



TARIFF ORDER

**Business Plan for the MYT Control Period FY 2015-16 to FY 2017-18
And
Annual Performance Review for FY 2014-15,
And
Determination of Aggregate Revenue Requirement
And Retail Supply Tariff for FY 2015-16**

Petition No. 160/2015

Petition No. 161/2015

**For
Electricity Department, State of Goa**

JOINT ELECTRICITY REGULATORY COMMISSION

FOR GOA AND UNION TERRITORIES

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6th April, 2015

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Secretary

**Joint Electricity Regulatory Commission
For the State of Goa & Union Territories**

CONTENTS

1.	INTRODUCTION.....	13
1.1	JERC Introduction	13
1.2	Electricity Department of Goa.....	13
1.4	Filing of Petition	14
1.5	Admission of Petition	14
1.6	Interaction with the Petitioner	15
1.7	Public Hearing process	18
1.8	Notice for Public Hearing.....	19
1.9	Approval of the Business Plan	21
2.	Summary of the Review of FY 2014-15 and ARR Petition for MYT Control Period FY 2015-16 to FY 2017-18	24
2.1	Introduction.....	24
2.2	Summary of the Review for FY 2014-15 & ARR for FY 2015-16.....	25
2.3	Prayer to the Commission	26
3.	Approach of the order for determination of Review for FY 2014-15 & ARR for FY 2015-16 to FY 2017-18	28
3.1	Introduction.....	28
4.	Summary of the objections/suggestions received, ED-Goa’s responses and commission’s views ...	31
5.	Review of ARR for FY 2014-15.....	85
5.1	Background.....	85
5.2	Analysis of Review for FY 2014-15.....	86
5.3.1	Number of Consumers.....	87
5.3.2	Connected Load.....	90
5.3.3	Energy sales	94
5.4	Intra-state Transmission & Distribution Loss	99
5.5	Inter-State Transmission Loss.....	100
5.6	Energy Balance.....	101
5.7	Power Purchase Quantum and Cost.....	104
5.8	Renewable Purchase Obligations	120
5.9	Operation and Maintenance Expenses	122
5.9.1	Employee Cost	122
5.9.2	A&G Expenses.....	124
5.9.3	R&M Expenses	126
5.10	Capital Expenditure and Capitalization	127
5.11	GFA and Depreciation.....	129
5.12	Interest and Finance Charges	132
5.13	Interest on Working Capital.....	135

5.14	Interest on Security Deposit	137
5.15	Return on capital base/Net fixed assets.....	139
5.16	Non-Tariff Income.....	140
5.17	Aggregate Revenue Requirement (ARR) for FY 2014-15	140
5.18	Revenue at Existing Tariff for FY 2014-15.....	141
5.19	Revenue Gap for FY 2014-15	145
6.	Aggregate Revenue Requirement (ARR) for FY 2015-16	147
6.1	Background.....	147
6.2	Analysis of Aggregate Revenue Requirement for FY 2015-16.....	148
6.3	Consumers, connected Load and Energy Sales	151
6.3.1	Number of Consumers.....	151
6.3.2	Connected Load.....	153
6.3.3	Energy Sales.....	156
6.4	Intra-State Transmission & Distribution Loss	167
6.5	Inter-State Transmission Loss.....	168
6.6	Power Purchase Quantum and Cost for FY 2015-16	169
6.7	Operation and Maintenance Expenses.....	190
6.7.1	Operation & Maintenance Expenses.....	191
6.7.2	Capital Expenditure and Capitalization	196
6.7.3	GFA and Depreciation.....	197
6.7.4	Interest and Finance Charges	199
6.7.5	Interest on Working Capital.....	200
6.7.6	Interest on Security Deposit.....	202
6.7.7	Return on Equity.....	204
6.7.8	Non-Tariff Income	205
6.8	Aggregate Revenue Requirement (ARR) for FY 2015-16.....	206
6.9	Revenue at Existing Tariff and Revenue Gap for FY 2015-16	207
7.	Compliance of Directives	211
7.1	Compliance of Directives	211
7.2	New Directives issued in this Tariff Order	226
8.	Tariff Philosophy and Category-wise Tariffs for FY 2015-16.....	231
8.1	Preamble	231
8.2	Revenue Gap for FY 2015-16 and Recovery	231
8.3	Tariff Philosophy and Structure	233
8.3.1	Rationalization of Tariff Categories	233
8.3.2	Tariff Proposal	234
8.4	Average Cost of Supply	241
8.5	Tariff Initiatives	243
8.6	Estimated Revenue and Surplus/Deficit at revised Tariff for FY 2015-16	244

8.7 Applicability of Tariffs	247
9. Determination of Open Access Charges	248
10. Conclusion of Commission's Order	258
11. General Conditions and Tariff Schedule	262

LIST OF TABLES

Table 1.1: Details of public notice published by the Petitioner	18
Table 1.2: Details of Public Notice Published by the Commission	19
Table 1.3: Details of Public Notice Published by the Commission	20
Table 2.1: Summary of the petition for Review of FY 2014-15 & ARR for MYT Period	25
Table 5.1 Number of Consumers projected for FY 2014-15(RE) by the Petitioner	87
Table 5.2 Number of Consumers approved by the Commission in Review of FY 2014-15	89
Table 5.3 Connected Load Projected by the Petitioner for FY 2014-15(RE).....	91
Table 5.4 Connected Load approved by the Commission in Review for FY 2014-15	92
Table 5.5 Projected Energy Sales for FY 2014-15	95
Table 5.6 Energy Sales Approved by the Commission for FY 2014-15.....	98
Table 5.7 Projected Energy Balance for the year FY 2014-15.....	101
Table 5.8: Energy Balance proposed and approved by the Commission for FY 2014-15	102
Table 5.9: Solar & Non-Solar RPO Status FY 2014-15	106
Table 5.10: Projected Power Purchase Summary for FY 2014-15.....	108
Table 5.11: Approved Power Purchase for H1 FY 2014-15 (April to September)	109
Table 5.12: Approved Power purchase quantum from NTPC stations under merit order dispatch for H2 of FY 2014-15.....	113
Table 5.13: Approved Power purchase Cost for H2 FY 2014-15 from NTPC stations.....	114
Table 5.14: Approved Power purchase quantum from NPCIL stations under merit order dispatch for H2 of FY 2014-15.....	116
Table 5.15: Approved Power purchase Cost for NPCIL Stations for H2 of FY 2014-15.....	116
Table 5.16 Approved Power purchase quantum and Cost for Co-Gen for H2 of FY 2014-15.....	117
Table 5.17: Approved Power purchase quantum and Cost for Traders for H2 of FY 2014-15	118
Table 5.18: Power Purchase cost approved for October 14 to March 2015	119
Table 5.19: Power Purchase cost approved for FY 2014-15	119
Table 5.20: Approved RPO Obligations for FY 2014-15.....	121
Table 5.21: Employee expenses approved for FY 2014-15 (RE).....	124
Table 5.22: A&G expenses approved for FY 2014-15 (RE).....	125
Table 5.23: R&M expenses approved for FY 2014-15 (RE).....	127
Table 5.24: O&M expenses approved for FY 2014-15(RE)	127
Table 5.25: Capital Expenditure and Capitalization projected by the Petitioner for FY 2014-15(RE) .	128
Table 5.26: GFA and Depreciation projected by the Petitioner for FY 2014-15(RE)	130
Table 5.27: GFA approved by the Commission for FY 2014-15 (RE).....	131
Table 5.28: Depreciation approved for FY 2014-15 (RE).....	131
Table 5.29: Interest & Finance Charges for FY 2014-15(RE) projected by the Petitioner	132
Table 5.30: Interest on normative loan approved for FY 2014-15 (RE)	134
Table 5.31: Interest on working capital approved by the Commission for FY 2014-15.....	137

Table 5.32: Interest on Security Deposit approved for FY 2014-15(RE)	138
Table 5.33: Return on Capital base approved for FY 2014-15(RE)	140
Table 5.34: Aggregate Revenue Requirement (ARR) approved for FY 2014-15(RE)	141
Table 5.35: Revenue at existing tariff approved for FY 2014-15 (RE).....	142
Table 5.36: Revenue Gap approved for FY 2014-15 (RE)	145
Table 6.1: Projected Number of Consumers for FY 2015-16	151
Table 6.2: Number of consumers approved by the Commission for FY 2015-16 (Nos.).....	152
Table 6.3: Connected Load for FY 2015-16 submitted by Petitioner.....	153
Table 6.4: Approved Connected Load (KW/KVA/HP) for FY 2015-16	155
Table 6.5: Projections of Sales (MUs) for FY 2015-16	157
Table 6.6: LTD Domestic Sales (MUs).....	158
Table 6.7: LTD LIG and LT Domestic Mixed Sales (MUs)	158
Table 6.8: LTC/Commercial Consumers Sales (MUs)	159
Table 6.9: LT Motive Power Consumers Sales (MUs)	159
Table 6.10: LTP Ice Manufacturing Consumers Sales (MUs)	159
Table 6.11: LTP Mixed Hotel Industries Sales (MUs)	160
Table 6.12: LT Agriculture, Public Lighting & Public Water Works Sales	160
Table 6.13: HT Mixed sales (MUs)	160
Table 6.14: HTI/Industrial sales (MUs).....	161
Table 6.15: HT Hotel Industries and Ice Manufacturing Consumers (MUs).....	161
Table 6.16: HTI (Ferro Metallurgical/Steel melting/Power Intensive) Sales (MUs)	162
Table 6.17: HTAG/Agriculture Sales (MUs).....	162
Table 6.18: EHTI/Industrial Sales (MUs).....	162
Table 6.19: HT PW/Public Water Supply and Sewage Sales (MUs).....	163
Table 6.20: HTMES/Defense Sales (MUs).....	163
Table 6.21: HT Industrial (Steel Rolling) Sales (MUs).....	163
Table 6.22: HT Industries (High tech) Sales (MUs)	164
Table 6.23: Temporary Consumers, Hoarding /Sign Board (MUs)	164
Table 6.24: Summary of the category wise Energy sales projected for FY 2015-16 (MUs) by the petitioner	164
Table 6.25: Approved Category wise Energy sales for FY 2015-16	166
Table 6.26: T&D Loss Trajectory for FY 2015-16	167
Table 6.27: Intra-state- Transmission loss & Distribution Loss Reduction (%) approved for FY 2015-16	168
Table 6.28: Projected Power Purchase Quantum for FY 2015-16 (MUs).....	169
Table 6.29: Projected Fixed Cost and Variable Cost for CGS for FY 2015-16.....	170
Table 6.30: Details of RPO Obligation for ED-Goa from FY 2013-14 to FY 2015-16	172
Table 6.31: Escalation of Transmission Charges	174
Table 6.32: Transmission Charges for Withdrawal of Power.....	175

Table 6.33: Transmission Charges for Generators	175
Table 6.34: Summary of Transmission Charges projected for FY 2015-16.....	176
Table 6.35: Power Purchase Quantum and Cost projected for FY 2015-16.....	176
Table 6.36: Approved Power Purchase Quantum from NTPC stations under Merit Order Dispatch for FY 2015-16	180
Table 6.37: Approved Power Purchase Cost for NTPC stations for FY 2015-16.....	181
Table 6.38: Approved Power purchase quantum from NPCIL stations under merit order dispatch for FY 2015-16	183
Table 6.39: Approved Power Purchase Cost for NPCIL Stations for FY 2015-16.....	183
Table 6.40: Approved Power purchase quantum and Cost for Co-Generation for FY 2015-16	184
Table 6.41: Approved Power purchase quantum and Cost from Traders and Short Term Power purchasers for FY 2015-16	184
Table 6.42: Details of RPO Obligation for ED-Goa approved for FY 2015-16	186
Table 6.43: Approved Power Purchase Cost for FY 2015-16	187
Table 6.44: Energy Balance Submitted by the Petitioner for FY 2015-16	189
Table 6.44: Energy Balance approved for FY 2015-16	189
Table 6.45: O&M Expenses approved for FY 2015-16)	196
Table 6.46: Capital Expenditure and Capitalization for FY 2015-16	196
Table 6.47: Depreciation projected by the Petitioner for FY 2015-16 (Rs. Crore)	197
Table 6.48: Net additions to GFA during FY 2015-16 (Rs. Cr)	198
Table 6.49: Depreciation approved for FY 2015-16 (Rs. Crore)	198
Table 6.50: Interest on Loan for FY 2015-16 (Rs. Crore).....	199
Table 6.51: Interest on loan approved for FY 2015-16 (Rs. Crore).....	200
Table 6.54: Interest on working capital projected for FY 2015-16.....	201
Table 6.52: Interest on working capital approved for FY 2015-16 (Rs. Crore)	202
Table 6.53: Interest on security deposit projected for FY 2015-16.....	202
Table 6.54: Interest on security deposit approved for FY 2015-16	203
Table 6.55: Return on equity projected for FY 2015-16.....	204
Table 6.56: Return on Capital Base approved for FY 2015-16 (Rs. Crore).....	205
Table 6.57: Aggregate Revenue Requirement projected for FY 2015-16	206
Table 6.58: Aggregate Revenue Requirement approved for FY 2015-16.....	206
Table 6.59: Revenue at existing Tariff submitted by the Petitioner for FY 2015-16	207
Table 6.60: Projected Revenue Gap for FY 2015-16	208
Table 6.61: Revenue at existing Tariff approved by the Commission for FY 2015-16	209
Table 6.61: Approved Revenue Gap for FY 2015-16.....	210
Table 8.1: Existing and Proposed Tariff for FY 2015-16 as proposed by the Petitioner	234
Table 8.2: Commission's Approved Tariff for FY 2015-16	239
Table 8.3: Average revenue as percentage of ACOS at Existing Tariff for FY 2015-16	241
Table 8.4: Average revenue as percentage of ACOS at Revised Tariff for FY 2015-16	242

Table 8.5: Total Revenue estimated by the Commission at revised tariff for FY 15-16	244
Table 8.6: Estimation of ARR Gap/Surplus at revised tariff for FY 2015-16.....	246
Table 9.1: Allocation Statement Wheeling & Retail Supply	248
Table 9.2: Segregation of ARR into Wheeling & Retail Supply for Control Period.	249
Table 9.3: Wheeling Charges and Losses for FY 2015-16	250
Table 9.4: Wheeling Charges and Losses for FY 2015-16	250
Table 9.5: Computation of Top 5% Power for FY 2015-16	251
Table 9.6: Computation of Total Cost for FY 2015-16.....	252
Table 9.7: Computation of Cross Subsidy Surcharge for FY 2015-16	252
Table 9.8: Determination of input energy for network usage percentage Approved by the Commission	253
Table 9.9: Segregation of ARR into wheeling and retail supply for FY 2015-16.....	254
Table 9.10: Wheeling Charges and losses approved for FY 2015-16.....	255
Table 9.11: Computation of Top 5% Power for FY 2015-16 Approved by the Commission.....	256
Table 9.12: Calculation of 'T'	257
Table 9.13: Approved computation of Cost for FY 2015-16	257
Table 9.14: Approved Cross Subsidy Surcharge for FY 2015-16.....	257

LIST OF ANNEXURES

- Annexure 1** Admission of the ARR and Tariff Petition for FY 2015-16 by the Commission
- Annexure 2** Dates/Newspaper name-date of Publication of public notice inviting objections or suggestions on the Petition on the Approval of Tariff Petition by the Utility.
- Annexure 3** Public Notices published by the Commission intimating the date and place of public hearing on the ARR & tariff petition for FY 2015-16
- Annexure 4** List of Objectors
- Annexure 5** Letter from Government of Goa for Budgetary Support

ABBREVIATIONS

Abbreviation	:	Full Form
A&G	:	Administration & General Expenses
Act	:	The Electricity Act, 2003
ARR	:	Aggregate Revenue Requirement
CAGR	:	Compound Annualized Growth rate
Capex	:	Capital Expenditure
CEA	:	Central Electricity Authority
CERC	:	Central Electricity Regulatory Commission
COD	:	Commercial Operation Date
Commission	:	Joint Electricity Regulatory Commission for the state of Goa and Union Territories
CKt. Km	:	Circuit Kilometer
DISCOM/A&N	:	Electricity Department, UT of Andaman & Nicobar Islands
D/C	:	Double Circuit
DS	:	Domestic Supply
EA 2003	:	The Electricity Act, 2003
ED-Goa	:	Electricity Department of Goa
FC	:	Fixed Charges
FY	:	Financial Year
GFA	:	Gross Fixed Assets
GoG	:	Government of Goa
HP	:	Horse Power
HPP	:	Hired Power Plant
HSD	:	High Speed Diesel Engines
HT	:	High Tension
JERC	:	Joint Electricity Regulatory Commission for the state of Goa and Union Territories
kVA	:	Kilo Volt Ampere
kWh	:	Kilo Watt Hour
LPS	:	Late Payment Surcharge

Abbreviation		Full Form
LT	:	Low Tension
MU	:	Million Unit
MW	:	Mega Watt
MYT	:	Multi Year Tariff
NDS	:	Non Domestic Supply
NTPC	:	National Thermal Power Corporation
O/H	:	Over head
O&M	:	Operation & Maintenance
PLF	:	Plant Load Factor
RoE	:	Return on Equity
RPO	:	Renewable Purchase Obligation
R&M	:	Repair & Maintenance
SCL	:	Sanctioned Connected Load
S/C	:	Single Circuit
SBI PLR	:	SBI Prime Lending Rate
SPCL	:	Suryachakara Power Corporation Limited
T&D	:	Transmission & Distribution
UoM	:	Unit of Measurement
VAR	:	Volt Ampere Reactive
VC	:	Variable Charges

Before
**Joint Electricity Regulatory Commission for the State
of Goa and Union Territories**
Gurgaon

Quorum¹
S.K. Chaturvedi (Chairman)

Petition No. 160/2015.

Petition No. 161/2015.

In the matter of

Approval of Business Plan for the MYT Control Period from FY 2015-16 to FY 2017-18

And

Annual Performance Review for FY 2014-15 and approval of MYT for the Period of
FY 2015-16 to FY 2017-18 and Tariff Proposal for FY 2015-16

And

In the matter of

Electricity Department, Goa _____ Petitioner.

¹ As per Section 93 of the Electricity Act, 2003; no act or proceedings of the Appropriate Commission shall be questioned or shall be invalidated merely on the ground of existence of any vacancy or defect in the constitution of the Appropriate Commission. Therefore, Shri S K Chaturvedi the chairperson of the JERC constituted the valid Quorum for the public hearing in respect of the determination of the ARR & tariff for FY 2015-16, due to vacancy in the position of member at that time.

ORDER

Date: 6th April, 2015

1. INTRODUCTION

1.1 JERC Introduction

In exercise of the powers conferred by Section 83 of the Electricity Act, 2003 the Central Government constituted a two member (including Chairperson) Joint Electricity Regulatory Commission for all Union Territories except Delhi to be known as “Joint Electricity Regulatory Commission for Union Territories” with headquarters at Delhi as notified vide notification no. 23/52/2003 – R&R dated 2nd May, 2005. Later on with the joining of the state of Goa, the Commission came to be known as “Joint Electricity Regulatory Commission for the State of Goa and Union Territories” as notified on May 30’ 2008. The Joint Electricity Regulatory Commission for the State of Goa and Union Territories (Andaman & Nicobar Islands, Chandigarh, Dadra and Nagar Haveli, Daman & Diu, Lakshadweep and Puducherry) started functioning with effect from September 2008. Office of the Commission is presently located in the district town of Gurgaon, Haryana.

1.2 Electricity Department of Goa

The Electricity Department of Goa herein called ED-Goa, a deemed licensee under Section 14 of the Electricity Act 2003, is carrying on the business of transmission, distribution and retail supply of electricity in the State of Goa. The ED-Goa is functioning as an integrated distribution licensee for the State of Goa.

Goa, a tiny emerald land on the west coast of India, the 25th State in the Union of States of India, was liberated from Portuguese rule in 1961. It was part of the Union territory of Goa, Daman & Diu till 30 May 1987 when it was carved out to form a

separate State. Goa covers an area of 3702 square kilometres and comprises of two Revenue districts viz North Goa and South Goa. Boundaries of Goa State are defined in the North by the Terekhol River which separates it from Maharashtra, in the East and South by Karnataka State and in the West by due Arabian Sea.

Goa, for the purpose of revenue administration is divided into two-districts viz. North and South Goa with headquarters at Panaji and Margao respectively. The entire State comprises 11 talukas. For the purpose of implementation of development programs, the State is further divided into 12 community development blocks.

1.3 JERC Tariff Regulations

The Commission, in exercise of the powers conferred upon it by the Electricity Act, 2003, has notified JERC (Terms and Conditions for Determination of Tariff) Regulations, 2009 for determination of tariff (hereinafter referred to as JERC Tariff Regulations). JERC has also notified JERC (Multi Year Distribution Tariff) Regulations, 2014. However, the Commission has taken a decision to postpone the applicability of these Regulations. These Regulations will now be applicable for determination of Tariff in all cases covered under these Regulations from April 1st, 2016 upto March 31st, 2018 (i.e. FY 2016-18)

1.4 Filing of Petition

The ED-Goa filed its petition for Annual Performance Review for FY 2014-15 and determination of ARR for MYT Period FY 2015-16 to FY 2017-18 and Retail Tariff for FY 2015-16 in accordance with the above Regulations and as per the procedure outlined in section 61,62 and 64 of the Electricity Act, 2003. The Petition was filed by the ED-Goa on 14.01.2015 and was received by the Commission on 20.01.2015.

1.5 Admission of Petition

After initial scrutiny and analysis of the petition, the Commission admitted the

petition on Business Plan, ARR for MYT Period & tariff determination for FY 2015-16 to FY 2017-18 on 3rd February, 2015 and numbered them as petitions No. 160/2015, 161/2015 respectively. The Petitioner was directed to publish the summary of the ARR petition and the tariff proposal in leading newspapers of the State and upload the petition on its website. A copy of the Admission Order dated 3rd February, 2015 is annexed herewith as **Annexure 1** to this Order.

1.6 Interaction with the Petitioner

The staff of the Commission interacted regularly with the Petitioner to seek clarifications, additional information and justification on the various issues essential for the analysis of the tariff petition. The staff of the Commission and the Petitioner in the Commission's Office on 19.02.2015 also discussed key issues related to the petition, which included power purchase cost, estimated sales and revenue, etc. A technical validation session was conducted with the Petitioner during which discrepancies in the petitions and additional information required by the Commission were sought.

Accordingly, the following additional information /clarifications from the Petitioner were sought by the Commission vide letter dated 19.02.2015:

1. Break up at category wise and slab wise actual sales number of consumers and connected load for H1 and H2 separately for FY 2011-12, FY 2012-13 and FY 2013-14.
2. Copies of Annual Accounts for FY 2011-12 and FY 2013-14.
3. Unmetered Services: As per the orders of the Commission dated 12.11.2014 there are 935 unmetered services.

The program for metering the services;

4. Statement from SLDC/RLDC giving details of prevailing frequency at the time of transaction, UI charges paid/received and additional UI charges paid if any
5. Reasons for showing a negative value for the power supplied from an IPP within Goa.
6. Copy of the Regional transmission account statement for Novemer-2014 as it was stated to be the basis for calculating the transmission charges for FY 2014-15 as well as the MYT control period.
7. Details of supplementary bills said to have been paid to NTPC
8. Details and break up of additional Income Tax pertaining to 2007 said to have been paid to NTPC stations.
9. In case of power purchase through trading, a statement containing name of agency, power purchased, total amount, trade margin paid etc., month wise for FY 2013-14 and FY 2014-15(H1) giving copies of the bills.
10. It is stated that future power allocation is there from the following plants to ED/Goa, with CODs in FY 2015-16 (P22 Of BP) and PPAs are executed
 - A. Barh-II COD/12/2015
 - B. Ratnagiri (Dabhol) stage-II COD/12/2015
 - C. Kakrapar Atomic plant- (unit 3&4)- COD for Unit3-6/2015 and Unit-4-12/2015

However, no power supply from these plants except from Barh-II is considered in the MYT control period ending in 2017-18.

11. Interstate transmission losses in the delivery of the power allocated from the stations located in the Southern region is considered at 12.5%, which is very high, Reasons may please be provided.
12. In the energy balance sheet of 13-14,(p 32 of the petition) the transmission losses are considered as 4.69%, whereas in FY 2014-15 they are considered at 5.43% considering the high losses involved during exigencies ,when the allocated power from SR is transferred through WR. But the loss levels in the SR for the entire control period of 3 years is also considered at the level corresponding to the exigency(12%)(para 5.7.4 on Page 61 of the petition and 7.5 on page 78 of B.P) and total transmission losses are considered at 5.33%,5.2% and 5.04% respectively (P 69 of the petition). Projections should be normal level and any exigency will be adjusted during True –up.
13. Capitalization of schemes projected during the control period (Table 62 on page 85 of BP) includes erection and augmentation of 33 KV S/S (item 5 of the table). The Scheme cost is Rs. 12.42 Cr; Expenditure proposed between FY 2014-15 to FY 2017-18 is Rs. 12.42 Cr. But amount proposed to be capitalized in FY 2014-15 is Rs. 20 Cr and that in FY 2016-17 and 2017-18 is Rs. 5 Cr totalling up to Rs 25 Cr. How twice the amount of capital expenditure as well as estimated cost can be capitalized.
14. As stated on page 167 of the petition, an amount of Rs. 44,159 is paid to KAPS in June, 2013 under “Self-insurance fund @1.5 p/KWH for hot zone units”. The details of this may be furnished along with a copy of the approval for making such payments from the competent authority.
15. As seen from page 186 of the petition delayed payment charges were paid to RGPPL in 2014-15. A month wise statement of rebates obtained in the power

purchase and late payment surcharge made to the generators, traders etc., may please be given month wise for FY 2013-14 and FY 2014-15(H1).

The replies to these queries have been provided by the Petitioner vide submission dated 20.02.2015 and 18.03.2015.

The various submissions made by the Petitioner have been discussed by the Commission at appropriate places in the Tariff Order along with the Commission's analysis on the same.

1.7 Public Hearing process

The Commission directed the Petitioner to publish the summary of the ARR and Tariff proposals in the abridged form and manner, as approved by the Commission in accordance with section 64 of the Electricity Act 2003. Accordingly, the notices were published by the Petitioner for inviting objections/ suggestions on its petition from different stakeholders. Details of public notices issued are tabulated below:

Table 1.1: Details of public notice published by the Petitioner

S. No.	Date	Language	Name of Newspaper
1.	20.02.2015	Marathi	Gomantak
2.	20.02.2015	English	Times of India
3	20.02.2015	Konkani	Sunaprant

The Petitioner also uploaded the petition on its website (www.electricity.goa.gov.in) for inviting objections and suggestions on their petition. The Commission also uploaded the petition on its website (www.jercuts.gov.in).

Interested parties / stakeholders were requested to file their objections / suggestions

on the petition on or before 27.02.2015. The copies of the paper cuttings of the public notice are annexed as **Annexure 2** to this Order.

Commission received one written objection / suggestion on the petition, by the last date for filing objections/suggestions i.e. 27th February, 2015.

The Commission scheduled the Public Hearing on 11th March, 2015 and again on 26th March, 2015.

1.8 Notice for Public Hearing

The Commission published public notices in the leading newspapers giving due intimation to the stakeholders, consumers, objectors and the public at large about the Public Hearing to be conducted by the Commission on 11th March, 2015 at Nalanda Hall, 5th Floor, EDC House, Dr. A.B. Road, Panaji, Goa for all consumers on Business plan and MYT Petition for FY 2015-16 to FY 2017-18. The details of the newspapers in which the public notices were published are as given below:

Table 1.2: Details of Public Notice Published by the Commission

S. No.	Date	Language	Name of Newspaper
1.	26.02.2015	Konkani	Sunaprant
2.	26.02.2015	Marathi	Gomantak
3	26.02.2015	English	O Herald
3.	10.03.2015	Marathi	Gomantak
4.	10.03.2015	Konkani	Sunaprant
5.	10.03.2015	English	O Herald

During the Public hearing conducted on March 11th, 2015, it was observed that the public response was not as expected by the Commission. Only two to three consumers gave their public representation and the Commission didn't receive hard copy of any objections prior to the hearing. Since this time the ED-Goa had projected a revenue gap of Rs. 929.49 Cr and a Tariff hike of around 19% which was higher as

compared to earlier years, the Commission felt that more public participation was required and views of a large number of consumers were required in order to take a reasonable stand in terms of the Tariff hike and for proposing Regulatory Asset. Therefore, in an attempt to get better public representation to ensure fairness in tariff fixation the commission conducted another Public Hearing on March 26th, 2015.

The Commission published Public Hearing notices in the leading newspapers giving due intimation to the stakeholders, consumers, objectors and the public at large about the Public Hearing to be conducted again by the Commission on 26th March, 2015 at Nalanda Hall, 5th Floor, EDC House, Dr. A.B. Road, Panaji, Goa for all consumers on Business plan and MYT Petition for FY 2015-16 to FY 2017-18. The details of the newspapers in which the public notices are published were as given below:

Table 1.3: Details of Public Notice Published by the Commission

S. No.	Date	Language	Name of Newspaper
1.	18.03.2015	Konkani	Sunaprant
2.	18.03.2015	Marathi	Gomantak
3.	18.03.2015	English	O Herald
4.	25.03.2015	Konkani	Sunaprant
5.	25.03.2015	Marathi	Gomantak
6.	25.03.2015	English	O Herald

Copies of the public notice published by the Commission for intimation of public hearing are annexed as **Annexure 3** to this Order.

The Commission received comments / objections on the ARR filed by the ED- Goa. However, each stakeholder present during the public hearing was provided an opportunity to present his views on the petition filed by the Petitioner. The officers of the utility replied verbally on the spot to stakeholders who raised their

concerns and objections. The list of the objectors is attached at **Annexure 4** to this Order.

The Commission examined the issues and concerns expressed by the stakeholders. The major issues discussed during the public hearing, the comments/replies of the utility and the views of the Commission thereon have been summarized in Chapter 4 of this Order.

1.9 Approval of the Business Plan

The ED-Goa filed the petition for Approval of Business Plan for Control Period FY 2015-16 to FY 2017-18 on 20.01.2015 under Regulation 12.1 of the MYT Regulation 2014. The Petitioner under Regulation 12.1 of the MYT Regulations 2014 was required to submit the Business Plan by 30.09.2014. The Commission under Regulation 13.1 of the MYT Regulation 2014 was required to approve the Business Plan within 30 days from receipt of the complete business plan. Thereafter, as per Regulation 12.2 of the JERC MYT Regulations the Petitioner was required to submit MYT Petition for approval of ARR and Tariff for the Control Period of FY 2015-16 to 2017-18.

The Petitioner failed to submit the Business Plan on or before 30.09.2014, therefore, the Commission directed the Petitioner to submit the MYT Petition for approval of ARR and Tariff for the Control Period of FY 2015-16 to 2017-18.

The Petitioner submitted both the Business Plan and the MYT Petition on 20.01.2015. The Commission analyzed the petitions. The petitions were found as per the Electricity Act, 2003 and Regulations framed there under. The petition for approval of Business Plan was admitted on 03.02.2015. The MYT petition was admitted on 03.02.2015.

The Commission on 03.02.2015 decided to club both the petitions for approval of Business Plan and approval of MYT ARR and Tariff.

The Commission sent Public Hearing notices to all the concerned stakeholders and public at large by publication in three News Papers on 10.02.2015 and 26.02.2015 for the first Public Hearing on 18.03.2015 and 25.03.2015 for the second Public Hearing.

The Commission held a joint Public Hearing of both the petitions for approval of Business Plan and approval of MYT ARR and Tariff on 11th March, 2015 and again on 26th March, 2015 at Nalanda Hall, 5th Floor, EDC House, Dr. A.B. Road, Panaji, Goa.

The Commission analyzed the petitions, representations of the stake holders and response received from the petitioner. The Commission observed that as per Regulation 22 (c) of the JERC MYT Regulations, the Petitioner is required to submit detailed supporting documents with the petition for approval of Business Plan. The supporting documents should include purpose of capital investment, capital structure, capitalization schedule, financing plan and cost benefit analysis. The Commission found that the Business Plan was not accompanied with these supporting documents.

The Commission also observed that some of the stakeholders in the Public Hearing represented that the petition for approval of the Business Plan should be filed by 30th September of the year prior to the commencement of the control period and after approval of the Business Plan the licensee should file the MYT petition. Therefore, the approval of the business plan is a prerequisite for filing the MYT Petition. But the petitioner did not file the petition for approval of Business Plan in time and filed the petition for the MYT before approval of the Business Plan.

Regulation 12.11 of the JERC MYT Regulations provides that in case of delay / non-

submission of the application for approval of Business Plan and application of Determination of Tariff, as the case may be, additional information, the Commission may initiate Suo-moto proceedings mandating the filing of the petitions and if the petitioner fails to file the application the Commission may on its own decide tariff on the basis of previous year tariff details after incorporating suitable adjustments.

Regulation 9 of the JERC MYT Regulations provides that some of the controllable parameters determining tariff are linked with capital investment plan of the licensee. Therefore, approval of ARR on MYT frame work based on the capital investment plan submitted by the licensee without the supporting documents may affect the retail consumers adversely.

Regulation 38 of the JERC MYT Regulations runs as under

“If any difficulty arises in giving effect to the provisions of these Regulations, the Commission may, by general or specific order, make such provisions not inconsistent with the provisions of the Act, as may appear to be necessary for removing the difficulty.”

In the light of the above facts and circumstances the Commission is of the opinion that it is not possible to approve the Business Plan for the control period FY 2015-16 to FY 2017-18 and consequently it is also not possible to approve MYT ARR and Tariff for the control period FY 2015-16 to FY 2017-18. Hence the Commission has decided not to implement the JERC (Multi Year Distribution Tariff) Regulations, 2014 as provided under Regulation 38 for the control period FY 2015-16 to FY 2017-18 and proceeds to approve ARR and determine Tariff for FY 2015-16 only under JERC (Terms and Condition for Determination of Tariff) Regulations, 2009.

2. Summary of the Review of FY 2014-15 and ARR Petition for MYT Control Period FY 2015-16 to FY 2017-18

2.1 Introduction

The Petitioner has not filed the True up petition for the FY 2013-14 owing to the non-finalization of accounts for the period. The Petition includes the Review for the FY 2014-15 and the Aggregate Revenue Requirement for MYT Period FY 2015-16 to FY 2017-18.

As specified in the Tariff Regulations, the Commission shall undertake the Review by considering variations between the approved and revised estimates/pre-actuals of sale of electricity, income and expenditure for the relevant year. Accordingly, ED – Goa has filed its Review 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.

ED-Goa has filed the petition for the determination of Aggregate Revenue Requirement for the MYT Period FY 2015-16 to FY 2017-18 based on the past performance and expected changes in each element of cost and revenue for the ensuing year. ED-Goa, based on the past trends and taking cognizance of other internal and external developments, has estimated the performance for the Control period (FY 2015-16 to FY 2017-18).

As per the projections the total revenue gap for FY 2015-16 is Rs. 929.49 Crore. Additional revenue from revised tariff expected is Rs. 224.07 Crore. The balance revenue gap is Rs. 705.41 Crore. ED Goa proposes to create Regulatory Assets to the tune of Rs. 705.41 Crore as no Government budgetary support is expected. This revenue gap is to be recovered based on the mechanism decided by the Commission.

2.2 Summary of the Review for FY 2014-15 & ARR for FY 2015-16

The summary of the revised estimates for FY 2014-15 and ARR for the MYT Period FY 2015-16 to FY 2017-18 is shown in the Table below:

Table 2.1: Summary of the petition for Review of FY 2014-15 & ARR for MYT Period

S.No.	Particulars	FY 2014-15 Revised Estimation	FY 2015-16 Projection	FY 2016-17 Projection	FY 2017-18 Projection
1	Cost of fuel	-	-	-	-
2	Cost of Power Purchase	1,123.23	1,149.85	1,233.75	1,318.87
3	Employee costs	231.00	232.45	236.72	241.26
4	R&M expenses	44.33	37.30	52.80	79.26
5	Administration and General expenses	9.46	16.27	16.58	16.88
6	Depreciation	51.91	63.19	80.70	119.56
7	Interest on Loan & Finance charges	77.39	88.20	107.02	155.79
8	Interest on Working Capital	5.38	4.27	5.38	6.64
9	Interest on Security Deposit	8.16	8.27	8.37	8.46
10	Return on NFA /Equity	20.94	57.45	73.36	108.69
11	Total Revenue Requirement	1,572.33	1,657.26	1,814.68	2,055.41
12	Less: Non-Tariff Income	6.74	6.65	6.65	6.65
13	Net Revenue Requirement (11-12)	1,565.59	1,650.60	1,808.02	2,048.75
14	Revenue from Retail Sales at Existing Tariff including FPPCA Charges	1,090.71	1,136.95	1,180.52	1,226.16
15	Budgetary Support from GOG	59.04	-	-	-
16	Net Gap (13-14-15)	415.84	513.65	627.50	822.59
17	Energy sales (MU)	3,068	3,225	3,348	3,478
18	Average Cost of Supply (Rs/kWh)-(13/17)	5.10	5.12	5.40	5.89

2.3 Prayer to the Commission

- 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 Cr, ARR for FY 2015-16 at Rs. 1,650.60 Cr, ARR for FY 2016-17 at Rs. 1,808.02 Cr and ARR for FY 2017-18 at Rs. 2,048.75 Cr;
- 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 Cr, Tariff Increase of Rs. 224.07 Cr 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.

3. Approach of the order for determination of Review for FY 2014-15 & ARR for FY 2015-16 to FY 2017-18

3.1 Introduction

The Commission has considered the Petition (Petition No. 161/2015) as per the JERC (Terms and Conditions of Tariff) Regulations, 2009 and MYT Regulations 2014. The Commission has considered the above Regulations pertaining to business of the integrated utility and the Commission was guided by the principles contained in Section 61 of the Act amongst other things to examine the sales forecast, power purchase quantum, self-generation and other income & expenditure.

The Commission has dealt with the Petition for the Review for FY 2014-15 and ARR for FY 2015-16 to FY 2017-18 in accordance with JERC Tariff Regulations. As per Regulation 13 of the JERC Tariff Regulations, the data for ARR shall comprise of the audited figures for previous year, estimates for current year and forecast for the ensuing year. In this case, the Petitioner was required to file the audited figures for FY 2013-14 for Truing up. Further, the True up for the FY 2012-13 is also pending due to the non-submission of audited accounts and corresponding True up petition by the Petitioner. However, the Petitioner has not filed the truing up Petition for FY 2012-13 and FY 2013-14. The Commission had set out certain directions in the Tariff Order dated 27th June 2012 for FY 2011-12 to get the accounts prepared on commercial principles and get those audited. The directions were repeated in the subsequent Tariff Orders issued on March 31, 2013 and April 15' 2014.

The Commission does not appreciate the approach of the Petitioner towards the Directives issued. The Petitioner should understand the essence and requirement of the audited accounts. The audited accounts are much more than a regulatory

requirement. They are the true and fair reflection of any business and are considered essential. Therefore the Commission has been repeatedly directing the Petitioner to submit the True up petition and audited accounts.

The Commission in this regard directs the Petitioner to conclude the audit of the accounts and file the True up for FY 2011-12, FY 2012-13 and FY 2013-14 before June 30, 2015. Non-compliance of the Directive would attract proceedings under Section 142 of the Electricity Act 2003.

The Commission feels that the tariff determination process should not be stalled in the absence of the audited accounts for the FY 2011-12, FY 2012-13 and FY 2013-14. In the larger interest of the consumer and the licensee, the Commission has considered the Review of the FY 2014-15 and ARR for the MYT period FY 2015-16 to FY 2017-18.

In the determination of ARR & Tariff for the control period various provisions of the JERC's Tariff Regulations 2009 and MYT Regulations 2014 pertaining to business of the integrated utility are relevant and the Commission has been guided by the principles contained in Section 61 of the Act among other things to examine the sales forecast, power purchase quantum and other income & expenditure.

The Commission, while determining the tariff is guided by the principles contained in Section 61 of the Act, namely;

- a) The principles and methodologies specified by the Central Commission for determination of the tariff applicable to generating companies and transmission licensees;
- b) The generation, transmission, distribution and supply of electricity are conducted on commercial principles;

- c) The factors which would encourage competition, efficiency, economical use of the resources, good performance and optimum investments;
- d) Safeguarding of consumers' interest and at the same time, recovery of the cost of electricity in a reasonable manner;
- e) The principles rewarding efficiency in performance;
- f) Multi-year tariff principles;
- g) That the tariff progressively reflects the cost of supply of electricity and also, reduces and eliminates cross-subsidies within the period to be specified by the Appropriate Commission;
- h) The promotion of co-generation and generation of electricity from renewable sources of energy;
- i) The National Electricity Policy and tariff policy;

The Commission has considered the figures of income & expenditure as approved for FY 2013-14 in its order dated April 15'2014 and revised estimates submitted by the Petitioner for FY 2014-15 to form the basis of projection for income and expenditure for the control period. Actual available figures for FY 2014-15 (first half) provided by the Petitioner and validated by the Commission during the technical validation session held after the submission of the petition have also been taken into account. The detailed analysis & treatment of each component is provided in Chapter 5 and 6 of this Order.

4. Summary of the objections/suggestions received, ED-Goa's responses and commission's views

4.1 Public response to the Petition

The Petitioner has published the summary of ARR and Tariff proposal in the newspapers, copies of the petition made available to the public and the petition posted on the website of the Petitioner duly inviting comments / objections / suggestions from the public as per provisions of the JERC (Conduct of Business) Regulations 2009. Electricity Department - Goa (ED-Goa) vide public notice dated February, 20th, 2015 published in various newspapers in Goa, invited comments from the consumers and stakeholders on the petition. Consumers/stakeholders also participated in the public hearing held at Nalanda Hall, 5th Floor, EDC House, Dr. A.B. Road, Panaji, Goa for all consumers on March 11th, 2015 and on March 26th, 2015

4.2 Objections/ Suggestion, Response from Electricity Department – Goa (ED-Goa) and Commission's views

4.2.1 Sri. Roland Martin, GOACAN Coordinator has raised the following issues

Issue 1: Tariff must be linked to services offered to consumer

Objections:

- a) Any tariff charged to the consumer must be linked to the services offered by the Service Provider to the Consumer. In case of the Electricity Department (ED Goa), being the sole service provider to the electricity consumers in Goa, it should be ensured that before any Order is passed by the JERC on the petition for a higher tariff, the (ED Goa) had fulfilled its obligations as per the Electricity Act 2003 as well as the earlier Orders of the JERC.

- b) Just because (ED Goa) has a revenue gap of Rs. 929 crores, it cannot be allowed to transfer this burden on to the consumers. We cannot be silent spectators to the fact

that, (ED Goa) gives consumers in Goa, this Rs. 929 Crore "TARIFF SHOCK" in phases by increasing the tariff in the next 2 years i.e. 2015-16 and 2016-17.

- c) In future, there may not be budgetary support from the Govt. of Goa (ED Goa) must address the issue of it becoming a Corporation and run its business with accountability and transparency.
- d) The argument that the Tariff has not been increased for the last ten years cannot be the basis for a necessary hike in tariff. Good financial management and cutting down of distribution losses is in fact the need of the hour for (ED Goa).
- e) Even today's newspapers have reported that the Central Government will respond in a positive way and provide Rs. 1200 crores to streamline power transmission and distribution in the State. Will this money figure somewhere?

Petitioner`s Response

On the above issues raised above, the Petitioner has submitted the response as under:

- a) The service provided to the consumers by the licensee are regulated by the Commission and the Schedule III of JERC Standards of Performance (SOP) Regulations 2009 provide for compensation to consumers in case of default in services by the licensee.
- b) The revenue gap of Rs.929.49 Crores being claimed is for FY 2014-15 and FY 2015-16(Rs. 415.84 Crs + Rs. 513.65 Crs).The 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 with subsequent tariff filing petitions. The revenue gap has increased due to increase in power

purchase costs, inflationary impact on O&M expenses and due to the impact of finalization of Fixed Asset Register from FY 2007-08 to FY 2012-13 vide para 4.9.2 of the MYT petition. The Commission in the T.O. for FY 2012-13 dated 27th June 2012 (page 65 & 66) had denied expenses of Depreciation, Normative Interest on Loan and Return on Equity in the ARR as Fixed Asset Register was not prepared by ED-Goa at that time. The Commission has considered “NIL” opening balance of Gross Fixed Assets (GFA) and ED-Goa had to forego its claim at that time.

ED-Goa has now considered opening GFA as per finalized FAR and thus the claim in ARR has increased.

- c) With regards to Corporatization, ED-Goa is already studying pros and cons of implementation of Corporatization. The Commission may like to pass suitable directions in this regard.
- d) No Comments.
- e) Regarding the newspapers report that the Central Government will respond in a positive way and provide Rs. 1200 crores to streamline power transmission and distribution in the State, it is submitted that ED Goa has submitted a proposal for infrastructure development schemes such as IPDS and DDUGJY to the Central Government. The allocation is yet to be made by the Central Government.

The details of Capital Expenditure schemes and funding for the control period are provided at Table 62 of Business Plan petition (page 85).

Commission’s Comments

The Commission has made note of the objections of the objector and submission of the Petitioner. The Petitioner has to provide service to the consumer as per standards of performance (SoP) Regulations, 2009 which provide for compensation to consumer in

case of default of services. Any default the consumer may bring to the notices of the Commission. Since there are other avenues to address the grievances of the consumers, the tariff revision cannot be linked to service. The Petitioner cannot provide reliable supply and services unless revenues are made available to the Petitioner to meet the expenses.

Issue 2: Consumer to pay for what is provided

Objection:

When consumers do not get power why are they not being compensated? The Commission needs to get (ED Goa) to give a concrete assurance on the same when passing its Order on the petition.

Petitioner's submission

ED Goa has no independent energy generation of its own and is essentially dependent on power from Central sector allocation. Hence, any immediate outages of these power stations are beyond the control of ED-Goa and in such circumstances ED-Goa has to rely on power from exchanges / grid or apply load restrictions.

Also there are sudden interruptions due to trees etc in rainy/windy days falling on the distribution network and such natural events are beyond its control. However, ED-Goa tries to restore supply in minimum time possible. JERC has already notified the SOP Regulations 2009 for claiming compensation for failure.

Commission's Comments

The submission of the Petitioner is noted. The Commission is allowing (ED, Goa) to purchase adequate power to meet the demand and provide continuous supply to the consumer. The ED – Goa should attend the problems, if any, at distribution level to

provide reliable supply to the consumers. The consumers can claim compensation for failure as per JERC notified SOP regulations, 2009.

Issues 3: Fixed and Minimum Charges

Objection

Consumers are left clueless as to the basis on which these charges are being calculated. The Right to information seems to be ignored by (ED Goa). Many consumers are being arbitrarily charged for laying new power lines in their neighbourhood, but when challenged, the officials of (ED Goa) have had to back track. The Commission needs to ensure transparency and accountability from (ED Goa) before taking a decision on their petition.

Petitioner's submission

ED-Goa is levying charges as notified by the Commission in Tariff Order (for Retail Tariffs and Schedule of General & Miscellaneous Charges) from time to time. The charges for laying new service lines etc are governed as per JERC Supply Code Regulations 2010 as amended from time to time.

Commission's Comments

The fixed charges component in the tariff is to recover fixed cost (capacity charge) in the generation Tariff and investment costs for developing the distribution network such as depreciation, interest etc., and O&M costs incurred by the licensee. For some consumer categories mostly residential consumers the fixed charges are recovered through monthly minimum charges.

Issue 4: Installation of new Electronic Meters

Objection:

Hundreds of consumers are not being provided the documents, which has resulted in many consumers doubting the metering and billing procedure. Consumer Education by

the service provider is a must but (ED Goa) has not taken any proactive steps in this matter.

Petitioner's submission

The basic information in this context shall be uploaded on the website of the Department. ED Goa also submits that it will provide full support to any person who is interested in holding such consumer awareness camps to educate consumers about meters, manuals, their working and safety practices and energy efficiency measures.

Commission's Comments

The objection and the submission of the Petitioner are noted. The Petitioner, ED-Goa should take steps to educate the consumers on the metering and billing procedure.

Issue 5: Meter Seals

Objection:

While ED-Goa is constantly highlighting its losses, it does not have a system in place to curb the tampering of the meters. The practice of ensuring the seals for all the meters must be taken up by ED-Goa.

Petitioner's submission

The officials of the department give utmost importance to sealing of meters and their maintenance. There might be some incidents where seals are not on meters/damaged but ED Goa ensures that the meters are sealed and the same shall be maintained in future to curb any tampering with the meters.

Commission's Comments

The submission of the Petitioner, ED-Goa is noted. The ED-Goa should ensure that all the meters are sealed and penalize the consumers who have broken the seals,. Not having proper seals gives an opportunity to consumers to tamper meter and pilfer

energy. ED-Goa should obtain a certificate from AEs in charge of distribution every month that the seals on all meters and the equipment in the Section/Subdivision.

Issue 6: Energy Efficiency

Objection:

(ED Goa) as a service provider has a responsibility to encourage Energy Efficiency and even promote Bijli Bachao Campaign in co-ordination with BEE. Consumers in Goa have been denied this opportunity and thereby no effective power saving strategies have been put in place. Moreover such a campaign would save lakhs of rupees of the Consumers if ED-Goa as a service provider was pro active.

Petitioner's submission

That in reply to Point 6 and Point 8 of the objection, ED-Goa humbly submits it has already initiated the study under Demand Side Management (DSM) programme in Goa along with Energy Efficiency Services Limited (EESL). As per the JERC (DSM Regulations) 2014 of the Hon'ble Commission, a DSM cell has also been constituted and load research study is being done. The detailed DSM Plan is under preparation and would be submitted to Commission after the load research study is completed.

Under DSM and energy efficiency measures, ED-Goa is examining the following two schemes:

- Replacing all street lights with LED's
- DELP (DSM based Efficient House Lighting Programme).

Under these schemes energy efficient street lights/ LEDs will be used in street lighting and consumers will be encouraged to use LEDs in their premises to improve the energy efficiency. JERC may like to pass suitable directions as deem fit.

Commission's comments

The action taken by ED-Goa in implementation of Energy efficiency measures are noted by the Commission. Apart from providing LEDs for street lights which save considerable energy. The ED-Goa shall focus more on implementation of energy efficiency measures on consumer end particularly Residential and Commercial consumers for replacing conventional lighting with LEDs and other energy efficient lighting and also energy saving appliances. The ED-Goa shall educate the consumers and assist the consumers in replacing conventional lighting system and appliances with energy efficient lighting and appliances.

Issue 7: Implementation of Various Orders of Bureau of Indian Standards

Objection

(ED Goa) as a service provider also has a responsibility to implement the various Orders of BIS in terms of use of quality materials with ISI mark for electrical works in the Government and Non-Government sector as this would automatically ensure long lasting use. Neglect in this area by (ED Goa) is resulting in duplicate and fake materials being used, thereby resulting in financial losses and fires due to short circuit.

Petitioner's submission

ED Goa submits that it procures cables, materials for electrical works through a proper procedure i.e tendering and is ensuring quality of material /cables i.e ISI marked material as per technical standards and specifications laid down by appropriate authority.

Commission's comments

The suggestion of objector and submission of Petitioner are noted. ED-Goa should implement the orders of Bureau of Indian Standards in providing various meters and equipment and appraise to the Commission on action taken.

Issue 8: Consumer Education on the shift from CFL to LED

Objection:

(ED Goa) has remained silent on the need to shift from CFL to LED thereby depriving thousands of consumers the opportunity to reduce their power bills by using the right bulbs and other lighting materials in their homes and offices. The Commission needs to issue instruction in this matter as it is has the privilege of being the sole service provider and thereby has a monopoly.

Petitioner's submission

ED Goa also submits that it will provide full support to any person who is interested in holding consumer awareness camps to educate consumers about energy efficiency practices and measures.

Commission's comments

As commented earlier, the ED-Goa should focus energy savings at consumer end by replacing the existing conventional lighting system and appliances with energy efficient lighting system such as LED, CFL. The ED-Goa should also educate the consumers and encourage them to adopt energy efficiency system.

Issue 9: Safety of Consumers Workforce

Objection:

Although GOACAN had highlighted this matter in the previous public hearing and the Commission had ordered that ED-Goa prepares a report to be submitted in one month, but nothing significant has emerged. Such a report would have pointed to areas where action needs to be taken.

Every year National Safety Week (4th to 10th March) and Fire Safety Week from (14th April) is observed in the country and Goa but ED-Goa has not been active in this field.

For the safety of its workforce it is very important that ED-Goa becomes pro active. The recent rise of fire accidents linked to electrical lines in homes & offices is a wakeup call for ED -Goa to pay special attention and it takes-up an awareness drive.

Petitioner's submission

With regards to reports on fatal accidents, injuries, ED Goa humbly submits that it maintains the accident reports as well the details of compensation provided to the consumers.

With regards to National Safety Week in March & Fire Safety Week in April, ED Goa submits that in future it will nominate officials for the same and would be present in such meetings/ forums.

Commission's comments

The suggestion of the objector and submission of the Petitioner are taken note by the Commission. Apart from maintaining the register of accident reports ED-Goa should ensure that accident do not occur. ED-Goa should investigate the reasons for accidents and take preventative measures to ensure that accidents are avoided. If the accidents are due to human error suitable action shall be taken on persons responsible to ensure such mistakes do not take place in future.

Issue 10: Help Line – Feedback to ED on damage to power lines, illegal power tapping etc.

Objection:

While the introduction of the HELPLINE is a step in the right direction and must be appreciated, it is important that ED-Goa increases its ambit very specifically to take calls regarding possible damage to power lines & other infrastructure, illegal power tapping, street lights not working, streetlights being left on during the day and related matters.

This type of feedback could be very crucial for ED-Goa in terms of cutting down losses and increasing revenue.

Petitioner's submission

ED-Goa would continue to improve its services.

Commission's comments

The issues raised by the objector and submission by ED-Goa are noted by the Commission. ED-Goa shall see that the suggestions of the objector are implemented.

Issue 11: Protection of Infrastructure like Power Stations, HT & LT lines

Objection

ED-Goa must look at the protection of its infrastructure as vital to its plan to cut losses, protect its assets and gain the good will of its consumers. ED-Goa must put in place in 2015-16 an area wise protection plan in place i.e at the level of the Transformers and beyond where in the Consumer is seen as a partner and not just a bill paying consumer.

Petitioner's submission

ED Goa takes appropriate measures to protect its installations and the assets therein. The infrastructure and the working conditions of equipments and transformer centers are periodically checked by the maintenance staff of all the divisions in their respective areas, for better performance. Also safety hoardings/danger boards are put in place to avoid any accidents.

Commission's comments

The action taken by ED-Goa is noted by the Commission.

Issue 12: Need to work together with Fire & Emergency Services & District Disaster Management Committee

Objection:

The losses to the infrastructure of ED-Goa in terms of power lines during the monsoons and the subsequent storms and the resultant power cuts need to be reviewed. There is a need for close co-ordination with other Departments but the ED-Goa must have its exclusive District Rapid Action Teams properly equipped for these eventualities with necessary backup maintenance team functioning 365 days so that the vehicles, pulleys, ladders, cutters, mobile generator operated flood lights etc are ready to use at any given moment.

This effort by ED-Goa itself will cut down losses and improve finances in the years ahead.

Petitioner's submission

ED Goa would positively co-ordinate with other Departments for rapid rectification of faults and supply restoration for increasing consumer satisfaction.

Commission's comments

The ED-Goa should co-ordinate with the departments suggested to prevent damage to electrical installation etc., and should be fully equipped to attend to any emergency on top priority in order to reduce the interruption of supply and restore supply without loss of time wherever damages occur.

Issue 13: Underground Cabling: right step but requires maintenance & safety

Objection:

ED-Goa must see underground cabling as an important step to cut transmission losses and better service to its consumers. If it fails to work with the local self governing bodies like Village Panchayats & Municipal Councils and take them into confidence for the maintenance & safety then it will face losses in the near future. Constant digging of the roads in these areas has resulted in damage to underground cables as no maps of these

lines are available in the local area. Huge expenditure with Central Government assistance on such infrastructure needs to be seen as an investment for the future which will become a liability if ignored and result in the consumer facing the brunt of a tariff hike in the future.

Petitioner's submission

ED Goa submits that for fault rectification in case of underground cables, digging of roads is undertaken with prior permission/NOC of local self governing bodies like Village Panchayats & Municipal Councils.

It is submitted that several infrastructure schemes have been proposed in the Capital expenditure plan for the control period, for improving the underground cable network as can be seen from Chapter 8 of Business Plan.

Commission's comments

The submission is noted by the Commission. It is advisable to go in for underground cable system but it should be with consent of Municipal Council etc., to prevent any damage by the other departments, while carrying out their works.

Issue 14: Non-refund of expenses incurred by consumers on items meant to be supplied free of charge

Objection:

Hundreds of consumers are being denied the benefit of the 30 metres free cable from the pole to the house and are being forced to buy the same from the open market without being given a refund. The systematic harassment that is being meted out to the consumer in this matter was highlighted by GOACAN in the earlier 'Hearing' but despite instructions from the Commission no effective steps are being taken. Appropriate Orders be issued and refunds be provided at the earliest.

Petitioner's submission

ED-Goa humbly submits that it adheres to JERC Supply Code Regulations 2010 and prevailing Tariff Orders for levying any charges related to connection/ laying lines etc. It is submitted that in case any consumer observes such case the same can be brought to the notice of Consumer Grievance Redressal Forum (CGRF) and initiate proceedings as per JERC CGRF Regulations 2009.

Commission's comments

The objection by the objector and submission by the Petitioner are taken note by the Commission. ED-Goa shall implement Supply Code Regulations, 2010 strictly to avoid such complaints,. In cases where the Regulations are not implemented the ED-Goa should take prompt action without driving the consumer to CGRF.

Issue 15: Delayed Billing and frequent changes in the Billing contractors are a burden to the Consumer

Objection:

The constant delays in raising monthly bills by ED-Goa has become a headache and financial concern for an average consumer. Bills being delayed for 4 months at a time and resulting in wrong calculations has only turned the consumer into an adversary of ED-Goa. The Commission must instruct ED-Goa to put its house in order with regards to the billing process so that money that is due to be paid is received in time by maintaining a uniform billing process without constant changes in the contractors undertaking the task of generating bills.

Petitioner's submission

ED-Goa submits that the meter reading, billing and collection process is being streamlined and is going through a transformation phase. As pointed out by GOACAN, 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. However, now a common agency (M/s. Goa Electronics Ltd) has taken over all the billing process for HT and LT consumers from December 2014 and a common process is being followed for all the divisions to avoid ambiguity in the process and data. It is expected that process would get streamlined by April 2015.

Commission's comments

The submission of ED-Goa is noted. As committed the ED-Goa should streamline the meter reading, billing and bill serving system by April, 2015 and see that no complaints are received from the consumer. Any complaint should be promptly attended. The ED-Goa shall also submit a report to the Commission on the implementation of the streamlined system.

Issue 16: Plugging of leakages in Illegal Tourism Sector

Objection:

While Goa has a resident population of around 15 lakhs, it receives nearly 50 lakh tourists (domestic & foreign) annually. A large number of rented accommodation & food & beverage outlets paying domestic power charges are being put to use in the illegal tourism sector by cashing in on huge rentals in foreign currency thereby creating a revenue loss to ED-Goa. Instead of a tariff hike and transferring the burden on to the honest bill paying consumers, ED-Goa needs to work with the Department of Tourism, collect economic intelligence and plug the financial leaks. ED-Goa has till date not appointed nor announced its willingness to set up a Vigilance & Revenue Recovery Teams for North & South Districts of Goa.

Petitioner's submission

ED Goa officials at site try to identify such cases on regular basis where consumers paying domestic power charges are using their houses as rental places for tourists. Once

such cases are verified, their category is changed from Domestic to Domestic Mixed category which has a higher tariff as proposed in the tariff schedule. However it is practically difficult to enter all residential premises and undertake such checkings. ED-Goa would appreciate and provide full support if such specific cases are brought to the notice.

Commission's comments

The suggestion by the objector and the submission of the ED-Goa are taken note by the Commission. The tourism of Goa is a regular phenomena in Goa, it should not be difficult to identify the residences that accommodate tourists and bill such premises at relevant tariff as that will provide additional revenue to the Petitioner. The Petitioner shall bill such accommodation/consumer at relevant tariff rates.

Issue 17: Consumer Grievance Redressal Forum (CGRF) needs to be made effective

Objection:

In the present petition, ED-Goa has shown a proposed increase in the expenses to be incurred on CGRF but has failed to implement the Order of the Commission to make the CGRF more effective. Its present permanent location in Vasco has made it inaccessible to the Consumers of the whole of Goa. ED-Goa needs to take a call on this issue at the earliest, if not Consumers will opt for other avenues for grievance redressal which in the long term will be costly for ED-Goa.

Petitioner's submission

ED-Goa submits that Consumer Grievance Redressal Forum (CGRF) has been established in Vasco area and consumers can file their grievance there. ED Goa also submits that to facilitate ease to consumers, it accepts any grievance complaints at any of its offices (head offices or division/sub division offices, SE I and SE II have been appointed the grievance officers for North and South Circles respectively) and can also provide full

support to any person who is interested in holding such consumer grievance camps/venues.

Commission's comments

The submission of the Petitioner is taken note by the Commission. ED-Goa itself should conduct such programmes to educate consumers on the function of CGRF and that CGRF works more efficiently and direct all its officers to be more consumers friendly in attending their problems/issues.

Issue 18: Recovery of losses for damage done to underground cables:

Objection:

The underground electricity cables were damaged (as seen yesterday) during the digging works undertaken by the PWD. If the Electricity Department is keen to cut its losses then it must put in place a procedure of filing an FIR at the nearest Police Station and then follow it up by approaching the DRO at the Dy. Collector level to recover the cost of the damage done.

Petitioner's submission:

Such incidents happen as network of electricity, water works, telephones, gas pipelines etc are laid next to each other/ beneath each other without a earmarked corridor. ED-Goa tries to maintain proper coordination/ communication with other departments regarding the same to avoid any such incidents. Anyway the matter will be taken with Government to take necessary corrective measures.

Commission's comments

The submission of the ED-Goa is taken note by the Commission. ED-Goa should approach the Municipal Authority and other departments to co-ordinate with them to prevent any damage to the underground cabling. The issue may be brought to the notice of the State Government to issue suitable instructions to all concerned.

Issue 19: Problems faced by the Electricity Engineers must be addressed first before the Tariff Hike:

Objection:

The Marathi newspaper 'Tarun Bharat' report dated 25th March 2015 highlights the dissatisfaction and the problems faced by the Electricity Engineers. It is important that the Electricity Department must address these issues before going for a Tariff Hike. If Electricity Department the sole electricity provider has to deliver to the consumers then it must put its house in order. Success of the new infrastructure projects, revenue recovery and other plans of the Department will depend on the morale of the officers which in turn is crucial for the Department to cut its losses.

Petitioner's submission:

ED Goa submits that this issue is not in the preview of MYT/ARR petition and the same will be handled administratively within the department.

Commission's comments

The submission of ED-Goa has taken note by the Commission.

Issue 20: Subsidies given to certain categories of consumers must come from Govt. Budgetary support & not a tariff hike:

Objection

The Department has been giving certain categories of consumers subsidies and this amount must come from Govt. Budgetary support. The Department in its petition has remained silent on this issue and it is necessary that a proper explanation is provided. Just because the subsidies are included in the revenue of the Department it is not justified that they transfer this burden on to the honest bill paying consumer with a tariff hike.

Petitioner's submission:

It is submitted that ED-Goa cannot comment on the statement/ financial matters pertaining to other Govt Departments. However, many categories of electricity consumers, including the domestic consumers who are raising this issue, are themselves beneficiary of cross-subsidy as per tariff policy. Cross-subsidy is acceptable even under tariff policy within specified limits. No budgetary support has been promised this time by the Government and had it been announced, the benefit would have gone to reduce the regulatory assets proposed here.

Commission's comments

Budgetary support is being provided by the State Government for subsidizing the tariff of certain category of consumers so that the subsidy burden is not passed on to other consumers. The Commission is also making efforts to reduce the cross subsidy to some extent so that the consumer tariff will be within $\pm 20\%$ of average cost of supply as per Tariff Policy and introduce the tariffs based on the cost of supply over a period of time.

Issue 21: Goa is a small State with one of the lowest tariff should not be the basis for justifying a tariff hike:

Objection:

The Department in its petition seeks to compare Goa's tariff with that of some of the larger States in the country. Its population size, consumer base, huge tourist influx and the fact that the Department as a service provider has still not become a Corporation must be points that need to be addressed. In fact being a small State, the Department as a service provider should have been able to cater to its consumers in an effective manner with the least amount of losses.

Petitioner's submission:

ED-Goa submits that it has one of the lowest power tariff in the country. Neighbouring States are also levied same tariffs for Power Purchase from NTPC stations and Transmission charges by PGCIL. They also have own generation and transmission system and this should rather lower weighted average of the cost of power purchase for them. Location of generating units also reduces transmission losses for those States, unlike that in Goa. States such as Chhattisgarh are rich in Coal mines and so they gain from cheaper generation cost. Dadra, Nagar & Haveli have 97% Industrial consumers which means lower losses, lower maintenance, highest collection efficiency. Despite all such factors and a general view of keeping tariffs of subsidized consumers at lower level, the proposed tariffs for ED-Goa are lower. They are even lower when compared to 50% reduction considered by Delhi Government recently in case of domestic consumers.

In fact a smaller scale of operation increases per unit cost of operation since the minimum fixed costs are spread over a lower sale volume in terms of units. Also, per capita electricity consumption of Goa is high compared to other states in India i.e. approx 2000kWH (source: Per Capita Power Consumption in 2011-12: Infra Line Website) compared to India average of 917kWH (source: CEA website <http://www.cea.nic.in/reports/planning/dmlf/growth.pdf>) which provides for more power requirement for a smaller area. This increases marginal cost of power purchase for Goa.

The Consumer Price Index (CPI) Inflation of Goa for FY 14-15 is 261.91, much higher than the average CPI of India 250.45 (source: <http://labourbureau.nic.in/indtab.pdf>); hence the need for tariff hike is much more in Goa compared to other States. Incidentally, most of the commodities for consumers are costly in Goa in comparison to other states, except for electricity.

It is incorrect to say the efficiency of operations are lower since Goa's AT&C losses are on a relatively lower side. Further, department is taking steps to ensure there is no Peak Load Restrictions (PLR). Since November last year, there has been almost zero PLR.

Commission's comments

The suggestion of the objector and submission of ED-Goa are taken note by the Commission. The Commission will take appropriate decision on revision of tariffs taking all factors into consideration.

4.2.2 Issues raised by Dr Arvind Almeida

Issue 1: Information on standards of performance:

Objection:

As per the Goa Gazette Series I No 15 dated 12th July 2012, department was requested to provide its performance standards with regards to;

- a. Distribution losses: I had specifically made an observational remark that the distribution losses made in the year 2013 was 12.75% and the recommendation by the JERC then was to achieve lower distribution losses and I was horrified that the distribution losses for the current time has been pegged at 15.5%.
- b. The standard set by JERC for electricity to the consumers was at 220 volts +/- 6 but the department supplies electricity at 180 and 160 volts thereby increasing the load heating up the induction coils of various electric gadgets and causing an increase in consumption of electricity
- c. Distribution transmission failure Indices: I further queried the department of the SAIDI and MAIFI and they do not have any detailed report of the same village wise, while as per the gazette they are supposed to have filed the same in your office every month

Petitioner's submission

It is submitted that the SOP Regulations 2009 are available at the website of JERC with the link below:

<http://www.iercuts.gov.in/writereaddata/Files/SOP%20final%20member.pdf>

ED-Goa has already clarified matter related to distribution loss in the petition at para 2.4.

ED-Goa would also like to submit that many assets are vintage, some have long distribution lines and in remote rural areas, low voltage, fluctuations might occur. However, the Department is already working on strengthening the system through schemes like IPDS/DDUGJY to take care of this problem. However, if the Department is unable to raise revenue through tariff hike, it may lack the resources to carry out the much needed investments. This could only lead to deterioration in losses and hence the Department earnestly request the JERC to permit us the tariff hike to help us attend to rising aspirations of consumers. Moreover, the Department has already admitted in its tariff petition that the loss figures reported earlier were estimated figures and not correct figures. The Department is expected to be in a position to accurately estimate losses by end of March 2016 by which time the RAPDRP Part B scheme is likely to be completed.

It is submitted that ED Goa does maintain division-wise Reliability Indices data on monthly basis, which provides for the no of interruptions/trippings, transient faults, planned shutdown etc along with the duration of each interruptions.

Commission's comments

The objections/suggestions of objector and submission of ED-Goa are noted by the Commission. The ED-Goa has to maintain supply as per Standards of Performance (SoP) Regulations of the Commission. The ED-Goa has to compensate the consumer the loss occurred due to not implementing the SOP .ED-Goa should ensure that supply is maintained as per SoP. Suitable instruction shall be issued to all concerned officers.

Issue 2: Theft of Power:

Objection:

If any case was registered in the past 1 year for theft of Power, why this was not highlighted in the presentation. There was no reply, but the gathering at large claimed that there was broad daylight robbery

Petitioner's submission

ED-Goa submits that steps are being taken to control theft of power. MRT (Meter Relay Testing) and Vigilance does routine inspections to check cases related to overdrawal or bypassing of meters. Also the maintenance staffs keep an eye on the network to identify such cases of line tapings etc. ED-Goa would also encourage and appreciate the consumers coming forward and reporting of such cases.

Information pertaining to individual theft cases etc. is available in division offices and would be submitted to Commission if desired.

Commission's comments

The submission of ED-Goa is taken note by the Commission. ED-Goa shall strengthen its vigilance organization to minimize the theft/pilferage of energy. ED-Goa should

implement high voltage (11 KV) distribution system to prevent tapping of line and supply by the consumer.

Issue 3: Hike in Tariff

In 2013 there was a hike in Tariff along with certain recommendations by JERC which had to be done, which has been again overlooked by the ED-Goa.

Petitioner's submission

ED-Goa submits that it adheres to all the directives given by the Hon`ble Commission in its tariff orders. However, certain issues such as preparation of financial statements etc, have taken time to complete and are in progress. However, the Department is working all out to streamline the processes and systems.

Commission's comments

The Commission will examine submission of ED-Goa, suggestions of stake holders and take appropriate decision on the revision of tariff.

Issue 4: Audit has not been shown to the public:

Objection:

The Audit was not made public as yet and unfortunately we heard that the Audit will be completed in September. What about FY 2013-2014, since the last Audit done by the department was in the year 2013 for a period from 2008-2013, there is no web page display of the audit to the consumers.

Petitioner's Response:

It is submitted the documents such as Financial Statements and Fixed Asset Registers shall be uploaded on the website once the final certificate from Govt Auditors is received for the works completed.

Commission's comments

The submission of the ED-Goa is taken by the Commission. The financial statements and Fixed Asset Register etc., may be kept in website after the certificate is received from the State Government.

Issue 5: Irregular Billing

Objection:

There was gross irregular billing leading to losses in revenue by the department. Bills are received after 6 months sometimes.

Petitioner's Response:

ED-Goa has already submitted in the petition that it is in the process of streamlining its billing and collection of data. In the past it was maintained by several different agencies separately in each division and each agency had its separate logic build up for bill calculation and bill generation. Now a common agency M/s GEL has taken over all the billing and collection of data for HT and LT consumers and a common process is being followed for all the division to avoid ambiguity in the process and data. While this streamlining and transformation, a lot of errors in the data have been found and the error rectification process is going on. ED-Goa has a total of 525 meter readers at present and it has recruited 233 of them during FY 2014-15 to streamline the meter reading process, so that bill generation and distribution can be improved and done on monthly basis.

The process is expected to be completely set in order by end of May 2015 and by that time periodic bills will be issued to all consumers with an outer billing cycle of 60 days.

Commission's comments

The action taken by ED-Goa on the steps taken for streamlining the meter reading, billing system etc., is taken note by the Commission. This should be implemented from 1st April, 2015 and the improvement reported to the Commission by December, 2015.

4.2.3 Objection:

Harnessing Solar energy in the Electricity Departments

Petitioner's submission

ED-Goa has already started work with Goa Energy Development Agency (GEDA) on the feasibility of roof-top solar power generation with grid connectivity in Government buildings. However, we would like to submit that at present per unit cost of solar power is much higher than conventional power.

Commission's comments

Irrespective of cost, the ED-Goa shall meet the RPO obligation. ED Goa may either set-up solar and non solar installations by itself or enter into an agreement with an outside agency to supply solar and non solar power to it, to meet the RPO obligation.

4.2.4 Issues raised by Ms. Marie D`Souza, ALDONA CIVIC AND CONSUMER FORUM

Objection 1:

The Electricity Bills very often are given to the Consumers only after 3 or 4 months and this makes it a burden on them to pay the Bill.

Suggestion: The Electricity Bill should be given to the Consumers every Month, or an option is to be given to the Consumers to pay the Bill in instalments.

Petitioner's submission

ED-Goa has already submitted in the petition that it is in the process of streamlining its billing and collection data. In the past it was maintained by several different agencies separately in each division and each agency had its separate logic build up for bill calculation and bill generation. Now a common agency M/s GEL has taken over all the billing and collection data for HT and LT consumers and a common process is being followed for all the division to avoid ambiguity in the process and data. While this streamlining and transformation, a lot of errors in the legacy data has been found and the error rectification process is going on. There are bound to be some transition difficulties and the billing process has been quite streamlined now. In fact, the Department has lost money by way of interest for late raising of bills and which has effectively gone to pockets of consumers. Also, wherever consumers have approached the Department they have also been allowed to pay in instalments in case the consumer got a lumped bill for number of months.

ED-Goa has a total of 525 meter readers at present and it has recruited 233 of them during FY 2014-15 to streamline the meter reading process, so that bill generation and distribution can be improved and done on periodic basis, with an outer frequency of two months billing cycle.

That said the Department undertakes to take further necessary corrective measures suo-motto to streamline the system.

Commission's comments

As commented earlier the streamlining of meter reading, billing and bill serving shall be completed by April 2015 and a report shall be submitted to the Commission on the working of the system by December 30th, 2015.

Objection 2:

Every few months the Format of the Bill is changed making it difficult for the Consumers to understand what they are paying for. Also FPPCA and Meter Rent vary in every bill. Why?

Keep only one format for the Bill. The Commercial Officer when requested to attend a Consumer Meeting in a Village to explain what the Consumers are paying for, should make her/him self-available to respond to that request. Consumers have the right to be informed.

Petitioner's submission

As mentioned, in the past billing and collection was maintained by several different agencies separately in each division and each agency had its separate logic for bill calculation and bill generation. Hence there might have been separate formats of bills for each agency. However, now a common agency M/s GEL has taken over all the billing and collection data for HT and LT consumers and a common process is being followed for all the division to avoid ambiguity in the process and data and a common billing format is being followed throughout Goa.

The purpose of Fixed charges, FPPCA are well explained by Hon'ble Commission in the MYT Regulations and/Tariff Orders. Meter rent is charged as per the approval of JERC.

Commission's comments

As stated above the streamlined billing system shall be introduced by September 30th, 2015 and report submitted to the Commission on its working by December 30th, 2015. The fixed charge component in the tariff is for recovery of fixed cost / capacity charges to be paid to the generator and investment costs such as depreciation, interest etc. for development of distribution network. Meter rent is collected as approved by the Commission.

Objection 3:

When their Meter was not working and needed to be changed, the Consumers were asked to buy new ones from the open market and get it tested by the Electricity Department and pay for the test. Actually Meters were available in South Goa.

There has to be better coordination within the ED-Goa itself. In the above cases the Consumers who had bought the Meters in the open market should have been reimbursed or rent should not be charged in the bill given to them.

Petitioner's submission

ED-Goa submits that as per JERC Supply Code Regulations clause 7.3, the Department itself procures and installs meters at consumer's premises for new connection/meter replacement. However, the consumers have the option for requesting to purchase the meter from open market for installation and they have to get the meters tested by the department before installation. In such cases no meter rent or security is taken from the consumers. It is submitted that if any such cases are there, ED Goa would request/advice such consumers to contact division office for appropriate action and/or CGRF in case the issues are not resolved.

Further, in future the consumers would be given an option to source own meter only in case of exigency when the meter is not available with the Department.

Commission's comments

The submission of ED-Goa is taken note by the Commission. The Commission expresses concern on such matters. The Commission would also direct the ED-Goa to compile such cases and report to the Commission. Further such cases should not be repeated in future.

Objection 4:

In some cases new electronic meters were installed but consumers were not provided with the Manual, Test Report and Warranty Card. This has led to plenty of misunderstandings regarding these electronic meters and Consumers wondering why suddenly their Electricity Bills have increased.

All consumers who have, in the recent past, been fitted with electronic meters should be given the Manual, Test Report and Warranty Card

Petitioner's submission:

ED-Goa submits that as specified in the JERC Supply Code regulations, the meters are the property of the Departments i.e. owned and maintained by the Department itself. Hence, the Warranty Card, Test Reports are kept by the department itself.

However, if a consumer wants to review that same for their meter, he can approach the division offices and same can be provided on request.

With respect to educating the consumers regarding the electronic meters and their working is concerned, ED Goa submits that it will provide full support to any person who is interested in holding such consumer awareness camps to educate consumers about meters, manuals, their working, safety practices etc. such education would also be given to individual consumer who seeks such information at time of meter installation.

Commission's comments

The ED-Goa itself shall educate the Consumers on the working of the meters to remove any apprehensions on the working of the meter. This may be organized at division/sub division level.

Objection 5:

When an electrical item (e.g. a pin) needs to be replaced, Consumers are faced with the peculiar problem that the new one does not fit into the old socket though both items are from the same manufacturing company (e.g. Anchor).

All electrical goods manufactured by any manufacturing company in India should be required to follow established standards set by BIS. For this JERC should coordinate with BIS to establish standards and Certification for all electrical equipment's and goods. Presently there is certification for only a few electrical equipment's.

Petitioner's submission:

It is submitted that such standards are laid in the JERC Supply Code Regulations for the wiring etc. and/or Bureau of Indian Standard (BIS) standards and Indian Electricity (IE) Rules 1956. Due standards and specifications are followed for Departmental procurement. However, the Department has no control of appliances/equipment's available in market or inside consumer premises.

Commission's comments

The submission of the Petitioner is taken note by the Commission.

Objection 6:

Every monsoon brings with it a shutdown of power sometimes for hours together. Power Shutdown is not an event of Nature but rather shows up the inefficiency of the Electricity Department in not preparing itself for the annual cycle of nature. As a result consumers face destruction of their electrical equipment.

While uprooting of trees and lightning strikes cannot be controlled by the Electricity Department, yet checking whether guard wires are in place and over-hanging branches chopped should be part of the regular work that, in Goa, should start in April. In residential areas underground electrical cables should be placed in consultation with the Panchayat / Municipality and a copy of the Plan given to the Civic Body.

Petitioner's submission

ED-Goa would like to submit that it proactively prepares for monsoon seasons and does the survey of the network especially in the areas with more trees etc which are more prone to trippings during the season and tries to trim the trees, however during monsoons and strong winds (natural events and uncontrollable) such faults do occur and ED Goa tries its best to restore the supply in the minimum time possible.

It is also planning to undertake investments to improve the quality of infrastructure, including underground cable laying work. ED Goa requests that its tariff hike petition be accepted so as to enable it to generate funds for investment.

Commission's comments

The objection and the submission of the Petitioner are taken note by the Commission. The ED-Goa shall conduct the inspection of the distribution lines etc. and get the tree clearance done before the monsoon so that there will not be any tripping of lines due to tree branches etc., touching the lines. ED Goa shall also organize fully equipped team to attend the emergencies during monsoon to restore supply quickly without loss of time.

Objection 7:

Street lights remain lit for a long time after sunrise, in some areas even after mid-day. Complaints seem to have no effect.

Linesmen who switch on and off the street lights should be supervised for efficiency. However they should also be better equipped for self-protection.

Petitioner's submission

ED Goa submits that it will carefully instruct and supervise and equip the linesmen to work on the street lights and timely switch them off.

It is also submitted that Government of Goa has approved the scheme of replacing all street lights with LED's under Demand Side Management. Under these schemes energy efficient street lights/ LEDs will be used in street lighting to improve the energy efficiency. ED-Goa would make provision during the tendering process for sensor based

automated street light switch, which would automatically switch off once the sunrises (depending upon sunlight).

Commission's comments

The ED, Goa shall take action on the complaint that street lights are burning during day time also. ED, Goa should ensure that the street lights are switched on and switched off as per the schedule strictly.

Objection 8:

Finally we are sad to note your plan of hiking the Electricity Tariff.

The Electricity Department needs to be more pro-active in its working. It must plug the leakages due to illegal wiretapping, street lights left on unnecessarily, put its own Department and Personnel in order and not burden the Consumer for no fault of theirs

Petitioner's submission

ED Goa submits that it has hiked the tariff only twice in last 15 years. Today it has one of the lowest power tariff in the country and to prevent an abrupt hike in future, we need to raise the proposed minimum tariff. This is must to undertake investments to provide the quality services that the consumers are demanding. The Department strives to keep on doing the same i.e. pro-active planning, reducing losses and theft and providing reliable and quality supply of electricity to it consumers. It would not be out of place to mention that Goa has relatively low AT&C losses.

Commission's comments

The Commission will examine all the factors and take appropriate decision on revision of tariffs in the following section of this Tariff Order.

4.2.5 Issues raised by Ms. Lorna Fernandes, GOA WOMENS FORUM (GWF)

Objection 1:

GWF demands that the GED formulates a detailed Action Plan to cut its transmission losses and plug its leakages (unauthorized tapping, street lights left on all day etc).

Petitioner's submission

It is submitted that the current assets are aged and overloaded leading to frequent breakdown and increased line losses. ED-Goa submits that it is implementing R-APDRP Part-A which will provide system of recording of the network, facilitate proper energy accounting and auditing of the system. RAPDRP Part B/IPDS/DDUGY scheme will further strengthen the system with new technologies and other capital expenditure schemes to reduce technical line losses. Here the Department would like to humbly reiterate its request for a tariff hike to strengthen its hands to undertake infrastructure improvement investments which are estimated to be way beyond the grants that are likely from the Government of India.

For losses through theft/pilferages, ED-Goa submits that steps are being taken to control theft. MRT (Meter Relay Testing) and Vigilance does routine inspections to check cases related to overdrawal or bypassing of meters. Also the maintenance staffs keep an eye on the network to identify such cases of line tapings etc. ED-Goa would also encourage and appreciate the consumers coming forward and reporting of such cases.

Commission's comments

The submission of ED-Goa is taken note by the Commission. ED-Goa shall take necessary steps to reduce the technical and commercial losses in the system to bring down the distribution losses to an acceptable limit.

Objection 2:

In the interest of transparency and accountability, ED-Goa must also make available on its website their financial statements e.g. Balance Sheet, Audited Accounts etc.

Petitioner's submission

It is submitted the documents such as Financial Statements and Fixed Asset Registers shall be uploaded on the website once the final certificate from Govt. Auditors is issued for the works completed.

Commission's comments

The ED-Goa is directed to put the Financial Statement, Balance Sheet etc. on the website at the earliest on obtaining of final certificate from the Government Auditor.

Objection 3:

We have been receiving many complaints that ED-Goa is charging for wire outside the house, for putting up poles etc., the Electricity Department should be providing to the Consumer and this should be posted in section office in large visible writing so that the staff and the consumer know exactly what ED-Goa is supposed to provide and what consumer needs to pay.

Petitioner's submission

It is submitted that ED-Goa is levying charges as notified by Hon'ble Commission in Tariff Order (for Retail Tariffs and Schedule of General & Miscellaneous Charges) from time to time. The charges for laying new service lines etc. are governed as per JERC Supply Code Regulations 2010 as amended from time to time.

Commission's comments

The submission of ED-Goa is noted by the Commission.

Objection 4:

We demand that ED-Goa arranges for Electricity Bills to be generated monthly or bi-monthly and not later than this.

Petitioner's submission

ED-Goa has already submitted in the petition that it is in the process of streamlining its billing and collection of data. It has already been undertaken above that the Department will seek to achieve a maximum bill generation and distribution duration of two months.

Commission's comments

As already committed the stream lined system of billing etc. shall be introduced by April 30th, 2015 positively to avoid such complaints from the consumers.

Objection 5:

We demand that GED draws up an extensive plan on Consumer Education which will involve:

- i. Information on various extra charges that are charged on a Bill e.g. Fixed Charges, FPPCA and Electricity Duty
- ii. Promotion of Bijli Bachao Campaign
- iii. The mandate of BEE wherein consumers can be educated about buying/selecting appliances with a lot electrical consumption
- iv. Using BIS marked Electrical goods for quality and safety
- v. Safety of Consumers- Do's and Don'ts.

Petitioner's submission

The purpose of Fixed charges, FPPCA are well explained by Hon'ble Commission in the MYT Regulations and/Tariff Orders.

The ED-Goa submitted that the Government has already undertaken to implement DELP scheme in 2015-16 wherein 2-3 LED bulbs will be provided to consumers at quite subsidized rates in exchange for Incandescent Lamps. ED-Goa would promote the same in all the Govt. Offices/departments. Also all the govt. departments shall be asked to prevent energy wastage so as to set an example for the consumers.

It is submitted that the standards for electrical goods quality and safety are laid in the JERC Supply Code Regulations for the wiring etc. and/or Bureau of Indian Standard (BIS) standards and Indian Electricity (IE) Rules 1956 in general. However, the Department has no control over the appliances/equipment's in market or consumer premises.

The ED-Goa submits that from time to time (especially during monsoon season) it prints and circulates the pamphlets for Do's and Don'ts regarding safety of consumers. Danger boards are put on the transformers, substations, switchgears etc. for consumers to stay away from the equipment's.

The ED-Goa also submits that it will provide full support to any person who is interested in holding such consumer awareness camps to educate consumers about meters, manuals, their working, safety practices and energy efficiency measures.

Commission's comments

The submission of the ED-Goa is taken note by the Commission. The ED-Goa has conducted such programmes at division level to educate the consumers and clarify the doubts in the minds of consumers.

Objection 6:

Electricity departments should follow the safety procedures as already laid down with regards to the safety of its workforce.

Petitioner's submission

The ED Goa submits that it encourages its workforce to follow all the safety procedures laid down while working. Here investments are much required so that system can be automated – this will prevent manual handling of system by linesman and avoid possible accidents.

Commission's comments

The submission of the ED-Goa has been noted by the Commission.

4.2.6 Issues raised by Mr. P Ravi, M/S Leading Hotels

Objection:

Shri. P. Ravi, General Manager of Leading Hotel Ltd has submitted that the Leading Hotel proposes to develop a luxury villa resorts at Tiracole.

- They have applied for 500 KVA supply at 11 KV for construction purpose for 3 years and 4500 KVA at 33 KV for the operating of the development. It is stated that currently Maharashtra State Electricity Distribution Company Limited (MSEDCL) is supplying the 500 KVA supply at Tiracole at 11 KV through Red: Feeder
- MSEDCL bills the supply to Executive Engineer Mapusa division and Goa Electricity Department bills in terms of JERC rates.
- 100 KVA load is currently sufficient to cater 65 families at village Tiracole
- Requested ED-Goa to finalize the tariff for 500 KVA construction power to Leading Hotels.

Petitioner's submission:

The ED-Goa would like to submit that the applicant is applying for connection for construction purposes for a specified period i.e. long term temporary work and as per the tariff proposal submitted to Commission the same falls under Temporary Commercial Category (based on the purpose / use of electricity). However due to the sanctioned load limit of 100 kVA for LT consumers, the applicant shall have to apply for HT Temporary Category for 500kVA Load for construction purpose. The ED-Goa would also like to submit that at present required infrastructure for supplying power from its own network is unavailable and it would have to conduct technical feasibility study for the same. For regular power consumption post-construction, the consumer would fall under HT commercial category.

Commission's comments

The submission of ED-Goa is noted by the Commission. ED-Goa shall extend temporary supply to the Leading Hotel and intimate the consumer to apply for HT Temporary category and collect the necessary charges based on the estimates prepared by ED-Goa for extending supply to them.

4.2.7 Issues raised by Mr. Anil G. Lolinker, Goa Sintered Product Pvt. Ltd.

Objection:

Wrong practices followed by Goa Electricity Department to charge double rate for period of 12 months, in case maximum demand exceeds by few units in 1 months during the period of use.

Petitioner's submission

ED-Goa submits that it adheres to the General Conditions and Tariff Schedule approved by Hon`ble Commission from time to time. However, if any error has been noticed by

the consumer in this particular case, the consumer could bring it to the Department's specific notice and the same would be examined and correction undertaken if so warranted. The relevant clause related to excess billing demand is as under for reference:

16) 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

Commission's comments

The submission of ED-Goa is taken note by the Commission

4.2.8 Issues raised by West Coast Ingots Pvt. Ltd.

Objection

Calculate Delay Payment Charges (DPC) on pro-rata basis.

Petitioner's submission

ED-Goa submits that the Delay Payment Charges are charged as per the General Conditions and Tariff Schedule approved by Commission. However, if any error has occurred in this particular case, the consumer can bring it to the specific Department's notice and the decision can be taken on the same in light of the JERC directions. The relevant extract from Tariff Order is provided as under:

Late payment surcharge of 2% per month or part thereof shall be levied on all delayed payments of bills. 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.

Commission`s comments

The submission of ED-Goa is taken note by the Commission. The same clause will be dealt directly in general conditions and Tariff Schedule in this Tariff Order.

4.2.9 Issues Raised by M/s. Alloy & Steel Manufacturers Association

Issue 1: In Tariff Charges in TOD etc.

M/s. Alloy & Steel Manufacturers Association has suggested that,

- 1) Electricity is a major input for process and any increase in tariff is going to be adversely affect the cost of production and thereby reducing competition in the market.
- 2) The rebate for power consumption during 2300 to 0700 hours is 10% of energy charges. The rebate during off-peak period be increased to 50%.
- 3) As against the proposed timing of peak load from 6.00 PM to 11 PM; the following timings are suggested:
Normal Period – 7:00 AM to 6:00 PM
Evening Peak – 6:00 PM to 10:00 PM
Off Peak load period – 10:00 PM to 7:00 AM

The steel industry be allowed to overdraw power by 10% over and above the contract demand at the prevailing off peak load period and without demand charges.

- 4) All closed units are required to pay 75% of the contract demand to ED-Goa, which these units are not in a position to pay. Hence, if the unit is closed continuously for three months or more, it should be charged Rs. 1500/- pm as line charges from the date of closure and the unit should be allowed to draw power upto a maximum of 200 KVA to carry out regular maintenance and for lighting.

Petitioner`s Submission

On the above issues, the Petitioner has submitted as under:

1. The Hon`ble Commission had suggested for Uniform Tariff Schedule in T.O. FY 2013-14 dated 31.3.2013 (pg 159) which had TOD tariff details. Thereafter the Hon`ble Commission approved TOD tariffs for HT/EHT consumers in T.O. FY 2014-15 dated 15.4.2014 (pg 167); however they were made optional. Considering the present load profile/ consumption pattern and the need for better load management, ED-Goa has proposed for change in evening peak period. The TOD tariffs are same as approved by Hon`ble Commission in T.O.
2. Extending 50% rebate during off-peak period is not a feasible option at this moment and any financial loss (during time slots) to ED-Goa will eventually increase burden on all consumers in general. The evening peak period has been suggested based on the EESL study on Demand Side Management in Goa.
It is suggested that TOD time slots and tariffs can be reviewed once the same is implemented and results are studied.

The consumers need to draw power as per contract demand and billing would be as per approved terms and conditions of tariff schedule.

3. It would not be possible to have different types of tariff structure depending upon the functioning of each HT consumers and prevailing industry scenario. It is submitted that ED-Goa needs to make payment for power purchase, capacity charges & other fixed charges and hence recovery of the same from consumers is required.

On the suggestion for reducing demand charges to a nominal Rs. 15000 p.m, ED-Goa would like to refer to demand charges for last few years.

Financial Year	HT Ferro	HT Steel
	(Rs/KVA/Month)	(Rs/KVA/Month)
FY 2011-12	700	450
FY 2012-13	450	400
FY 2013-14	450	400
FY 2014-15	275	
FY 2015-16 (P)	325	

4. The objector has suggested for pro-rata demand charges during the shut-down period as per earlier Gazette notification dated 11.4.2002. ED-Goa would like to mention that pro-rata demand charges facility was available as per notification when demand charges were Rs.700/KVA and Rs.450/KVA for HT Ferro and HT Steel consumer respectively. Further it was mentioned in the Gazette notification that the total shutdown period during the calendar year should be restricted to a maximum of sixty days. The present demand charges are much lower even after a period of 12-13 years and hence there is no need for any such mechanism. As per the tariff orders of Pondicherry, Kerala, Gujarat, Maharashtra States, such provision is not prevailing in these states. Further

Hon`ble Commission in its T.O. dated 15-04-2014 for Goa has clearly given their view in this regards at page No. 30.

ED-Goa respectfully submits that in case any consumer has planned for shut down for a period of 3 months or more they may apply for disconnection and later on apply for new connection as and when situation improves.

Commission`s comments

The Commission has made note of the objections of the Objector and submissions of the Petitioner. The `Time of Use` and the `Energy Charge` for using supply during `Peak` and `Off Peak` periods are determined after examining the load profile, power purchase during Peak and Off Peak periods etc.

As regards the pro-rated demand charges, the Commission has explained its views in the Tariff Order dated 15th April, 2014 where is reproduced below:

“As regard to the pro-rated demand charges the Commission finds merit in the Petitioner`s submission that the demand charges are aimed towards meeting the fixed cost of the business. Besides paying fixed charges to the generators, the utility, in order to serve the consumers, has to create and maintain an adequate network for supply to the consumers. Therefore the demand charges cannot be avoided for short intervals where the industries are not functional”.

Issue 2: Reintroduction of Load Factor incentives

M/s Alloy & Steel Manufacturers` Association has requested for reintroduction of load factor incentive as in Goa Gazette Notification dated 11.04.2002.

Petitioner`s Submission

The objector has provided partial information of Load Factor Incentive from Gazette notification dated 11.04.2002. There were conditions such as actual recorded MD should not exceed CD. TOD metering to be provided by consumer, no arrears outstanding with ED-Goa, permissible harmonics etc.

Load Factor Incentive is prevailing only in Maharashtra, Madhya Pradesh, West Bengal and Jharkhand. It is submitted that while in principle the suggestion is not objectionable but if Hon`ble Commission decides to introduce Load Factor Incentive for HT/EHT consumers of the Goa, necessary impact in revenue computation be considered (it will reduce revenue from HT consumers for ED-Goa).

Commission`s comments

The Commission is of the opinion that there is no need for introduction of “Load Factor Incentive” since the Tariff is so designed that for those who consume more energy the average billing rate reduces correspondingly because the fixed charges are fixed whatever may be the consumption during any month.

Issue 3: Transmission and Distribution Open Access

M/s Alloy & Steel Manufacturers` Association of Goa has suggested:

1. To formulate procedures and other infrastructure to enable consumers to buy power on open access. Since the State of Goa does not have a transmission utility and State Load Dispatch Center, the Commission shall notify an independent agency to monitor and manage open access transactions.
2. To determine the open access charges, the ED/Goa should submit details of voltage-wise cost of supply and distribution losses.

3. To appoint an independent agency to monitor and manage installation and maintenance of Special Energy Meters (SEMs) and also for energy settlement and energy accounting within the State of Goa.

Petitioner`s Submission

The licensee has formulated the procedure in April, 2013 and the same was intimated to M/s ASMA in last year in reply to an objection.

ED-Goa has submitted a proposal for determination of open access charges in MYT Petition in Chapter-10.

Commission`s comments

The Commission has dealt with open access charges in Chapter – 9 in this Order.

Issue 4: Demand Charges

M/s Alloy & Steel Manufacturer`s Association has requested not to increase the demand charges as proposed by the Petitioner and suggested to make demand charges uniform for all types of HT Consumers.

Petitioner`s Submission

The demand charges are much lower when compared to previous years. Further ED-Goa in MYT Petition at para 7.2.5 has explained the need for aligning fixed charges recovery against fixed charges payment.

With regards to suggestion for having uniform demand charges across HT consumers, it is suggested that these charges are prevailing since long. ED-Goa in this financial year has already proposed some limited changes through tariff rationalization and these charges are prevailing since quite a long. It is submitted that other than HT Ferro/Steel,

rest of the HT Industries consumers & HT Commercial consumers have proposed uniform demand charges. HT Consumers such as Defence, Agriculture, Domestic are having charges as per their characteristics and as per past trend. The issue next year may be revisited based on experience and actuals.

Commission`s comments

The Demand Charge or Fixed Charge component in the Tariff is to recover fixed cost (Capacity Charge) in the generation tariff and investment costs for developing the distribution network such as depreciation, interest, etc., and O&M costs incurred by the licensee.

Issue 5: Corporatisation of ED-Goa

M/s Alloy & Steel Manufacturers` Association has requested the Commission to direct ED-Goa to initiate the process of Corporatization at the earliest.

Petitioner`s Submission

The ED-Goa has already initiated the process and would undertake preliminary study before going ahead studying with pros and cons of implementation of Corporatization. The Hon`ble JERC may like to pass suitable directions in this regards.

Commission`s comments

The ED-Goa is directed to expedite for early unbundling and corporatization of Electricity Department.

Issue 6: Provisional True Up for FY 2013-14

M/s Alloy & Steel Manufacturers` Association has stated that as per JERC MYT Regulations, 2014, the true up for a Financial Year can be done only after submission of audited accounts. The audited accounts for FY 2013-14 is not available and hence true up submission should not be considered.

Petitioner`s Submission

ED-Goa has provided the data of FY 2013-14 for considering as base year`s figure for future projections of FY 14-15 and MYT control period. It is reiterated that ED-Goa would claim revenue gap in the tariffs when audited accounts are available.

Commission`s comments

True Up for any Financial Year can be undertaken when for audited annual accounts of the relevant year are made available along with the petition filed before the Commission. ED-Goa should expedite for early completion of audit of their annual accounts.

Issue 7: Annual Performance Review for FY 2014-15

M/s Alloy & Steel Manufacturers Association has submitted that:

- 1) The ED-Goa be directed to put sustained efforts to meet the distribution loss targets and submit a roadmap for their reduction. Also the ED, Goa needs to separate the loss into technical and commercial loss.
- 2) ED-Goa to explore means to reduce the unplanned overdrawal to reduce power purchase cost.
- 3) ED-Goa submission the rates are under negotiation, in regard to supply to Reliance IPP, is not as per present regulatory framework and ED-Goa needs to levy tariff applicable to HT industry or if it is for a short period, the tariff applied shall be treated as temporary tariff .
- 4) ED-Goa can explore the possibility of purchase REC from power exchange to meet RPO obligations.

- 5) The Commission to disallow high increase in employee and R&M expenses as they are without sufficient and proper reasons.
- 6) CGRF expenses should be claimed as part of A&G expenses and claiming them apparently is not as per JERC MYT Regulation, 2014.
- 7) Revenue Gap: Unless actual audited accounts are available for FY 2014-15 and after disallowance of the various cost escalations claimed as a percentage in the annual performance review, the revenue gap will decrease considerably.

Petitioner`s Submission

- 1) The ED-Goa in MYT Petition at petition at Para 5.6 has mentioned that it is sorting out billing issues to address commercial losses and also implementing R-APDRP and other capital expenditure schemes to reduce technical losses. However the results would be visible only after the schemes are implemented.
- 2) ED-Goa had overdrawn the power in H1 of FY 2014-15 under following circumstances:
 - Non availability of power from Reliance IPP from 18th April 2014 to 13th August 2014 and in addition Department had to supply power to IPP to supply to their consumers.
 - Outages by Central Generating Stations-

Information can be captured from WRLDC website from the drawal schedule which shows that Goa received less power from some of the Central Generating Stations (Such as Korba Power Plant (KSTPS) during the period April to August (especially in mid-August) leading to unplanned overdrawal from the grid at higher cost.

However ED-Goa is taking all possible measures to procure power in reasonable and planned manner.

- 3) ED-Goa has already clarified in the petition that it is pursuing the matter with Reliance IPP. However the matter is referred to panel constituted by the Government of Goa to resolve the Billing dispute.
- 4) ED-Goa has so far purchased 85MU RECs at the rate of Rs. 1.5/kWh for non-solar RPO. It is matter of representation of APR from Petition.
- 5) The revised estimates for FY 2014-15 are based on tentative actuals of first six months of FY 2014-15. The head wise details for each of the element of O&M expenses are provided in relevant to tariff formats.
- 6) Since CGRF expenses were approved separately in T.O. FY 2014-15 (pg 159), ED-Goa has for the comparison purpose shown it separately. In MYT period the same are merged and considered as part of A&G expenses.

The Objector raised for not allowing the revenue gap under review for FY 2014-15 as it would eventually lead to further increase in revenue gap in the true-up process. The revenue gap at the time of true-up will also attract carrying cost which ultimately the consumers have to borne. ED-Goa submits that Hon`ble Commission should consider the revenue gap arrived under review process while determining tariffs for FY 2015-16 as per its practice in earlier tariff orders.

Commission`s comments

The suggestions of objector and submission of the Petitioner are noticed. In `Review for FY 2014-15', the commission has analysed and considered each component of expenses while arriving at the Aggregate Revenue Requirement for FY 2014-15.

Issue 8: MYT for FY 2015-16 to FY 2017-18

M/s Alloy & Steel Manufacturers` Association has stated that:

- 1) The Commission shall disallow any increase in distribution loss for the control period and direct to ED, Goa to submit a plan to reduce the distribution loss to 10% at the end of the contract period.
- 2) ED, Goa needs to explore possibility of purchased power from NTPC or NPCIL and also additional power from Cogen.
- 3) The Commission to review the capital expenditure and capitalization submitted by ED, Goa for the control period.
- 4) The Commission is requested to review thoroughly the huge increase in expenses with reference to energy sales.
- 5) The capital expenditure also needs to be analysed.
- 6) Fixed charges payment VS Fixed charges recovery: The Commission is requested to take the concerns of consumers before accepting the proposals of ED, Goa.
- 7) The Percentage increase sought by ED, Goa in fixed and energy charges are very high. The Commission to disallow such high increase in tariff.

Petitioner`s Submission

- 1) ED-Goa is very serious on the matter and taking all necessary steps including implementation of R-APDRP and IPDS etc. to address the issues related to improvements and reduction of technical losses. ED-Goa is also addressing metering and billing related issues to reduce commercial losses. Hon`ble Commission may approve distribution losses considering realistic scenario of FY 2013-14 and FY 2014-15 and also fact that results of implementation of capital expenditure schemes will be visible at the end of control period. Hence distribution losses should be approved as per proposal of ED-Goa in MYT petition.

- 2) Short term contracted rate (tied-up rate in Nov 2014) for ED-Goa for power purchase from Dec 2014 to May 2014 is around 3.60-Rs.3.75 per unit. ED-Goa has considered escalation in control period. ED-Goa would like to mention that objector has failed to refer to Business Plan petition where details of Power Procurement and even SWOT analysis are provided. In para 4.3.2 of the Business Plan petition, ED-Goa has highlighted the concern of its likely power procurement arrangement due to coal block cancellation by Supreme Court. However as mentioned earlier, ED-Goa is taking all measures, in line with the Ministry of Power guidelines to procure power in a reasonable and planned manner.

- 3) As per 18th EPS report, CEA has projected 5473MUs Energy Consumption and 1105MW Peak Load for Goa by FY 2020-21 as compared to the present 2977MUs and 540MW Peak Load (for FY 2013-14). Hence, a huge investment in infrastructure is required to cater this upcoming load and to prevent the lines, conductors and cables from being overloaded.

- 4) ED-Goa submitted detailed capital expenditure plan along with explanation in Business Plan petition for the control period and requested Hon`ble Commission to approve the same.
- 5) Comparison of costs with sales increase alone would be incorrect. The major component of the ARR is Power Purchase and Transmission charges, the tariffs of which are regulated by CERC. The O&M expenses are linked to inflation as well as certain components such as no of employees, no of consumers, value of gross fixed assets etc. It is submitted that the Fixed Asset Registers have been submitted to the Hon`ble Commission and the same shall be uploaded on the website. The other costs such as depreciation, interest on normative loan, and return on equity are required to be allowed as per provisions of MYT Regulations 2014.
- 6) ED-Goa in MYT petition at para 7.2.5 has explained the need for aligning fixed charges recovery against fixed charges payment.
- 7) ED-Goa has proposed the tariffs for consumers categories considering the ARR projections and revenue gap. ED-Goa has also explained the need for tariff increase and the philosophy in chapter 7 of MYT petition.

Commission`s comments

As explained in Chapter-1 of this order, the Commission has taken a decision to determine the Aggregate Revenue Requirement for FY 2015-16 only instead of for FY 2015-16 to FY 2017-18.

The Commission has determined the various components of the ARR in line with JERC Tariff Regulations, 2009. Detailed analysis is given the Chapter-6 of this order.

5. Review of ARR for FY 2014-15

5.1 Background

The ED-Goa filed its petition for Review of FY 2014-15 and Multi Year Tariff (MYT) Petition for the First Control Period of FY 2015-16 to FY 2017-18 on January 14th, 2015 (received by the Commission on 20.01.2015). The petition was admitted on February 03rd, 2015 subject to the removal of infirmities to the extent possible. Subsequent to filing, a technical validation session was held on February 19th, 2015. The Commission scheduled Public hearings of Petitions No. 160/2015 and 161/2015 on March 11th, 2015 and March 26th, 2015.

The Commission in the absence of the audited accounts has considered the figures for FY 2013-14 as approved vide its order dated April 15th, 2014 and actuals of the first half of FY 2014-15 wherever available for determination of the ARR for FY 2014-15 as they depict nearly the true performance of the utility.

The Commission has taken into consideration the following for determination of ARR for FY2014-15:

- I. Performance in FY 2013-14 as approved in the order dated April 15th, 2014
- II. Sales, power purchase and revenue figures based on actuals in the first half of FY 2014-15 and FY 2013-14 (H1 and H2)
- III. Estimates submitted by the Petitioner for H2 of FY 2014-15 in the petition.
- IV. Depreciation, Interest and Finance Charges, Interest on Working Capital, Interest on Security Deposit, and Return on Net Fixed Assets have been computed as per the JERC Tariff Regulations 2009.

5.2 Analysis of Review for FY 2014-15

The review of aggregate revenue requirement requires assessment of quantum of energy sales, energy loss as well as various cost elements like power purchase cost, O&M expenses, interest cost, depreciation etc. As regards the various components of ARR, the Commission's Analysis thereon and decision in respect of items given below is discussed in the following Para's:

- Assessment of Energy Requirement
 - I. Sales Projections
 - II. Loss Trajectory
 - III. Energy Balance
 - IV. Power Purchase Sources
- Assessment of the Aggregate Revenue Requirement
 - V. Power Purchase Costs & Transmission Charges;
 - VI. Operation and Maintenance Expenses;
 - Employee Expenses
 - Administration & General expenses
 - Repairs & Maintenance Expenses
 - VII. Capital Expenditure and Asset Capitalization
 - VIII. Gross Fixed Assets;
 - IX. Depreciation;
 - X. Interest on Long Term Loans;
 - XI. Interest on Working Capital & Security Deposits;
 - XII. Return on Capital Base/ Net Fixed Assets;
 - XIII. Provision for Bad and Doubtful Debts
 - XIV. Other expenses.

5.3 Consumers, Connected Load and Energy Sales

5.3.1 Number of Consumers

Petitioner's Submission

The Petitioner has submitted that 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 & 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 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 5.1 Number of Consumers projected for FY 2014-15(RE) by the Petitioner (Nos.)

Sl. No.	Category of Consumer	FY 2014-15 (Approved in the T.O. dated 15 th April, 2014)	H1 of FY 2014-15 (Provisional)	FY 2014-15 (RE)
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
	First 60 Units		100,512	102,523
	61 to 250 Units		282,784	288,440
	251 to 500 Units		67,964	69,323
	Above 500 Units		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
	First 400 Units		1,150	1,150
	Above 400 Units		255	255
2	Tariff-LTC/Commercial	96,414	87,335	89,081
	First 100 Units		42,463	43,312
	From 101 to 1000 Units		39,082	39,863
	All Consumption above 1000 Units		5,790	5,906
3(a)	Tariff-LTP/Motive Power	9,622	6,912	6,981

Sl. No.	Category of Consumer	FY 2014-15 (Approved in the T.O. dated 15 th April, 2014)	H1 of FY 2014-15 (Provisional)	FY 2014-15 (RE)
	Connected Load upto 50 HP		363	366
	Connected Load above 50 HP		6,549	6,615
3(b)	Tariff-LTP/ Ice Manufacturing	45	63	66
	Connected Load up to 100 HP		63	66
3(c)	Tariff-LTP/Mixed (Hotel Industries)	126	141	148
4	Tariff-LTAG/Agriculture	11,105	11,145	11,145
5	Tariff-LTAG/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	HT Industrial (Ferro Metallurgical /Steel Melting/Power Intensive/Steel Rolling)	26	37	37
	First 300 Units/kVA		20	20
	Next 200 Units/kVA		14	14
	Above 500 Units/kVA		3	3
10	Tariff-HTAG/Agriculture	42	41	41
11	EHTI/Industrial	4	5	5
12	HT PW/Public Water Supply and sewage	31	34	35
13	HT MES/Defense Establishments	13	12	12
14	HT Industrial (Steel Rolling)	14		
	First 200 Units/kVA			
	Next 100 Units/kVA			
	Above 300 Units/kVA			
15	Tariff HT Industries (IT High Tech)	8	11	12
C	Temporary Supply	4,173	5,033	5,033
16	Tariff -LT/Temporary	4,173	4,929	4,929
17	Tariff-HT/Temporary	-	-	-
18	Hoarding/Sign Board	-	104	104
	Total Number of Consumers	593,230	597,378	608,601

Commission's Analysis

The Commission has considered the category wise number of consumers for FY 2014-15 in Review as projected by the Petitioner as given in the table below.

Table 5.2 Number of Consumers approved by the Commission in Review of FY 2014-15

(Nos.)			
Sl. No.	Category of Consumer	FY 2014-15 (Approved in the T.O. dated 15 th April, 2014)	FY 2014-15 approved in the Review
1	2	3	5
A	Low Tension Supply	588,218	602,750
1(a)	Tariff LTD/Domestic and Non-Commercial	446,515	478,893
	First 60 Units		102,523
	61 to 250 Units		288,440
	251 to 500 Units		69,323
	Above 500 Units		18,607
1(b)	Tariff LTD/Low income group	14,321	11,547
1(c)	Tariff LTD/Domestic Mixed	51	1,405
	First 400 Units		1,150
	Above 400 Units		255
2	Tariff-LTC/Commercial	96,414	89,081
	First 100 Units		43,312
	From 101 to 1000 Units		39,863
	All Consumption above 1000 Units		5,906
3(a)	Tariff-LTP/Motive Power	9,622	6,981
	Connected Load upto 50 HP		366
	Connected Load above 50 HP		6,615
3(b)	Tariff-LTP/ Ice Manufacturing	45	66
	Connected Load up to 100 HP		66
3(c)	Tariff-LTP/Mixed (Hotel Industries)	126	148
4	Tariff-LTAG/Agriculture	11,105	11,145
5	Tariff-LTAG/Public Lighting	9,466	2,740
6	Tariff-LT PWW/Public Water Works	553	744
B	High Tension Supply	839	817
7	Tariff HT-Mixed	206	168
8(a)	Tariff HTI/Industrial	493	396
8(b)	Tariff HTI/Hotel Industries	-	110
8(c)	Tariff HTI/Ice Manufacturing	2	2

Sl. No.	Category of Consumer	FY 2014-15 (Approved in the T.O. dated 15 th April, 2014)	FY 2014-15 approved in the Review
9	HT Industrial (Ferro Metallurgical /Steel Melting/Power Intensive/Steel Rolling)	26	37
	First 300 Units/kVA		20
	Next 200 Units/kVA		14
	Above 500 Units/kVA		3
10	Tariff-HTAG/Agriculture	42	41
11	EHTI/Industrial	4	5
12	HT PW/Public Water Supply and sewage	31	35
13	HT MES/Defense Establishments	13	12
14	HT Industrial (Steel Rolling)	14	
	First 200 Units/kVA		
	Next 100 Units/kVA		
	Above 300 Units/kVA		
15	Tariff HT Industries (IT High Tech)	8	12
C	Temporary Supply	4,173	5,033
16	Tariff –LT/Temporary	4,173	4,929
17	Tariff-HT/Temporary	-	-
18	Hoarding/Sign Board	-	104
	Total Number of Consumers	593,230	608,601

5.3.2 Connected Load

Petitioner's Submission

The Petitioner has submitted that the category wise connected load for the 1st half and revised estimates for FY 2014-15 are 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 Consumers 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 5.3 Connected Load Projected by the Petitioner for FY 2014-15(RE)

(KW)

Sl. No.	Category of Consumer	FY 2014-15 (Approved)	H1 of FY 2014-15 (Provisional)	FY 2014-15 (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
	First 60 Units	242,267	348,163	349,904
	61 to 250 Units	681,602	979,531	984,429
	251 to 500 Units	163,816	235,420	236,597
	Above 500 Units	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
	First 400 Units	1,798	2,611	2,611
	Above 400 Units	400	580	580
2	Tariff-LTC/Commercial	334,998	275,886	277,265
	First 100 Units	162,879	134,138	134,809
	From 101 to 1000 Units	149,910	123,458	124,075
	All Consumption above 1000 Units	22,209	18,290	18,382
3(a)	Tariff-LTP/Motive Power	1,011,331	165,019	165,019
	Connected Load upto 50 HP	53,064	8,658	8,658
	Connected Load above 50 HP	958,267	156,360	156,360
3(b)	Tariff-LTP/ Ice Manufacturing	1,882	3,072	3,072
	Connected Load upto 100 HP	1,882	3,072	3,072
3(c)	Tariff-LTP/Mixed (Hotel Industries)	3,315	4,569	4,569
4	Tariff-LTAG/Agriculture	64,226	61,326	61,326
5	Tariff-LTAG/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	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	HT Industrial (Ferro Metallurgical /Steel Melting/Power Intensive/Steel Rolling	93,223	111,840	111,840
	First 300 Units/kVA	50,341	60,389	60,389

Sl. No.	Category of Consumer	FY 2014-15 (Approved)	H1 of FY 2014-15 (Provisional)	FY 2014-15 (Rev. Est.)
	Next 200 Units/kVA	35,425	42,328	42,328
	Above 500 Units/kVA	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	HT PW/Public Water Supply and sewage	26,852	30,796	30,796
13	HT MES/Defense Establishments	6,812	7,080	7,080
14	HT Industrial (Steel Rolling)	16,204		
	First 200 Units/kVA	11,505		
	Next 100 Units/kVA	3,727		
	Above 300 Units/kVA	972		
15	Tariff HT Industries (IT High Tech)	5,159	6,658	6,658
C	Temporary Supply	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

Commission's Analysis

The Commission has considered the connected load for FY 2014-15 in Review as projected by the Petitioner as given in the table below.

Table 5.4 Connected Load approved by the Commission in Review for FY 2014-15

(KW)			
Sl. No.	Category of Consumer	Considered for FY 2014- 15 in the T.O dated 15 th April, 2014	Approved for FY 2014-15 in review
1	2	3	5
A	Low Tension Supply(in Kw/HP)		
1(a)	Tariff LTD/Domestic and Non- Commercial	1,131,655	1,634,435
	First 60 Units	242,267	349,904
	61 to 250 Units	681,602	984,429
	251 to 500 Units	163,816	236,597
	Above 500 Units	43,971	63,506
1(b)	Tariff LTD/Low income group	1,206	2,046

Sl. No.	Category of Consumer	Considered for FY 2014-15 in the T.O dated 15 th April, 2014	Approved for FY 2014-15 in review
1(c)	Tariff LTD/Domestic Mixed	2,198	3,191
	First 400 Units	1,798	2,611
	Above 400 Units	400	580
2	Tariff-LTC/Commercial	334,998	277,265
	First 100 Units	162,879	134,809
	From 101 to 1000 Units	149,910	124,075
	All Consumption above 1000 Units	22,209	18,382
3(a)	Tariff-LTP/Motive Power	1,011,331	165,019
	Connected Load upto 50 HP	53,064	8,658
	Connected Load above 50 HP	958,267	156,360
3(b)	Tariff-LTP/ Ice Manufacturing	1,882	3,072
	Connected Load upto 100 HP	1,882	3,072
3(c)	Tariff-LTP/Mixed (Hotel Industries)	3,315	4,569
4	Tariff-LTAG/Agriculture	64,226	61,326
5	Tariff-LTAG/Public Lighting	9,047	9,598
6	Tariff-LT PWW/Public Water Works	21,548	5,600
B	High Tension Supply	657,938	573,529
7	Tariff HT-Mixed	67,649	74,767
8(a)	Tariff HTI/Industrial	234,192	240,374
8(b)	Tariff HTI/Hotel Industries	122,763	41,559
8(c)	Tariff HTI/Ice Manufacturing	364	364
9	HT Industrial (Ferro Metallurgical/Steel Melting/Power Intensive/Steel Rolling)	93,223	111,840
	First 300 Units/kVA	50,341	60,389
	Next 200 Units/kVA	35,425	42,328
	Above 500 Units/kVA	7,458	9,123
10	Tariff-HTAG/Agriculture	8,202	8,258
11	EHTI/Industrial	76,519	51,833
12	HT PW/Public Water Supply and sewage	26,852	90,796
13	HT MES/Defence Establishments	6,812	7,080
14	HT Industrial (Steel Rolling)	16,204	
	First 200 Units/kVA	11,505	
	Next 100 Units/kVA	3,727	
	Above 300 Units/kVA	972	

Sl. No.	Category of Consumer	Considered for FY 2014-15 in the T.O dated 15 th April, 2014	Approved for FY 2014-15 in review
15	Tariff HT Industries (IT High Tech)	5,159	6,658
C	Temporary Supply	16,464	8,025
16	Tariff –LT/Temporary	16,464	7,502
17	Tariff-Ht/Temporary	-	-
18	Hoarding/Sign Board	-	523

5.3.3 Energy sales

Petitioner's Submission

The ED-Goa has projected the sales by considering the actual consumption for the 1st half of FY 2014-15, i.e. April 2014 to Sept 2014. The sales forecast for the remaining period is based on the trends observed in the sales pattern over the previous years during the corresponding 2nd half of the respective years.

The ED-Goa has considered higher sales during the 2nd half of FY 2014-15 as compared to the first half. This is on account of the peak tourist season which commences from the month of September onwards and continues till the month of January / February. Hence, there is a substantial amount of consumption of power during this period.

It is submitted that there is a backlog in billing for LT consumers during the first half of FY 2014-15 which is expected to be covered up during the 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.

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 the ED-Goa. Therefore the ED-Goa expects an increase in sales of H2 as compared to H1 of

FY 2014-15.

The following table shows the overall sales projected by the ED-Goa for the year of FY 2014-15.

Table 5.5 Projected Energy Sales for FY 2014-15

(MU)

Sl. No.	Category of Consumer	FY 2014-15 (Approved as per TO dated 15.04.2014)	H1 FY 2014-15 (Provisional)	H2 FY 2014-15 (Estimate)	FY 2014-15 (RE)
1	2	3	4		5
A	Low Tension Supply	1,293	578	652	1,230
1(a)	Tariff LTD/Domestic and Non-Commercial	841	339	383	722
	First 60 Units	177	73	82	155
	61 to 250 Units	504	204	231	435
	251 to 500 Units	126	49	55	105
	Above 500 Units	34	13	15	28
1(b)	Tariff LTD/Low income group	3	3	4	7
1(c)	Tariff LTD/Domestic Mixed	5	3	4	7
	First 400 Units	4	3	3	6
	Above 400 Units	1	1	1	1
2	Tariff-LTC/Commercial	291	124	140	264
	First 100 Units	142	60	68	128
	From 101 to 1000 Units	130	56	63	118
	All Consumption above 1000 Units	19	8	9	18
3(a)	Tariff-LTP/Motive Power	94	70	79	149
	Connected Load upto 50 HP	5	4	4	8
	Connected Load above 50 HP	89	66	75	141
3(b)	Tariff-LTP/ Ice Manufacturing	8	3	3	7
	Connected Load upto 100 HP	-	3	3	7
3(c)	Tariff-LTP/Mixed (Hotel Industries)	5	1	1	3
4	Tariff-LTAG/Agriculture	16	12	13	25
5	Tariff-LTAG/Public Lighting	24	18	21	39
6	Tariff-LT PWW/Public Water Works	7	3	3	6
B	High Tension Supply	1,785	879	921	1,800

Sl. No.	Category of Consumer	FY 2014-15 (Approved as per TO dated 15.04.2014)	H1 FY 2014-15 (Provisional)	H2 FY 2014-15 (Estimate)	FY 2014-15 (RE)
7	Tariff HT-Mixed	112	65	66	130
8(a)	Tariff HTI/Industrial	655	284	320	604
8(b)	Tariff HTI/Hotel Industries	-	66	67	133
8(c)	Tariff HTI/Ice Manufacturing	-	1	1	1
9	HT Industrial (Ferro Metallurgical/Steel Melting/Power Intensive/Steel Rolling)	555	281	284	566
	First 300 Units/kVA	300	152	154	306
	Next 200 Units/kVA	211	87	88	176
	Above 500 Units/kVA	44	13	13	27
10	Tariff-HTAG/Agriculture	5	2	2	5
11	EHTI/Industrial	192	87	88	175
12	HT PW/Public Water Supply and sewage	147	68	69	137
13	HT MES/Defence Establishments	25	13	14	27
14	HT Industrial (Steel Rolling)	61	-	-	-
	First 200 Units/kVA	44	-	-	-
	Next 100 Units/kVA	14	-	-	-
	Above 300 Units/kVA	4	-	-	-
15	Tariff HT Industries (IT High Tech)	21	10	11	21
C	Temporary Supply		19	19	39
16	Tariff –LT/Temporary	11	19	19	38
17	Tariff-HT/Temporary	0	-	-	-
18	Hoarding/Sign Board	0	0	0	0
	Total Energy Sales	3,078	1,476	1,592	3,068

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

Commission's Analysis

The Commission in its Tariff Order for FY 2014-15 had approved the sales of 3078 MU's for FY 2014-15 based on the past trends. In terms of the JERC Tariff Regulations, the review of the sales has been undertaken. The Commission while approving the sales has looked at the increase in the period October to March of FY 2013-14 as compared

to April to September 2013. The increase is applied on the actual sales submitted by the Petitioner for the period April to September 2014 to arrive at the sales for the second half of FY 2014-15. The Commission also considered the expected additional sales during H2 of FY 2014-15 due to shifting of Industrial Consumers from Reliance IPP.

As also indicated in the previous orders the Commission has considered the normative consumption of consumers under LTD-LIG category in accordance with the Tariff Schedule. Consumers under the LTD/LIG-Low Income group category are allowed a connected load of two numbers of 40 Watts bulbs = $2 \times 40 = 80W$ only as per approved Tariff Schedule. Considering this as the basis, consumption of each consumer under the LIG category works out to be 175.2 ($2 \times 40 \times 6 \times 365 / 1000$) kWh per consumer per year taking average usage of 6 hours per day. The number of consumers are 11547 as shown in Table No. 5.2. Accordingly, the Commission has considered the sales for FY 2014-15 for the LTD / LIG category at 2.02 MU per year.

In view of the fact that the PPA with Reliance IPP for supplying power to 55 industrial consumers has expired on 13th August 2014 and all the industrial consumers are now being supplied power by ED-Goa, the sales for industrial consumers for H2 of FY 2014-15 are approved, as projected by the Petitioner.

Based on the above, the energy sales for FY 2014-15 approved for review purpose are as given in the table below:

Table 5.6 Energy Sales Approved by the Commission for FY 2014-15

						(MU)
Sl. No.	Category of Consumer	FY 2014-15 (Approved as per TO dated 15.04.2014)	H1 of FY 2014-15 (Prov.)	Growth Rate (%)	H2 of FY 2014-15 (Est)	FY 2014-15 (RE)
1	2	3				
A	Low Tension Supply	1,293	574		692	1266
1(a)	Tariff LTD/Domestic and Non-Commercial	841	339	115%	389	728
1(b)	Tariff LTD/Low income group	3	1	100%	1	2
1(c)	Tariff LTD/Domestic Mixed	5	3	133%	4	7
2	Tariff-LTC/Commercial	291	124	116%	144	268
3(a)	Tariff-LTP/Motive Power	94	70	155%	109	179
3(b)	Tariff-LTP/ Ice Manufacturing	8	3	150%	5	8
3(c)	Tariff-LTP/Mixed (Hotel Industries)	5	1	350%	4	5
4	Tariff-LTAG/Agriculture	16	12	233%	13	25
5	Tariff-LTAG/Public Lighting	24	18	123%	22	40
6	Tariff-LT PWW/Public Water Works	7	3	75%	3	6
B	High Tension Supply	1,785	877		933	1810
7	Tariff HT-Mixed	112	65	105%	69	134
8(a)	Tariff HTI/Industrial	655	284	114%	323	607
8(b)	Tariff HTI/Hotel Industries	-	66	107%	71	137
8(c)	Tariff HTI/Ice Manufacturing	-	1		1	2
9	HT Industrial (Ferro Metallurgical/Steel Melting/Power Intensive/Steel Rolling)	555	281	100%	284	565
10	Tariff-HTAG/Agriculture	5	2	200%	4	6
11	EHTI/Industrial	192	87	101%	88	175
12	HT PW/Public Water Supply and sewage	147	68	97%	69	137
13	HT MES/Defence Establishments	25	13	100%	14	27
14	HT Industrial (Steel Rolling)	61	0	112%	0	0
15	Tariff HT Industries (IT High Tech)	21	10	113%	11	21
16	Tariff HT Industries (Ice)	1	0		0	0
C	Temporary Supply		19		19	38
16	Tariff –LT/Temporary	11	19	100%	19	38
17	Tariff-HT/Temporary	0	0		0	0

Sl. No.	Category of Consumer	FY 2014-15 (Approved as per TO dated 15.04.2014)	H1 of FY 2014-15 (Prov.)	Growth Rate (%)	H2 of FY 2014-15 (Est)	FY 2014-15 (RE)
18	Hoarding/Sign Board	0	0		0	0.0
	Total Energy Sales	3,078	1470		1644	3114

5.4 Intra-state Transmission & Distribution Loss

Petitioner's Submission

The Distribution Loss for the 1st half of the year FY 2014-15 (i.e. April 2014 to Sept-2014) based on the actual data available comes to 18.66%. The distribution loss for the year FY 2014-15 on overall basis is estimated to be around 14%. ED – Goa has been trying to minimize the Distribution Loss and shall continue with the efforts in reducing the Distribution Loss further.

Commission's Analysis

The Commission in its Tariff Order for April 15, 2014 had approved a loss level of 11.50% for FY 2014-15. However, the Petitioner in its present petition has shown an achievement of T&D losses for FY 2013-14 to be around 13.90% and has requested the Commission to revise the loss levels for FY 2014-15. The Petitioner has not provided substantial reasons for the proposed non-achievement of the targeted levels. The Petitioner has envisaged high levels of capital investment, which includes system improvement schemes. The proposed capital expenditure would be unjustified if there is no corroborated improvement in the T&D losses.

The Commission therefore does not find any merit in the submission of the Petitioner for revision of the T&D loss for FY 2014-15 and retains the loss level approved in the Tariff Order dated April 15, 2014. **Accordingly, the T&D loss level for the review of FY 2014-15 remains 11.50%.**

5.5 Inter-State Transmission Loss

Petitioner's Submission

The energy input at Goa Periphery is considered from both the regions – WR & SR. Likewise, the total power purchased from both the regions has been considered and accordingly, the inter-state transmission loss is worked out. The Petitioner has worked out losses for western region and southern region at 4.23% and 11.82% respectively for H1 of FY 2014-15.

In case of H2 of FY 2014-15, the total PGCIL Losses are considered for both the regions, i.e. WR & SR. The PGCIL loss for the SR for FY 2014-15 are considered at 12.00% (Andhra Intra State Transmission Loss + SR Interstate Loss + Karnataka wheeling loss). On the other hand PGCIL losses for the WR are considered as the average of 52 week losses at 3.80 % (source: WRPC Website)

Commission's Analysis

The inter-state transmission losses are considered as uncontrollable. The Petitioner in its submission has considered the actual recorded Input at Goa Periphery to arrive at the inter-state losses.

The Commission in order to determine the inter-state transmission losses has relied upon the Energy Accounting data available at SRPC and WRPC for the first half of FY 2014-15. The inter- state transmission losses calculated for H1 of FY 2014-15 are 4.23% and 11.82% for power procured through generating stations in western region (other than stations within Goa) and southern region respectively.

The Commission has considered the losses for H2 equivalent to the actual percentage of 11.82% in H1 of FY 2014-15 for southern and 3.71 % for WR according to average 52 week losses up to August 10, 2014. (WRPC website)

5.6 Energy Balance

Petitioner's Submission

ED-Goa while computing Energy Balance for entire FY 2014-15 has considered actual of UI overdrawal/ underdrawal, purchase from traders, sale to exchange etc. Thus, on the basis of the actual of H1 and projections of H2 of FY 2014-15, the Energy Balance for the year FY 2014-15 is computed by ED-Goa as shown in the Table below:

Table 5.7 Projected Energy Balance for the year FY 2014-15*

Sl. No.	Item	Apr-Mar (Rev.Est) - WR FY 2014-15	Apr-Mar (Rev.Est) - SR FY 2014-15	Apr-Mar (Rev.Est) - WR+SR FY 2014-15
1	2	3	4	5
1	Retail Sales to Consumers			3,068
	<u>Add: Distribution Losses - %</u>			14.00.%
	Distribution Losses – MUs			499
2	Net Energy Requirement at Goa Periphery			3,567
3	Total Power Scheduled at Goa Periphery			
	Scheduled Power from NTPC, RGPPL, NPCIL & RSTPS	2,633	691	3,324
	Add: Actuals of Over/Under drawal, 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	<u>Total Power Purchased within Goa State</u>			
	Add: Co-generation	163	0	163
	Add: Independent Power Producers (IPP)	(21)	0	(21)
	Total	142	0	142
6	Energy Input at Periphery after PGCIL Losses & State Power Purchase	2,660	6,08	3,567

* From Table 4.8 of the Petition

Commission's Analysis

The Commission in the foregoing paragraphs has approved the actual sales, internal and external losses based on which the energy balance is considered. The Commission in its previous order had approved the requirement of 3478.06 MU to meet the energy requirement within the state to the retail consumers, assuming T&D losses of 11.50 % on the approved sales of 3078.09 MU. The Commission has considered the approval of revised sales estimates and the inter-state losses in this order and accordingly the requirement has been adjusted for the approval under the review of FY 2014-15. The Commission has considered the merit order dispatch principles to meet the power requirement within the state. Accordingly, only the power purchase units as required to meet the requirement within the territory have been considered.

Based on the above, the approved energy balance for the FY 2014-15 is shown in table below:

Table 5.8: Energy Balance proposed and approved by the Commission for FY 2014-15

Sl. No.	Particulars	FY 2014-15 Approved as per T.O. dated 15.04.2014	Revised Estimates FY 2014-15 by Petitioner			Approved for FY 2014-15(RE)		
			H1 of FY 2014-15	H2 of FY 2014-15	FY 2014-15 (RE)	H1 of FY 2014-15	H2 of FY 2014-15	FY 2014-15 (RE)
A)	ENERGY REQUIREMENT							
1	Sales within the State/UT	3078.09	1476	1592	3068	1470	1644	3114
2	Distribution losses							
i)	%	11.50%	18.66%	9.18%	14.00%	16.57%*	6.42%	11.50%
ii)	MU	399.98	339	160	499	292	113	405
3	Energy required at State Periphery for Sale to Retail	3478.06	1815	1752	3567	1762	1757	3519

