Licensee shall undertake the execution of the plan with simultaneous notification to the Commission with all of the relevant supporting documents.

(i) During the true-up exercise, the Commission shall take appropriate action as is mentioned in these regulations.

(j) Consumer's contribution towards cost of capital asset shall be treated as capital receipt and credited in current liabilities until transferred to a separate account on commissioning of the assets.

(k) An amount equivalent to the depreciation charge on such assets for the year shall be appropriated from this account as income to the profit and loss account over the useful life of the asset.

5.10.2 ED-Goa has projected the capital expenditure and capitalization for the first control period starting from FY 2015-16 to FY 2017-18. The detailed scheme wise explanation and the schemes to be carried out in ensuing year are listed out in Chapter 8 of Business Plan submitted by ED-Goa to the Hon'ble Commission.

5.10.3 The following table summarises the capital expenditure and capitalization projected for FY 2015-16 to FY 2017-18.



Table 46: Capital Expenditure and Capitalization for FY 2015-16 to FY 2017-18

Sr. No.	Particulars	Rs. Crores		
		Ensuing Year (Projections)		
		FY 2015-16	FY 2016-17	FY 2017-18
1	Capital Expenditure	817.00	1,193.00	895.00
2	Capitalization	475.50	811.50	1,381.50

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

5.11 Depreciation

5.11.1 The MYT Regulations, 2014 specifies the following provisions for projection of Depreciation.

“23. Depreciation

(a) Depreciation shall be calculated for each year of the control period on the original cost of the fixed assets of the corresponding year.

(b) Depreciation shall not be allowed on assets funded by capital subsidies, consumer contributions or grants.

(c) Depreciation shall be calculated annually as per straight-line method over the useful life of the asset at the rate of depreciation. The same shall be as specified in the Central Electricity Regulatory Commission (Terms & Conditions of Tariff) Regulations, 2014. (The same may vary as notified by CERC from time to time.)

(d) The residual value of assets shall be considered as 10% and depreciation shall be allowed to a maximum of 90% of the original cost of the asset.

Provided that Land shall not be treated as a depreciable asset and its cost shall be excluded while computing 90% of the original cost of the asset.

(e) Depreciation shall be charged from the first year of operation of the asset. Provided that in case the operation of the asset is for a part of the year, depreciation shall be charged on proportionate basis.

(f) A provision of replacement of assets shall be made in the capital investment plan.



5.11.2 Depreciation has been calculated taking into consideration the opening balances of assets at the beginning of the year. The addition to assets has been considered equal to the amount capitalized during the year. The depreciation rate considered is **5.28%** which is the average depreciation rate.

5.11.3 The following table shows the depreciation projected by ED-Goa for the entire control period.

Table 47: Depreciation for FY 2015-16 to FY 2017-18

Rs. Crores				
Sr.No.	Particulars	FY 2015-16	FY 2016-17	FY 2017-18
1	Opening Gross Fixed Asset	1,043.09	1,350.59	1,706.09
2	Add: Assets added during year (e	307.50	355.50	1,116.50
3	Less: Withdrawal during year	-	-	-
4	Closing Gross Fixed Asset	1,350.59	1,706.09	2,822.59
5	Average Gross Fixed Asset	1,196.84	1,528.34	2,264.34
6	Average Depreciation Rate	5.28%	5.28%	5.28%
	Total Depreciation for year	63.19	80.70	119.56

5.11.4 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.

5.12 Interest on Loan

5.12.1 The MYT Regulations, 2014 specifies the following provisions for projection of Interest on Loan.

"24 Interest on loan

(a) The Distribution Licensee shall provide detailed loan-wise, project-wise and utilization-wise details of all of the pending loans.

(b) If the equity actually 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.

(c) Actual loan or normative loan, if any, shall be referred as gross normative loan in this Regulation.



(d) The normative loan outstanding as of 1st April of control period shall be computed by deducting the cumulative repayment as approved by the Commission (basis as mentioned below) up to 31st March of current period (a year before control period) from the gross normative loan.

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

(f) Notwithstanding any moratorium period availed by the Distribution Licensee, the repayment of the loan shall be considered from the first year of the control period as per annual depreciation allowed.

(g) The rate of interest shall be the weighted average rate of interest calculated on the basis of actual loan portfolio at the beginning of each year of the control period, in accordance with terms and conditions of relevant loan agreements, or bonds or nonconvertible debentures.

Provided that if no actual loan is outstanding but normative loan is still outstanding, the last available weighted average rate of interest shall be applicable.

Provided further that the interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest.

Provided also that exception shall be made for the existing loans which may have different terms as per the agreements already executed if the Commission is satisfied that the loan has been contracted for and applied to identifiable and approved projects.

(i) The Distribution Licensee shall make every effort to refinance the loan as long as it results in net benefit to the consumers.

Provided that the cost associated with such refinancing shall be eligible to be passed through in tariffs and the benefit on account of refinancing of loan and interest on loan shall be shared in the ratio of 50:50 between the Distribution Licensee and the consumers.

Provided further that the Distribution Licensee shall submit the calculation of such benefit to the Commission for its approval.



(i) The Distribution Licensee shall enable tracking of the loans converted into grants under schemes like APDRP by providing information and data regularly to the Commission and for ensuring that the interest on these loans which has been passed on to the consumers inappropriately in the earlier years shall be recovered from the Distribution Licensee.

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

5.12.3 ED-Goa has considered opening loan for FY 2015-16 based on normative closing of FY 2014-15 as discussed in the previous chapter. The loan addition during the year for the entire control period has been considered by taking 70% of the asset addition during the year net of asset created due to grants received for APDRP Part B/IPDS Scheme and net of assets created from ED fund. The following table shows the Net additions to GFA that have been considered to arrive at normative loan and equity addition during the control period.

Table 48: Net GFA Additions for FY 2015-16 to FY 2017-18

Sr. No.	Particulars	Current Year (Prov. Actual)	Current Year (Rev. Est)	Ensuing Year (Projections)		
		FY13-14	FY14-15	FY15-16	FY16-17	FY17-18
1	2	3	4	5	6	7
1	Additions to GFA	144.66	182.63	475.50	811.50	1,381.50
2	Less: 60% Grant Component of APDRP Part-B / IPDS scheme	-	-	120.00	360.00	240.00
3	Less: Schemes out of ED Fund	38.23	62.81	48.00	96.00	25.00
4	Net Additions to GFA	106.43	119.82	307.50	355.50	1,116.50

5.12.4 The normative repayments are in line with the depreciation projected for the control period. The interest rate considered **11.75%** which is the weighted average interest rate as per actual loan drawn by ED-Goa. The letter of credit charges for all the years has been considered in line with that estimated during FY 2014-15.

5.12.5 The following table shows the interest calculation for the first control period based on the calculation discussed above.



Table 49: Interest on Loan for FY 2015-16 to FY 2017-18

Rs. Crores				
Sr.No.	Particulars	FY 2015-16	FY 2016-17	FY 2017-18
1	Opening Normative Loan	632.31	784.37	952.52
2	Add: Normative Loan during year (70% of Capitalisation)	215.25	248.85	781.55
3	Less: Normative Repayment	63.19	80.70	119.56
4	Closing Normative Loan	784.37	952.52	1,614.52
5	Average Normative Loan	708.34	868.45	1,283.52
6	Rate of Interest	11.75%	11.75%	11.75%
7	Interest on Normative Loan	83.23	102.04	150.81
8	Add: Letter of Credit Charges	4.97	4.97	4.97
9	Total Interest & Finance Charges	88.20	107.02	155.79

5.12.6 The detailed calculation has been provided in **Format 6** of Tariff Filing Formats filed along with this Petition. The details of actual loan are also provided in **Format 10** for reference of the Hon'ble Commission. The Hon'ble Commission is requested to approve the interest on loan as shown in the table above.

5.13 Interest on Working Capital

5.13.1 The MYT Regulations, 2014 specifies the following provisions for projection of Interest on Working Capital.

"25 Interest on Working Capital

Working capital for retail supply activity of the licensee shall consist of:

(i) Receivables of two months of billing

(ii) Less power purchase cost of one month

(iii) Less consumer security deposit but excluding Bank Guarantee/Fixed Deposit Receipt

(iv) Inventory for two months based on annual requirement for previous year

The rate of interest on working capital shall be equal to the base rate for the State Bank of India on the 1st April of the relevant financial year. The interest on working capital shall be payable on normative basis notwithstanding that the licensee has not taken working capital loan from any outside agency or has exceeded the working capital loan worked out on the normative figures.

5.13.2 ED-Goa submits that the above provisions of MYT Regulations, 2014 specified for Interest on Working Capital is only for retail supply business, which is one part of business of ED-Goa. The Regulations does not specify provisions for calculating Interest on Working Capital for wheeling business. The ARR that is being calculated here relates to both retail supply business and wheeling business and



therefore, ED-Goa is considering the provisions from Terms and Conditions of Tariff Regulations, 2009 for calculating Interest on Working Capital.

5.13.3 The following provisions are considered for calculating Interest on Working Capital for the first control period.

“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.

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

5.13.4 Based on the above provisions, ED-Goa has calculated interest on working capital for the entire control period. The following table shows the IWC for FY 2015-16 to FY 2017-18.

Table 50: Interest on Working Capital for FY 2015-16 to FY 2017-18

Rs. Crores				
Sr.No.	Particulars	FY 2015-16	FY 2016-17	FY 2017-18
1	Power Purchase Cost - 1 Month	95.82	102.81	109.91
2	Employee Cost - 1 Month	19.37	19.73	20.11
3	Administration & General Expenses - 1 Month	1.36	1.38	1.41
4	R&M Cost - 1 Month	3.11	4.40	6.60
5	Less: Security Deposit Opening Balance	90.71	91.85	93.02
6	Total	28.95	36.47	45.01
7	Interest Rate *	14.75%	14.75%	14.75%
8	Interest on working capital	4.27	5.38	6.64

** SBI Lending Rate as on 1st April of relevant Financial year and for FY 14-15, latest rate is taken*

5.13.5 The detailed calculation has been provided in **Format 18-19** of Tariff Filing Formats filed along with this Petition. The Hon'ble Commission is requested to approve the interest on working capital shown in the table above as per Regulation 2009.



5.14 Return on Equity

5.14.1 The MYT Regulations, 2014 specifies the following provisions for projection of Return on Equity.

“27 Return on equity

(a) Return on equity shall be computed on 30% of the capital base or actual equity, whichever is lower:

Provided that assets funded by consumer contribution, capital subsidies/grants and corresponding depreciation shall not form part of the capital base. Actual equity infused in the Distribution Licensee as per book value shall be considered as perpetual and shall be used for computation in this Regulation.

(b) The return on the equity invested in working capital shall be allowed from the date of start of commercial operation.

(c) 16% post-tax return on equity shall be considered irrespective of whether the Distribution Licensee has claimed return on equity in the ARR petition.

5.14.2 The Return on Equity has been calculated based on normative opening equity for FY 2015-16 which as the normative closing equity for FY 2014-15 as discussed in the previous chapter. The equity additions during each of the years is 30% of the asset capitalized during the respective years net of asset addition due to grants received for APDRP Part B/IPDS Schemes and net of Asset created due to ED fund. The rate of equity considered is as specified in the Regulations.

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

Table 51: Return on Equity for FY 2015-16 to FY 2017-18

Sr.No.	Particulars	Rs. Crores		
		FY 2015-16	FY 2016-17	FY 2017-18
1	Opening Equity	312.93	405.18	511.83
2	Add: Equity for the year (30% of Capitalisation)	92.25	106.65	334.95
3	Closing Equity	405.18	511.83	846.78
4	Average Equity	359.05	458.50	679.30
5	Rate of Equity	16%	16%	16%
6	Return on Equity *	57.45	73.36	108.69

* Return on Equity principle is adopted from FY15-16 onwards as per MYT Distribution Regulations 2014



5.14.4 The detailed calculation has been provided in **Format 6** of Tariff Filing Formats filed along with this Petition. The Hon'ble Commission is requested to approve the return on equity as shown in the table above.

5.15 Interest on Security Deposit

5.15.1 The opening of security deposit for FY 2015-16 has been considered based on closing of FY 2014-15 as discussed in previous chapter. The addition in consumer security deposits is based on the number of consumers added during the respective years. The interest rate considered is **9.00%** based on the RBI bank rate as specified in the Regulations.

5.15.2 The following table shows the interest on security deposit for FY 2015-16 to FY 2017-18.

Table 52: Interest on Security Deposit for FY 2015-16 to FY 2017-18

Rs. Crores				
Sr.No.	Particulars	FY 2015-16	FY 2016-17	FY 2017-18
1	Opening Security Deposit	90.71	91.85	93.02
2	Add: Deposits during the Year	1.14	1.17	0.97
3	Less: Deposits refunded	-	-	-
4	Closing Security Deposit	91.85	93.02	93.98
5	RBI Bank Rate	9.00%	9.00%	9.00%
6	Interest on Security Deposit	8.27	8.37	8.46

5.15.3 The detailed calculation has been provided in **Format 19** of Tariff Filing Formats filed along with this Petition. The Hon'ble Commission is requested to approve the interest on security deposit as shown in the table above.

5.16 Non Tariff Income

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

"29 Non-Tariff Income

a) All incomes being incidental to electricity business and derived by the Licensee from sources, including but not limited to profit derived from disposal of assets, rents, delayed payment surcharge, meter rent (if any), income from investments other than contingency reserves, miscellaneous receipts from the consumers and income to Licensed business from the Other Business of the Distribution Licensee shall constitute Non-Tariff Income of the Licensee.

b) Interest on security deposits, in excess of the rate specified by the Commission shall be considered as Non Tariff income of the Licensees.



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.

5.16.2 The following table shows the Non tariff Income for the first control period as projected by ED-Goa.

Table 53: Non Tariff Income for FY 2015-16 to FY 2017-18

Rs. Crores				
Sr.No.	Particulars	FY 2015-16	FY 2016-17	FY 2017-18
1	Sale Proceeds of dead stock, waste paper etc	0.00	0.00	0.00
2	Receipt from Other Items	5.53	5.53	5.53
3	Theft/pilferage of energy	0.38	0.38	0.38
4	Misc. Receipts/income	0.74	0.74	0.74
5	Total Non-Tariff income	6.65	6.65	6.65

5.17 Aggregate Revenue Requirement

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

Table 54: Net Aggregate Revenue Requirement for FY 2015-16 to FY 2017-18

Rs. Crores				
Sr.No.	Particulars	FY 2015-16	FY 2016-17	FY 2017-18
1	Cost of power purchase	1,149.85	1,233.75	1,318.87
2	Employee costs	232.45	236.72	241.26
3	R&M expenses	37.30	52.80	79.26
4	Administration and General expenses	16.27	16.58	16.88
5	Depreciation	63.19	80.70	119.56
6	Interest on Loan & Finance charges	88.20	107.02	155.79
7	Interest on Working Capital	4.27	5.38	6.64
8	Interest on Security Deposit	8.27	8.37	8.46
9	Return on Equity	57.45	73.36	108.69
10	Total Revenue Requirement	1,657.26	1,814.68	2,055.41
11	Less: Non Tariff Income	6.65	6.65	6.65
12	Net Revenue Requirement	1,650.60	1,808.02	2,048.75

5.18 Revenue from Existing Tariff

5.18.1 ED-Goa has computed category wise revenue for FY 2015-16 based on the existing tariff rates approved by the Hon'ble Commission in last tariff order dated 15th April 2014.



Table 55: Revenue from sale of power for FY 2015-16

Sr. No.	Category of Consumer	Energy Sales (MUs)	Total Revenue (Rs Crore)	Avg Tariff (Rs/kWh)
1	2	3	4	5
A	Low Tension Supply	1,288	331.61	2.58
1(a)	Tariff LTD/Domestic and Non-Commercial	758	146.19	1.93
1(b)	Tariff LTD/Low Income Group	7	0.38	0.53
1(c)	Tariff LTD/Domestic Mixed	8	2.50	3.17
2	Tariff-LTC/Commercial	277	104.41	3.76
3 (a)	Tariff-LTP/Motive Power	157	54.56	3.48
3 (b)	Tariff-LTP/ Ice Manufacturing	7	2.17	3.34
3(a)	Tariff-LTP/Mixed (Hotel Industries)	3	1.33	4.46
4	Tariff-LTAG/Agriculture	25	3.74	1.49
5	Tariff-LTPL/Public Lighting	39	14.56	3.70
6	Tariff-LT PWW/Public Water Works	6	1.77	2.76
B	High Tension Supply	1,898	775.88	4.09
7	Tariff HT-Mixed	133	59.89	4.50
8(a)	Tariff HTI/Industrial	675	280.49	4.15
8(b)	Tariff HTI/Hotel Industries	140	56.14	4.01
8(c)	Tariff HTI/Ice Manufacturing	1	0.39	3.85
9	H.T.Industrial (Ferro Metallurgical/ Steel Melting/ Power Intensive)	577	228.26	3.96
10	Tariff-HTAG/Agriculture	5	0.92	1.92
11	EHTI/Industrial	175	75.46	4.32
12	H.T. PW/Public Water Supply and Sewage	144	55.80	3.86
13	H.T. MES/Defence Establishments	27	10.22	3.77
14	H.T. Industrial (Steel Rolling)	-	-	-
15	Tariff HT-Industries (IT High Tech).	21	8.32	3.96
C	Temporary Supply	39	29.46	7.61
16	Tariff-LT/Temporary	38	29.28	7.62
17	Tariff-HT/Temporary	-	-	-
18	Hoarding / Sign Board	0	0.18	7.24
	Total	3,225	1,136.95	3.53

5.19 Revenue Gap for Entire Control Period

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



Table 56: Revenue Gap for FY 2015-16 to FY 2017-18

		Rs. Crores		
Sr.No.	Particulars	FY 2015-16	FY 2016-17	FY 2017-18
1	Net Revenue Requirement	1,650.60	1,808.02	2,048.75
2	Revenue from Retail Sales at Existing Tariff including FPPCA Charges	1,136.95	1,180.52	1,226.16
3	Net Gap	513.65	627.50	822.59
4	Energy sales (MU)	3,224.70	3,348.27	3,477.72
5	Average Cost of Supply (Rs./kWh)	5.12	5.40	5.89

5.19.2 The revenue for FY 2016-17 to FY 2017-18 is computed based on the average billing rate for entire sales for FY 2015-16. The treatment for the gap of FY 2015-16 is provided in subsequent chapters.



CHAPTER 6. PROPOSAL TO MEET ARR AND CUMMULATIVE GAP FOR FY 2015-16

6.1 Cumulative Revenue Gap of FY 2015-16

6.1.1 It is submitted that that revenue gap of Rs. 284.22 Crores for FY 2013-14 is not being claimed in this petition as financial statements are yet to be prepared. 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 2015-16 based on the ARR projected and revenue at existing tariff arrived in previous chapters.

Table 57: Cumulative Revenue Gap up to FY 2015-16

Rs Crore		
Sr. No.	Item of expense	Projection FY 2015-16
1	Net ARR for FY 2015-16	1,650.60
2	Less: Revenue at Existing Tariff	1,136.95
3	Gap at Existing Tariff	513.65
4	Add: Gap of FY 2014-15	415.84
5	Total Revenue Gap to be met	929.49

6.1.3 As seen from the above table, the cumulative revenue gap after performance review of FY 2014-15 and ARR of FY 2015-16 comes to Rs. **929.49** Crores.

6.1.4 ED-Goa is into regulatory regime under JERC from FY 2011-12 onwards and so far has got tariff revision only twice i.e w.e.f. 1st June 2012 for **11.8%** and w.e.f. 1st April 2014 for **7.6%**.

6.1.5 Therefore there has been an uneven trend observed in tariffs that have increased in the past few years. This has lead to addition of huge accumulated losses for the Department.

6.1.6 ED-Goa states that recovery of entire gap of Rs. **929.49** Crores during FY 2015-16 will lead to tariff shock to consumers and therefore it is not viable to recover the entire gap in one year



- 6.1.7 ED-Goa therefore is proposing an average increase in revenue of around **19%** through revision in tariffs as proposed in the Tariff Schedule in the upcoming chapters. The additional revenue expected through this tariff hike is Rs. 219.61 Crores.
- 6.1.8 ED-Goa has also proposed for rationalization in the existing Tariff Structure. The modification and changes in consumer categories proposed by ED-Goa has been detailed out in the Chapter for Tariff Philosophy.
- 6.1.9 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 58: Revenue Gap after Tariff Revision on Proposed Tariff Structure

Rs Crore		
Sr. No.	Item of expense	Projection FY 2015-16
1	Net ARR for FY 2015-16	1,650.60
2	Less: Revenue at Existing Tariff	1,136.95
3	Gap at Existing Tariff	513.65
4	Add: Gap of FY 2014-15	415.84
5	Total Revenue Gap to be met	929.49
6	Less: Additional Revenue from Revised Tariffs	224.07
7	Less: Budgetary Support	-
8	Balance Revenue Gap	705.41

- 6.1.10 As seen from the above table additional revenue derived from proposed tariffs and proposed tariff structure is Rs. **224.07** Crores which leads to the unmet revenue gap of Rs. **705.41** Crores.



6.2 Formation of Regulatory Asset

- 6.2.1 In general terms, Regulatory Asset includes previously-incurred losses that are in nature of deferred expenditure and that can be recovered from consumers in future allowed by Regulatory Authorities.
- 6.2.2 The Regulatory Provisions for creation of Regulatory assets is specified as below in the JERC Tariff Regulations, 2009.

“10. Regulatory Asset

Only in extraordinary circumstances, the Commission may allow creation of Regulatory Asset in case the Revenue Gap is very substantial and is on account of onetime factors beyond control of the generating company or the licensee and its full recovery in a single year will result in tariff shock for the consumers:

The Regulatory Assets so created along with carrying cost shall be liquidated in maximum 3 years period immediately following the year in which it is created.”

- 6.2.3 The MYT Regulations, 2014 specifies the following Regulations for creation of Regulatory Asset.

“31. Treatment of Regulatory Assets

(a) Regulatory assets shall not be created against cost/loss incurred in normal course of business.

Provided that in such a case, financing arrangement or capital restructuring shall be deployed to cover the gap.

(b) The amortization schedule corresponding to the regulatory asset shall be prepared and put in effect along with creation of the regulatory asset.

(c) The carrying cost of the regulatory asset shall be in line with the State Bank Advance Rate (SBAR) for the tenure for which regulatory asset has been created.

(d) There shall not be a long gap in truing up of accounts of the Distribution Licensee so as to prevent the need for creation of the regulatory asset.”



6.2.4 In addition to the above Regulations the National Tariff Policy (NTP) specifies as follows.

“8.2.2. The facility of a regulatory asset has been adopted by some Regulatory Commissions in the past to limit tariff impact in a particular year. This should be done only as exception, and subject to the following guidelines:

- a. The circumstances should be clearly defined through regulations, and should only include natural causes or force majeure conditions. Under business as usual conditions, the opening balances of uncovered gap must be covered through transition financing arrangement or capital restructuring;*
- b. Carrying cost of Regulatory Asset should be allowed to the utilities;*
- c. Recovery of Regulatory Asset should be time-bound and within a period not exceeding three years at the most and preferably within control period;*
- d. The use of the facility of Regulatory Asset should not be repetitive.*
- e. In cases where regulatory asset is proposed to be adopted, it should be ensured that the return on equity should not become unreasonably low in any year so that the capability of the licensee to borrow is not adversely affected”*

6.2.5 The APTEL Suo Motu order for OP No. 1 of 2011 dated 11th November 2011 states the following for creation of Regulatory Asset.

“65 (iv) In determination of ARR/tariff, the revenue gaps ought not to be left and Regulatory Asset should not be created as a matter of course except where it is justifiable, in accordance with the Tariff Policy and the Regulations. The recovery of the Regulatory Asset should be time bound and within a period not exceeding three years at the most and preferably within Control Period. Carrying cost of the Regulatory Asset should be allowed to the utilities in the ARR of the year in which the Regulatory Assets are created to avoid problem of cash flow to the distribution licensee”

6.2.6 ED-Goa therefore proposes the Hon’ble Commission to approve Regulatory asset to the tune of Rs. **705.41** Crores. This revenue gap may be proposed to be recovered in the next 2-3 years based on the mechanism that may be decided by the Hon’ble Commission.



CHAPTER 7. TARIFF PHILOSOPHY

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) The present tariffs are insufficient to match the cost of services;
- d) 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.
- e) The tariff structure between fixed/ demand charge and energy charge is lop-sided and the recovery from fixed/ demand charges is less than the fixed payments obligation.
- f) In some of the categories, the applicability clauses needed more clarity for better implementation.
- g) The limit for release of load at LT & HT levels was high when compared to other utilities resulting in higher technical losses.
- h) The Hon'ble Commission had also in earlier Tariff Order suggested for rationalisation of tariff categories and general terms and conditions.

7.2 Tariff Philosophy

7.2.1 Sanctioned Load Limits for LT & HT

- a) The sanctioned load limit for release of connection at LT level is reduced from 90 kW or 100 kVA or 120 HP to 70 kW or 80 kVA or 95 HP and below.



- b) The contracted demand limit for release of connection at HT level is modified from 90 kW or 100 kVA or 120 HP to 70 kW or 80 kVA or 95 HP and above.

The load limits are modified considering the pattern in other states which specify limits in the range of 50 or 70 kW for LT level. For eg. In Karnataka, the sanctioned load is 50KW/59KVA/67HP for LT consumers and above 50KW for HT consumers. ED-Goa also submits the provision of Supply Code Regulations 2010 suggests different types of meter installations based on load limits. Hence with higher load limit, installation of normal/ specified meters may be difficult. ED-Goa submits that modification of such load limits will also assist in reducing technical losses.

7.2.2 Tariff Rationalisation

The consumer categories are rationalised in line with neighbouring and better performing state utilities mainly for Domestic, Commercial and Industry in LT & HT segment. ED-Goa has merged LT Motive Power, LT Ice Mfg, LT Public Water Works into single category i.e. LT Industry. Similarly, HT-Mixed, HT-Industrial, HT-Hotel Industries, HT-Ice Manufacturing, EHTI-Industrial, HT Public Water Works and HT-IT High Tech Industries are merged into 1 single category i.e. HT Industrial. New categories such as HT-Domestic and HT-Commercial are proposed considering the need as per developments in the State. HT-Domestic category has been introduced for high end domestic consumers in order to subsidize other consumers. LT Temporary is further categorised into Domestic/ Religious and Commercial purposes. ED-Goa believes that such rationalisation will be simple to understand for all stakeholders.

ED-Goa has tried to rationalise the slabs in LT & HT categories. The range of consumption slabs is minimised to cover benefit low end consumption categories such as LT Domestic, LT Commercial in the slab of 0 – 100 units. The no of slabs have been rationalised to 2 or 3 slabs in LT/ HT except for LT Domestic which has 4 slabs. ED-Goa has also propose to introduce Single point supply/ Distribution Franchisee arrangement based on consumer applications from Township Areas, Residential Complexes including Group Housing Societies, IT Park, Industrial Estate, Commercial Complexes, Malls etc.

7.2.3 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.



7.2.4 Time of Day (TOD) Tariff

Time of Day (TOD) is proposed to be made "Compulsory" for all HT/EHT Consumers and "Optional" for LT Commercial & LT Industry (currently optional for HT/ EHT consumers). Considering the load pattern observed in Peak Load Restrictions (PLR) in the evening hours, ED-Goa has extended the evening peak hours range from 6 pm to 11 pm (earlier 6 pm to 10 pm). ED-Goa believes that implementation of TOD will benefit ED-Goa in terms of better load management.

7.2.5 Fixed Charges Payment vs Fixed Charges Recovery

ED-Goa submits that out of the total ARR expenses, certain expenditure are fixed in nature and need to be incurred irrespective of any distribution / retail business undertaken by it. For eg. Similar to the case of generator where power plant is shut down, the generating companies need to incur employee expenses, minor R&M to other assets, depreciation obligation for loan repayment, interest on loan payments etc. The petitioner also has similar type of fixed expenses and ideally these fixed cost expenses should be recovered by way of MMC & / combination of Fixed & Demand Charges.

ED-Goa has carried out the detailed exercise wherein the fixed cost obligations are mapped out and which it intends that Hon'ble Commission should align the fixed charges accordingly.

The table below provides the computation of fixed charges payment vs fixed charges recovery at the existing tariff for FY 2015-16 at existing tariff structure.



Table 59: Fixed Cost Obligation vs Fixed Charges Recovery FY 2015-16

Fixed Cost Recovery Computation for ED-Goa for FY 2015-16 (Rs.Crs)				
Sr.	Particulars	ARR	Fixed Cost	Variable Cost
1	Cost of Power Purchase	996.18	298.86	697.33
2	PGCIL & Other Transmission Charges	153.67	46.10	107.57
3	Employee costs	232.45	209.21	23.25
4	R&M expenses	37.30	35.44	1.87
5	Administration and General expenses	16.27	12.21	4.07
6	Depreciation	63.19	60.03	3.16
7	Interest on Loan & Finance charges	88.20	83.79	4.41
8	Interest on Working Capital	4.27	4.06	0.21
9	Interest on Security Deposit	8.27	0.83	7.44
10	Return on NFA /Equity	57.45	54.58	2.87
11	Total revenue requirement	1,657.26	805.09	852.17
12	Less: Non tariff income	6.65	4.99	1.66
13	Net revenue requirement	1,650.60	800.10	850.51
14	Less: Revenue from Existing Tariff	1,136.95	168.61	968.34
15	Gap / (Surplus)	513.65	631.48	(117.83)

As can be seen there is shortfall / deficit in the recovery of fixed charges and hence Hon'ble Commission needs to determine in such a way that fixed charges payment are recovered through fixed/ demand charges and combination of MMC.

7.2.6 Monthly Minimum Charges

ED-Goa submits that Goa has typical features like Coastal state, different terrain areas, high tourism, real estate opportunities etc. Many of the investors in real estate have flats/ premises/ villas/ bungalows in Goa which they visit only during vacation periods.

It is found that around 30-40% of such premises in town areas are locked for almost full year due to which envisaged recovery of infrastructure/ fixed charge is very minimal. Due to this burden of fixed charges recovery gets passed onto other consumers.

Similar is the case with LT Domestic Mixed and LT Commercial where actual usage is very less/ negligible due to which intended minimum recovery is small meagre fixed amount.



ED-Goa also submits that there are issues for faulty meter reading, no –meter reading due to various reasons (inaccessibility) etc.

There is also a shortfall in recovery of fixed/ demand charges as against fixed charges payment. The same is explained in above section.

Hence Monthly Minimum charges (MMC) is proposed for LT Domestic, LT Domestic Mixed and LT Commercial categories which would address the issues of locked premises, faulty meter reading etc. ED-Goa submits that there is an urgent need for the Hon'ble Commission to have MMC charges for these categories.

Monthly Minimum Charge (MMC) is intended to recover fixed cost component for the investment made on infrastructure and that does not have any correlation with the energy consumption charges.

The licensee is unduly at loss if the charges so decided are less than the actual energy consumption of the categories and if the fixed infrastructure costs are not adequately recovered.

MMC is only implemented in case the consumer is unable to reach the MMC level at the prevailing tariff.

Such a precedent is followed in other states like Uttar Pradesh, Haryana, Bihar, etc.

7.2.7 Revision in Tariffs

The petitioner submits that in last 4 years there has been tariff revision only twice and that too it was minimal around 8-10% p.a. as equal / major contribution was by way of Budgetary Support from Government of Goa.

The power purchase costs have been increasing due to use of imported coal by central generating stations in lieu domestic coal shortages. There have been supplementary power purchase bills raised by M/s. NTPC and the transmission charges for M/s. Powergrid have also been on higher side as compared to approved figures in Tariff order. The O&M expenditure also increases with inflation and increase in capital expenditure.



The petitioner would also like to refer to the APTEL Judgement in OP No.1 of 2011 dated 11th November 2011 wherein the Hon'ble Tribunal has ruled as under:

65 (iv) In determination of ARR/tariff, the revenue gaps ought not to be left and Regulatory Asset should not be created as a matter of course except where it is justifiable, in accordance with the Tariff Policy and the Regulations. The recovery of the Regulatory Asset should be time bound and within a period not exceeding three years at the most and preferably within Control Period. Carrying cost of the Regulatory Asset should be allowed to the utilities in the ARR of the year in which the Regulatory Assets are created to avoid problem of cash flow to the distribution licensee.

The Petitioner also submits that tariffs (fixed/ demand and energy charges) are proposed to compensate for increase in cost of power purchase and network cost. The petitioner has also attempted to align the fixed charge and variable charge to bring the cross subsidy of tariff category around cost of supply and to maintain the +/- 20% band of cost of supply & tariff as per guidelines of National Tariff Policy 2006.

7.2.8 Schedule of Miscellaneous Charges

ED-Goa submits that miscellaneous charges are not revised since 2002 and in last 12 years the average inflation has been around 6-8% per annum. To offset the material and labour price cost increases, there is need to revise these charges substantially. The miscellaneous charges for ED-Goa are much lower when compared to other utilities. Meter Rental, Re-Connection charges, Testing Fees, Service Connection charges have been increased to take care of current costs. The brief comparison for the same is also provided in the Schedule of Miscellaneous charges section.

Further the General Terms and Conditions are also simplified to provide relevant information regarding LT and HT billing.



CHAPTER 8. PROPOSED TARIFF SCHEDULE FOR FY 2015-16

8.1 General Conditions and Definitions

- 1) These tariffs are proposed to be made applicable from 1st April 2015 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 80 kVA 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.

8.2 Miscellaneous and General Charges

8.2.1 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.electricity.goa.gov.in/>

The values of the 'K' factor applicable for the different consumer categories for use in the FPPCA formula shall be as specified in the respective Tariff Order. FPPCA charges so worked out shall be recovered/ refunded in accordance with the terms and conditions specified in the FPPCA formula.

8.2.2 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.electricity.goa.gov.in/>

8.2.3 Power Factor Calculation

(Applicable for all HT categories and LT categories wherever applicable)

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



$$\text{Average Power Factor} = \frac{\text{Total (kWh)}}{\text{Total (kVAh)}}$$

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

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

8.2.4 Power Factor Penalty

(Applicable for all HT categories and LT categories wherever applicable)

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 % of monthly bill including energy charges, FPPCA, and fixed/ Demand Charges but excluding Taxes and duties, as shown in table below:

Sr.No.	Range of Power Factor	Power Factor Level	Penalty
1	0.895 to 0.900	0.90	0%
2	0.885 to 0.894	0.89	2%
3	0.875 to 0.884	0.88	3%
4	0.865 to 0.874	0.87	4%
5	0.855 to 0.864	0.86	5%
6	0.845 to 0.854	0.85	6%
7	0.835 to 0.844	0.84	7%
8	0.825 to 0.834	0.83	8%
9	0.815 to 0.824	0.82	9%
10	0.805 to 0.814	0.81	10%
...

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

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



8.2.5 Power Factor Incentive

(Applicable for all HT categories and LT categories wherever applicable)

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 % of monthly bill including energy charges, FPPCA, and fixed/ Demand Charges but excluding Taxes and duties, as shown in table below:

Sr.No.	Range of Power Factor	Power Factor Level	Incentive
1	0.951 to 0.954	0.95	0%
2	0.955 to 0.964	0.96	2%
3	0.965 to 0.974	0.97	3%
4	0.975 to 0.984	0.98	4%
5	0.985 to 0.994	0.99	5%
6	0.995 to 1.000	1.00	6%

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

8.2.6 Payment Rebates:

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

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

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



8.2.7 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%) per month or part thereof on the total electricity bill (including Taxes and Duties) 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. For the purpose of computation of time limit for payment of bills, "the day of presentation of bill" or "the date of the bill or "the date of issuance of the bill", etc. as the case may be, will not be excluded.

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.

8.2.8 Time of Day tariff (ToD):

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



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

iii) Applicability and Terms and Conditions of TOD tariff:

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



8.3 Tariff Schedule – LT Consumers

Low Tension Category - Applicable to Power Supply of Voltages at 230V and 400V Voltages when the Sanctioned Load is below 80 KVA/ 70 KW / 95 HP and power is supplied at single/ three phase

8.3.1 LT I (A): LTD/Domestic

Existing Applicability Clause	Proposed Applicability Clause
This schedule shall apply to private house, bungalows, charitable or educational institutions approved by Goa Board/ Central Board, colleges approved by Goa University and religious institutions etc. for consumption of energy on lights, fans, radios, domestic heating and other household appliances with Sanctioned Load less than 100 KVA or 90 KW or 120 HP as the case may be.	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.

I. Tariff

Consumption Slab	Existing Tariff FY 2014-15		Proposed Tariff FY 2015-16		
	Fixed Charges (Rs/Connection / month)	Energy Charges (Rs/kWh)	Consumption Slab	Fixed Charges (Rs/Connection/ month)	Energy Charges (Rs/kWh)
(a) First 60 Unit	10	1.20	a) 0 – 100 units	Single Phase – Rs. 20/Month Three Phase – Rs. 45/Month	1.40
(b) 61 to 250 units	15	1.70	b) 101 – 200 units		2.00
(c) 251 to 500 units	25	2.75	c) 201 – 400 units		3.20
(d) Above 500 units	35	3.20	d) Above 400 units (balance units)		3.70



Note:

- a. The applicable monthly minimum charges for Single Phase connection would be Rs.100 per month and monthly minimum charges for Three Phase connection would be Rs.300 per month.
- b. 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/-.

II. Rationale

- a. Applicability clause wrt to “Government approved” educational institutions is modified to “Government aided”. Private educational Institutions will now get shifted to Commercial category. The intention is to provide extend benefit of lower tariffs to Government aided institutions.
- b. Typically the energy charges only should be linked to slab wise consumption and not fixed charges. Hence the fixed charges are proposed to be levied on basis of “Single/ Three phase connection” as against “slabs wise fixed charges”. The same is in line with practice in other states.
- c. The consumption slabs are also modified in line with practice in other states. The range in the present slabs is too wide and hence aligned.
- d. Monthly Minimum Charges are proposed for recovery of minimum tariff / bill amount so as to keep ED-Goa afloat of the infrastructure / fixed cost obligation as explained in tariff philosophy.

8.3.2 LT I (B): LTLIG/Low Income Group

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



I. **Tariff:**

Description	Rs./ Connection/month	
	Existing Charges FY 2014-15	Proposed Charges FY 2015-16
<u>Consumption Up to 30 Units p.m.</u>	27.50	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.

II. **Rationale**

- a. In line with provisions of National Tariff Policy and National Electricity Policy, the consumption is capped at 30 units per month; failing which billing will be done at LT Domestic tariffs based on monthly assessment.
- b. The same is line with practice in other states.

8.3.3 LT I (C): LTDM/Domestic Mixed

Existing Applicability Clause	Proposed Applicability Clause
This schedule shall apply to Houses with the rent back facilities, clubs, hospitals, staff quarters, rest/guest houses, street lighting in the colony of a factory which is situated separately from the main factory and when distribution lines, service lines etc. are permitted to be owned and maintained by HT consumers with Sanctioned Load less than 100 KVA or 90 KW or 120 HP as the case may be.	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.



I. **Tariff:**

Consumption	Fixed Charges (Rs./connection/ month)		Energy Charges (Rs/kWh)	
	Existing Charges FY 2014-15	Proposed Charges FY 2015-16	Existing Charges FY 2014-15	Proposed Charges FY 2015-16
First 400 Units	30	Single Phase – Rs.45 /Month	2.90	3.35
Above 400 Units	40	Three Phase – Rs.65 /Month	4.00	4.60

Note:

- a. The applicable monthly minimum charges for Single Phase connection would be Rs.350 per month and monthly minimum charges for Three Phase connection would be Rs.500 per month.

II. **Rationale**

- a. The street lighting in colony part has been shifted to LTPL/Public Lighting. The professionals operating from residence (which were earlier being charged at domestic tariff) are shifted into this category, such as Doctors using OPD.
- b. Typically the energy charges only should be linked to slab wise consumption and not fixed charges. Hence the fixed charges are proposed to be levied on basis of "Single/ Three phase connection" as against "slabs wise fixed charges". The same is in line with practice in other states.
- c. Monthly Minimum Charges are proposed for recovery of minimum tariff / bill amount so as to keep ED-Goa afloat of the infrastructure / fixed cost obligation as explained in tariff philosophy.



8.3.4 LT II: LTC/Commercial

Existing Applicability Clause	Proposed Applicability Clause
<p>This schedule shall apply to shops, offices, railway stations, race course, computer training schools, photo studio, photo copier, colour laboratories, private guest house, messes, bus stand of KTC, private agriculture nurseries, dry cleaners, film studio, X ray installations, cinema theatres, AIR and TV station and studios, telephone exchanges, petrol pumps, battery charging units, tyre vulcanizing centers, ice parlors, bars and cold drink houses, commercial complexes, petrol, diesel and oil storage plants, for lights, fans, TV, radio, heating and other appliances with Sanctioned Load less than 100 KVA or 90 KW or 120 HP as the case may be.</p>	<p>This category would apply to a LT category not specifically included elsewhere and also to a LT category although specifically included elsewhere, in a category commanding lower tariff, is misused and used for commercial purpose. It would include non-residential, non-industrial premises and/ or commercial premises where electricity is used for commercial purposes. It would include the following categories but not limited to:</p> <ul style="list-style-type: none">• Commercial Complexes and Business premises, including Shopping malls/ show rooms, offices / shops;• Combined lighting and power services for Entertainment including film studios, cinemas and theatres, including multiplexes, Race Course, Meeting/Town Halls, Clubs, all types of Guest houses;• Offices including Government Offices, Commercial Establishments;• Marriage Halls (including halls attached to religious places), Hotels / Restaurants (without boarding facilities), Ice-cream parlours, 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,



Existing Applicability Clause	Proposed Applicability Clause
	<p>Battery Charging Units, Tyre vulcanizing centres etc;</p> <ul style="list-style-type: none"> • 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, Railway Station, Bus stand of KTC etc;

I. Tariff

Consumption Slab	Existing Tariff FY2014-15		Proposed Tariff FY2015-16		
	Fixed Charges (Rs/Connection/month)	Energy Charges (Rs/kWh)	Consumption Slab	Fixed Charges	Energy Charges (Rs/kWh)
a) First 100 Units	30	3.15	a) 0 – 200 units	0-20 kW - Rs. 50/Conn/Month Above 20kW-70 kW Rs.50/Conn/month + additional Rs.55/kW for every kW increase above 20 kW	4.00
b) 101 – 1000 units	40	4.00	b) 201 – 400 units		4.60
c) Above 1000 units	60	4.50	c) Above 400 units		5.00



Note:

- a. The applicable monthly minimum charges for consumers in the slab 0 to 20 kW would be Rs.400 per month and consumers in the slab above 20 kW would be Rs.2000 per month.

II. Rationale

- a. Considering the practice in other states, the categorisation of commercial is segregated on the basis of connected load.
- a. 0-20 kW - Fixed charges based on Rs. per Connection per month (same as earlier)
 - b. >20-70 kW - Fixed charges based on Connected Load (Rs.per kW per month as against Rs.per connection per month)
- b. Typically the energy charges only should be linked to slab wise consumption and not fixed charges. Hence the fixed charges for consumers in the slab 0 to 20 kW are proposed as Rs.per Connection per month. Further the fixed charges are proposed to be levied on basis of "Connected Load" as against "slabs wise fixed charges" for load above 20 kW. The same is in line with practice in other states.
- c. The consumption slabs range was very wide and hence aligned with the practice in other states with an objective to charge lower tariffs to lower slabs as compared to high end users.
- d. Monthly Minimum Charges are proposed for recovery of minimum tariff / bill amount so as to keep ED-Goa afloat of the infrastructure / fixed cost obligation as explained in tariff philosophy.
- e. Residual clause added - This category would apply to a LT category not specifically included elsewhere and also to a LT category although specifically included elsewhere, in a category commanding lower tariff, is misused and used for commercial purpose.



8.3.5 LT III: LTI/Industry

Existing Applicability Clause	Proposed Applicability Clause
<p>LTP/Motive Power: This schedule shall apply to consumers such as industrial units, workshops, flour mills, wet grinding, rice mills, milk dairies, ice cream manufacturing units, dairy testing process, garment manufacturing, tyre retreading units, ice manufacturing plants, bakery, motive power load, industrial units engaged in manufacturing process or project activities with Sanctioned Load less than 100 KVA or 90 KW or 120 HP as the case may be.</p> <p>LTP/Ice Manufacturing: This schedule shall apply to industrial units engaged in ice manufacturing where the total sanctioned load of the installation is less than 100 kVA or 90 kW or 120 HP as the case may be.</p> <p>LT PWW/Public Water Works: This schedule shall apply to public water supply and sewage pumping stations and treatment plants where Sanctioned Load is less than 100 KVA or 90 KW or 120 HP as the case may be.</p>	<p>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:</p> <ul style="list-style-type: none"> ▪ Flour Mills, wet grinding, Dal Mills, Rice Mills, Poha Mills, Masala Mills, Saw Mills, Power looms including other allied activities like Warping, Doubling, Twisting, etc. ▪ Ice Factory, Ice Cream Manufacturing units/ Plants, Dairy Testing Process, Milk Dairies, 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 exclusively meant for employees of the industry within the premises of the Industry. ▪ IT Industry, IT parks etc



I. **Tariff:**

LTP Motive Power – Existing Tariff FY 2014-15 (for reference)

Description	Fixed Charges (Rs/HP/month)	Energy Charges (Paise/kWh)
(a) Upto 50 HP	25.00	260
(b) Above 50 HP	25.00	320`

Ice Manufacturing – Existing Tariff FY 2014-15 (for reference)

Fixed Charges (Rs/HP/month)	Energy Charges (Paisa/kWh)
25.00	320

Public Water Works – Existing Tariff FY 2014-15 (for reference)

Fixed Charges Rs/HP/month	Energy Charges (Paise/kWh)
25.00	250



Existing Charges FY 2014-15			Proposed Charges FY 2015-16		
Existing Slabs	Fixed Charges (Rs./HP/month)	Energy Charges (Rs/kWh)	Proposed Slabs	Fixed Charges (Rs./HP/month)	Energy Charges (Rs/kWh)
Upto 50 HP/kW	25	2.60	0 to 500 Units	30	3.20
Above 50 HP/kW	25	3.20	Above 500 Units	30	3.70

II. Rationale

- Existing LTP Motive Power, LT Ice Manufacturing categories & LT Public Water Works are merged into single category i.e. LT Industry as their tariffs are almost similar.
- Applicability clause is more detailed out with different types of activities for better clarity and implementation.
- Typically the energy charges only should be linked to slab wise consumption and not fixed charges. Hence the two slabs for fixed charges are merged and only single fixed charge would be applicable for the consumer in this category.
- However the energy charges are linked to slab wise consumption and considering practice in other states, two consumption slabs are created as 0 to 500 units and above 500 units.

8.3.6 LT IV: LTP Mixed (Hotel Industries)

Existing Applicability Clause	Proposed Applicability Clause
LTP/Mixed (Hotel Industries): This schedule shall apply to Hotels, restaurants, lodging and boarding where the total Sanctioned Load is less than 100 KVA or 90 KW or 120 HP as the case may be.	<ul style="list-style-type: none">This schedule shall apply to Hotels/ restaurants with lodging and boarding facilities.



I. **Tariff:**

Fixed Charges (Rs/kW/Month)		Energy Charges (Rs/kWh)	
Existing Charges FY 2014-15	Proposed Charges FY 2015-16	Existing Charges FY 2014-15	Proposed Charges FY 2015-16
25	30	4.00	4.60

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.

8.3.7 LT V: LTAG/Agriculture

Existing Applicability Clause	Proposed Applicability Clause
This schedule shall apply to irrigation pumping and agricultural purposes, poultry, piggery, pisciculture etc for consumption of energy on pump motors, lights, fans, heating and other appliances with sanctioned load less than 100 KVA or 90 KW or 120 HP as the case may be.	This schedule shall apply to establishments for Irrigation pumping and Agricultural purposes. It would include the following categories but not limited to: <ul style="list-style-type: none">▪ 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.



I. Tariff

Fixed Charges (Rs/HP/Month)		Energy Charges (Rs/kWh)	
Existing Charges FY 2014-15	Proposed Charges FY 2015-16	Existing Charges FY 2014-15	Proposed Charges FY 2015-16
10	12	1.20	1.40

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.

8.3.8 LT VI: LTPL/Public Lighting

Existing Applicability Clause	Proposed Applicability Clause
This schedule shall apply to public lighting systems including signal systems, road and parking lighting belonging to local authorities such as Municipality/ Panchayat etc. with sanctioned load less than 100 kVA or 90 kW or 120 HP as the case may be. This shall also be applicable to public lighting of Government/ Semi-Government Establishments but shall not be applicable in case of private establishment.	This schedule shall apply to public lighting systems. It would include the following categories but not limited to: <ul style="list-style-type: none">▪ 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



Existing Applicability Clause	Proposed Applicability Clause
	<p>of charge.</p> <ul style="list-style-type: none">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.

I. Tariff

Fixed Charges (Rs/kW/Month)		Energy Charges (Rs/kWh)	
Existing Charges FY 2014-15	Proposed Charges FY 2015-16	Existing Charges FY 2014-15	Proposed Charges FY 2015-16
35	40	3.60	4.00

II. Rationale

- a. In applicability, Market Places Road, Pathways and Parking Lighting belonging to local authorities such as Municipality/ Panchayats/ Government are included here for better clarity and implementation.

8.3.9 LT VII: LTH/ Hoarding & Sign Boards

I. Applicability

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



I. Tariff

Fixed Charges		Energy Charges (Rs/kWh)	
Existing Charges FY 2014-15	Proposed Charges FY 2015-16	Existing Charges FY 2014-15	Proposed Charges FY 2015-16
Rs.50 per kVA per Month of part thereof	Rs. 60 per KW per Month of part thereof	6.00	7.00

8.3.10 LT VIII: LTTS/ Temporary Supply

Existing Applicability Clause	Proposed Applicability Clause
This schedule shall apply to lights, fans and small appliances for all purposes at low voltage for sanctioned load less than 100 kVA or 90 kW or 120 HP as the case may be.	<p>a) LT Temporary Domestic: This schedule shall apply to usage of electricity for all religious purposes or public functions for non-commercial purposes. It shall also apply for construction of own house by an individual with single tenement</p> <p>b) LT Temporary Commercial: This schedule shall apply to usage of electricity for any of the activities not covered under LT Temporary Domestic.</p> <p>It would include but not limited to:</p> <ul style="list-style-type: none">All other Constructions including renovation, of all type of structure/ infrastructure, including buildings, bridge, flyover, dam, power stations, road, aerodrome, tunnels laying of pipe line for all purpose



I. Tariff

Categories	Energy Charges (Rs/ Kwh)		Minimum / Fixed Charges (Rs./kW/day)	
	Existing Charges FY 2014-15	Proposed Charges FY 2015-16	Existing Charges FY 2014-15	Proposed Charges FY 2015-16
Temporary Domestic	7.50	7.00	Rs 50 per kW per month or part thereof subject to a minimum of Rs.300/- per connection per month or part thereof.	Rs.60 per kW per month or part thereof subject to a minimum of Rs.300/- per connection per month or part thereof
Temporary Commercial	7.50	10.00	Rs 50 per kW per month or part thereof subject to a minimum of Rs.300/- per connection per month or part thereof.	Rs.100 per kVA per month or part thereof subject to a minimum of Rs.500/- per connection 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 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.



I. Rationale

- a. Presently all the temporary activities are booked under a common LT Temporary category. A separate LT Domestic category has been proposed to cover all Religious/public function for better clarity and for use for construction of individual house. The tariff for these activities has been proposed lower than the existing tariff, so as to benefit the consumers availing the temporary connection for minor, religious/ public functions, non-commercial activities.
- b. Construction of structure/ Infrastructure has been shifted from LT Commercial Category to LT Temporary Commercial as these are long term temporary activities.



8.4 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 80 KVA/ 70 KW / 95 HP and power is supplied at three phase

8.4.1 HT I: HTI / Industrial

Existing Applicability Clause	Proposed Applicability Clause
<p>HT-Mixed: This schedule shall apply to bulk supply of power at 11 KV and above for a Contract Demand 100 kVA and above such as railway, educational institutions, non-industrial establishment etc. having mixed load with predominantly lighting or non-industrial load of more than 50% of connected load.</p> <p>HT Industrial: This schedule shall apply to supply of power at 11 KV and above for a Contract Demand of 100 KVA and above for industries, factories and other industrial purpose as may be decided by the Chief Electrical Engineer.</p> <p>HT Hotel Industries: This schedule shall apply to Hotels, restaurants, lodging and boarding where the total Contract Demand of such installation is 100 kVA & above.</p> <p>HT Ice Manufacturing: This schedule shall apply to industrial units engaged in ice manufacturing where supply of power is made at 11 kV and above for a Contract Demand of 100 kVA and above.</p> <p>EHTI-Industrial: This schedule shall apply to bulk supply of power at 110 KV and above for industries, factories and other industrial purpose as may be decided by the Chief Electrical Engineer.</p>	<p>This schedule shall apply to consumers taking electricity supply for Industrial purpose. It shall also include the following categories:</p> <ul style="list-style-type: none">▪ Bulk Supply of power at 11 KV, 33 kV /110 KV and above for industries, factories and other industrial purposes.▪ Bulk supply of power at 11 KV and above for educational institutions owned or aided by Government, non-industrial establishment,▪ Industrial units engaged in Ice Manufacturing Units;▪ Hotels with lodging and boarding facilities etc▪ Use of electricity / power supply by an establishment such as IT Industries, IT Parks, IT Units▪ Pumping of water, public water supply, public water treatment plant, activities related with Supply Schemes and Sewage Treatment Plants, Sewage Pumping Stations etc.



Existing Applicability Clause	Proposed Applicability Clause
<p>HT-Industries (IT High Tech): This schedule shall apply to bulk supply of power at 11 kV and above for a Contract Demand of 100 kVA and above for industries such as Information Technology Industries and information Technology Parks, etc</p> <p>HT-Public water works: This schedule shall apply to supply of power at 11 KV and above for a Contract Demand of 100 KVA and above for public water supply and sewage pumping stations and public water treatment plant.</p>	

I. Tariff

Consumer category	Existing Tariff FY2014-15	
	Fixed Charges (Rs./KVA/ month)	Energy Charges (Rs/kWh)
HT Mixed	200	3.15
HT Industrial	200	3.30
HT Hotel Industries	200	3.30
HT Ice Mfg	200	3.00
EHT Industrial	230	3.50
HT IT Tech	200	3.20
HT Public water works	200	3.35



Consumer category / Voltage Level	Fixed Charges (Rs./KVA/ month)		Energy Charges (Rs/kWh)	
	Existing Charges	Proposed Charges	Existing Charges	Proposed Charges
11 / 33 kV	200	250	3.15	4.00
110 kV	230	250	3.50	3.90

II. Rationale

- It was observed that tariffs for many of the HT categories were almost similar with minor difference in fixed / energy charges.
- Considering practice adopted by many states which have one or two Industry categories, ED-Goa has proposed merger for HT-Mixed, HT-Industrial, HT-Hotel Industries, HT-Ice Manufacturing, EHTI-Industrial, HT-IT High Tech Industries & HT-Public Water works into 1 single category i.e.HT Industry.
- Activities related to commercial purposes (including railways) are covered under HT-Commercial (newly proposed category)
- The tariff structure is proposed based on voltage level at which the consumer is connected with principle of higher the voltage, lower the tariffs.

8.4.2 HT II: MES/Defence Establishments:

Existing Applicability Clause	Proposed Applicability Clause
H.T. MES/Defence Establishments: This schedule shall apply to supply of power at 11 KV and above for a Contract Demand of 100 KVA and above for defence installation establishments, having mixed load with predominantly lighting or non-industrial load of more than 50% of connected load.	H.T. MES/Defence Establishments: This schedule shall apply to supply of power for defence installation establishments, having mixed load with predominantly lighting or non-industrial load of more than 50% of connected load.



I. Tariff

Consumer category	Existing Tariff FY2014-15		Proposed Charges FY 2015-16	
	Fixed Charges (Rs./KVA/ month)	Energy Charges (Rs/kWh)	Fixed Charges (Rs./KVA/ month)	Energy Charges (Rs/kWh)
MES/ Defense	150	3.30	175	3.80

8.4.3 HT III: HTC/ Commercial

Existing Applicability Clause	Proposed Applicability Clause
Presently covered under HT Mixed. (HT-Mixed: This schedule shall apply to bulk supply of power at 11 KV and above for a Contract Demand 100kVA and above such as railway, educational institutions, non-industrial establishment etc. having mixed load with predominantly lighting or non-industrial load of more than 50% of connected load.)	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: <ul style="list-style-type: none">• Commercial Complexes and Business premises, including Shopping malls/ show rooms, offices / shops;• Combined lighting and power services for Entertainment including film studios, cinemas and theatres, including multiplexes, Race Course, Meeting/Town Halls, Clubs, all types of Guest houses;• Offices including Government Offices, Commercial Establishments;• Marriage Halls (including halls attached to religious places), Hotels /



Existing Applicability Clause	Proposed Applicability Clause
	<p>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</p> <ul style="list-style-type: none">• 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;



I. Tariff

Particulars	Fixed Charges (Rs./KVA/ month)		Energy Charges (Rs/kWh)	
	Existing Charges	Proposed Charges	Existing Charges	Proposed Charges
For All Units	200	250	3.15	4.50

II. Rationale

- a. It was observed that commercial activities were charged under mixed category. Considering the practice in other states, new category is proposed for HT Commercial.
- b. Residual clause added - 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.

8.4.4 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 Demand from 100 KVA up to 1000 KVA at 11 KV and above 1000 KVA at 33 KV for Steel rolling industry and Metal Alloy, Steel Melting, Ferro Alloy, and Ferro metallurgical industries all types of Ferro alloy units where melting is involved using electric power.	This schedule shall apply to supply of power having a Contract Demand from 80 KVA up to 1000 KVA at 11 KV and above 1000 KVA at 33 KV for Steel rolling industry and Metal Alloy, Steel Melting, Ferro Alloy, and Ferro metallurgical industries all types of Ferro alloy units where melting is involved using electric power.



I. Tariff

Particulars	Fixed Charges (Rs./KVA/ month)		Energy Charges (Rs/kWh)	
	Existing Charges	Proposed Charges	Existing Charges	Proposed Charges
For All Units at 11kV / 33 kV	275	325	3.30	4.00

8.4.5 HT V: HTAG / Agriculture

Existing Applicability Clause	Proposed Applicability Clause
This schedule shall apply to supply of power at 11 KV and above to agricultural consumer, lift irrigation schemes, agricultural farms etc with Contract Demand of 100 KVA and above.	This schedule shall apply to establishments for Irrigation pumping and Agricultural purposes. It would include the following categories but not limited to: <ul style="list-style-type: none">▪ 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.



I. Tariff

Fixed Charges (Rs./KVA/ month)		Energy Charges (Rs/kWh)	
Existing Charges FY 2014-15	Proposed Charges FY 2015-16	Existing Charges FY 2014-15	Proposed Charges FY 2015-16
30	35	1.30	1.50

8.4.6 HT VI: HTD/ Domestic

Existing Applicability Clause	Proposed Applicability Clause
--	This schedule shall apply to individual residential consumers of Bungalows, Villas, Cottages, etc. using normal domestic appliances and whose contract demand falls within the threshold limit of HT category.

I. Tariff

Particulars	Fixed Charges (Rs./KVA/ month)		Energy Charges (Rs/kWh)	
	Existing Charges	Proposed Charges	Existing Charges	Proposed Charges
For All Units	-	150	-	4.50

II. Rationale

- The tariff category is newly proposed for large individual consumers residing in bungalows, villas, etc who consume a substantial amount of energy and are in a position to cross subsidize other consumers.



8.4.7 HT VII: HTTS/ Temporary Supply

Existing Applicability Clause	Proposed Applicability Clause
This schedule shall apply to lights, fans and small appliances for all purposes at high voltage for Contract Demand of 100 kVA and above.	This schedule shall apply to usage of electricity for all temporary purposes.

I. Tariff

Categories	Energy Charges (Rs/ Kwh)		Minimum / Fixed Charges (Rs./kW/day)	
	Existing Charges FY 2014-15	Proposed Charges FY 2015-16	Existing Charges FY 2014-15	Proposed Charges FY 2015-16
Temporary Supply	7.50	10.00	Rs. 100 per kVA per month 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.



8.4.8 Single Point Supply/Distribution Franchisee Arrangement:

ED Goa has started receiving enquiries and applications for single point supply/ Distribution Franchisee arrangement from various consumers/ applicants such as Townships, Residential Complexes, including Group Housing Societies, IT Park, Industrial Estates, Commercial Complexes, including Malls etc.

One of the applicants, falling in mixed category, has submitted that majority of its consumers qualify for LT connection but some also fall under HT connection by virtue of the sanctioned load limits and they indicated the desire of getting supply at single point. Another applicant has submitted that although some consumers by virtue of contracted demand would qualify for HT connection, yet they are desirous of LT supply by EDG owing to nature of their load. The applicant is willing to install substation, Distribution Transformer and its switchgear / equipment's at its own costs, and is also willing to bear the cost of supply as input at the HT end of DT. However, it wants EDG to bill all the consumers directly.

ED-Goa is willing to accommodate the practical needs of its consumers and submits that these consumers/ applicants could be accommodated under Single Point Supply/ Distribution Franchisee Arrangement.

ED-Goa hence requests the Hon'ble Commission to guide with the terms and conditions for such arrangement, along with tariff mechanism. Based on the preliminary guidance/directives of the Hon'ble Commission according in-principle approval of such arrangement, ED-Goa would within a week of such guidance submit a detailed proposal covering implementation framework so that same can be approved by the JERC and enforced by EDG from FY 2015-16 onwards.



8.5 Schedule of Miscellaneous Charges for FY 2015-16

The Hon'ble Commission had approved Schedule of Charges in previous tariff order and accordingly ED-Goa has proposed revised Schedule of General & Miscellaneous charges for FY 2015-16.

In comparison to nearby states of Maharashtra, Gujarat and Karnataka, the miscellaneous charges are much lower for Goa. The brief comparison for the same is provided below:

Table 60: Comparison of Miscellaneous Charges with other States

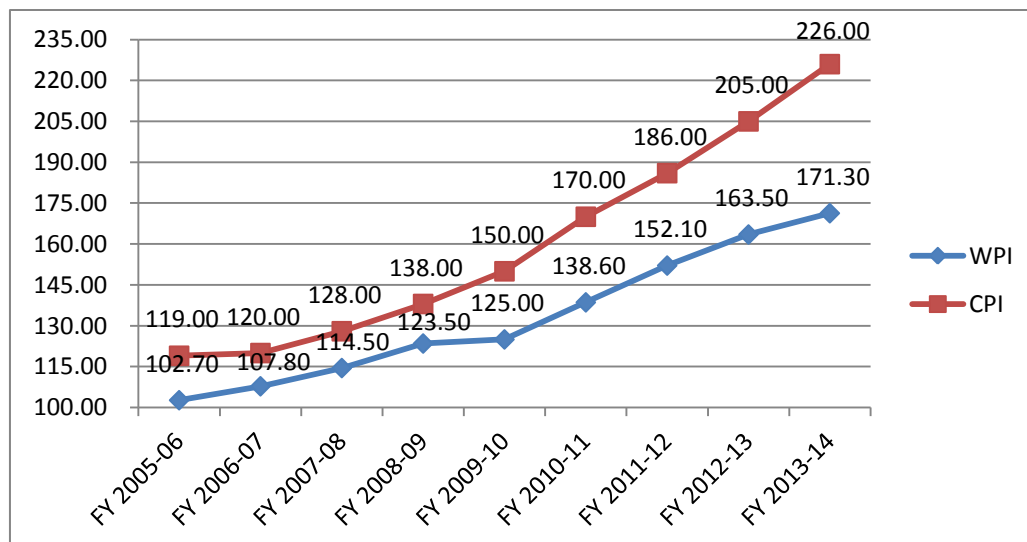
Description	Existing (Goa)	Maharashtra	Karnataka	Gujarat
1) Reconnection Charges				
LT Services – At Cut outs				
• Single Phase	Rs.10/-	Rs. 50/-	Rs.20/-	Rs.100/-
• Three Phase	Rs.20/-	Rs.100/-	Rs.100/-	Rs.200/-
LT Services – At Overhead Mains				
• Single Phase	Rs.15/-	Rs.50/-	Rs.50/-	Rs.100/-
• Three Phase	Rs.30/-	Rs.100/-	Rs.100/-	Rs.200/-
LT Services – At Underground Mains				
• Single Phase	Rs.50/-	Rs.100/-	Rs.50/-	Rs.100/-
• Three Phase	Rs.100/-	Rs.100/-	Rs.100/-	Rs.200/-
HT Services	Rs.100/-	Rs.500/-	Rs.500/-	Rs.3200/-
2) Testing Fee for Various Metering Equipments				
Single phase LT	Rs.10/energy meter	Rs.150/energy meter	Rs.100/energy meter	Rs.100/energy meter
Poly Phase LT without CT	Rs.25/energy meter	Rs.500/energy meter	Rs.200/energy meter	Rs.300/energy meter
L.T. meter with CTs/Demand or Special Type Meters	Rs.100/energy meter	Rs.900/energy meter	Rs.200/energy meter	Rs.500/energy meter
H.T & E.H.T. metering equipment	-	Rs 3000 up to 33KV Rs.5000 up to EHT	Rs.500/energy meter	Rs.1000/energy meter



Description	Existing (Goa)	Maharashtra	Karnataka	Gujarat
3) Monthly Meter Rental Charges				
Single Phase LT meter	Rs.5/month	NA	NA	Rs.10/month
Three Phase LT meter	Rs.10/month	NA	NA	Rs/30/month
Three Phase LT meter with CTs	-	NA	NA	Rs.225/month
LT Meter with MD Indicator	-	NA	NA	225/month
Tri-vector Meter	₹500/month	NA	NA	750/month
Temporary Supply	Shall be twice as applicable in above meter types	NA	NA	1 ph-Rs.15/m 3ph-Rs.60/m HT-Rs.1500/m

The Miscellaneous charges have not been revised since 2002 and in last decade the average inflation has been around 6-8% per annum. To offset the material and labour price cost increases, there is need to revise these charges substantially. The miscellaneous charges for ED-Goa are much lower when compared to other utilities. Meter Rental, Re-Connection charges, Testing Fees, Service Connection charges have been increased to take care of current costs. The rise in inflation indexes is shown below:

Figure 1: WPI and CPI Indexes over the past decade





In view of the above, the ED-Goa has proposed to revise the miscellaneous charges for FY 2015-16. The table of Schedule of Miscellaneous Charges is below:

Table 61: 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)		
Single Phase LT meter	Rs.5/month	Rs.10/month
Three Phase LT meter	Rs.10/month	Rs.20/month
Three Phase LT meter with CTs	-	Rs.50/month
LT Meter with MD Indicator	-	Rs.30/month
Tri-vector Meter	Rs.500/month	Rs.1000/month
Temporary Supply	Shall be twice as applicable in above meter types	Shall be twice as applicable in above meter types
Changing or moving a Meter board	Actual Cost + 15%	Actual Cost + 15%
<p>Note:</p> <p>(a) For all domestic and other LT loads less than 50 kW loads in Urban and Rural areas - Static single phase / three phase meters</p> <p>(b) For LT (contracted load \geq 50 KW) / HT / EHT consumer – Static, 3 Phase Tri-vector meters with MDI (MD Display)</p>		
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.10/-	Rs. 25/-
• Three Phase	Rs.20/-	Rs. 50/-
LT Services – At Overhead Mains		
• Single Phase	Rs. 15/-	Rs. 30/-
• Three Phase	Rs. 30/-	Rs. 50/-
LT Services – At Underground Mains		
• Single Phase	Rs. 50/-	Rs.75/-
• Three Phase	Rs. 100/-	Rs. 125/-
HT Services	Rs. 100/-	Rs. 200/-
<p>Note:</p> <p>If the same consumer seeks reconnection within 12 months from the date of reconnection or disconnection, 50% will be added to above charges</p>		
3) Re-Rating of Installations		



Description	Existing Charge	Proposed Charges
Lighting Installation	Rs. 10/-	Rs. 25/-
Motive Power Installation	Rs. 25/-	Rs. 50/-
4) Testing Fee for Various Metering Equipments (as per provisions of Regulation 7.4 of JERC (Electricity Supply Code) Regulations 2010		
Single phase LT	Rs.10/energy meter	Rs.25/energy meter
Poly Phase LT without CT	Rs.25/energy meter	Rs.50/energy meter
L.T. meter with CTs/Demand or Special Type Meters	Rs.100/energy meter	Rs.150/energy meter
H.T & E.H.T. metering equipment	-	Rs 10000/- at site
Transformer Oil	Rs.100/-	Rs.200/- per sample
3 – Ø Phase Tri-vector Meter Industrial LT Consumer	-	Rs.1000/- for laboratory testing
3 – Ø Phase Tri-vector Meter 11 KV & 33 kV HT Consumer	-	Rs.5000/- at site
Three Phase Tri-Vector Meter 110 KV EHT Consumers	No testing facility with MRT	RS.1000/- at site
Combined CTPT Unit for 11kV & 33kV Consumer	Rs 1000/-	Rs 2500/-
110KV CT / PT Unit		Rs 10000/-
Single Phase CT	-	Rs.150/ unit
Three Phase TT Block	Rs 200/unit	Rs 500/unit
Distribution Transformer Testing (HT con.)		Rs.6000
Power Transformer Testing (EHT consumer)		Rs.20000
5) Service Connection Charges (as per provisions of Regulation 3.3 (3) of JERC (Electricity Supply Code) Regulations 2010		
Single Phase	Rs.150	Rs.250
Three Phase	Rs.300 to Rs.900	Rs.500 to Rs.1200
HT (First 500 KVA)	Rs. 5000	Rs. 10000
HT (Beyond 500 KVA)	Rs. 1500 per 100KVA	Rs. 20000
Extra Length for Single Phase (beyond 30 metres)	Rs.15 /meter	Rs.50 /meter
Extra Length for Three Phase (beyond 30	Rs.40 /meter	Rs.100 /meter



Description	Existing Charge	Proposed Charges
metres)		
6) Testing Consumer's installation (as per provisions of Regulation 4.10 (6) of JERC (Electricity Supply Code) Regulations 2010		
For first test of the new installation on or off an extension to an existing installation if the installation is found to be defective.	-	NIL
For Subsequent test of the new installation or of an existing installation if the installation is found to be defective		
• Single phase LT	-	Rs.100/-
• Three phase	-	Rs.200/-
• MS/BS loads upto 70kW	-	Rs.4000 + ST
• LS/BS/RT (loads Above 70kW)	Rs.4850 + 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/-
3-phase without C.T.s	-	Rs.200/-
L.T. meter with C.T.s	-	Rs.500/-
H.T & E.H.T. metering equipment	Rs. 4850 + ST	Rs. 8000 + ST
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/-
Where cut-out is independently sealed	-	Rs.50/-
Meter cover or Meter Terminal cover	-	Rs.50/-
Meter cover of Meter Terminal cover (3 phase).	-	Rs.50/-
Maximum demand Indicator or C.T.s chamber	-	Rs.50/-
9) Service Charges		
General Supply		



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



CHAPTER 9. SEGREGATION OF MYT INTO WHEELING AND RETAIL SUPPLY BUSINESS

9.1 Allocation Policy

9.1.1 ED-Goa 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 62: 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 Expenses	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%

9.2 Segregation of Wheeling & Retail Supply ARR for Control Period

9.2.1 ED-Goa submits that ARR for the control period has been projected in Chapter 5 and summarised at Table 54. 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 63: Segregation of ARR into Wheeling & Retail Supply for Control Period

Rs. Crores

Sr. No.	Particulars	FY 2015-16		FY 2016-17		FY 2017-18	
		Wheeling	Retail Supply	Wheeling	Retail Supply	Wheeling	Retail Supply
1	Cost of power purchase	344.96	804.90	370.13	863.63	395.66	923.21
2	Employee costs	209.21	23.25	213.05	23.67	217.14	24.13
3	Administration and General expenses	12.21	4.07	12.43	4.14	12.66	4.22
4	Repairs and Maintenance Expenses	35.44	1.87	50.16	2.64	75.30	3.96
5	Depreciation	60.03	3.16	76.66	4.03	113.58	5.98
6	Interest on Loan & Finance charges	83.79	4.41	101.66	5.35	148.00	7.79
7	Interest on Working Capital	4.06	0.21	5.11	0.27	6.31	0.33
8	Return on NFA /Equity	54.58	2.87	69.69	3.67	103.25	5.43
9	CGRF and DSM Expenses	-	-	-	-	-	-
10	Interest on Security Deposit	0.83	7.44	0.84	7.53	0.85	7.61
11	Total Revenue Requirement	805.09	852.17	899.74	914.94	1,072.74	982.67
12	Less: Non Tariff Income	4.99	1.66	4.99	1.66	4.99	1.66
13	Net Revenue Requirement	800.10	850.51	894.74	913.28	1,067.75	981.00

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



CHAPTER 10. OPEN ACCESS CHARGES

10.1 Approach for computation of Open Access Charges

10.1.1 ED-Goa 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. ED-Goa submits that study on voltage wise cost of supply is under process and shall be submitted to Hon'ble Commission by end of February 2015.

10.1.2 In absence of relevant data for computation of open access charges, ED-Goa requests Hon'ble Commission to consider the same approach as approved in Tariff Order FY 2014-15.

10.1.3 Accordingly, ED-Goa has computed open access charges considering the following wheeling losses for HT & EHT and allocation % for wheeling cost between HT & LT as approved in Tariff Order FY 2014-15.

- Wheeling Loss at HT & EHT Level – 3.636% (balance losses attributable to LT Level)
- Wheeling Cost allocation for HT & EHT : LT = 53: 47

10.2 Computation of Wheeling Charges & Losses

10.2.1 Based on above and the projections for Sales and Wheeling ARR for FY 2015-16, the wheeling charges and losses for HT/EHT & LT are given in the table below:

Table 64: Wheeling Charges and Losses for FY 2015-16

Particulars	UoM	Amount
Total Input	MU	3,738.79
Input for HT & EHT Sales	MU	1,970.02
Losses for HT & EHT	%	3.6360%
Losses	MU	71.63
Sales at 11 kV & above	MU	1,898.39
Input for LT	MU	1,768.77
Losses at LT Level	MU	25.0%
Losses	%	442.45
Sales at LT Level	MU	1,326.31
Balance	MU	-



Particulars	UoM	S.No.	FY 2015-16
Wheeling Cost	Rs.Crs	a	800.10
Wheeling Cost at EHT & HT	Rs.Crs	b=ax53%	426.00
Wheeling Cost at LT	Rs.Crs	c=ax47%	374.09
Energy Input at Discom Periphery	%	d	3,738.79
Wheeling Charge at EHT & HT Level	Rs/kWh	e=b/dx10	1.14
EHT and HT Losses	%	f	3.64%
EHT and HT Losses	MU	g	135.94
Sales at EHT and HT Level	MU	h	1,898.39
Energy Input at LT	MU	i=d-g-h	1,704.45
Wheeling Charge at LT Level	Rs/kWh	j=c/ix10	2.19
Sales at LT Level	MU	k	1,326.31
LT Losses	MU	l=i-k	378.14
Total Losses	MU	m=g+l	514.08
	%	n	13.75%

10.3 Computation of Cross Subsidy Surcharge

10.3.1 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 2015-16 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.

10.3.2 The computation of top 5% power for FY 2015-16 is given below:



Table 65: Computation of Top 5% Power for FY 2015-16

S No	Source	Ex-bus Purchase (MU)	Reasons	VC (Ps/Unit)	Total Cost (Rs.Crs)	Total Cost (Ps/Unit)	Top 5% Energy (MU)	Cost of Top 5% Energy (Rs Cr)
1	Renewable Energy Sources	27.00	Must Run	857.04	23.14	857.04		-
2	Mouda	88.22		388.90	49.85	565.01	88.22	49.85
3	Barh-II	89.44		385.36	49.14	549.40	89.44	49.14
4	Traders / Open Market	77.15		369.81	28.53	369.81	19.20	7.10
5	KGPP	59.15		297.35	25.90	437.88		-
6	TAPS Unit 3 and 4	80.86	Must Run	287.88	23.28	287.88		-
7	GGPP	63.59		284.59	28.23	443.91		-
8	Goa Energy Private Ltd	124.27		240.00	29.82	240.00		-
9	RSTPS	731.18		240.08	220.65	301.78		-
10	Goa Sponge & Power Ltd	6.68		240.00	1.60	240.00		-
11	Sesa Goa Limited	55.00		240.00	13.20	240.00		-
12	KAPS Unit 3 and 4	61.18	Must Run	237.71	14.54	237.71	-	-
13	KAPS Unit 1 and 2	116.17	Must Run	237.71	27.61	237.71		-
14	VSTPS - I	274.69		177.58	67.46	245.60		-
15	VSTPS - II	99.51		168.26	22.49	226.02		-
16	VSTPS -III	84.55		167.93	22.10	261.36		-
17	VSTPS -IV	80.99		167.91	26.90	332.20		-
18	SIPAT- I	169.36		136.82	43.45	256.54		-
19	SIPAT- II	80.60		133.79	20.23	250.97		-
20	KSTPS	1,531.04		92.17	231.57	151.25		-
21	KSTPS-III	36.66		90.91	8.49	231.48		-
22	Total	3,937.26			978.18		196.86	106.09
							TRUE	
	Top 5% Volume of Energy	196.86	Must Run and Liquid Fuel based not considered while determining Top 5% Power Purchase Cost.					
	Cost of Top 5% Energy	106.09						
	Per Unit Cost	5.3888						

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

Table 66: Computation of Total Cost for FY 2015-16

Calculation of Total Cost - Based on ARR FY 2014-15					
	Particulars	Unit	Upto 33 kV	11 kV	LT Level
C =	Weighted average cost of power purchase of 5% at the margin excluding UI and renewable power	Rs./Unit	5.39	5.39	5.39
D =	Wheeling Charges	Rs./Unit	1.14	1.14	2.19
L =	System Losses for the applicable voltage level	%	3.64%	3.64%	25.01%
Total	[C (1+ L / 100) + D]	Rs./Unit	6.72	6.72	8.93



Table 67: Computation of Cross Subsidy Surcharge for FY 2015-16

Computation of Cross Subsidy Surcharge - FY 2015-16					
Major Consumer Categories		Proposed Tariff (Rs/kWh)	Surcharge upto 33 kV (Rs/kWh)	Surcharge at 11 kV (Rs/kWh)	Surcharge at LT Level (Rs/kWh)
1	Tariff HTI/Industrial	5.018	-	-	-
2	Tariff HTFS/ HT Industrial (Ferro Mettallurgical/ Steel Melting/ Power Intensive/Steel Rolling)	4.756	-	-	-
3	Tariff LTC/Commercial (above 20 kW)	5.984	-	-	-
4	Tariff LTI/Industrial	3.851	-	-	-

10.3.4 The Hon'ble Commission is requested to consider the above computations and approve appropriate CSS for FY 2015-16.



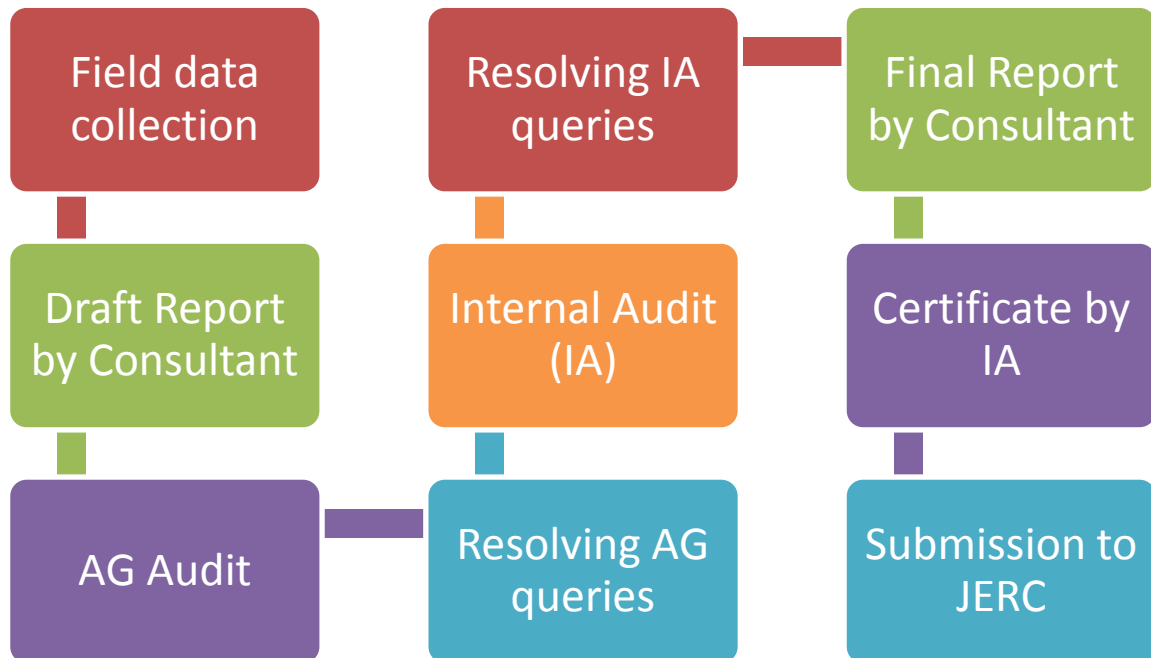
CHAPTER 11. COMPLIANCE TO DIRECTIVES GIVEN BY JERC

The Hon'ble Commission in its Tariff Order for FY 2014-15 had laid down certain directives to be complied by ED-Goa. The directives as provided by the Hon'ble Commission and the status of the said directives are replied as below:

11.1 Annual Statements of Accounts

11.1.1 **Directive:** The Hon'ble Commission in its order had noted the submission of petitioner in terms of progress for said directive and further directed to file the pending true up and financial statements for FY 2008-09 onwards, strictly in compliance with the accounting standards after getting the accounts audited and submit to Commission latest by 30th September 2014.

11.1.2 **Response to Directive:** ED-Goa would like to submit the process of the finalisation of which takes nearly 4-5 months to complete 1 Financial Statement.



11.1.3 ED-Goa submits that data is collated and prepared on manual basis for all the past years from all the sub-divisions to division level and then from division to circle level. ED-Goa submits that it massive task to prepare accounts which were pending from FY 2007-08 onwards. The major efforts are required in terms of data being collated from all divisions for billing & collection (sales & revenue).



11.1.4 Further the Accounts officers are not in direct control of Electricity Department as they belong to Directorate of Accounts department. Also the Government Audit office takes time to nominate its team for Audit of financial statements of which also is an uncontrollable factor.

11.1.5 ED-Goa would like to submit the progress in terms of said directive.

Sr. No.	Financial Year	Status	Likely Date of Completion
1	FY 2007-08	The same is completed and submitted to Commission on 09/01/2014	Completed on 09/01/2014
2	FY 2008-09	Audit by Internal Auditor and CAG is completed on 19/09/2014, Provisional comments received from CAG on 13/11/2014 and Replied on 18/11/2014, Further Provisional comments received from CAG on 02/12/2014 compliances to further comments are is in progress	Audit Completed on 19/09/2014
3	FY 2009-10	Audit by Internal Auditor and CAG is completed on 19/09/2014, Provisional comments received from CAG on 08/12/2014. Compliances to further comments are is in progress	Audit Completed on 19/09/2014
4	FY 2010-11	Draft Proforma Account received from M/s Feedback Infra Pvt. Ltd on 15/09/2014. And was kept pending. However the same has not process due to non finalization of previous years Accounts. Now same forwarded to CAG for Audit vide the letter No. CEE/Accts-99(A)/2014-15/3923 dated 05/01/2015	Audit Pending
5	FY 2011-12	The data is being collated from all divisions mainly for billing & collection (sales & revenue) and the draft accounts are under preparation. Thereafter AG Audit & Internal Audit would be undertaken which would likely take 1 month.	September 2015
6	FY 2012-13	The data is being collated from all divisions mainly for billing & collection (sales & revenue) and the draft accounts are under preparation. Thereafter AG Audit & Internal Audit would be undertaken which would likely take 1 month.	September 2015



11.1.6 ED-Goa expects to positively finalise accounts up to FY 2012-13 by September 2015. Considering the facts and the positive intent to comply with the Hon'ble Commission's directive, ED-Goa requests to grant additional time.

11.2 Preparation of Asset and Register

11.2.1 **Directive:** The Hon'ble Commission in last tariff order has appreciated the efforts of ED-Goa in completion of Asset and Depreciation Register and has further directed that the FAR for all the previous year be submitted to the Commission latest by 30th September 2014.

11.2.2 **Response to Directive:** ED-Goa would like to submit that it has taken cognisance of the suggestions/ observations of the Commission in regard to FAR report of FY 2007-08 while finalising FAR from FY 2008-09 to FY 2012-13. ED-Goa would like to submit that FAR works for all years upto FY 2012-13 has been completed.

11.2.3 ED-Goa submits that the impact of FAR in terms of Gross Fixed Assets, depreciation calculation etc is being taken into Financial Statements of the respective year which are duly audited by Government Auditors and Internal Auditors.

11.3 Energy Audit and T&D Losses

11.3.1 **Directive:** The Hon'ble Commission in the last tariff order noted the efforts of petitioner and observed that Energy Audit report has to be prepared considering entire network and not on sample basis. The Commission has further mentioned to replace non-working meters and / or install working meters in all the feeders and DT's and get the Energy Audit done and submit the report latest by September 30' 2014.

11.3.2 **Response to Directive:** ED-Goa would like to submit the present status of metering on feeders and DTs as under:

a) FEEDER METERING:

- i. Metering of all 11 kV outgoing feeders at the 33/11 kV sub-stations is completed.
- ii. The metering points identified by the Third Party Agency for Energy Audit are all metered.

b) DISTRIBUTION TRANSFORMER (DT) METERING:

- i. 80% of DT metering is completed.



- ii. The metering of balance 20% DT's is to be provided by respective Division. To complete this balance work, the Chief Electrical Engineer has given instructions to all O&M Divisional Engineers to place their requirement of materials to the Executive Engineer, Divn.-II(S&W) for procurement action.
- iii. The time required for completing the balance DT metering work is around 6-months.

Accordingly, ED-Goa would seek additional time to submit Energy Audit report based on complete metering.

11.4 Interest on Security Deposit

11.4.1 **Directive:** The Hon'ble Commission had re-directed ED – Goa to make payment of interest on security deposit for all pending years and submit the report latest by June 30, 2014 failing which the commission would be constrained to initiate action under section 142 of the Electricity Act, 2003.

11.4.2 **Response to Directive:** ED-Goa is in the process of making payment of interest on security deposit for all pending years. ED-Goa has identified an amount of Rs. **8,62,46,936** in this regard and has submitted a letter to the Government for making a provision of this amount on 17th October 2014. The letter submitted by ED-Goa to the Government for approval is attached as **Annexure VIII** to this Petition.

11.5 True-up of FY 2011-12 and FY 2012-13

11.5.1 **Directive:** The Hon'ble Commission in para 3.1 of the Tariff Order has directed the Petitioner to conclude the audit of the accounts and file the true up for FY 2011-12 and FY 2012-13 before June 31, 2014. Non-compliance of the directive would attract proceedings under the section 142 of the Electricity Act 2003.

11.5.2 **Response to Directive:** ED-Goa would like to submit true-up of FY 2011-12 and FY 2012-13 can be filed only after the financial statements for both years are completed. ED-Goa submits that it would file the true-up petition within 1 month of completion of financial statements i.e likely by 2015 March end.



11.6 Creating Consumer Awareness

11.6.1 **Directive:** The Hon'ble Commission in para 4.2.1 of the Tariff Order has directed ED-Goa to create awareness amongst the consumers on the standards of performance notified by the Commission and arrange to publish the Standard of Performance/ Salient features of Supply Code and Distribution Code in all leading newspapers and in the vernacular, in simple language that is understandable to the general consumer.

11.6.2 **Response to Directive:** ED-Goa has undertaken the following initiatives for creating awareness between consumers

- Safety Do's and Don'ts are published in local newspapers regularly during rainy seasons. One such advertisement is attached as **Annexure IX** to this Petition.
- Warnings are issued in newspapers where new network is being set up in order for local public to make safety measures.
- People are made aware of installation of new line/substation soon after commissioning.
- In case of planned shutdown in particular area, details are published in news papers.
- Common call centre is been set up other than the consumer complaint centres for safety purposes. The call centre number is 1912 and this service can be used by any consumer from their local landline.
- CGRF related information is published on the backside of the printed bill provided to consumers.

11.7 Steps taken to enhance Automation in Department

11.7.1 **Directive:** The Hon'ble Commission in para 4.2.1 of the Tariff Order has directed ED-Goa to submit a status report regarding various steps being taken up to enhance automation in the Department and reduce manual interventions wherever possible. The status report should be submitted within three months of the issuance of this order.

11.7.2 **Response to Directive:** ED-Goa has undertaken Part-A of R-APDRP consisting of Projects for establishment of baseline data and IT applications for energy accounting/auditing and IT based consumer service centres. ED-Goa had taken up this work midway. ED-Goa thereafter recently awarded the works on nomination basis to RECTPDCL.



The scope of work covers preparation of Base-line data for the project area covering consumer indexing, GIS mapping, Metering of Distribution Transformer and Feeders, and Automatic Data Logging for all Distribution Transformers and Feeders. It includes Asset Mapping of entire distribution network at and below the 11 KV transformers and includes the Distribution Transformer, Low Tension lines, poles and other distribution network equipment.

It also includes adoption of IT applications for meter reading, billing and collection; energy accounting and auditing; MIS; redressal of consumer grievances; establishment of IT enabled consumer service centres etc.

ED-Goa is also undertaking the sub-transmission and distribution improvement works under the IPDS/DDUGJY schemes launched by the Central Government. The works envisaged are mainly for strengthening of network, for which new substations/lines/interconnections/reconductoring, transformer augmentation/addition, revamping of substation, High voltage Distribution System, Load balancing/feeder segregation. HT/LT Arial bunched cables, capacitor banks/reactors at 11 KV and 33 KV, Laying of underground cables in densely populated areas, have been planned.

Apart from the above works, plans are afoot to have Grid Substation automation and integration with SCADA, Strategic distribution RMU, FPI and integration with DMS, Outage management system and integration with GIS and CRM, provisioning compatibility with Smart Technologies etc. The provisioning compatibility with Smart technologies will enable the Department in further automating the entire distribution network.

11.8 Meeting RPO for past years

11.8.1 **Directive:** The Hon'ble Commission in para 5.8 of the Tariff Order has directed ED-Goa to comply with the directions of the Commission and fulfil its RPO obligations, including the backlog of the previous years.



11.8.2 **Response to Directive:** ED-Goa would like to submit the status on RPO as under:

Solar RPO Status:

As regards fulfilment of Solar RPO is concerned, PPA has been executed by the Government with M/s NVVNL, New Delhi on 22/8/2014 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. 28-08-2014.

Further M/s Solar Energy Corporation of India, New Delhi vide letter No. SECI/JNNSM/P-2/B-1/Power Sale/851 dated 11-07-2014, has allocated 10 MW of Solar power to the State and also submitted Power Sale Agreement (PSA). The copy of the letter is provided at **Annexure X** to this Petition. The PSA to be executed with SECI has been submitted to the Government for approval for execution. The SECI will be supplying solar power of 10 MW @ Rs 5.50 per unit exclusive of transmission charges for a period of 25 years. It is anticipated that PSA will be executed shortly after negotiations on legal clauses and shall fulfil the solar RPO from 2015-16 till next 25 years.

To meet Solar RPO, ED-Goa will also purchase RECs in control period to ensure there is no carry forward of Solar RPO in second control period.

Non-Solar RPO Status:

Tender was invited by the Electricity Department – Goa for fulfilment of non-solar RPO of FY 2014-15 and further 4 years period. There were three offers against the tender. The lowest offer was @ Rs 6.10 per unit at Goa Periphery but the commencement of supply was from 1/4/2015. Another offer was @ Rs. 7.25 at Goa periphery for commencement of power from current year itself.

As the rates offered were on higher side & considering miniscule business of ED-Goa, it is decided to purchase RECs to meet Non Solar RPO for FY 2014-15 and subsequent financial years. ED-Goa has planned to purchase RECs equivalent to ~ 85 MUs in FY 2014-15. Similarly it would also purchase RECs in control period to ensure there is no carry forward of Non-Solar RPO in second control period.



Annexure I: Power Allocation Statements

WESTERN REGIONAL POWER COMMITTEE														
CALCULATIONS FOR ALLOCATION OF SHARES WITH EFFECT FROM 00:00 Hrs of 23.08.2014														
FOR PEAK HOURS (FROM 1800 TO 2200 HOURS)														
	KSTPS	VSTPS-I	VSTPS-II	VSTPS-III	KGPP	GGPP	SIPAT-II	KAPP	TAPP 3&4	KSTPS-7	SIPAT-I	VSTPS-IV	MSTPS-I	TOTAL
Installed Capacity (MW)	2100.00	1260.00	1000.00	1000.00	656.20	657.39	1000.00	440.00	1080.00	500.00	1980.00	1000.00	1000.00	13673.59
Firm allocation	1790.00	1070.00	850.00	850.00	558.00	558.00	850.00	374.00	918.00	425.00	1683.00	850.00	850.00	11626.00
Un-allocated share	310.00	190.00	150.00	150.00	98.20	99.39	150.00	66.00	162.00	75.00	297.00	150.00	150.00	2047.59
Allocation of bundling with solar Power under JNNSM														
Maharashtra (NVVN coal power)	4.01	2.46	1.94	1.94			1.94			0.97	3.85	1.94	1.94	21.00
Rajgarh solar PV Project to MPPMCL	9.56	5.86	4.62	4.62			4.62			2.31	9.16	4.62	4.62	50.00
Chattisgarh(NVNV Coal Power)	3.82	2.34	1.85	1.85			1.85			0.93	3.66	1.85	1.85	20.00
Balance un-allocated share	292.61	179.34	141.58	141.58	98.20	99.39	141.58	66.00	162.00	70.79	280.34	141.58	141.58	1956.59
Specific allocation out of Unallocated share														
Allocation to DD	40.00				28.99	29.31		4.00						102.30
Allocation to DNH	10.00				55.99	56.46								122.45
Allocation to Powergrid (HVDC-BHD)		2.52												2.52
Allocation to Powergrid (HVDC-VIN)		0.76												0.76
BARC Facilities (TAPS-3&4)	0.00	0.00	0.00						10.00					10.00
Allocation to Goa					12.37	12.63								25.00
Madhya Pradesh	52.63	32.26	25.47	25.47			25.47	11.21	27.50					200.00
Heavy Water Plant of DAE								14.00						14.00
NVNV A/c BPDB	40.00	10.00	15.00	15.00	0	0	20.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Balance un-allocated share	149.98	133.80	101.12	101.12	0.85	0.99	96.12	36.79	124.50	70.79	280.34	141.58	141.58	1379.56
FIRM ALLOCATION IN MW														
Gujarat	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	3306.84
Madhya Pradesh	400.00	385.00	273.00	200.00	140.00	117.00	143.00	93.00	180.00	62.50	283.00	256.41	156.41	2689.32
Chhattisgarh	210.00	0.00	0.00	105.00	0.00	0.00	158.00	0.00	48.00	150.00	313.00	62.55	62.55	1109.10
Maharashtra	610.00	410.00	319.00	258.00	204.00	200.00	258.00	137.00	393.00	108.20	510.00	270.48	370.48	4048.16
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	349.90
DD	0.00	5.00	3.00	5.00	2.00	2.00	4.00	2.00	5.00	1.60	8.00	3.89	3.89	45.38
DNH	0.00	5.00	4.00	6.00	25.00	2.00	4.00	2.00	7.00	2.20	9.00	5.55	5.55	77.30
TOTAL	1790.00	1070.00	850.00	850.00	558.00	558.00	850.00	374.00	918.00	425.00	1683.00	850.00	850.00	11626.00
ALLOCATION OF 15% UNALLOCATED SHARE IN MW														
Gujarat	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	0.00
Madhya Pradesh	17.22 %	25.83	23.04	17.41	17.41	0.15	0.17	16.55	6.34	21.44	12.19	48.27	24.38	237.56
Chhattisgarh	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	0.00
Maharashtra	36.82 %	55.22	49.27	37.23	37.23	0.31	0.36	35.39	13.55	45.84	26.07	103.22	52.13	507.97
GOA	0.37 %	0.55	0.50	0.37	0.37	0.00	0.00	0.36	0.14	0.46	0.26	1.04	0.52	5.10
DD	2.54 %	3.81	3.40	2.57	2.57	0.02	0.03	2.44	0.93	3.16	1.80	7.12	3.60	35.04
DD - Specific Allocation		40.00	0.00	0.00	0.00	28.99	29.31	4.00	0.00	0.00	0.00	0.00	0.00	102.30
DNH	35.80 %	53.69	47.90	36.20	36.20	0.30	0.35	34.41	13.17	44.57	25.34	100.36	50.69	493.88
DNH - Specific allocation		10.00	0.00	0.00	0.00	55.99	56.46	0.00	0.00	0.00	0.00	0.00	0.00	122.45
Goa - Specific allocation		0.00	0.00	0.00	0.00	12.37	12.63	0.00	0.00	0.00	0.00	0.00	0.00	25.00
Madhya Pradesh		52.63	32.26	25.47	25.47	0.00	0.00	25.47	11.21	27.50	0.00	0.00	0.00	200.00
Allocation to Powergrid (HVDC-BHD)			2.52											2.52
Allocation to Powergrid (HVDC-VIN)			0.76											0.76
BARC Facilities (TAPS-3&4)		0.00	0.00			0.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	10.00
Heavy Water Plant of DAE								14.00						14.00
Jammu and Kashmir	7.25 %	10.87	9.70	7.33	7.33	0.06	0.07	6.97	2.67	9.02	5.13	20.32	10.26	100.00
NVNV A/c BPDB		40.00	10.00	15.00	15.00	0.00	0.00	20.00	0.00	0.00	0.00	0.00	0.00	100.00
Total		292.61	179.34	141.58	141.58	98.20	99.39	141.58	66.00	162.00	70.79	280.34	141.58	1956.59
Total Allocation (Firm + Specific allocation + allocation from balance unallocated share) in MW														
Gujarat	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	3306.84
Madhya Pradesh	478.46	440.30	315.88	242.88	140.15	117.17	185.02	110.54	228.94	74.69	331.27	280.79	180.79	3126.88
Chhattisgarh	210.00	0.00	0.00	105.00	0.00	0.00	158.00	0.00	48.00	150.00	313.00	62.55	62.55	1109.10
Maharashtra	665.22	459.27	356.23	295.23	204.31	200.36	293.39	150.55	438.84	134.27	613.22	322.61	422.61	4556.13
GOA	210.55	35.50	12.37	10.37	12.37	10.36	10.36	15.14	11.46	4.76	21.04	11.72	11.72	380.00
DD	43.81	8.40	5.57	7.57	31.01	31.34	6.44	6.93	8.16	3.40	15.12	7.49	7.49	182.72
DNH	63.69	52.90	40.20	42.20	81.29	58.81	38.41	15.17	51.57	27.54	109.36	56.24	56.24	693.83
Allocation to Powergrid (HVDC-BHD)			2.52											2.52
Allocation to Powergrid (HVDC-VIN)			0.76											0.76
BARC Facilities (TAPS-3&4)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	10.00
Heavy Water Plant of DAE								14.00						14.00
Maharashtra(NVNV coal power)	4.01	2.460	1.94	1.94			1.94			0.97	3.85	1.94	1.94	21.00
Jammu and Kashmir	10.87	9.70	7.33	7.33	0.06	0.07	6.97	2.67	9.02	5.13	20.32	10.26	10.26	100.00
NVNV A/c BPDB	40.00	10.00	15.00	15.00	0.00	0.00	20.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Rajgarh solar PV Project to MPPMCL	9.56	5.86	4.62	4.62	0.00	0.00	4.62	0.00	0.00	2.31	9.16	4.62	4.62	50.00
Chattisgarh(NVNV Coal Power)	3.82	2.34	1.85	1.85	0.00	0.00	1.85	0.00	0.00	0.93	3.66	1.85	1.85	20.00
TOTAL	2100.00	1260.00	1000.00	1000.00	656.20	657.39	1000.00	440.00	1080.00	500.00	1980.00	1000.00	1000.00	13673.59
Shares in %														
Constituents	KSTPS	VSTPS-I	VSTPS-II	VSTPS-III	KGPP	GGPP	SIPAT	KAPP	TAPP 3&4	KSTPS 7	SIPAT1	VSTPS-IV	MSTPS	
Gujarat	17.1429	18.2540	23.9000	26.6000	28.4974	36.0517	27.3000	28.4091	25.3704	19.2000	27.2727	23.9920	23.9920	
Madhya Pradesh	22.7837	34.9443	31.5879	24.2879	21.3573	17.8236	18.5018	25.1231	21.1984	14.9381	16.7310	28.0791	18.0791	
Chhattisgarh	10.0000	0.0000	0.0000	10.5000	0.0000	0.0000	15.8000	0.0000	4.4444	30.0000	15.8081	6.2550	6.2550	
Maharashtra	31.6773	36.4497	35.6233	29.5233	31.1358	30.4787	29.3392	34.2155	40.6333	26.8533	30.9709	32.2613	42.2613	
GOA	10.0264	2.8171	1.2374	1.0374	1.8856	1.9218	1.0356	3.4400	1.0612	0.9524	1.0625	1.1724	1.1724	
DD	2.0862	0.6666	0.5568	0.7568	4.7259	4.7666	0.6441	1.5760	0.7558	0.6796	0.7637	0.7486	0.7486	
DNH	3.0329	4.1985	4.0200	4.2200	12.3886	8.9467	3.8410	3.4483	4.7750	5.5087	5.5233	5.6237	5.6237	
Allocation to Powergrid (HVDC-BHD)			0.0000									0.0000	0.0000	
Allocation to Powergrid (HVDC-VIN)			0.0603									0.0000	0.0000	
BARC Facilities (TAPS-3&4)		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.9259	0.0000	0.0000	0.0000	0.0000	
Heavy Water Plant of DAE								3.1818				0.0000	0.0000	
Maharashtra(NVNV coal power)	0.1911	0.1952	0.1942	0.1942	0.0000	0.0000	0.1942	0.0000	0.0000	0.1942	0.1942	0.1942	0.1942	
Jammu and Kashmir	0.5177	0.7698	0.7330	0.7330	0.0094	0.0109	0.6967	0.6062	0.8356	1.0263	1.0263	1.0263	1.0263	
NVNV A/c BPDB	1.9048	0.7937	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 MPPMCL														



Annexure II: Month wise Power Purchase Details – FY 2013-14

N T P C LIMITED
WESTERN REGION HEADQUARTERS, MUMBAI- 400093
SUMMARY OF FY 2013-14

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

Bill No WR:12-13: GOA

CUSTOMER: GOA

Sl.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)	1,645,011,635	41,090,735	231,568,331	103,890,356	92,817,856	49,773,020	7,158,893	30,707,759	30,329,972	142,908,686	80,186,166	-	-	-	-	725,577,098	3,181,020,507	
	Energy Charges(Ps/KWH)																		AMT(Rs)
01.	Capacity Charges	914,340,988	63,881,195	180,269,356	68,211,847	97,971,852	72,951,954	67,924,729	79,622,407	103,881,276	229,932,924	104,577,940	-	-	-	-	433,678,995	2,417,245,463	
02.a.	Basic Energy Charges	1,548,916,768	38,781,830	317,470,302	134,480,792	120,323,172	64,804,390	20,232,350	82,972,561	85,235,914	220,053,085	127,025,944	-	-	-	-	1,522,998,426	4,283,295,534	
02.c.	MOPA Charges	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
03.	ED&Cess on APC	81,084,134	2,051,952	13,996,409	6,378,144	5,667,688	2,772,505	-	-	-	6,882,535	3,997,058	-	-	-	-	-	-	122,830,425
04.a.	ED&Cess on Sales	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04.b.																			
	Total (Main Bills) Rs.	2,544,341,890	104,714,977	511,736,067	209,070,783	223,962,712	140,528,849	88,157,079	162,594,968	189,117,190	456,868,544	235,600,942	-	-	-	-	1,956,677,421	6,823,371,422	
05.	Supplementary Charges	129,331,807	5,507,434	47,289,312	18,182,035	12,853,721	2,038,238	(11,284,985)	(20,292,130)	(19,555,557)	48,174,561	11,183,827	123,036	37,982	1,785	(5)	44,001,736	267,592,797	
	URS	-	-	(2,079,058)	(69,127)	-	(826,592)	(63,376)	(1,134,120)	(694,164)	(2,796,346)	(336,179)	-	-	-	-	-	-	(8,020,979)
	O&M installments																		96,281,141
	less rebate additional																		(6,316,998)
06.	LC Bill (Gross) Rs.	2,673,673,697	110,222,411	556,946,321	227,183,691	236,816,433	141,740,495	76,808,718	141,168,718	168,867,469	502,246,759	246,448,590	123,036	37,982	1,785	(5)	2,000,679,157	7,172,907,383	



N T P C LIMITED
WESTERN REGION HEADQUARTERS, MUMBAI- 400093
LC BILL RAISED IN THE MONTH OF MAY 2013

REF: REA/2013-14/4.0 DATED: 3-May-13
 Bill No. WR-12-13 : GOA DATED: 6-May-13

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

CUSTOMER: GOA

Sl.No.	PARTICULARS	KSTPS	KSTPS 3	VSTPS1	VSTPS2	VSTPS3	VSTPS4	MSTPS1	KGPS	JGPS	SIPAT-1	SIPAT-2	FSTPS	KhSTPS 1	TSTPS	KhSTPS 2	RSTPS	AMT(Rs)
	Energy scheduled(KWH)	137,421,388	447,278	16,063,980	9,316,955	8,163,092	2,690,011	-	APM: 2579445 N-APM: 118112 Lq : RLNG:	APM: 4574760 RLNG: 24 N-APM: 631768	11,501,021	5,454,357	-	-	-	-	66,868,569	
	Energy Charges(Ps/KWH)	81	74	125	118	118	118	296	APM : 227.6 N-APM : 307.4 Lq : 957.5 RLNG : 1286	APM : 228.1 RLNG : 925.9 N-APM : 301.9	113	123	224	248	118	234	200	
01.	Capacity Charges	76,381,124	2,881,294	13,250,962	6,071,111	8,384,597	4,887,931	3,504,074	8006080	9474412	15,831,956	7,500,065	-	-	-	-	39,816,401	195990007
02.a.	Energy Charges	111,173,903	330,538	20,096,039	11,003,324	9,640,612	3,176,903	-	9501608	12342558	13,007,655	6,697,950	-	-	-	-	133,804,007	330775097
02.b.	MOPA Charges	-	-	-	-	-	-	-	0	0	-	-	-	-	-	-	-	0
03.	Incentive	-	-	-	-	-	-	-	0	0	-	-	-	-	-	-	-	0
04.a.	ED&Cess on APC	4,991,537	118,813	1,332,140	564,865	535,469	70,750	-	-	-	419,988	237,098	-	-	-	-	-	8270660
04.b.	ED&Cess on Sales	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
	Total (Main Bills) Rs.	192,546,564	3,330,645	34,679,141	17,639,300	18,560,678	8,135,584	3,504,074	17507688	21816970	29,259,599	14,435,113	-	-	-	-	173,620,408	535035764
05.	CC / EC Rvsn / MOPA - March-13	-	-	-	-	-	(308,265)	(302,705)	25231	17122	-	-	-	-	-	-	627,677	59060
06.	KST-3 CC Rvsn (CERC order dtd. 09/04/13)	-	3,072,676	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3072676
07.	WRLDC Fees and charges - March-13	133,288	4,986	25,368	9,843	8,406	5,990	3,663	10196	10403	15,035	8,407	-	-	-	-	121,290	356875
08.	Tariff Filing Fees 2013-14	935,384	23,978	162,533	59,682	50,956	-	-	54428	55571	-	50,956	-	-	-	-	439,824	1833312
09.	Annual Availability Adjustment	-	-	-	-	-	150,407	274,616	-	-	-	-	-	-	-	-	-	425023
10.	TST CC Rvsn (CERC order dtd. 15/04/13)	-	-	-	-	-	-	-	-	-	-	-	-	-	148	-	-	148
11.	Additional Income tax : FY 2006-07	1,212,265	-	217,762	-	-	-	-	-	-	-	-	106	-	-	-	439,246	1869379
12.	ECR Rvsn KHS-2 / RST	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25,387,530	25387530
13.	Interest on FC Rvsn (KST-3 and TST)	-	373,028	-	-	-	-	-	-	-	-	-	-	-	68	-	-	373096
14.	Water pollution Cess : RST	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(5)	426,602	426597
	supplimentary bills	2,280,937	3,474,668	405,663	69,525	59,362	(151,868)	(24,426)	89855	83096	15,035	59,363	106	-	216	(5)	27,442,169	
15.	LC Bill (Gross) Rs.	194,827,501	6,805,313	35,084,804	17,708,825	18,620,040	7,983,716	3,479,648	17597543	21900066	29,274,634	14,494,476	106	-	216	(5)	201,062,577	568839460
16.																		
17.	Net LC Bill (Gross-Rebate)	194,827,501	6,805,313	35,084,804	17,708,825	18,620,040	7,983,716	3,479,648	17597543	21900066	29,274,634	14,494,476	106	-	216	(5)	201,062,577	568839460
Details of URS																		
i	Rate of FC for URS@ (Ps/Kwh)	56	162	65	65	113	152	187	94.93	111.58	123.17	124.16	Credit for URS scheduled by other SEBs					(1202268)
ii	URS in KWH	-	-	(913,875)	-	-	-	-	(301144)	(256513)	(27500)	0						
iii	URS in Rs	-	-	(596,303)	-	-	-	-	(285876)	(286217)	(33872)	0	2nd installment of Adtl O&M charges (Bill date: 06th April)					8752831
	Pooled Energy Charges (Ps/KWh)	1.24		REBATABLE	Rs. 564819244								TOTAL PAYABLE (WR + SR) for the month					576390023
	Pooled Capacity Charges (Ps/kWh)	0.73		NON-REBATABLE	Rs. 11570779								Less : Additional rebate @ 0.1% (previous month)					572788
	Pooled Total Charges (Ps/kWh)	1.97		Total Bill	Rs. 576390023								NET PAYABLE (Rs.)					575817235
For & on behalf of NTPC Ltd.																		



N T P C LIMITED

**WESTERN REGION HEADQUARTERS, MUMBAI- 400093
LC BILL RAISED IN THE MONTH OF JUNE 2013**

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

REF: REA/2013-14/5.0

DATED: 5-Jun-13

Bill No. WR:12-13 : GOA

DATED: 6-Jun-13

CUSTOMER: GOA

Sl.No.	PARTICULARS	KSTPS	KSTPS 3	VSTPS1	VSTPS2	VSTPS3	VSTPS4	MSTPS1	KGPS	JGPS	SIPAT-1	SIPAT-2	FSTPS	KhSTPS 1	TSTPS	KhSTPS 2	RSTPS	AMT(Rs)
	Energy scheduled(KWH)	145252683	3859125	18350666	9245201	8401340	2596550	0	APM: 3025814 N-APM:988837 Lq : RLNG:	APM: 4985178 RLNG: N- APM: 376879	9250027	5281218	0	0	0	0	69199168	
	Energy Charges(Ps/KWH)	115.70	114.80	117.20	110.70	110.70	110.70	296.20	APM : 227.7 N-APM : 307.3 Lq : 1073.7 RLNG : 1286	APM : 228.8 RLNG : 925.9 N-APM : 301.8	160.40	159.30	225.30	198.10	152.60	187.00	181.400	
01.	Capacity Charges	80733957	5724702	13912696	6056936	8645556	4912545	3620877	8285695	9618559	14795316	7563968	0	0	0	0	41204017	205074824
02.a.	Energy Charges	168057354	4430276	21506981	10234438	9300283	2874381	0	9928474	12543508	14837043	8412980	0	0	0	0	125527291	387653009
02.b.	MOPA Charges	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03.	Incentive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04.a.	ED&Cess on APC	5003579	16286	979874	568317	497934	164086				425694	197990						7853760
04.b.	ED&Cess on Sales	0	0	0	0	0	0				0	0						0
	Total (Main Bills) Rs.	253794890	10171264	36399551	16859691	18443773	7951012	3620877	18214169	22162067	30058053	16174938	0	0	0	0	166731308	600581593
05.	EC Rvsn / MOPA - April-13	1786478	5368	0	0	0	0	0	39247	9688	(184017)	(87269)	0	0	0	0	0	1569495
06.	Addl IT (04-05 to 08-09)&Dfd IT Liability(12-13)	34336297		10391848					405	193		829453	63361	14452				18616720
07.	WRLDC Fees and charges - April-2013	141432	5407	27084	10543	9004	6503	6498	11003	11227	15966	9003						133046
08.	ECR Rvsn - KST 1 / 3 & SPT 1 / 2	32930987	898808								92573	401522						34323890
09.	FERV (12-13) KST1/3,VST1/2/3,SPT2,KHS2	1008725	165627	198571	6316018	745182	0	0	0	0	0	2229112	0	0	0	0	178690	10841925
10.	KHS-1 CC Rvsn (CERC order dtd 03.05.13)													(66)				(66)
11.	Interest on KHS-1 CC Rvsn (Item 10)													(31)				(31)
12.	Water Cess - VST / SPT / KHS-2			93481							43492	35575				0		172548
13.	Filing Chgs Adjustment	9	22	(6)	(4)	4												25
14.	ERLDC Charges Rvsn												(53)		(21)		1	(73)
	supplimenatry bills total	70203928	1075232	10710978	6326557	754190	6503	6498	50655	21108	(31986)	3417396	63308	14355	(21)	0	18928457	
15.	LC Bill (Gross) Rs.	323998818	11246496	47110529	23186248	19197963	7957515	3627375	18264824	22183175	30026067	19592334	63308	14355	(21)	0	185659765	712128751
16.																		
17.	Net LC Bill (Gross-Rebate)	323998818	11246496	47110529	23186248	19197963	7957515	3627375	18264824	22183175	30026067	19592334	63308	14355	(21)	0	185659765	712128751
Details of URS													Credit for URS scheduled by other SEBs				(1107980)	
i	Rate of FC for URS@ (Ps/Kwh)	55.58	161.62	65.25	65.16	113.38	151.73	186.85	94.93	111.58	123.17	124.16						
ii	URS in KWH	0	0	(220286)	0	0	0	0	(732947)	(214813)	(15000)	(8289)						
iii	URS in Rs	0	0	(143737)	0	0	0	0	(695787)	(239688)	(18476)	(10292)						
	Pooled Energy Charges (Ps/KWh)	1.38		REBATABLE		F 636652644							3rd installment of Addl O&M charges (Bill date: 06th April 201				8752831	
	Pooled Capacity Charges (Ps/kWh)	0.73		NON-REBATABLE		R: 83120958							TOTAL PAYABLE (WR + SR) for the month				719773602	
	Pooled Total Charges (Ps/KWh)	2.11		Total Bill		719773602							Less : Rebate Adj (Rs 3723) + Addl rebate @ 0.1% (Rs 564819				568542	
																NET PAYABLE (Rs.)	719205060	



N T P C LIMITED
WESTERN REGION HEADQUARTERS, MUMBAI- 400093
LC BILL RAISED IN THE MONTH OF OCTOBER 2013

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

REF: REA/2013-14/9.0
 Bill No WR:13-14 : GOA

DATED: 3-Oct-13
 DATED: 5-Oct-13

CUSTOMER: GOA

Sl.No.	PARTICULARS	KSTPS	KSTPS 3	VSTPS1	VSTPS2	VSTPS3	VSTPS4	MSTPS1	KGPS	JGPS	SIPAT-1	SIPAT-2	FSTPS	KhSTPS 1	TSTPS	KhSTPS 2	RSTPS	AMT(Rs)	
	Energy scheduled(KWH)	142552491	3661912	17056062	8191414	6736458	4348409	335668	APM: 2496637 N-APM:394765 Lq : RLNG:	APM: 1335476 RLNG: 0 N-APM: 187711	12270439	7922736	0	0	0	0	57472208		
	Energy Charges(Ps/KWH)	93.30	92.10	150.50	140.50	142.40	141.80	283.00	APM : 260.7 N-APM : 348.7 Lq : 0 RLNG : 0	APM : 249 RLNG : 0 N-APM : 341.5	178.80	178.70	356.80	355.80	148.20	141.50	227.400		
																			AMT(Rs)
01.	Capacity Charges	79233217	5480373	12423008	5337657	7572822	6143467	4391575	6736765	5723540	18247333	9050891	0	0	0	0	34221109	194561757	
02.a.	Energy Charges	133001474	3372621	25669373	11508937	9592716	6166044	949940	7885279	3966368	21939545	14157929	0	0	0	0	130691801	368902027	
02.b.	MOPA Charges	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
03.	Incentive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04.a.	ED&Cess on APC	7460018	239081	1497135	374975	533106	280162				848627	491464						11724568	
04.b.	ED&Cess on Sales	0	0	0	0	0	0				0	0						0	
	Total (Main Bills) Rs.	219694709	9092075	39589516	17221569	17698644	12589673	5341515	14622044	9689908	41035505	23700284	0	0	0	0	164912910	575188352	
05.	Rvsn -August-13-Energy Chgs /Schedul	(1793833)	(57818)	0	0	0	0	0	78566	0	25755	30626	0	0	0	0	(276775)	(1993479)	
06.	RLDC Fees and charges - Sept-13	131266	4935	25019	9706	8294	5925	6007	10082	10287	14804	8294					133046	367665	
07.	JGP CC Rvsn (CERC - 11.09.13)									(21307095)								(21307095)	
08.	Interest on above mentioned Rvsn (Item-7)									(3062408)								(3062408)	
09.																	6	6	
10.	Filing Chgs Adjustment	(9)			(9)						(9)							(27)	
11.	Interest on Installments	241579	3766	37472	22348	2637			1	1	328	12243	224	51			66503	387153	
12.	Water/Pollution Cess - KST / KHS-2	514772																514772	
13.	JGP - Transportation Charges-September-13									496483								496483	
14.	ERLDC Charges Rvsn														(28)			(28)	
	supplimentay bills	(906225)	(49117)	62491	32045	10931	5925	6007	88649	(23862732)	40878	51163	224	51	(28)	0	(77220)		
15.	LC Bill (Gross) Rs.	218788484	9042958	39652007	17253614	17709575	12595598	5347522	14710693	(14172824)	41076383	23751447	224	51	(28)	0	164835690	550591394	
16.																			
17.	Net LC Bill (Gross-Rebate)	218788484	9042958	39652007	17253614	17709575	12595598	5347522	14710693	(14172824)	41076383	23751447	224	51	(28)	0	164835690	550591394	
Details of URS																			
i	Rate of FC for URS@(Ps/Kwh)	55.58	161.62	65.25	65.16	113.38	151.73	186.85	78.65	100.13	140.88	124.16	Credit for URS scheduled by other SEBs					(437772)	
ii	URS in KWH	0	0	(400000)	0	0	0	0	(108673)	(91182)	0	0	5th installment of Addl IT+ECR+FERV - (Bill date : 06th June					18236424	
iii	URS in Rs	0	0	(261000)	0	0	0	0	(85471)	(91301)	0	0	7th installment of Addl O&M charges (Bill date: 06th April 20					8752831	
	Pooled Energy Charges (Ps/KWh)	1.39		REBATABLE	F 555500813	TOTAL PAYABLE (WR + SR) for the month												577142877	
	Pooled Capacity Charges (Ps/kWh)	0.73		NON-REBATABLE	Rs: 21642064	Less : Addl rebate @ 0.1% (Rs 523185) Bill Dtd 06.09.13												523185	
	Pooled Total Charges (Ps/kWh)	2.13		Total Bill	577142877	NET PAYABLE (Rs.)												576619692	



N T P C L I M I T E D
WESTERN REGION HEADQUARTERS, MUMBAI- 400093
LC BILL RAISED IN THE MONTH OF NOVEMBER 2013

REF: REA/2013-14/10.0 DATED: 5-Nov-13
 Bill No. WR:13-14 : GOA DATED: 6-Nov-13

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

CUSTOMER: GOA

Sl.No.	PARTICULARS	KSTPS	KSTPS 3	VSTPS1	VSTPS2	VSTPS3	VSTPS4	MSTPS1	KGPS	JGPS	SIPAT-1	SIPAT-2	FSTPS	KhSTPS	TSTPS	KhSTPS 2	RSTPS	AMT(Rs)	
	Energy scheduled(KWH)	142,091,616	3,853,421	22,637,627	9,053,899	8,270,314	4,702,475	88,268	APM: 1588522 N-APM: 220540 Lq : 158760	APM: 1403480 RLNG: 478157 N-APM: 92623	15370424	7870911	0	0	0	0	52331420		
	Energy Charges(Ps/KWH)	90	87	145	137	137	137	275	APM : 200.0 N-APM : 240.5	APM : 240.5	151.70	149.80	315.80	282.60	300.70	266.70	210.000		
01.	Capacity Charges	78,985,356	5,718,446	15,490,866	5,986,137	8,526,188	6,506,032	7,291,534	6804136	9038208	20980921	9100956	0	0	0	0	31160340	205589120	
02.a.	Energy Charges	128,166,638	3,367,890	32,847,197	12,412,896	11,338,600	6,442,391	243,002	6494621	8202213	23316933	11790625	0	0	0	0	109895982	354518988	
02.b.		-	-	-	-	-	-	-	0	0	0	0	0	0	0	0	0	0	
03.	Incentive	-	-	-	-	-	-	-	0	0	0	0	0	0	0	0	0	0	
04.a.	ED&Cess on APC	7,483,051	192,226	1,056,960	507,620	417,457	269,470				737133	484644						11148561	
04.b.	ED&Cess on Sales	-	-	-	-	-	-				0	0						0	
	Total (Main Bills) Rs.	214,635,045	9,278,562	49,395,023	18,906,653	20,282,245	13,217,893	7,534,536	13298757	17240421	45034987	21376225	0	0	0	0	141056322	571256669	
05.	Rvsn -September-13 MOPA	-	-	-	-	-	-	-	9359	10827	0	0	0	0	0	0	0	20186	
06.	RLDC Fees and charges-October-13	130,473	4,917	24,853	9,574	8,161	5,907	5,997	10049	10254	14740	8120	0	0	0	0	133046	366091	
07.	ECR Rvsn-(Nov-12 - Sept-13)	55,313,381	1,273,234	9,951,039	4,263,695	3,745,297	1,158,433				7189097	3907362					(6141735)	80659803	
08.	Filing Chgs Adjustment	(240)	(2)	(61)	(88)	(88)					(9)	(123)						(611)	
09.	Interest on Installments	133,285	2,078	20,674	12,330	1,455			1		181	6755	124	28			36691	213602	
10.	JGP-Transportation Charges-October-13									496483								496483	
11.																		0	
12.																		0	
13.																		0	
14.																		0	
	Supplimentary Bills	55,576,899	1,280,227	9,996,505	4,285,511	3,754,825	1,164,340	5,997	19409	517564	7204009	3922114	124	28	0	0	(5971998)		
15.	LC Bill (Gross) Rs.	270,211,944	10,558,789	59,391,528	23,192,164	24,037,070	14,382,233	7,540,533	13318166	17757985	52238996	25298339	124	28	0	0	135084324	653012223	
16.																			
17.	Net LC Bill (Gross-Rebate)	270,211,944	10,558,789	59,391,528	23,192,164	24,037,070	14,382,233	7,540,533	13318166	17757985	52238996	25298339	124	28	0	0	135084324	653012223	
Details of URS												Credit for URS scheduled by other SEBs						(9637)	
i	Rate of FC for URS@ (Ps/Kwh)	55.58	161.62	65.25	65.16	113.38	151.73	186.85	78.65	100.13	140.88	124.16							
ii	URS in KWH	0	0	0	0	0	0	0	(12253)	0	0	0	6th installment of Addl IT+ECR+FERV - (Bill date : 18236424						
iii	URS in Rs	0	0	0	0	0	0	0	(9637)	0	0	0	8th installment of Addl O&M charges (Bill date: 06 8752831						
	Pooled Energy Charges (Ps/KWh)	1.31		REBATABLE	Rs. 656124151													TOTAL PAYABLE (WR + SR) for the month	679991841
	Pooled Capacity Charges (Ps/kWh)	0.76		NON-REBATABLE	Rs. 23867690													Less : Addl rebate @ 0.1% (Rs 555501) Bill Dtd 0	555501
	Pooled Total Charges (Ps/kWh)	2.07		Total Bill	Rs. 679991841													NET PAYABLE (Rs.)	679436340
For & on behalf of NTPC Ltd.																			



N T P C LIMITED

**WESTERN REGION HEADQUARTERS, MUMBAI- 400093
LC BILL RAISED IN THE MONTH OF DECEMBER 2013**

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

REF: REA/2013-14/11.0
Bill No WR-13-14 : GOA

DATED: 4-Dec-13
DATED: 6-Dec-13

CUSTOMER: GOA

Sl.No.	PARTICULARS	KSTPS	KSTPS 3	VSTPS1	VSTPS2	VSTPS3	VSTPS4	MSTPS1	KGPS	JGPS	SIPAT-1	SIPAT-2	FSTPS	KhSTPS 1	TSTPS	KhSTPS 2	RSTPS	AMT(Rs)
	Energy scheduled(KWH)	145,587,085	3,750,104	19,353,594	8,513,776	7,691,183	4,579,385	142,318	APM: 1829239 N- APM:21931 6 Lq : RLNG: 44977	APM: 1763625 RLNG: 81260 N-APM: 32949	10,058,309	4,331,025	-	-	-	-	64,439,829	
	Energy Charges(Ps/KWH)	89	87	131	124	124	124	243	254.5 N-APM :	APM : 245.7	154	153	303	287	95	271	201	
01.	Capacity Charges	80919741	5551299	15299794	5893726	8066144	6317942	7031017	6870094	8832338	20,696,928	8,583,269	-	-	-	-	38,369,761	212432053
02.a.	Energy Charges	130154854	3277591	25391915	10531541	9513993	5664699	346117	5861984	5379523	15,479,738	6,630,799	-	-	-	-	129,459,616	347692370
02.b.	MOPA Charges	0	0	0	0	0	0	0	0	0	-	-	-	-	-	-	-	0
03.	Incentive	0	0	0	0	0	0	0	0	0	-	-	-	-	-	-	-	0
04.a.	ED&Cess on APC	7748337	210129	1361023	544340	497229	282723				959,412	534,632						12137825
04.b.	ED&Cess on Sales	0	0	0	0	0	0				-	-						0
	Total (Main Bills) Rs.	218822932	9039019	42052732	16969607	18077366	12265364	7377134	12732078	14211861	37,136,078	15,748,700	-	-	-	-	167,829,377	572262248
05.	POCM and ECR Rvsn - October-13	0	0	0	0	0	0	0	221156	324464	30,741	15,742	-	-	-	-	-	592103
06.	RLDC Fees and charges-November-13	112309	4414	21642	8373	7133	5309	4704	8937	9118	12,716	7,093					133,046	334794
07.	ECR Rvsn KST-1 n 3	(272721)	6832															(265889)
08.	Filing Chgs Adjustment	(213)	(2)	(55)	(79)	(79)						(106)						(534)
09.																		
10.	JGP-Transportation Charges-November-13									496483								496483
11.	Water Cess - KHS-2																	0
12.																		0
13.																		0
14.																		0
	Supplimentary bills	(160625)	11244	21587	8294	7054	5309	4704	230093	830065	43,457	22,729	-	-	-	-	133,046	
15.	LC Bill (Gross) Rs.	218662307	9050263	42074319	16977901	18084420	12270673	7381838	12962171	15041926	37,179,535	15,771,429	-	-	-	-	167,962,423	573419205
16.																		
17.	Net LC Bill (Gross-Rebate)	218662307	9050263	42074319	16977901	18084420	12270673	7381838	12962171	15041926	37,179,535	15,771,429	-	-	-	-	167,962,423	573419205
Details of URS																		
i	Rate of FC for URS@ (Ps/kwh)	55.58	161.62	65.25	65.16	113.38	151.73	186.85	78.65	100.13	140.88	124.16	Credit for URS scheduled by other SEBs					(1265337)
ii	URS in KWH	0	0	(432500)	(106088)	0	(394378)	0	(28421)	(27337)	(120000)	(77990)	9th installment of Addl O&M charges (Bill date: 06th April 2013)					8752831
iii	URS in Rs	0	0	(282206)	(69127)	0	(598390)	0	(22353)	(27373)	(169056)	(96832)	TOTAL PAYABLE (WR + SR) for the month					580906699
	Pooled Energy Charges (Ps/KWh)	1.28		REBATABLE F 570034743									Less : Addl rebate @ 0.1% (Rs 656124) Bill Dtd 06.11.13					656124
	Pooled Capacity Charges (Ps/kWh)	0.78		NON-REBATABLE Rs 10871956									NET PAYABLE (Rs.)					580250575
	Pooled Total Charges (Ps/kWh)	2.06		Total Bill				580906699										

For & on behalf of NTPC Ltd.



N T P C LIMITED

**WESTERN REGION HEADQUARTERS, MUMBAI- 400093
LC BILL RAISED IN THE MONTH OF JANUARY 2014**

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

REF: REA/2013-14/12.0

DATED: 6-Jan-14

Bill No. WR-13-14 : GOA

DATED: 8-Jan-14

CUSTOMER: GOA

Sl.No.	PARTICULARS	KSTPS	KSTPS 3	VSTPS1	VSTPS2	VSTPS3	VSTPS4	MSTPS1	KGPS	JGPS	SIPAT-1	SIPAT-2	FSTPS	KhSTPS 1	TSTPS	KhSTPS 2	RSTPS	AMT(Rs)
	Energy scheduled(KWH)	138,869,868	3,483,420	#####	9,260,232	8,195,939	3,994,763	1,041,396	APM: 3939257 N- APM:569502 Lq : 0 RLNG:	APM: 4593090 RLNG: 950 N-APM: 659817	10,224,205	6,754,107	-	-	-	-	68,590,687	
	Energy Charges(Ps/KWH)	92	91	188	178	177	178	265	N-APM : 345.5	APM : 250.8	129	140	284	296	151	279	217	
01.	Capacity Charges	77186191	5420872	16262789	6010975	8462852	5970818	6122066	7132547	9312503	21655736	9202368	0	0	0	0	40842013	213581730
02.a.	Energy Charges	127065929	3180362	35879127	16446172	14539596	7102689	2754492	12146669	13770023	13168776	9448996	0	0	0	0	148978972	404481803
02.b.	MOPA Charges	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03.	Incentive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04.a.	ED&Cess on APC	8537032	219902	1116616	491207	443747	264210				559138	258522						11890374
04.b.	ED&Cess on Sales	0	0	0	0	0	0				0	0						0
	Total (Main Bills) Rs.	212789152	8821136	53258532	22948354	23446195	13337717	8876558	19279216	23082526	35383650	18909886	0	0	0	0	189820985	629953907
05.	POCM and ECR Rvsn - November-13	(291174)	(7500)	0	0	0	0	0	34782	56665	(50292)	(25986)	0	0	0	0	0	(283505)
06.	RLDC Fees and charges-December-13	112269	4422	21627	8344	7097	5309	5313	8937	9118	12705	7051					122517	324709
07.	VS-2 CC Rvsn (CERC - 14.11.13)				(2034799)													(2034799)
08.	Interest on CC Rvsn (Item-7)				(696330)													(696330)
09.	JGP-Transportation Charges-December-13				496483													496483
10.	Filing Chgs Adjustment	(203)	2	(55)	(84)	(88)					(9)	(114)						(551)
11.																		
12.																		
13.	Water Cess - VS-1 / JGP			152998					4551									157549
14.	supplimentary bills	(179108)	(3076)	174570	(2226386)	7009	5309	5313	43719	70334	(37596)	(19049)	0	0	0	0	122518	1
15.	LC Bill (Gross) Rs.	212610044	8818060	53433102	20721968	23453204	13343026	8881871	19322935	23152860	35346054	18890837	0	0	0	0	189943503	627917464
16.																		
17.	Net LC Bill (Gross-Rebate)	212610044	8818060	53433102	20721968	23453204	13343026	8881871	19322935	23152860	35346054	18890837	0	0	0	0	189943503	627917464
Details of URS													Credit for URS scheduled by other SEBs				(1128575)	
i	Rate of FC for URS@ (Ps/kwh)	55.58	161.62	65.25	64.94	113.38	151.73	186.85	78.65	100.13	140.88	124.16						
ii	URS in KWH	0	0	(252500)	0	0	0	0	(22520)	(31490)	(573561)	(85811)						
iii	URS in Rs	0	0	(164756)	0	0	0	0	(17712)	(31531)	(808033)	(106543)	10th Installment of Addl O&M charges (Bill date: 06th April 20)				8752831	
Pooled Energy Charges (Ps/KWh)		1.45	REBATABLE		F625319255								TOTAL PAYABLE (WR + SR) for the month		635541720			
Pooled Capacity Charges (Ps/kWh)		0.76	NON-REBATABLE		Rs 10222465								Less : Addl rebate @ 0.1% (Rs 570035) Bill Dtd 06.12.13		570035			
Pooled Total Charges (Ps/kWh)		2.21	Total Bill		635541720								NET PAYABLE (Rs.)		634971685			
For & on behalf of NTPC Ltd.																		



N T P C LIMITED
WESTERN REGION HEADQUARTERS, MUMBAI- 400093
LC BILL RAISED IN THE MONTH OF FEBRUARY 2014

REF: REA/2013-14/1.0
 Bill No. WR-13-14 : GOA

DATED: 5-Feb-14
 DATED: 6-Feb-14

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

CUSTOMER: GOA

Sl.No.	PARTICULARS	KSTPS	KSTPS 3	VSTPS1	VSTPS2	VSTPS3	VSTPS4	MSTPS1	KGPS	JGPS	SIPAT-1	SIPAT-2	FSTPS	KhSTPS 1	TSTPS	KhSTPS 2	RSTPS	AMT(Rs)
	Energy scheduled(KWH)	147,663,434	3,831,666	17,596,940	9,272,269	8,363,343	#####	2,004,088	APM: 3043768 N- APM:34421 5 Lq : 0 RLNG: 155177	APM: 3806728 RLNG: 244369 N-APM: 200381	10,857,413	#####	-	-	-	-	62,176,538	
	Energy Charges(Ps/KWH)	91	90	141	134	133	133	271	255.9 N-APM :	APM : 245.4	147	154	300	300	150	270	240	
01.	Capacity Charges	82074156	5700836	16452182	6021865	8557642	6570152	7363399	6221573	9479730	21705936	9194635	0	0	0	0	37022268	216364374
02.a.	Energy Charges	133783071	3440836	24846879	12378479	11156700	6385222	5439095	10836665	12879798	15927825	10071673	0	0	0	0	149161515	396307758
02.b.	MOPA Charges	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03.	Incentive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04.a.	ED&Cess on APC	8286707	207864	1109671	538147	476297	232151				512812	355323						11718972
04.b.	ED&Cess on Sales	0	0	0	0	0	0				0	0						0
	Total (Main Bills) Rs.	224143934	9349536	42408732	18938491	20190639	13187525	12802494	17058238	22359528	38146573	19621631	0	0	0	0	186183783	624391104
05.	POCM and ECR Rvsn - December-1	(555479)	(13933)	0	0	0	0	101016	18381	5981	122691	87803	0	0	0	0	1646177	1412637
06.	RLDC Fees and Charges-January-14	107128	4282	20724	8024	6831	5147	5139	8639	8814	12142	6776					122517	316163
07.	JGP-Transportation Charges-January-14									496483								496483
08.	Addl Income Tax(2008-09) & Refund	12919593		3914288									53140	22232			8459285	25368538
09.	Rvsn REA - Nov -13 dtd 23.01.14			1	36	33				292		(4)						358
10.	Filing Chgs Adjustment	(185)	(2)	(55)	(66)	(66)						(92)						(466)
11.																		
12.	ECR Rvsn - VST - Sept2013			(767523)	(344040)	(289668)	(182633)											(1583864)
13.	Water pollution Cess-KS/SP/MS/KH-2/RST	271455	5330					565			38196	23495					70212	409253
14.																	(10)	(10)
	Total supplementary bills	12742512	(4323)	3167435	(336046)	(282870)	(177486)	106720	27020	511570	173029	117978	53140	22232	0	0	10298181	
15.	LC Bill (Gross) Rs.	236886446	9345213	45576167	18602445	19907769	13010039	12909214	17085258	22871098	38319602	19739609	53140	22232	0	0	196481964	650810196
16.																		
17.	Net LC Bill (Gross-Rebate)	236886446	9345213	45576167	18602445	19907769	13010039	12909214	17085258	22871098	38319602	19739609	53140	22232	0	0	196481964	650810196
Details of URS																		
i	Rate of FC for URS@ (Ps/kwh)	55.58	161.62	65.25	64.94	113.38	151.73	186.85	78.65	100.13	140.88	124.16	Credit for URS scheduled by other SEBs					(1848033)
ii	URS in KWH	0	0	(922135)	0	0	0	(14268)	0	0	(806337)	(67423)	11th Installment of Addl O&M charges (Bill date: 06th April 2					8752831
iii	URS in Rs	0	0	(601693)	0	0	0	(26660)	0	0	(1135968)	(83712)	TOTAL PAYABLE (WR + SR) for the month					657714994
	Pooled Energy Charges (Ps/KWh) 1.41	REBATABLE R: 622066663															657714994	
	Pooled Capacity Charges (Ps/kWh) 0.77	NON-REBATABLE Rs. 35648331															625319	
	Pooled Total Charges (Ps/kWh) 2.18	Total Bill R 657714994															657089675	
NET PAYABLE (Rs.)																		

For & on behalf of NTPC Ltd.



N T P C LIMITED
WESTERN REGION HEADQUARTERS, MUMBAI- 400093
LC BILL RAISED IN THE MONTH OF MARCH 2014

REF: REA/2013-14/2.0
 Bill No. WR:13-14 : GOA

DATED: 5-Mar-14
 DATED: 6-Mar-14

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

CUSTOMER: GOA

Sl.No.	PARTICULARS	KSTPS	KSTPS 3	VSTPS1	VSTPS2	VSTPS3	VSTPS4	MSTPS1	KGPS	JGPS	SIPAT-1	SIPAT-2	FSTPS	KhSTPS 1	TSTPS	KhSTPS 2	RSTPS	AMT(Rs)	
	Energy scheduled(KWH)	#####	3,483,039	16,583,443	8,611,289	7,470,439	4,250,178	2,220,058	APM: 1815884 N- APM:100551 RLNG: 13440	APM: 488884 RLNG: 406616 N-APM: 7685	8,512,209	5,878,819	-	-	-	-	62,712,477		
	Energy Charges(Ps/KWH)	91	90	127	120	120	120	297	N-APM : 345.5	APM : 230.2	118	126	290	290	180	275	198		
																			AMT(Rs)
01.	Capacity Charges	75661913	5167817	15001608	5592605	7681346	5878445	7077074	4984833	8434200	19110775	8308146	0	0	0	0	38117647	201016409	
02.a.	Energy Charges	123739368	3134735	21127306	10350769	8979468	5108714	6602452	5162202	5916803	10069943	7407312	0	0	0	0	123919855	331518927	
02.b.	MOPA Charges	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
03.	Incentive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04.a.	ED&Cess on APC	8606771	223334	1074776	566326	510812	292349				533140	337751						12145259	
04.b.	ED&Cess on Sales	0	0	0	0	0	0	0			0	0						0	
	Total (Main Bills) Rs.	208008052	8525886	37203690	16509700	17171626	11279508	13679526	10147035	14351003	29713858	16053209	0	0	0	0	162037502	544680595	
05.	POCM and ECR Rvsn - January-14	295327	3832	0	0	0	0	539100	37645	38390	152004	97910	0	0	0	0	1181354	2345562	
06.	RLDC Fees and Charges-February-14	107090	4284	20731	8030	6838	5148	5148	8635	8810	12120	6785	0	0	0	0	121947	315566	
07.	JGP-Transportation Charges-February-14									496483								496483	
08.	ULDC Charges-(Apr-09 to Dec-13)	3759078	42651	652216	238948	203920	10624	10099	180193	183997	97033	213384						5592143	
09.	Water Pollution Cess Adjustment	(31)									(2)	(16)						144933	
10.	Filing Chgs Adjustment	(129)		(33)	(48)	(48)					(9)	(70)						(337)	
11.																			
12.	RST CC Rvsn - CERC dtd 26.02.2014																	(14303921)	
13.	Interest on CC Rvsn mentioned above(Item 12)																	(5660391)	
14.																		2	
	Total supplementary bills	4161335	50767	672914	246930	210710	15772	554347	226473	727680	261146	317993	0	0	0	0	(18516076)		
15.	LC Bill (Gross) Rs.	212169387	8576653	37876604	16756630	17382336	11295280	14233873	10373508	15078683	29975004	16371202	0	0	0	0	143521426	533610586	
16.																			
17.	Net LC Bill (Gross-Rebate)	212169387	8576653	37876604	16756630	17382336	11295280	14233873	10373508	15078683	29975004	16371202	0	0	0	0	143521426	533610586	
Details of URS													Credit for URS scheduled by other SEBs					(934659)	
i	Rate of FC for URS@ (Ps/kwh)	55.58	161.62	65.25	64.94	113.38	151.73	186.85	78.65	100.13	140.88	124.16							
ii	URS in KWH	0	0	0	0	0	(150400)	(19650)	0	0	(447857)	(31250)							
iii	URS in Rs	0	0	0	0	0	(228202)	(36716)	0	0	(630941)	(38800)							
	Pooled Energy Charges (Ps/KWh)	1.28		REBATABLE	Rs.	530141857													
	Pooled Capacity Charges (Ps/kWh)	0.78		NON-REBATABLE	Rs.	11286901													
	Pooled Total Charges (Ps/kWh)	2.06		Total Bill	Rs.	541428758													
TOTAL PAYABLE (WR + SR) for the month																		541428758	
NET PAYABLE (Rs.)																		541428758	

For & on behalf of NTPC Ltd.



N T P C L I M I T E D
WESTERN REGION HEADQUARTERS, MUMBAI- 400093
LC BILL RAISED IN THE MONTH OF APRIL 2014

REF: REA/2013-14/3.0
 Bill No WR:13-14 : GOA

DATED: 4-Apr-14
 DATED: 7-Apr-14

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

Sl.No	PARTICULARS	KSTPS	KSTPS 3	VSTPS1	VSTPS2	VSTPS3	VSTPS4	MSTPS1	KGPS	JGPS	SIPAT-1	SIPAT-2	FSTPS	KhSTPS	TSTPS	KhSTPS 2	RSTPS	AMT(Rs)
	Energy scheduled(KWH)	141,895,241	3,770,731	24,166,426	8,463,646	8,383,723	5,481,900	673,160	APM: 1643785 N-APM:618111 Lq : 0 RLNG:	APM: 2067331 RLNG: N-APM: 195963	14,244,519	7,770,680	-	-	-	-	69,922,667	
	Energy Charges(Ps/KWH)	92	91	138	130	130	130	308	APM : 256.9 N-APM : 344.2 Lq : 886.4 RLNG :	APM : 245.5 RLNG : 1172 N-APM :	153	158	299	312	169	295	221	
01.	Capacity Charges	78,867,972	5,653,423	16,573,321	5,496,431	8,568,276	7,676,556	8,031,176	6739575	9149893	21,507,921	9,182,479	-	-	-	-	42,499,912	219,946,935
02.a.	Energy Charges	130,117,936	3,420,053	33,253,002	10,985,813	10,898,840	7,120,988	2,074,006	6350422	5738633	21,794,114	12,254,362	-	-	-	-	154,808,785	398,816,954
02.b.	MOPA Charges	-	-	-	-	-	-	-	0	0	-	-	-	-	-	-	-	-
03.	Incentive	-	-	-	-	-	-	-	0	0	-	-	-	-	-	-	-	-
04.a.	ED&Cess on APC	7,678,871	196,477	955,384	496,102	430,377	244,856	-	-	-	426,259	332,023	-	-	-	-	-	10,760,349
04.b.	ED&Cess on Sales	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total (Main Bills) Rs.	216,664,779	9,269,953	50,781,707	16,978,346	19,897,493	15,042,400	10,105,182	13089997	14888526	43,728,294	21,768,864	-	-	-	-	197,308,697	629,524,238
05.	POCM and ECR Rvsn - February-14	(272,253)	(3,483)	(182,417)	(86,113)	(74,705)	(46,752)	-	123927	0	(51,073)	(41,152)	-	-	-	-	188,137	(445,884)
06.	RLDC Fees and Charges-March-14	105,120	4,200	20,335	7,881	6,703	5,482	5,220	8466	8637	11,911	6,668	-	-	-	-	120,603	311,226
07.	JGP-Transportation Charges-March-14									496483								496,483
08.	ULDC Charges-(Apr-09 to Dec-13)												4,824	990	1,618			7,432
09.	Annual SFC & Availability Adjustment	(23,127,498)	(567,020)	2,346,966	703,371	375,157	(198,781)	(11,980,215)			(3,567,652)	947,739					9,152,347	(25,915,586)
10.	Annual adjustment of energy charges	2,298,661	59,799	3,634,867	1,497,353	1,405,321	862,429				338,731	179,530					1,712,240	11,988,931
11.	Water Pollution Cess Adjustment	(29)											(12)					(41)
12.	Filing Chgs Adjustment	(120)		(33)	(40)	(44)							(53)					(290)
13.	Water Pollution Cess																	-
14.																		(9)
	Total supplimenatry bills	(20,996,119)	(506,504)	5,819,718	2,122,452	1,712,432	622,378	(11,974,995)	132393	505120	(3,268,083)	1,092,720	4,824	990	1,618	-	11,173,318	(9)
15.	LC Bill (Gross) Rs.	195,668,660	8,763,449	56,601,425	19,100,798	21,609,925	15,664,778	(1,869,813)	13222390	15393646	40,460,211	22,861,584	4,824	990	1,618	-	208,482,015	615,966,500
16.																		
17.	Net LC Bill (Gross-Rebate)	195,668,660	8,763,449	56,601,425	19,100,798	21,609,925	15,664,778	(1,869,813)	13222390	15393646	40,460,211	22,861,584	4,824	990	1,618	-	208,482,015	615,966,500
Details of URS													Credit for URS scheduled by other SEBs				(46647)	
i	Rate of FC for URS@ (Ps/kwh)	56	162	65	65	113	176	196	78.65	100.13	140.88	124.16						
ii	URS in KWH	-	-	(45,000)	-	-	-	-	(21976)	0	0	0						
iii	URS in Rs	-	-	(29,363)	-	-	-	-	(17284)	0	0	0						
	Pooled Energy Charges (Ps/KWh)	1.38	REBATABLE		Rs 605199050						TOTAL PAYABLE (WR + SR) for the month				615919853			
	Pooled Capacity Charges (Ps/kWh)	0.76	NON-REBATABLE		Rs. 10720803						Less : Addl rebate @ 0.1% (Rs 530142) Bill dtd. 06.03				530142			
	Pooled Total Charges (Ps/kWh)	2.14	Total Bill		R. 615919853						NET PAYABLE (Rs.)				615389711			

For & on behalf of NTPC Ltd.



Statement of Power Purchased Expenditure during the year 2013-14 RGPPL

SR. No	Name of the Supplier/Agency	Units Purchased	Amount	Remarks
		(Kwh)		
1	2	3	4	5
	M/sRGPPL			
1	April'2013	7,265,302	30,657,289	Bill for April'13
			10,427	ED & tax for period Jan'13 to March'13
			86,552	filling fee 2013-14
2	May'2013	3,918,055	20,896,692	Bill for May'13
3	June'2013	1,613,964	15,200,430	Bill for June'13
			4,117,879	shipping charges for Gas April'13 & May'13
4	July'2013	1,141,388	14,117,380	Bill for July'13
5	August'2013	725	18,783,183	Bill for August'13
6	September'2013	-	17,932,387	Bill for September'13
			195,925	ED & tax period April'13 to Aug'13
7	October'2013	-	(782,530)	Energy charge revision for the period 01/04/2012 to 31/03/2013
			22,003,890	Bill for October'2013
8	November'2013	-	19,946,894	Bill for November'2013
			31,958	supplimentary bill for ED & tax
9	December'2013		18,643,560	Bill for Dec'13
10	January'2014		17,714,437	Bill for Jan'14
11	February'2014		16,944,492	Bill for Feb'14
12	March'2014		1,663,097	Bill for March'14
	Total	13,939,434	218,163,942	



Statement of Power Purchased Expenditure during the year 2013-14- NPCIL TAPS

SR. No	Name of the Supplier/Agency	Units Purchased	Amount	Remarks
		(Kwh)		
1	2	3	4	5
	M/s NPCIL Tarapur, Thane			
1	April'2013	2,758,710	7,825,357	
			9,503	reimbursement of fees April'13
2	May'2013	4,060,868	11,536,743	
			9,217	reimbursement of fees May'13
			308,181	water cess Nov'12,Dec'12&jan'13
3	June'2013	7,810,969	22,273,759	
			8,944	reimbursement of fees June'13
			2,690,503	adjustment charge for ROE for 2012-13
4	July'2013	8,419,755	24,018,609	Energy bill July'13
5	August'2013	7,926,652	22,603,641	Energy bill
			8,837	reimbursement of fees August
			195,284	Cess feb'13, mar'13
			(1,722,628)	heavy water lease rate change
6	September'2013	4,937,143	14,076,288	Energy bill
			8,762	reimbursement of fees sep'13
			(14,596)	heavy water make up charges
			(7,125)	tarriff revision
7	October'2013	8,170,238	23,294,526	Energy bill
			8,732	reimbursement of fees Oct'13
			232,756	cess april'13 to june'13
8	November'2013	7,873,400	22,447,851	Energy bill
			7,640	reimbursement of fees Nov'13
9	December'2013	7,293,057	20,793,235	Energy bill
			7,641	reimbursement of fees dec'13
			228,073	cess july'13 to august'13
10	January'2014	7,346,336	20,945,139	Energy bill
			7,339	reimbursement of fees January'14
11	February'2014	7,750,248	22,096,732	Energy bill
			7,335	reimbursement of fees feb'14
12	March'2014	7,887,533	22,495,342	Energy bill
	Total	82,234,909	236,401,620	



Statement of Power Purchased Expenditure during the year 2013-14 NPCIL KAPS

SR. No	Name of the Supplier/Agency	Units Purchased	Amount	Remarks
		(Kwh)		
1	2	3	4	5
	M/s NPCIL Kakrapar, Surat			
1	April'2013	10,084,626	23,799,717	
2	May'2013	10,169,601	24,005,343	
3	June'2013	8,326,272	19,779,059	
4			44,159	self insurance fund 1.5ps/kwh for hot zone units.
5			1,943,294	adjustment charge for ROE for 2012-13
6	July'2013	9,365,689	22,251,940	Energy bill for the month July'13
			11,432	supplimentary bill due to revision in HW make up charges
7	August'2013	10,392,369	24,662,131	Energy bill
			(377,382)	heavy water lease rate change
8	September'2013	10,045,387	23,838,708	Energy bill
			90,022	reimbursement of RLDC charges.
			78,111	water cess 2012-13
9	October'2013	10,329,041	24,511,847	Energy bill
10	November'2013	9,745,090	23,126,073	Energy bill
11	December'2013	10,494,950	24,905,566	Energy bill
			795,553	supplimentary bill revision in rea Nov'13
12	January'2014	10,472,526	24,852,351	Energy bill
13	February'2014	9,464,945	22,461,261	Energy bill
14	March'2014	9,425,534	22,583,321	Energy bill
	Total	118,316,030	283,362,506	



Statement of Power Purchased Expenditure during the year 2013-14 Goa Energy Pvt Ltd

SR. No	Name of the Supplier/Agency	Units Purchased (Kwh)	Amount	Remarks
1	2	3	4	5
	M/s GEPL Amona/ptc			
1	April'2013	2,267,879	5,297,693	
2	May'2013	1,909,151	4,420,974	
3	June'2013	2,033,135	4,771,511	
4	July'2013	1,259,420	2,238,455	
5	August'2013	1,678,900	3,843,025	
6	September'2013	2,637,110	6,003,687	
7	October'2013	5,479,573	12,729,413	
8	November'2013	10,747,190	25,992,756	
9	December'2013	10,922,150	26,430,021	
10	January'2014	10,632,530	25,735,565	
11	February'2014	8,439,270	20,506,950	
12	March'2014	9,646,820	23,212,484	
	Total	67,653,128	161,182,534	

Statement of Power Purchased Expenditure during the year 2013-14 - Mittal processors

SR. No	Name of the Supplier/Agency	Units Purchased (Kwh)	Amount	Remarks
	M/s Mittal processors			
1	April'2013			
2	May'2013			
3	June'2013			
4	July'2013		2,293,776	open access & trading Margin
5	August'2013		2,565,992	open access & trading Margin
6	September'2013		248,816	open access & trading Margin
7	October'2013		4,568,187	open access & trading Margin
8	November'2013			
9	December'2013			
10	January'2014			
11	February'2014			
12	March'2014	-	-	
	Total	-	9,676,771	



Statement of Power Purchased Expenditure during the year 2013-14 - M/s NVVNL, New Delhi

SR. No	Name of the Supplier/Agency	Units Purchased	Amount	Remarks
		(Kwh)		
1	2	3	4	
	M/s NVVN New			
1	April'2013			
2	May'2013			
3	June'2013			
4	July'2013			
5	August'2013			
6	September'2013			
7	October'2013			
8	November'2013			
9	December'2013			
10	January'2014			
11	February'2014			
12	March'2014	-	361,884	open access & trading Margin
	Total	-	361,884	

**STATEMENT SHOWING THE DETAILS OF UNITS DELIVERED BY M/s RIL
AMOUNT BILL/PAID BY GOG AND THE AVERAGE COST OF THE UNIT
PER MONTH / YEAR**

Month / Year	DEL ENERGY	Amount	Average / Unit
Apr-13	10,272,000	133,243,272	12.97
May-13	10,608,000	130,980,388	12.39
Jun-13	7,725,960	86,980,332	11.29
Jul-13	10,608,000	116,264,967	10.96
Aug-13	9,300,960	106,421,150	11.43
Sep-13	10,320,000	117,631,813	11.40
Oct-13	10,608,000	125,165,429	11.80
Nov-13	10,272,000	134,248,461	13.07
Dec-13	4,814,372	74,434,473	15.46
Jan-14	10,608,000	148,177,742	13.97
Feb-14	9,600,000	131,858,377	13.74
Mar-14	10,656,000	138,060,137	12.96
Apr-14	6,152,316	79,695,337	12.95
Total	121,545,608	1,523,161,878	12.53



GSPL PURCHASE FOR FY 2013-14.

Month	Units Purchased from GSPL	Amount billed
Apr-13	320,600	769,440
May-13	364,240	874,176
Jun-13	326,100	782,640
Jul-13	100,930	242,232
Aug-13	861,240	2,066,976
Sep-13	838,153	2,011,567
Oct-13	715,840	1,718,016
Nov-13	269,900	647,760
Dec-13	521,850	1,252,440
Jan-14	638,120	1,531,488
Feb-14	472,720	1,134,528
Mar-14	945,060	2,268,144
Total	6,374,753	15,299,407



UI charges Southern region

year-2013-14

Sr.no.	week	UI payable	units in Mus	Rate	UI receivable	units in Mus	Rate
1st	01/04/2013 to 07/04/2013				802,245	0.26	3.05
2nd	08/04/2013 to 14/04/2013				2,436,312	0.74	3.31
3rd	15/04/2013 to 21/04/2013	831,043	0.12	7.17			
4th	22/04/2013 to 28/04/2013	2,863,805	0.66	4.35			
5th	29/04/2013 to 05/05/2013	1,315,422	0.39	3.40			
6th	06/05/2013 to 12/05/2013	2,250,477	0.64	3.53			
7th	13/05/2013 to 19/05/2013	1,169,699	0.36	3.29			
8th	20/05/2013 to 26/05/2013				2,336	0.14	0.02
9th	27/05/2013 to 02/06/2013				891,724	1.18	0.75
10th	03/06/2013 to 09/06/2013	998,256	0.22	4.50			
11th	10/06/2013 to 16/06/2013				2,593,992	1.66	1.56
12th	17/06/2013 to 23/06/2013				3,407,703	1.66	2.05
13th	24/06/2013 to 30/06/2013				3,329,412	1.28	2.61
14th	01/07/2013 to 07/07/2013				4,726,444	2.20	2.15
15th	08/07/2013 to 14/07/2013	36,744					
16th	15/07/2013 to 21/07/2013				208,972	0.30	0.71
17th	22/07/2013 to 28/07/2013				1,938,832	1.62	1.20
18th	29/07/2013 to 04/08/2013				769,431	0.97	0.79
19th	05/08/2013 to 11/08/2013				110,351	0.22	0.51
20th	12/08/2013 to 18/08/2013	1,337,116	0.44	3.06			
21st	19/08/2013 to 25/08/2013				539,362	0.55	0.98
22nd	26/08/2013 to 01/09/2013				704,763	1.03	0.68
23rd	02/09/2013 to 08/09/2013	145,198					
24th	09/09/2013 to 15/09/2013	653,267	0.48	1.38			
25th	16/09/2013 to 22/09/2013	168,565	0.01	12.50			
26th	23/09/2013 to 29/09/2013				1,162,935	0.64	1.82
27th	30/09/2013 to 06/10/2013				205,716	0.42	0.49
28th	07/10/2013 to 13/10/2013				778,909	1.31	0.59
29th	14/10/2013 to 20/10/2013				1,847,172	1.14	1.62
30th	21/10/2013 to 27/10/2013				1,049,093	1.18	0.89
31st	28/10/2013 to 03/11/2013				1,021,208	1.38	0.74
32nd	04/11/2013 to 10/11/2013				101,750	0.31	0.33
33rd	11/11/2013 to 17/11/2013				1,103,063	0.89	1.24
34th	18/11/2013 to 24/11/2013				1,912,797	1.27	1.51
35th	25/11/2013 to 01/12/2013				2,154,512	1.62	1.33
36th	02/12/2013 to 08/12/2013				1,222,835	0.78	1.56
37th	09/12/2013 to 15/12/2013				13,805	0.09	0.15
38th	16/12/2013 to 22/12/2013				1,267,629	0.96	1.33
39th	23/12/2013 to 29/12/2013				3,365	0.18	0.02
40th	30/12/2013 to 05/01/2014	1,002,579	0.53	1.90			
41st	06/01/2014 to 12/01/2014	559,524	0.27	2.05			
42nd	13/01/2014 to 19/01/2014	1,172,955	0.74	1.59			
43rd	20/01/2014 to 26/01/2014	1,743,078	1.04	1.68			
44th	27/01/2014 to 02/02/2014		0.07		75,230		
45th	03/02/2014 to 09/02/2014				465,018	0.23	1.98
46th	10/02/2014 to 16/02/2014				627,323	0.44	1.43
47th	17/02/2014 to 23/02/2014	491,992				0.10	
48th	24/02/2014 to 02/03/2014	2,078,861				0.35	
49th	03/03/2014 to 09/03/2014	1,742,007				1.18	
50th	10/03/2014 to 16/03/2014	1,640,881				0.97	
51st	17/03/2014 to 23/03/2014	2,988,534				0.87	
52nd	24/03/2014 to 30/03/2014						
53rd							
Total A		25,190,003	5.94	4.24	37,474,239	30.13	1.24



Annexure III: Month wise Transmission Charges Details – FY 2013-14

Summary of Transmission Charges (WR + SR + KPTCL + Others) for FY 2013-14

S.no	Name of the Supplier/ Agency	Amount	Remarks
1	M/s PGCIL WR, Nagpur	912,484,830	POC Charges
2	M/s PGCIL SR, Bangalore	221,301,763	POC Charges
3	M/s KPTCL, Bangalore	52,337,429	wheeling charges
4	M/s POSOCO WR	5,426,650	Fees and charges of SLDC
5	M/s POSOCO SR	5,070,720	Fees and charges of SLDC
6	M/s POSOCO WR	7,276,557	SCADA charges
7	M/s MSEDCL	-	reactive charges
8	M/s POSOCO WR	-	Reactive charges
9	M/s MSETCL (RGPPL)	26,638,497	wheeling charges
	Total	1,230,536,446	



Statement of Western Region Transmission Charges during the year 2013-14

SR. No	Name of the Supplier/Agency	Amount	Remarks
	M/s PGCIL WR, Nagpur		
1	April'2013	63,964,051	POC bill for the month April'2013
		3,960,351	Revision of bill January'2012 to March'2012
		533,985	Deviation for month February'2013
		385,636	Deviation for month March'2013
		1,178,682	Non POC ULDC charges and 2nd installment wage revision
2	May'2013	67,873,959	POC month May'2013
		1,603,186	Non POC ULDC charges , deferred tax and 3rd installment wage revision
3	June'2013	63,862,842	POC month June'2013
		14,924,949	Differential Bill for the period October'12 to March'2013
4	July'2013	63,145,916	POC month July'2013
		6,238,574	difference in POC July '13(based on final RTA)
		2,535,628	ULDC and differential bill for June'13 & July'13
		1,004,812	Deviation for April'13, May'13, June'13 & July'13
5	August'2013	67,323,746	POC month August'2013
		2,220,048	ULDC and differential bill for August'13
6	September'2013	68,683,053	POC month September'2013
		15,199,640	Final bill April'13 to June'13& Difference for period July'11 to March'2013
		1,132,815	ULDC and differential bill for September'13
7	October'2013	67,321,714	POC month October'13
		1,240,015	ULDC and differential bill for Oct'13
		784,739	Deviation for Aug'13 & sep'13
8	November'2013	66,703,738	POC month november'13
9	December'2013	65,979,250	POC month december'13
		2,457,585	Uldc charges
		498,253	deviation oct'13
		861,904	deviation Nov'13
		373,105	deviation Dec'13
10	January'2014	70,995,878	POC month January'14
		16,505,286	Final bill july'13 to sep'13& Difference for period July'11 to June'13
11	February'2014	1,100,868	Uldc charges & differential bill January'14
		71,226,260	POC month February'2014
		26,229,830	Final bill Oct'13 to Dec'13& Difference for period July'11 to sep'13
		878,282	deviation Jan'14
12	March'2014	73,556,250	POC month March'2014
	Total	912,484,830	



Statement of Southern Region Transmission Charges during the year 2013-14

SR No	Name of the Supplier/Agency	Amount	Remarks
1	2	3	4
	M/s PGCIL SR, Banglore		
1	April'2013	704,990	Supplimentary bill on a/c of assets
		10,038,204	POC bill for the month April'2013
		145,036	Deviation for month February'2013
		211,918	Deviation for month March'2013
		178,597	Revision of bill January'2012 to March'2012
2	May'2013	384,089	3rd installment wage revision
		11,150,362	POC bill for the month May'2013
		220,619	Deviation for month April'13
3	June'2013	384,089	4th installment wage revision
		11,095,776	POC bill for the month June'2013
		138,384	Deviation for month May'13
		26,405,438	Differential Bill for the period October'12 to March'2013
4	July'2013	384,089	Supplimentary bill 5th installment O&M expenses.
		10,652,961	Poc charges for July'2013
		844,780	difference in POC July '13(based on final RTA)
5	August'2013	384,089	Supplimentary bill 6th installment O&M expenses.
		11,696,742	POC month August'2013
		2,967	Deviation June'2013
		3,732	Deviation July'2013
6	September'2013	384,089	Supplimentary bill 7th installment O&M expenses.
		11,950,341	POC month September'2013
		13,098,394	Final bill April'13 to June'13& Difference for period July'11 to March'2013
7	October'2013	384,089	Supplimentary bill 8th installment O&M expenses.
		14,183,575	POC month October'13
		16,984	Deviation September'2013
8	November'2013	13,477,921	POC month November'13
		7,469	Deviation October'13
		1,058,421	supplimentary bill & 9th installment O&M expenses
9	December'2013	13,949,497	POC month December'13
		45,983	Deviation November'13
		384,089	Supplimentary bill 10th installment O&M expenses.
10	January'2014	12,198,616	POC month January'2014
		1,773	Deviation Dec'13
		384,089	Supplimentary bill 11th installment O&M expenses.
		12,873,354	Final bill July'13 to Sep'13& Difference for period July'11 to June'13
11	February'2014	12,459,628	POC month February'2014
		4,414,110	Final bill Oct'13 to Dec'13& Difference for period July'11 to Sep'13
		384,089	Supplimentary bill 12th installment O&M expenses.
		11,875,961	supplimentary bill
12	March'2014	44,364	supplimentary bill
		12,393,541	POC month March'2014
		117,974	Deviation Jan'14
		186,550	Deviation Feb'14
	Total	221,301,763	



Statement of KPTCL Wheeling Charges during the year 2013-14

SR. No	Name of the Supplier/Agency	Units Purchased (Kwh)	Amount	Remarks
1	2	3	4	5
M/s KPTCL, Banglore (Wheeling charges)				
1	April'2013		1,653,816	
2	May'2013		11,984,666	May'13 @7.5paise/kwh, difference march'13& April'13 @7.5paise/kwh
3	June'2013		3,793,334	
4	July'2013		3,905,513	
5	August'2013		3,420,862	
6	September'2013		4,310,416	
7	October'2013		3,924,857	
8	November'2013		4,832,987	
9	December'2013		5,144,302	
10	January'2014		4,663,240	
11	February'2014		4,703,436	
12	March'2014			
Total		-	52,337,429	

Statement of MSETCL Wheeling Charges during the year 2013-14

SR. No	Name of the Supplier/Agency	Units Purchased (Kwh)	Amount	Remarks
1	2	3	4	5
M/s MSETCL, Mumbai (Wheeling charges)				
1	April'2013	2,216,667		
2	May'2013	2,231,862		
3	June'2013	2,230,074		
4	July'2013	2,216,667		
5	August'2013	2,224,711		
6	September'2013	2,218,514		
7	October'2013	2,216,667		
8	November'2013	2,216,667		
9	December'2013	2,216,667		
10	January'2014	2,216,667		
11	February'2014	2,216,667		
12	March'2014	2,216,667		
Total		26,638,497	-	



Statement of Power Purchased Expenditure during the year 2013-14

SR. No	Name of the Supplier/Agency	Opening Balance	Units Purchased	Amount	Remarks
			(Kwh)		
1	2	3	4	5	11
	M/s POSOCO WR (fees & Charges)				
1	April'2013			485,899	
2	May'2013			471,671	
3	June'2013			459,232	
4	July'2013			449,807	
5	August'2013			450,866	
6	September'2013			451,004	
7	October'2013			447,998	
8	November'2013			443,847	
9	December'2013			443,426	
10	January'2014			443,309	
11	February'2014			443,309	
12	March'2014			436,282	
	Total		-	5,426,650	

Statement of Power Purchased Expenditure during the year 2013-14

SR. No	Name of the Supplier/Agency	Opening Balance	Units Purchased	Amount	Remarks
			(Kwh)		
1	2	3	4	5	11
	M/s POSOCO SR (fees & Charges)				
1	April'2013			434,273	
2	May'2013			435,033	
3	June'2013			439,632	
4	July'2013			433,626	
5	August'2013			433,626	
6	September'2013			427,693	
7	October'2013			427,693	
8	November'2013			414,691	
9	December'2013			414,691	
10	January'2014			402,729	
11	February'2014			402,729	
12	March'2014			404,304	
	Total		-	5,070,720	



SR. No	Name of the Supplier/Agency	Opening Balance	Units Purchased	Amount	Remarks
			(Kwh)		
1	2	3	4	5	11
	M/s POSOCO WR (AMC SCADA)				
				1,758,532	AMC SCADA charges period 14/04/2013 - 13/07/2013
				1,829,760	AMC SCADA charges period 14/07/2013 - 13/10/2013
				1,841,569	AMC SCADA charges period 14/10/2013 - 13/01/2014
				1,846,696	AMC SCADA charges period 14/01/2014 to 13/04/2014
	Total		-	7,276,557	



Annexure IV: Month wise Power Purchase Details for FY 2014-15

N T P C LIMITED
WESTERN REGION HEADQUARTERS, MUMBAI- 400093
SUMMARY OF FY 2014-15

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

Bill No. WR:14-15: GOA

CUSTOMER: GOA

Sl.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)	724,224,391	18,303,529	115,037,365	42,812,306	36,633,867	42,418,092	31,888,001	27,222,332	27,360,509	77,748,157	37,485,482	-	-	-	-	353,422,110	1534556141.00	
	Energy Charges(Ps/KWH)																		AMT(Rs)
01.	Capacity Charges	406957854	29973644	77695468	28248832	41867931	61003615	57686230	35148248	45693590	115905178	50763131	0	0	0	0	209896103	1160839824	
02.a.	Basic Energy Charges	756187637	19048735	173318250	61084901	50858478	60177881	118438732	72998884	68865913	115178346	56281932	0	0	0	0	845707105	2398146794	
02.c.	Incentive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2651585	2651585	
03.	ED&Cess on APC	46438950	1168187	7396072	2647561	2622292	2531498	0	0	0	4319285	2308748	0	0	0	0	0	69432593	
04.a.	ED&Cess on Sales	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04.b.																			
	Total (Main Bills) Rs.	1209584441	50190566	258409790	91981294	95348701	123712994	176124962	108147132	114559503	235402809	109353811	0	0	0	0	1058254793	3631070796	
05.	Supplementary Charges	(38076455)	396922	61394704	30673044	21826596	(4605362)	(7428176)	409836	405977	2079154	15532713	74	(122)	25	(6)	3724372	86333296	
	URS	0	0	(317353)	0	0	0	(54487)	(78286)	(340386)	(1258802)	(305227)	0	0	0	0	0	(2354541)	
	less rebate additional																	(3084219)	
																		317	
06.	LC Bill (Gross) Rs.	1171507986	50587488	319487141	122654338	117175297	119107632	168642299	108478682	114625094	236223161	124581297	74	(122)	25	(6)	1061979165	3711965649	



NTPC LIMITED
WESTERN REGION HEADQUARTERS, MUMBAI- 400093
LC BILL RAISED IN THE MONTH OF JUN 2014

REF: REA/2014-15/5.0
 Bill No. WR:14-15 : GOA

DATED: 5-Jun-14
 DATED: 6-Jun-14

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

CUSTOMER: GOA

Sl.No.	PARTICULARS	KSTPS	KSTPS 3	VSTPS1	VSTPS2	VSTPS3	VSTPS4	MSTPS1	KGPS	JGPS	SIPAT-1	SIPAT-2	FSTPS	KhSTPS 1	TSTPS	KhSTPS 2	RSTPS	AMT(Rs)	
	Energy scheduled(KWH)	128,238,423	3,765,111	20,206,710	8,950,212	7,131,653	8,551,258	5,625,475	APM: 3531423 N-APM:2259589 Lq : 0 RLNG:	APM: 4935492 RLNG: N- APM: 867928	9,992,799	7,291,029	-	-	-	-	56,895,682		
	Energy Charges(Ps/KWH)	98	102	135	128	127	128	358	APM : 249.6 N-APM : 335.3 Lq : 824.3 RLNG : 988.6	APM : 243.7 RLNG : 1092.7 N- APM : 329.5	175	177	239	311	169	236	245		
01.	Capacity Charges	67,824,965	5,083,926	13,610,568	5,013,438	7,385,365	11,967,599	11,037,748	5855867	7611241	19,087,696	8,108,836	-	-	-	-	34,982,684	197569933	
02.a.	Energy Charges	126,186,608	3,847,943	27,339,679	11,438,371	9,078,594	10,928,508	20,127,950	16390834	14887617	17,477,405	12,919,703	-	-	-	-	139,394,421	410017633	
02.b.	MOPA Charges	-	-	-	-	-	-	-	0	0	-	-	-	-	-	-	-	0	
03.	Incentive	1,572,860	259,785	-	506,393	186,892	319,007	-	0	0	(1,174,852)	238,616	-	-	-	-	(1,328,949)	579752	
04.a.	ED&Cess on APC	7,247,688	183,387	1,192,324	524,506	475,569	504,834	-	-	-	836,827	360,323	-	-	-	-	-	11325458	
04.b.	ED&Cess on Sales	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	
	Total (Main Bills) Rs.	202,832,121	9,375,041	42,142,571	17,482,708	17,126,420	23,719,948	31,165,698	22246701	22498858	36,227,076	21,627,478	-	-	-	-	173,048,156	619492776	
05.	AFC Rvsn -Apr14-VST3, ECR Rvsn SPT_MST	-	3,123	-	-	(66,551)	-	689,281	0	0	47,647	21,033	-	-	-	-	-	694533	
06.	AFC Rvsn - VST-3 (Apr09-Mar14)	-	-	-	-	(1,273,823)	-	-	-	-	-	-	-	-	-	-	-	(1273823)	
07.	AFC Rvsn-KHS1- (FY 09-10 & 10-11)	-	-	-	-	-	-	-	-	-	-	-	-	(86)	-	-	-	(86)	
08.	ULDC Charges- RST-1 (Apr09-Mar14) & RLDC-Mar14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4,953,413	
09.	Adv Tax-FY05-06(KS1,VS1,KGP,JGP,FST,RST)	247,303	-	42,902	-	-	-	-	234	111	-	-	-	-	-	-	-	131,781	
10.	DITL 2013-14 (KST1, VST1)	1,064,528	-	9,957,928	-	-	-	-	-	-	-	-	-	-	-	-	-	11022456	
11.	FERV	891,421	323,374	248,104	5,545,578	1,216,666	-	-	-	-	3,666,912	3,199,018	-	-	-	-	158,080	15249153	
12.	Pollution Chrgs & ULDC-Khs2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	
13.	Interest on Cap charges rvsn (VST3,Khs1)	-	-	-	-	(166,940)	-	-	-	-	-	-	-	(51)	-	-	-	(1)	
14.		0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	
	supplimentary bills	2,203,252	326,497	10,248,934	5,545,578	(290,648)	-	689,281	234	111	3,714,559	3,220,051	-	(137)	-	-	5,243,273		
15.	LC Bill (Gross) Rs.	205,035,373	9,701,538	52,391,505	23,028,286	16,835,772	23,719,948	31,854,979	22246935	22498969	39,941,635	24,847,529	-	(137)	-	-	178,291,429	650393761	
16.																			
17.	Net LC Bill (Gross-Rebate)	205,035,373	9,701,538	52,391,505	23,028,286	16,835,772	23,719,948	31,854,979	22246935	22498969	39,941,635	24,847,529	-	(137)	-	-	178,291,429	650393761	
Details of URS																			
i	Rate of FC for URS@ (Ps/Kwh)	55.58	161.62	65.25	64.94	112.37	158.15	172.36	78.65	100.13	141	124	Credit for URS scheduled by other SEBs					(1053036)	
ii	URS in KWH	0	0	(404311)	0	0	0	0	(66148)	(90289)	(298,603)	(182,120)							
iii	URS in Rs	0	0	(263813)	0	0	0	0	(52025)	(90406)	(420,672)	(226,120)							
	Pooled Energy Charges (Ps/KWh)	1.53	-	REBATABLE	Rs. 607704295													TOTAL PAYABLE (WR + SR) for the month	649340725
	Pooled Capacity Charges (Ps/kWh)	0.74	-	NON-REBATABLE	Rs. 41636430													Less : Addl rebate @ 0.1% (Rs 638424) Bill dtd. 08.05.14	638424
	Pooled Total Charges (Ps/kWh)	2.27	-	Total Bill	Rs 649340725													NET PAYABLE (Rs.)	648702301
For & on behalf of NTPC Ltd.																			



N T P C LIMITED
WESTERN REGION HEADQUARTERS, MUMBAI- 400093
LC BILL RAISED IN THE MONTH OF JUL 2014

REF: REA/2014-15/6.0
 Bill No. WR-14-15 : GOA

DATED: 7-Jul-14
 DATED: 8-Jul-14

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

CUSTOMER: GOA

Sl.No.	PARTICULARS	KSTPS	KSTPS 3	VSTPS1	VSTPS2	VSTPS3	VSTPS4	MSTPS1	KGPS	JGPS	SIPAT-1	SIPAT-2	FSTPS	KhSTPS 1	TSTPS	KhSTPS 2	RSTPS	AMT(Rs)	
	Energy scheduled(KWH)	130492917	3623661	23164381	4392628	7859452	8479874	4210441	APM: 4149450 N-APM:784104 Lq : 0 RLNG: 17332	APM: 4742967 RLNG: N- APM: 258541	10584559	7639381		0	0	0	55891683		
	Energy Charges(Ps/KWH)	99.90	98.70	149.70	141.30	141.30	141.30	383.40	APM : 245.7 N-APM : 330.4 Lq : 824.3 RLNG : 966	APM : 238.5 RLNG : 903.9 N-APM : 324.7	160.80	156.40	298.70	311.80	169.40	272.90	227.000		
01.	Capacity Charges	67826981	5084394	13532209	4714259	7384062	8187295	4248776	5855866	5948489	15523663	8111717	0	0	0	0	34982684	181400395	
02.a.	Energy Charges	130362424	3576553	34677078	6206783	11105406	11982062	16142831	12953306	12151459	17019971	11947992	0	0	0	0	126874120	394999985	
02.b.	MOPA Charges	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
03.	Incentive	4719530	247089	584413	(1033050)	660944	427744	0	0	0	0	360657					(245367)	5721960	
04.a.	ED&Cess on APC	8029757	235756	1233304	546271	435276	521921				580187	433257						12015729	
04.b.	ED&Cess on Sales	0	0	0	0	0	0				0	0						0	
	Total (Main Bills) Rs.	210938692	9143792	50027004	10434263	19585688	21119022	20391607	18809172	18099948	33123821	20853623	0	0	0	0	161611437	594138069	
05.	ECR Rvsn-KST,VST,MST,SPT(May14) & MOPA	(512953)	(18825)	242480	98452	85580	102615	(28128)	21596	0	(389719)	(291641)	0	0	0	0		(690543)	
06.	NLDC Fees & Charges (Apr09-Mar14)	162388	1800	28129	10266	8760	976	953	6917	7071	5390	8753						241403	
07.	ULDC Fees & Charges (Jan14-Mar14)	79752	2051	13839	5025	4281	2596	2516	4652	4749	8938	4256						132655	
08.	WRLDC Fees & Charges- Apr14	100623	4063	19538	7577	6449	7427	7429	8205	8371	11362	6411						116351	
09.	CC Rvsn & Ann Avail Adj-VST-4 & MST-1						#####	(8034636)										(19709954)	
10.	ECR Rvsn - VST (Oct12- Apr14),KST-3(Apr14)		(3123)	56263808	24302442	21484009	6689319											108736455	
11.	REA Rvsn-KST1,KGP,JGP(Dec13)	8544							(35521)	4207								(22770)	
12.	MOPA-KGP,JGP(Apr14)								28547	1602								30149	
13.	KGP-Water Cess,Hajira Tax,NAA Tax,JGP-Transportation Charges								168007	1489448						(2)		1657453	
14.	0																	0	
	suplimentary bills	(161646)	(14034)	56567794	24423762	21589079	(4872385)	(8051866)	202403	1515448	(364029)	(272221)	0	0	0	(2)	116351		
15.	LC Bill (Gross) Rs.	210777046	9129758	#####	34858025	41174767	16246637	12339741	19011575	19615396	32759792	20581402	0	0	0	(2)	161727788	684816723	
16.																			
17.	Net LC Bill (Gross-Rebate)	210777046	9129758	#####	34858025	41174767	16246637	12339741	19011575	19615396	32759792	20581402	0	0	0	(2)	161727788	684816723	
Details of URS																			
i	Rate of FC for URS@ (Ps/kwh)	55.58	161.62	65.25	64.94	112.37	141.50	154.22	78.65	100.13	140.88	124.16	Credit for URS scheduled by other SEBs					(18061)	
ii	URS in KWH	0	0	0	0	0	0	0	0	(18038)	0	0							
iii	URS in Rs	0	0	0	0	0	0	0	0	(18061)	0	0							
	Pooled Energy Charges (Ps/KWh)	1.48		REBATABLE	671955122													TOTAL PAYABLE (WR + SR) for the month	684798662
	Pooled Capacity Charges (Ps/kWh)	0.68		NON-REBATABLE	R 12843540													Less : Addl rebate @ 0.1% (Rs 607704) Bill dtd. 06.06.14	607704
	Pooled Total Charges (Ps/kWh)	2.16		Total Bill	684798662													NET PAYABLE (Rs.)	684190958

For & on behalf of NTPC Ltd.



N T P C LIMITED
WESTERN REGION HEADQUARTERS, MUMBAI- 400093
LC BILL RAISED IN THE MONTH OF SEP 2014

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

REF: REA/2014-15/8.0
 Bill No. WR:14-15 : GOA

DATED: 4-Sep-14
 DATED: 6-Sep-14

CUSTOMER: GOA

Sl.No.	PARTICULARS	KSTPS	KSTPS 3	VSTPS1	VSTPS2	VSTPS3	VSTPS4	MSTPS1	KGPS	JGPS	SIPAT-1	SIPAT-2	FSTPS	KhSTPS 1	TSTPS	KhSTPS 2	RSTPS	AMT(Rs)	
	Energy scheduled(KWH)	112206617	1410210	13550953	6088514	4404967	4825967	5904506	APM: 3053946 N-APM:553789 Lq : RLNG:	APM: 3145452 RLNG: N- APM: 193223	14785402	3282085				0	64540909		
	Energy Charges(Ps/KWH)	109.70	109.40	165.90	156.00	155.10	156.60	389.30	APM: 240.3 N-APM : 333.9 Lq : 0	APM : 243.5 RLNG : 909.8 N-APM : 328	130.40	126.70	298.70	311.80	169.40	250.20	249.300		
																			AMT(Rs)
01.	Capacity Charges	64621302	4129409	10824179	3931235	7376890	8088685	9932793	5859905	8844750	22504107	8100191	0	0	0	0	34982684	189196130	
02.a.	Energy Charges	123090659	1542770	22481031	9498082	6832104	7557464	22986242	9438157	8292947	19280164	4158402	0	0	0	0	160900486	396058508	
02.b.	MOPA Charges	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
03.	Incentive	0	(424011)	0	0	(1422735)	0	0	0	0	0	(443819)					2774474	483909	
04.a.	ED&Cess on APC	7106176	212129	1275882	424245	460674	347846				762792	463762						11053506	
04.b.	ED&Cess on Sales	0	0	0	0	0	0				0	0						0	
	Total (Main Bills) Rs.	194818137	5460297	34581092	13853562	13246933	15993995	32919035	15298062	17137697	42547063	12278536	0	0	0	0	198657644	596792053	
05.	ECR Rvsn-KST,MST,SPT,RST & MOPA-Jul14	2567465	73577	0	0	0	0	(68246)	36699	34217	(175004)	(89932)	0	0	0	0	(291970)	2086806	
06.	RLDC Charges - Jun14	97362	3942	18922	7338	6243	7190	7189	7967	8131	10970	6205					115825	297284	
07.	VST-1 CC Rvsn (2009-14)			(2138961)														(2138961)	
08.	Interest on VST1 CC Rvsn			(509173)														(509173)	
09.	Income Tax Refund FY 2004-05	(47288913)		(6514683)														(79096425)	
10.	ECR Rvsn - RST1 (Jun14)																	5030252	
11.	TDS on a/c of SNo.(8)																	0	
12.	Water Cess -VST1,MST1,Khs2			350103				8330										358433	
13.	Gandhar Transportation Charges									(1777821)								(1777821)	
14.		0																3	
	Total suplimentary bill	(44624086)	77519	(8793792)	7338	6243	7190	(52727)	44666	(1735473)	(164034)	(83727)	0	0	0	0	(20438719)	3	
15.	LC Bill (Gross) Rs.	150194051	5537816	25787300	13860900	13253176	16001185	32866308	15342728	15402224	42383029	12194809	0	0	0	0	178218925	521042451	
16.																			
17.	Net LC Bill (Gross-Rebate)	150194051	5537816	25787300	13860900	13253176	16001185	32866308	15342728	15402224	42383029	12194809	0	0	0	0	178218925	521042451	
Details of URS																			
i	Rate of FC for URS@ (Ps/Kwh)	56.60	164.19	66.51	65.98	114.17	143.76	156.68	78.25	99.61	143.12	126.14	Credit for URS scheduled by other SEBs					(669115)	
ii	URS in KWH	0	0	(80499)	0	0	0	0	(13192)	(222040)	(268361)	0							
iii	URS in Rs	0	0	(53540)	0	0	0	0	(10323)	(221174)	(384078)	0							
	Pooled Energy Charges (Ps/KWh)	1.66		REBATABLE	588938825													TOTAL PAYABLE (WR + SR) for the month	520373336
	Pooled Capacity Charges (Ps/KWh)	0.80		NON-REBATABLE	F (68565489)													Less : Adtl rebate @ 0.1% (Rs) Bill dtd. 06.08.14	
	Pooled Total Charges (Ps/kWh)	2.46		Total Bill	520373336													NET PAYABLE (Rs.)	520373336

For & on behalf of NTPC Ltd.



N T P C LIMITED
WESTERN REGION HEADQUARTERS, MUMBAI-400093
LC BILL RAISED IN THE MONTH OF OCT 2014

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

REF: REA/2014-15/9.0
 Bill No. WR:14-15 : GOA

DATED: 6-Oct-14
 DATED: 7-Oct-14

CUSTOMER: GOA

Sl.No.	PARTICULARS	KSTPS	KSTPS 3	VSTPS1	VSTPS2	VSTPS3	VSTPS4	MSTPS1	KGPS	JGPS	SIPAT-1	SIPAT-2	FSTPS	KhSTPS 1	TSTPS	KhSTPS 2	RSTPS	AMT(Rs)	
	Energy scheduled(KWH)	127187372	3316475	18601104	8108127	2219665	6792267	4017288	APM: 4539073 N-APM:571969 Lq : RLNG:	APM: 4292664 RLNG: N- APM: 188814	14002814	5344232					49865396		
	Energy Charges(Ps/KWH)	118.30	117.00	176.90	166.90	169.80	166.10	389.60	APM : 251.6 N-APM : 337.8 Lq : 884.9 RLNG : 1014.9	APM : 246.7 RLNG : 1000.7 N- APM : 332.1	131.20	128.50	298.70	311.80	169.40	253.70	236.100		
01.	Capacity Charges	71020563	5510408	12736879	5467779	4890853	10067103	11697149	5861148	8139830	22282556	10218954	0	0	0	0	0	34982684	202875906
02.a.	Energy Charges	150462661	3880276	32905353	13532464	3768991	11281955	15651354	13352419	11217053	18371692	6867338	0	0	0	0	0	117732200	399023756
02.b.	MOPA Charges	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03.	Incentive						(286287)											(361800)	(3898087)
04.a.	ED&Cess on APC	7977461	100260	911933	409736	296439	324771				846788	205607							11072995
04.b.	ED&Cess on Sales	0	0	0	0	0	0				0	0							0
	Total (Main Bills) Rs.	229460685	9490944	46554165	19409979	8669996	21673829	27348503	19213567	19356883	41501036	17291899	0	0	0	0	0	149103084	609074570
05.	ECR Rvsn-KST 1/3,SPT 1/2,VST & MOPA-Aug14	1795306	21153	81306	30442	22025	24130	(135804)	33770	13978	(88712)	(19693)	0	0	0	0	0	0	1777901
06.	RLDC Charges - Jul14	97562	3942	18957	7350	6249	7198	7198	7980	8143	10987	6213						114887	296666
07.	NLDC Charges- FST1,Khs1/2, TST1 (Apr09-Mar14)												74	15	25				114
08.	ULDC- Nov13	(641)	(16)	(111)	(40)	(35)	(20)	(20)	(37)	(38)	(72)	(34)							(1064)
09.	CC Rvsn-SPT2 (Apr09-Mar14)											10880996							10880996
10.	Interest- SPT2 CC Rvsn											2516416							2516416
11.	ECR Rvsn-VST (Jan14-Jul14) & KST (Jul14)	102699	3065	1085255	639359	477307	212030												2519715
12.	Gandhar Transportation Charges									22									22
13.	Water Cess - VST (Apr14-Jun14)			38702	11735	9982	9125												69544
14.		0																8	8
	Total supplementrybills	1994926	28144	1224109	688846	515528	252463	(128626)	41713	22105	(77797)	13383898	74	15	25	0	114895		
15.	LC Bill (Gross) Rs.	231455611	9519088	47778274	20098825	9185524	21926292	27219877	19255280	19378988	41423239	30675797	74	15	25	0	149217979	627134888	
16.																			
17.	Net LC Bill (Gross-Rebate)	231455611	9519088	47778274	20098825	9185524	21926292	27219877	19255280	19378988	41423239	30675797	74	15	25	0	149217979	627134888	
Details of URS																			
i	Rate of FC for URS@ (Ps/kwh)	56.60	164.19	66.51	65.98	114.17	143.76	156.68	78.25	99.61	143.12	131.65	Credit for URS scheduled by other SEBs					(587646)	
ii	URS in KWH	0	0	0	0	0	0	(34776)	0	0	(317253)	(60089)							
iii	URS in Rs	0	0	0	0	0	0	(54487)	0	0	(454052)	(79107)							
	Pooled Energy Charges (Ps/KWh)	1.60		REBATABLE		613180215							TOTAL PAYABLE (WR + SR) for the month					626547242	
	Pooled Capacity Charges (Ps/kWh)	0.81		NON-REBATABLE		13367027							Less : Addl rebate @ 0.1% (Rs 560937) Bill dtd. 06.08.					560937	
	Pooled Total Charges (Ps/kWh)	2.42		Total Bill		626547242							NET PAYABLE (Rs.)					625986305	

For & on behalf of NTPC Ltd.



Statement of Power Purchased Expenditure during the year 2014-15 RGPPL

SR. No	Name of the Supplier/Agency	Units Purchased	Amount	Remarks
		(Kwh)		
1	2	3	4	5
	M/sRGPPL			
1	April'2014	-	15,680,662	capacity charges
			9,452	RLDC charges
			789,162	delay payment charges
2	May'2014		16,860,171	capacity charges
			9,414	RLDC charges
			1,080,691	delay payment charges
3	June'2014		13,576,782	capacity charges
			9,148	RLDC charges
			1,069,912	delay payment charges
4	July'2014		10,519,207	capacity charges
			9,167	RLDC charges
			1,279,774	delay payment charges
5	August'2014		9,542,044	capacity charges
			9,167	RLDC charges
			1,863,984	delay payment charges
6	September'2014		1,964,050	capacity charges
			8,928	RLDC charges
			1,247,779	delay payment charges
	Total	-	75,529,494	



Statement of Power Purchased Expenditure during the year 2014-15- NPCIL TAPS

SR. No	Name of the Supplier/Agency	Units Purchased	Amount	Remarks
		(Kwh)		
1	2	3	4	5
	M/s NPCIL Tarapur, Thane			
1	April'2014	7,425,751	21,171,559	Energy bill
			795,480	revision December'13
			6,933	RLDC
			199,187	cess Sept'13 & Oct'13
2	May'2014	7,507,739	21,405,315	Energy bill
			6,887	RLDC
			3,927,648	supplimentary bill due to chane in Mat rate FY 2013-14
			136,176	operate charge for financial year 2014-15
3	June'2014	6,577,189	18,752,224	Energy bill
			6,720	RLDC
			237,841	ULDC &NLDC CHARGES April'09 to March'2014
4	July'2014	8,509,598	24,261,715	Energy bill
		274,363	782,236	Revision in June'2014 REA
		-	6,731	RLDC
5	August'2014	8,341,479	23,781,557	Energy bill
			(467)	Credit revision in Tariff July'14
			6,711	RLDC
			432,747	water cess January' to April'14
6	September'2014	7,968,014	22,716,463	Energy bill
			6,513	RLDC
	Total	46,604,133	138,640,176	



Statement of Power Purchased Expenditure during the year 2014-15 NPCIL KAPS

SR. No	Name of the Supplier/Agency	Units Purchased (Kwh)	Amount	Remarks
1	2	3	4	5
	M/s NPCIL Kakrapar, Surat			
1	April'2014	5,910,303	14,025,740	Energy bill
2	May'2014	7,536,224	17,884,213	Energy bill
			3,239,180	Reimbursement of return on equity due to chane in tax rate for year 2013-14
3	June'2014	8,720,136	20,693,755	Energy bill
6	July'2014	9,698,432	23,015,349	Energy bill
			750,509	Revision in June'2014 REA
7	August'2014	8,953,004	21,251,746	
			28,963	difference in heavy water price revision 2014-15
			290,277	reimbursement of ULDC fees.
8	September'2014	9,677,731	22,972,030	Energy bill
	Total	50,495,830	124,151,762	



Statement of Power Purchased Expenditure during the year 2014-15 Goa Energy Pvt Ltd

SR. No	Name of the Supplier/Agency	Units Purchased	Amount	Remarks
		(Kwh)		
1	2	3	4	5
	M/s GEPL Amona/ptc			
1	April'2014	10,187,720	24,662,802	
2	May'2014	10,095,970	24,333,543	
3	June'2014	10,973,240	26,435,981	
4	July'2014	11,351,720	27,342,482	
5	August'2014	10,742,430	25,876,568	
6	September'2014	8,782,340	21,183,985	
	Total	62,133,420	149,835,361	

GSPL PURCHASE FOR FY 2014-15

Month	Units Purchased from GSPL	Amount billed
Apr-14	274,930	659,832
May-14	842,900	2,022,960
Jun-14	538,440	1,292,256
Jul-14	378,020	907,248
Aug-14	605,890	1,454,136
Sep-14	697,940	1,675,056
Total	3,338,120	8,011,488



Statement of Power Purchased Expenditure during the year 2014-15

SR. No	Name of the Supplier/Agency	Opening Balance	Units Purchased	Amount	Remarks
			(Kwh)		
1	2	3	4	5	11
	M/s Tata power trading company limited, Noida				
	May'2014	-	616,250	2,169,200	Energy bill for short term power procured on 28/04/2014
			220,000	774,400	Energy bill for short term power procured on 29/04/2014
				711,751	Open access charges for the period from 28/04/2014 to 06/05/2014
			5,100,000	15,954,500	Energy bill for short term power procured for period from 01/05/2014 to 08/05/2014
				424,155	open access charges form the period from 7/5/2014 to 9/5/2014
				282,770	Open access charges for the period from 10/05/2011 to 11/05/2011
			2,550,000	7,828,500	Energy bill for short term power procured for period from 09/05/2014 to 11/05/2014
	Total	-	8,486,250	28,145,276	



Statement of Power Purchased Expenditure during the year 2014-15

M/s NVVNL, Noida.

SR. No	Units Purchased	Rate/Kwh	Amount	Remarks
	(Kwh)	including trading margin		
			361,884	short term open access for banking of power for the period from 01/04/2014 to 15/04/2014
	3,435,360	3.32	11,405,395	Energy bill for period 16/04/2014 to 23/04/2014 (8 days)
	4,455,040	3.32	14,790,733	Energy bill for period 24/04/2014 to 30/04/2014(7 days)
	9,399,920	3.32	31,207,734	Energy bill for the period from 01/05/2014 to 08/05/2014(8 days)
	8,215,160	3.32	27,274,331	Energy bill for period 09/05/2014 to 15/05/2014(7 days)
	8,539,800	3.32	28,352,136	Energy bill for period 16/05/2014 to 23/05/2014(7 days))
	2,141,660	3.32	7,110,311	Energy bill for period 24/05/2014 to 31/05/2014 (8 days)
	5,032,350	3.29	16,556,432	Energy bill for period 01/08/2014 to 08/08/2014(8 days)
	5,035,800	3.29	16,567,782	Energy bill for period 09/08/2014 to 15/08/2014(8 days)
	4,316,680	3.29	14,201,877	Energy bill for period 16/08/2014 to 23/08/2014(8 days)
	5,748,180	3.29	18,911,512	Energy bill for period 24/08/2014 to 30/08/2014(8 days)
	56,319,950		186,740,128	



Statement of Power Purchased Expenditure during the year 2014-15

SR. No	Units Purchased	Rate/Kwh	Amount	Remarks
	(Kwh)	including trading margin		
M/s PTC STOA				
1	2,099,835	3.38	7,097,442	Energy bill for period 01/06/2014 to 08/06/2014
2	3,142,720	3.38	10,622,394	Energy bill for period 09/06/2014 to 15/06/2014
3	3,102,120	3.38	10,485,166	Energy bill for period 16/06/2014 to 23/06/2014
4	2,749,810	3.38	9,294,358	Energy bill for period 24/06/2014 to 30/06/2014
5	2,859,165	3.34	9,550,084	Energy bill for period 01/07/2014 to 08/07/2014 & final bill June'2014
6	4,006,160	3.34	13,380,574	Energy bill for period 09/07/2014 to 15/07/2014
7	4,967,540	3.34	16,591,584	Energy bill for period 16/07/2014 to 23/07/2014
8	391,200	3.34	1,306,608	additional power on 22/07/2014
9	5,163,840	3.34	17,247,226	Energy bill for period 24/07/2014 to 31/07/2014
10	4,375,280	4.44	19,426,243	Energy bill for period 01/09/2014 to 08/09/2014
11	3,832,640	4.44	17,016,922	Energy bill for period 09/09/2014 to 15/09/2014
12	4,222,520	4.44	18,747,989	Energy bill for period 16/09/2014 to 23/09/2014
13	3,098,200	4.44	13,756,008	Energy bill for period 24/09/2014 to 30/09/2014
	44,011,030		164,522,597	



UI charges Western region

year-2014-15

Sr.no.	week	UI payable	units in Mus	Rate	UI receivable	units in Mus	Rate
1st	31/03/2014 -06/04/2014				2,135,467	0.27	7.88
2nd	07/04/2014-13/04/2014				192,993	0.59	0.33
3rd	14/04/2014 -20/04/2014	11,354,806	4.28	2.65			
4th	21/04/2014-27/04/2014	24,176,986	6.67	3.63			
5th	28/04/2014-04/05/2014	18,438,218	6.12	3.01			
6th	05/05/2014-11/05/2014	1,560,184				1.21	
7th	12/05/2014-18/05/2014	9,435,058	2.92	3.23			
8th	19/05/2014-25/05/2014				6,586,688	3.18	2.07
9th	26/05/2014 to 01/06/2014	17,191,823	6.03	2.85			
10th	02/06/2014 to 08/06/2014(R1)	25,089,533	5.48	4.58			
11th	09/06/2014 to 15/06/2014	18,178,288	3.85	4.72			
12th	16/06/2014 to 22/06/2014	3,289,302	1.30	2.53			
13th	23/06/2014 to 29/06/2014(R1)	45,535,221	8.72	5.22			
14th	30/06/2014to 06/07/2014(R1)	21,036,261	6.17	3.41			
15th	07/07/2014 to 13/07/2014	25,043,662	4.52	5.54			
16th	14/07/2014 to 20/07/2014	5,611,911	1.69	3.31			
17th	21/07/2014 to 27/07/2014	23,925,703	4.75	5.04			
18th	28/07/2014 to 03/08/2014	36,034,929	9.21	3.91			
19th	04/08/2014 to 10/08/2014	21,777,959	5.90	3.69			
20th	11/08/2014 to 17/08/2014	27,263,600	6.77	4.03			
21st	18/08/2014 to24/08/2014	83,821,180	10.42	8.04			
22nd	25/08/2014 to 31/08/2014				1,366,894	3.45	0.40
23rd	01/09/2014 to07/09/2014	6,889,517	2.08	3.32			
24th	08/09/2014to14/09/2014	17,618,501	4.51	3.91			
25th	15/09/2014to 21/09/2014	9,051,556	2.92	3.10			
26th	22/09/2014 to 28/09/2014	7,734,347	2.06	3.76			
Total A		460,058,545	106.35	4.33	10,282,042	8.70	1.18
	Net Total - WR	460,058,545	106		10,282,042	9	
	Net Total - SR	63,698,505	10		1,403,134	8	
	Net Total - WR + SR	523,757,050	116.54		11,685,176	16.51	
	Net Transaction - WR + SR	512,071,874	100				



UI charges Southernregion

year-2014-15

Sr.no.	week	UI payable	units in Mus	Rate	UI receivable	units in Mus	Rate	Remarks
1st	31/03/2014 -06/04/2014	2,896,378	0.86	3.37				
2nd	07/04/2014-13/04/2014	1,769,093	0.63	2.79				
3rd	14/04/2014 -20/04/2014	1,771,740	0.08	23.33				
4th	21/04/2014-27/04/2014	4,099,425	0.78	5.22				
5th	28/04/2014-04/05/2014	4,787,519	1.58	3.02				
6th	05/05/2014-11/05/2014	2,257,206	0.68	3.30				
7th	12/05/2014-18/05/2014	3,057,710	0.54	5.69				
8th	19/05/2014-25/05/2014	4,386,627	0.17	25.27				
9th	26/05/2014 to 01/06/2014	3,063,226	0.88	3.50				
10th	02/06/2014 to 08/06/2014	2,067,550	0.16	12.63				
11th	09/06/2014 to 15/06/2014	275,854				0.1980		
12th	16/06/2014 to 22/06/2014				138,586.0000	1.3825	0.1002	
13th	23/06/2014 to 29/06/2014	5,272,577	0.77	6.88				
14th	30/06/2014 to 06/07/2014	4,265,434	0.75	5.72				
15th	07/07/2014 to 13/07/2014	2,520,297	0.31	8.15				
16th	14/07/2014 to 20/07/2014				643,733.0000	1.1095	0.5802	
17th	21/07/2014 to 27/07/2014	2,138,644	0.36	5.87				
18th	28/07/2014 to 03/08/2014	190,653				0.8020		
19th	04/08/2014 to 10/08/2014	2,655,034				1.3739		
20th	11/08/2014 to 17/08/2014	2,487,955	0.14	17.56				
21st	18/08/2014 to 24/08/2014	2,943,121				0.0404		
22nd	25/08/2014 to 31/08/2014				620,815.0000	2.6940	0.2304	
23rd	01/09/2014 to 07/09/2014	1,179,144	0.24	4.82				
24th	08/09/2014 to 14/09/2014	1,859,732				0.2078		
25th	15/09/2014 to 21/09/2014	2,035,353	0.39	5.18				
26th	22/09/2014 to 28/09/2014	3,693,701	0.85	4.33				
27th	29/09/2014 to 05/10/2014	2,024,532						
Total A		63,698,505	10.19	6.25	1,403,134.0000	7.8080	0.1797	
Total A+B								
	revision							
	02/06/2014 to 08/06/2014	(605,520.00)						
	09/06/2014 to 13/06/2014	349,424.00						



SR. No	Name of the Supplier/Agency	Units Purchased	Amount	Remarks
		(Kwh)	Rs.	
1	2	4	5	6
	M/s NVVNL Noida			
			51,651	Open access charges for the period from 28/08/2014 to 01/09/2014
			22,444	Open access charges for the period from 02/09/2014 to 03/09/2014
			22,638	Open access charges for the period from 04/09/2014 to 05/09/2014
			58,497	Open access charges for the period from 06/09/2014 to 11/09/2014
			59,174	open access charges form the period from 12/09/2014 to 20/09/2014
			71,996	Open access charges for the period from 21/09/2014 to 30/09/2014
		46,825	374,132	Energy bill from 28/08/2014 to 31/08/2014
		330,000	2,636,700	Energy bill from 01/09/2014 to 15/09/2014
		370,750	2,962,293	Energy bill from 16/09/2014 to 30/09/2014
	Total	747,575	6,259,525	



Annexure V: Month wise Transmission Charges Details – FY 2013-14

Summary of Transmission Charges (WR + SR + KPTCL + Others) for FY 2014-15

S.no	Name of the Supplier/ Agency	Amount	Remarks
1	M/s PGCIL WR, Nagpur	495,547,896	POC Charges
2	M/s PGCIL SR, Banglore	110,493,881	POC Charges
3	M/s KPTCL, Banglore	26,682,910	wheeling charges
4	M/s POSOCO WR	2,575,771	Fees and charges of SLDC
5	M/s POSOCO SR	2,302,940	Fees and charges of SLDC
6	M/s POSOCO WR	3,655,781	SCADA charges
7	M/s MSEDCL	-	reactive charges
8	M/s POSOCO WR	151,045	Reactive charges
9	M/s MSETCL (RGPPL)	13,300,002	wheeling charges
	Total	654,710,226	

Statement of Western Region Transmission Charges during the year 2014-15

SR. No	Name of the Supplier/Agency	Amount	Remarks
1	2 M/s PGCIL WR, Nagpur	3	4
1	April'2014	73,065,292	POC bill for the month April'2014
2	May'2014	74,282,790	POC bill for the month May'2014
		945,180	Deviation charges February'2014
		443,570	Deviation March'2014
		9,885,310	Bill 3 (January'2014 to March'2014)
		2,943,999	ULDC bills and differential bills
3	June'2014	74,051,781	POC month June'2014
4	July'2014	73,776,633	POC month July'2014
5	August'2014	778,787	supplimentary bill
		72,971,353	POC charges for August'2014
		40,489,742	Bill 3 final (April'2014 to June'2014)
6	September'14	71,913,459	POC charges for September'2014
	Total	495,547,896	



Statement of Southern Region Transmission Charges during the year 2014-15

SR. No	Name of the Supplier/Agency	Amount	Remarks
1	2	3	4
	M/s PGCIL SR, Bangalore		
1	April'2014	1,222,910	Differential bill
		12,531,441	POC bill for the month April'2014
2	May'2014	13,958,052	POC bill for the month May'2014
		249,460	Deviation March'2014
		407,661	Deviation April'2014
		22,445,687	Bill 3 (January'2014 to March'2014)
3	June'2014	13,519,142	POC month June'2014
4	July'2014	13,867,677	POC month July'2014
5	August'2014		
		13,850,770	POC charges for August'2014
		4,829,410	Bill 3 final (April'2014 to June'2014)
6	September'14	13,611,671	POC charges for September'2014
	Total	110,493,881	

Statement of KPTCL Wheeling Charges during the year 2014-15

SR. No	Name of the Supplier/Agency	Units Purchased	Amount	Remarks
		(Kwh)		
1	2	3	4	5
	M/s KPTCL, Bangalore (Wheeling charges)			
1	Apr-14		5,244,200	wheeling march'14
2	May-14		5,087,574	wheeling April'14
3	Jun-14		4,093,571	wheeling May'14
4	Jul-14		4,153,425	wheeling June'14
5	Aug-14		3,569,744	wheeling July'14
6	Sep-14		4,534,396	wheeling August'14
	Total	-	26,682,910	



Statement of MSETCL Wheeling Charges during the year 2014-15				
SR. No	Name of the Supplier/Agency	Units Purchased	Amount	Remarks
		(Kwh)		
1	2	3	4	5
M/s MSETCL, Mumbai (Wheeling charges)				
1	Apr-14	2,216,667		
2	May-14	2,216,667		
3	Jun-14	2,216,667		
4	Jul-14	2,216,667		
5	Aug-14	2,216,667		
6	Sep-14	2,216,667		
Total		13,300,002	-	

Statement of Power Purchased Expenditure during the year 2014-15					
SR. No	Name of the Supplier/Agency	Opening Balance	Units Purchased	Amount	Remarks
			(Kwh)		
1	2	3	4	5	11
M/s POSOCO WR (fees & Charges)					
1	April'2014			434,747	
2	May'2014			432,298	
3	June'2014			429,157	
4	July'2014			427,345	
5	August'2014			427,328	
6	September'2014			424,896	
Total			-	2,575,771	

Statement of Power Purchased Expenditure during the year 2014-15					
SR. No	Name of the Supplier/Agency	Opening Balance	Units Purchased	Amount	Remarks
			(Kwh)		
1	2	3	4	5	6
M/s POSOCO SR (fees & Charges)					
1	April'2014			404,304	
2	May'2014			393,262	
3	June'2014			391,688	
4	July'2014			373,895	
5	August'2014			369,995	
6	September'2014			369,796	
Total			0	2,302,940	



Annexure VI: SBI PLR Rate



INTEREST RATES

State Bank of India provides information on the various Interest rates offered by it on various loans and deposit schemes.

Details of Up-to-date interest rates scheme-wise is given in the sections one could click on to.

"Please call SBI's 24X7 helpline through Toll free 1800 11 2211, 1800 425 3800 or Toll number 080-26599990
These are accessible from all landlines and mobile phones in the country"

*	Domestic deposits (below Rs one crore) interest rates revised w.e.f. 01.11.2013.
*	Domestic deposits (Rs one crore & above) interest rates revised w.e.f. 01.11.2013.
*	Benchmark Prime Lending Rate (BPLR): 14.55% with effect from 19.09.2013 and 14.75% with effect from 7.11.2013 .
*	Base Rate: 9.80% with effect from 19.09.2013 and 10.00% with effect from 7.11.2013 .

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Annexure VII: RBI Bank Rate Notification



भारतीय रिज़र्व बैंक
RESERVE BANK OF INDIA
www.rbi.org.in

RBI/2013-14/468

DBOD.No.Ret.BC.88/12.01.001/2013-14

January 28, 2014

All Scheduled Commercial Banks
& Local Area Banks

Dear Sir,

Bank Rate

Please refer to our [circular DBOD.No.Ret.BC.64/12.01.001/2013-14 dated October 29, 2013](#) on the subject.

2. Consequent to the increase in the policy repo rate under the Liquidity Adjustment Facility (LAF) as announced in the [Third Quarter Review of Monetary Policy 2013-14 dated January 28, 2014](#), the Bank Rate stands adjusted by 25 basis points from 8.75 per cent to 9.0 per cent with effect from January 28, 2014.

3. All penal interest rates on shortfall in reserve requirements, which are specifically linked to the Bank Rate, also stand revised as indicated in Annex.

4. Please acknowledge receipt.

Yours faithfully

(Sudha Damodar)
Chief General Manager

Encl: as above



Annexure VIII: Letter to Government for Security Deposit

TIME BOUND / MOST URGENT

No. CEE/Accts-100(SD-Int)/2013-14/ 2780
Office of the
Chief Electrical Engineer,
Govt. of Goa,
Vidyut Bhavan, 4th floor,
Panaji – Goa.
Dated: 17 / 10 /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

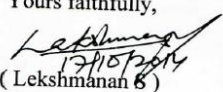
Sir / Madam,

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 Govt. 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 bills of May / June of 2015.

In this connection, you are requested to make the budget provision for total **₹ 8,62,46,936/- (Rupees eight crores sixty two lakhs 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.

Yours faithfully,

(Lekshmanan B)
Chief Electrical Engineer

Encl: Detailed statement of security deposit interest.



Annexure IX: Public Awareness in Local News Papers

**FED UP OF
POWER
FAILURES?**

SO ARE WE!

DO YOU KNOW THAT

- When palm leaves or tree branches touch the high tension lines, the lines trip at the sub-station.
- After 3 trippings the entire (10-30kms) line has to be kept off and patrolled till the fault is detected and branches cut.
 - Regular trippings cause conductor snapping and long duration breakdowns.
- Trees/branches falling on lines cause long duration breakdowns, damage to equipment and could cause fatal accidents.

**RELIABLE POWER FOR ALL
ONLY WITH YOUR SUPPORT**

- Please do not plant trees under or in close proximity to our lines.
- Cut trees / branches which are a danger to the lines.

Issued in Public Interest by Chief Engineer, Electricity Dept., Govt of Goa.



HELP US TO SERVE YOU BETTER

PRECAUTIONS TO BE TAKEN DURING THE MONSOON


- 1) Keep a safe distance from electric poles, transformers structures and lines.
- 2) Do not tie cattle and animals to electric poles, stay wires, structures and other supports carrying electrical wires.
- 3) Do not touch any power line conductor found lying on the ground or dangling from poles due to snapping, if found so, cordon off that area and intimate the Officials on duty at the nearest office of the Department.
- 4) Please report any sparking of lines, glowing observed on the poles or structures to our nearest office.
- 5) In case of Electrical Accident or shock, report immediately to the Officials on duty at our nearest office.
- 6) Please ensure that coconut tree leaves/branches of trees planted by you do not come in close proximity to or touch the electric lines as it can be dangerous to you. Please contact our nearest office for assistance for trimming trees, belonging to you in the vicinity of overhead distribution lines.

For public assistance please contact the nearest Sub-Station/Office of the Electricity Department.



Annexure X: Power Sale Agreement from SECI

ROM : SECRETARY OF SPORTS FAX NO. : 08322419616 Jul. 23 2014 01:00PM P1 1/c

 Secretary (Power)
Inward No. 7079/12
Date: 22/7/14

भारतीय सौर उर्जा निगम
(भारत सरकार का उपक्रम)
Solar Energy Corporation of India
(A Government of India Enterprise)

No.: SECI/JNNSM/P-2/B-1/Power Sale/851 Date: 11th July, 2014

Sub: Allocation of Solar Power from 750 MW Solar PV Projects under Phase-II, Batch-I of Jawaharlal Nehru National Solar Mission (JNNSM)

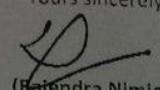
Dear Sir,

I am writing this letter in connection with allocation of power under recently launched MNRE Scheme "750 MW Solar PV Projects under Phase-II, Batch-I of JNNSM" for which Solar Energy Corporation of India (SECI) has been designated by the MNRE as the implementing agency. The scheme is based on the concept of providing Viability Gap Funding to make solar power available at a fixed tariff of Rs.5.50/ kWh for a period of 25 years. Selection of project developers has been done by SECI through a transparent open bidding. As per provisions of the scheme, SECI shall procure power from the selected developers and sell it to Utilities. SECI has already entered into long term Power Purchase Agreements (PPAs) with the developers. The scheduled commissioning date of projects under this scheme is 28th April, 2015.

It may be mentioned that response to MNRE letter No. 29/5(5)/2010-11/JNNSM/ST-Part dated 30th April, 2013 to the States has been overwhelming and exceeds the available solar capacity. Based on the capacity indicated by your State vide D.O. No. 101/01/Solar/CEE/TECH/140546208 dated 12th July 2013 and taking cognizance of the State-specific solar RPO requirements, SECI is pleased to offer 10 MW solar capacity from this scheme to the Union Territory of Goa. You are requested to confirm the same by 25th July, 2014 along with identification of concerned DISCOM so that Power Sale Agreement could be signed between SECI and the DISCOMs soon after that.

The PSA has been framed in line with the PSAs signed earlier by DISCOMs with NTPC Vidyut Vyapar Nigam Ltd. (NVVNL) for buying solar power under JNNSM Phase-I projects. For ready reference, a copy of the PSA may be downloaded from www.seci.gov.in.

Thanking you,
with regards,

Yours sincerely,

(Rajendra Nimje)
Managing Director

Shri Keshav Chandra, IAS
Secretary (Power)
Electricity Department,
Govt. of Goa, Panaji 403 001

Regd. Office : D-3, 1st floor, Wing-A, Religare Building, District Center, Saket, New Delhi - 110017
Phone : (011) 71989200, Fax : (011) 71989244, Email : corporate@seci.gov.in, Website : www.seci.gov.in
CIN : U40106DL2011NPL225263



**TARIFF FILING FORMATS
FOR FY 2013-14 to FY 2017-18**

ELECTRICITY DEPARTMENT, GOA