

Order in Petition No. 192/2016

Order on

True up for FY 2014-15,
Review of FY 2015-16

Aggregate Revenue Requirement for 1st MYT Control
Period (FY 2016-17 to FY 2018-19)

&

Wheeling & Retail Supply Tariff for FY 2016-17

For

Electricity Department of Daman and Diu



06th April 2016

संयुक्त विद्युत विनियामक आयोग (गोवा राज्य और संघ शासित प्रदेशों के लिए)

JOINT ELECTRICITY REGULATORY COMMISSION

For the State of Goa and Union Territories,

2 तल, वाणिज्य निकुंज, एचएसआईआईडीसी कार्यालय परिसर, उद्योग विहार फेज-V, गुडगांव - 122016 हरियाणा

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

QUORUM

Shri S.K. Chaturvedi (Chairperson)

Ms. Neerja Mathur (Member)

Petition No. 193/2016

In the matter of

Approval of True up for FY 2014-15, Review of FY 2015-16, Aggregate Revenue Requirement for First MYT Control Period (FY 2016-17 to FY 2018-19) & Wheeling & Retail Supply Tariff for FY 2016-17.

And in the matter of

Electricity Department of Daman and Diu**Petitioner**

ORDER

Passed On: 06th April 2016

- a. This order is passed in respect of the Petition filed by Electricity Department of Daman and Diu for approval of True up for FY 2014-15, Review of FY 2015-16, Aggregate Revenue Requirement for 1st MYT Control Period (FY 2016-17 to FY 2018-19) & Wheeling & Retail Supply Tariff for FY 2016-17.
- b. As detailed in the Business Plan Order issued in Petition no. 180/2015 dated 09th December 2015, the Commission had directed the Petitioner to submit the duly approved MYT Petition for the Control period from FY 2016-17 to FY 2018-19 within 30 days of the issuance of the Order. The Commission had also directed that the retail tariff proposal is to be submitted only for the first year of the control period namely FY 2016-17 whereas ARR calculations are to be submitted for the full control period i.e. FY 2016-17 to FY 2018-19.
- c. This Order is passed by the Commission, after detailed scrutiny of the information and documents filed with the Petition, filed subsequently during the course of the technical validation session and also other information as available with the Commission.
- d. After receiving the Petition, the Commission scrutinized the contents of the Petition and called for further information/data so as to take a prudent view of the Petition. The

Commission also held a technical validation session of this Petition to determine the sufficiency of the Petition. Comments/objections/suggestions were also invited from the public/stakeholders. Public hearing was held and parties/people present were heard. The schedule of activities performed under this quasi-judicial process was as below:

Particulars	Details
Date of Admission	19 th January 2016
Petition No.	192/2016
Technical Validation Session	16 th February 2016
Public Hearing	18 th February 2016 at Daman & 15 th March 2016 at Diu

- e. The approved tariff of FY 2016-17 as detailed in the Chapter “Tariff Schedule” shall come in force with effect from 1st April 2016 and shall remain valid till further orders of the Commission.
- f. The licensee shall publish the revised tariff structure and the salient features of the tariff within one week in three daily newspapers in the respective local languages of the region, besides English, having wide circulation in its respective areas of supply.
- g. The licensee will compute fuel and power procurement cost variations and adjustments shall be made in the consumer bills based on the Fuel & Power Purchase Cost Adjustment (FPPCA) formula notified by the Commission. **The approved per unit cost of power purchase (R_{approved}) for use in the FPPCA formula (paisa per unit) is 387 paisa per unit for FY 2016-17.**
- h. Ordered as above, read with attached document giving detailed reasons, grounds and conditions.
- i. Copy of this order may be sent to the Petitioner, CEA and Administration of DD. It shall be placed on the website of the Commission.

Sd/-
नीरजा माथुर
सदस्य

Sd/-
सुधीर चतुर्वेदी
अध्यक्ष

संयुक्त विद्युत विनियामक आयोग
(गोवा और केंद्र शासित प्रदेशों के लिए)

स्थान : गुडगाँव

दिनांक: 06 अप्रैल, 2016

Certified Copy

(Keerti Tewari)
Secretary

Table of Contents

1.	Introduction	13
1.1.	About JERC.....	13
1.2.	Electricity Regulatory Process in Daman & Diu	13
1.3.	Filing and Admission of Present Petition.....	14
1.4.	Interaction with the Petitioner	14
1.5.	Public Hearing Process.....	15
1.6.	Organization of the Order	17
2.	Summary of Objections/Suggestions received, Response from the Petitioner and the Commission's Views 18	
2.1.	Regulatory Process	18
2.2.	Objections/Suggestions, Response of the Petitioner and Commission's Comments	19
2.2.1.	Tariff of steel industry to be brought at par with HT General Tariff.....	19
2.2.2.	Declaration of power staggering	20
2.2.3.	Against introduction of Fixed Charges in Domestic and Commercial Category	20
2.2.4.	Reduction in tariff for fishing activities	21
2.2.5.	To extend tariff benefits to the Hotel Industry	21
2.2.6.	Reduction in Agricultural tariff for Diu	22
2.2.7.	Reduction in overall tariff in view of Reducing Coal and Oil prices globally	22
2.2.8.	Any loss on account of Open Access should not be passed on to regular consumers	23
2.2.9.	No tariff revision from retrospective date.	23
2.2.10.	The notice for Public Hearing should be given well in advance.	24
2.2.11.	Transmission & Distribution Loss.	24
2.2.12.	Change in billing cycle.	25
2.2.13.	Promotion of Solar Power.	25
2.2.14.	Power Theft.	26
2.2.15.	Determination of Voltage wise Wheeling Charges.	26
2.2.16.	Unutilized units in Open Access on account of Distribution network failure.	27
2.2.17.	Implementation of Voltage wise cost of supply for the determination of tariff for the consumers existing on 66 kV voltage level in DNH.....	28
3.	True-up for FY 2014-15	29
3.1.	Applicable Provisions of Tariff Regulations 2009.....	29
3.2.	Approach for True-Up of FY 2014-15.....	30
3.3.	Energy Sales	30

3.4.	Surplus Energy Sale/UI sales	31
3.5.	Inter-State Transmission losses.....	32
3.6.	Intra-State Transmission and Distribution losses	32
3.7.	Energy Requirement	33
3.8.	Power Purchase Quantum & Cost for FY 2014-15.....	34
3.9.	Operation and Maintenance Expenses.....	39
3.10.	Capitalization, GFA & Depreciation	41
3.11.	Interest and Finance Charges.....	42
3.12.	Interest on Working Capital.....	44
3.13.	Interest on Security Deposit	46
3.14.	Return on Capital Base/Return on Equity.....	47
3.15.	Provision for bad and doubtful debts	48
3.16.	Non-Tariff Income	48
3.17.	Revenue from Sale of Surplus Power.....	49
3.18.	Revenue at approved retail tariff of FY 2014-15.....	49
3.19.	Aggregate Revenue Requirement, Revenue Surplus/Deficit for true-up of FY 2014-15 and Carrying Cost	50
4.	Review of FY 2015-16.....	52
4.1.	Applicable Provisions of Tariff Regulations 2009.....	52
4.2.	Approach for Review of FY 2015-16.....	53
4.3.	Energy Sales	53
4.4.	Intra-State Transmission & Distribution Loss	54
4.5.	Inter-State Transmission losses.....	55
4.6.	Energy Requirement	55
4.7.	Power Purchase Quantum & Cost for FY 2015-16.....	56
4.8.	Renewable Purchase Obligation	62
4.9.	Operation and Maintenance Expenses	64
4.10.	Summary of Operation and Maintenance Expenses	66
4.11.	Capital Expenditure and Capitalization	67
4.12.	GFA and Depreciation.....	67
4.13.	Interest and Finance Charges.....	68
4.14.	Interest on Working Capital.....	70
4.15.	Interest on Security Deposit	72
4.16.	Return on Capital Base/Return on Equity.....	73
4.17.	Provision for bad and doubtful debts	74

4.18.	Non-Tariff Income.....	74
4.19.	Revenue from Sale of Surplus Power.....	75
4.20.	Revenue at approved retail tariff of FY 2015-16.....	75
4.21.	Aggregate Revenue Requirement, Revenue Surplus/Deficit for review of FY 2015-16 and Carrying Cost	76
5.	Approval of the various ARR components for the MYT Control Period FY 2016-17 to FY 2018-19.....	78
5.1.	Applicable Provisions of MYT Regulations 2014.....	78
5.2.	Approach for Approval of Aggregate Revenue Requirement for MYT Control Period.....	78
5.3.	Number of Consumers, Connected Load and Energy Sales	79
5.4.	Intra –State Transmission and Distribution Loss.....	81
5.5.	Inter – State Transmission Loss.....	81
5.6.	Energy Requirement	82
5.7.	Power Purchase Quantum & Cost for FY 2016-17 to FY 2018-19.....	84
5.8.	Renewable Purchase Obligation	98
5.9.	Operation and Maintenance Expenses.....	99
5.10.	Capital Expenditure and Capitalization	103
5.11.	Gross Fixed Assets and Depreciation.....	103
5.12.	Interest on Loan	105
5.13.	Interest on Working Capital.....	106
5.14.	Interest on Security Deposit	107
5.15.	Return on Equity.....	108
5.16.	Provision for bad and doubtful debts	109
5.17.	Non-Tariff Income	109
5.18.	Revenue from Sale of Surplus Power.....	110
5.19.	Revenue from Existing Retail Tariff for FY 2016-17 to FY 2018-19.....	110
5.20.	Aggregate Revenue Requirement for MYT Control Period from FY 2016-17 to FY 2018-19	111
6.	Tariff Philosophy & Category Wise Tariffs for FY 2016-17.....	114
6.1.	Preamble.....	114
6.2.	Revenue Gap/Surplus for FY 2016-17	114
6.3.	Tariff for FY 2016-17	114
6.4.	Average Cost of Supply.....	121
6.5.	Revenue from Approved Retail Tariff for FY 2016-17.....	122
6.6.	Revised Revenue Gap/ (Surplus) till FY 2016-17	123
6.7.	Applicability of Time of Day (TOD) tariff.....	123
6.8.	Tariff Initiatives:.....	124

7.	Tariff Schedule	125
7.1.	Tariff Schedule	125
7.2.	Schedule of Other Charges:	127
7.2.1.	Meter Rent	127
7.2.2.	Reconnection Charges	127
7.2.3.	Service Connection Charges	128
7.2.4.	Extra Length Charges.....	128
7.2.5.	Cost of HT Connection.....	128
7.2.6.	Service connection charges for- Under Ground Lines	128
7.2.7.	Testing Fee for various Metering Equipment.....	129
7.2.8.	Fees (Non-refundable) for submission of Test Report of wiring Completion.....	129
7.3.	Applicability	129
7.4.	General Terms and Conditions	131
8.	Open Access Charges for FY 2016-17	134
8.1.	Allocation Matrix - Allocation of ARR into Wheeling and Retail Supply of Electricity	134
8.2.	Allocation Matrix.....	134
8.3.	Voltage Wise Wheeling Charges.....	135
8.4.	Cross-Subsidy Surcharge.....	136
8.5.	Application and Agreement Fees.....	137
9.	Directives.....	138
9.1.	Liable for action under Section 142 of the Electricity Act 2003 and various provisions of applicable Regulations in case of further non-compliance of directives as listed below:	138
9.1.1.	Management Information System.....	138
9.1.2.	Demand Side Management and Energy Conservation.....	140
9.1.3.	Enforcement Cell	141
9.1.4.	Roadmap for reduction in cross-subsidy.....	142
9.2.	Directives continued in this Tariff Order	144
9.2.1.	Standard of Performance	144
9.2.2.	Unbundling and Corporatization of Electricity Department as per EA 2003.....	145
9.2.3.	Safety Measures undertaken	146
9.2.4.	Renewable Purchase Obligation (RPO)	148
9.2.5.	Billing and Collection Efficiency	149
9.3.	New Directives issued in this Tariff Order	149
9.3.1.	Implementation of Smart Grid.....	150
9.3.2.	Promotion of Solar Generation	150

9.3.3.	Information for determination of Voltage-wise Wheeling Charges.....	150
9.4.	Directives dropped in this Tariff Order	150
9.4.1.	Collection of Arrears	150
9.4.2.	Augmentation of Transmission and Distribution System	152
9.4.3.	Online Bill Payment.....	155
9.4.4.	Shifting of existing consumers to higher voltage	156
9.4.5.	RPO – Installation of solar plants at Daman and Diu. - Petitioner’s submission.....	159
9.4.6.	Strengthening of the Consumer Grievance Redressal System	160
9.4.7.	Public Grievance Meetings	162
9.4.8.	Business Plan for MYT Control Period.....	163
9.4.9.	True-up for FY 2014-15.....	163
9.4.10.	Repair and Maintenance Works	164
9.4.11.	MYT Tariff Petition for FY 2016-17 to FY 2018-19.....	165
	Annexure 1: Public Notices published by the Petitioner	166
	Annexure 2: Public Notices published by the Commission for intimation of Public Hearing	167
	Annexure 3: List of Objectors/Stakeholders.....	168

List of Tables

Table 1-1: Details of Tariff Petitions so far submitted by the Petitioner & Tariff Order's issued by JERC.....	13
Table 1-2: List of Interactions with the Petitioner	15
Table 1-3: Details of public notices published by the Petitioner	15
Table 1-4: Details of public notices published by the Commission	16
Table 3-1: Energy Sales for FY 2014-15 (In MU)	31
Table 3-2: Variation of Intra-State Transmission and Distribution Losses (in% age)	33
Table 3-3: Gross Energy Requirement for FY 2014-15 (In MU).....	34
Table 3-4: Power Purchase Units approved by the Commission and actuals submitted by the Petitioner for FY 2014-15 (MU)	36
Table 3-5: Assessment of Losses for FY 2014-15 (Rs Crores)	37
Table 3-6: Employee Expenses for FY 2014-15 (Rs. Crores).....	40
Table 3-7: Administrative and General Expenses for FY 2014-15 (Rs. Crores).....	40
Table 3-8: Repair and Maintenance Expenses for FY 2014-15 (Rs. Crores).....	41
Table 3-9: Gross Fixed Assets, Capitalization and Depreciation for FY 2014-15 (Rs. Crores)	42
Table 3-10: Interest and Finance Charges for FY 2014-15 (Rs. Crores).....	44
Table 3-11: Interest on Working Capital for FY 2014-15 (Rs. Crores).....	46
Table 3-12: Interest on Security Deposit for FY 2014-15 (Rs. Crores)	47
Table 3-13: Return on Capital Base for FY 2014-15 (In Rs. Crores).....	47
Table 3-14: Non-Tariff Income for FY 2014-15 (Rs. Crores).....	49
Table 3-15: Aggregate Revenue Requirement and Revenue Surplus/Deficit for true-up of FY 2014-15 (In Rs. Crores)	51
Table 4-1: Sales Approved for FY 2015-16 (MU).....	54
Table 4-2: Energy Requirement Approved for FY 2015-16(MU)	56
Table 4-3: Power Purchase (MU) and Cost (Rs Crores) for FY 2015-16 (April to September).....	58
Table 4-4: Approved Power Purchase (MU) and Cost (Rs Crores) for FY 2015-16	61
Table 4-5: REC Certificates Purchased by the Petitioner from PXIL as submitted for FY 2015-16	62
Table 4-6: Computation of RPO backlog up to FY 2015-16 and Provision for RPO Compliance (MU and Rs Crores)	63
Table 4-7: GFA & Depreciation submitted by the Petitioner and approved in the review for FY 2015-16 (in Rs. Crores)	68
Table 4-8: Interest and Finance Charges for FY 2015-16 (In Rs. Crores)	70
Table 4-9: Interest on Working Capital for FY 2015-16 (In Rs. Crores).....	72
Table 4-10: Interest on Security Deposit for FY 2015-16 (In Rs. Crores).....	73
Table 4-11: Return on Capital Base for FY 2015-16 (In Rs. Crores).....	74
Table 4-12: Revenue at Approved Retail Tariff including open access for FY 2015-16 (In Rs. Crores).....	76
Table 4-13: Aggregate Revenue Requirement and Revenue Surplus/Deficit for true-up of FY 2015-16 (In Rs. Crores)	77
Table 5-1: No of Consumers for FY 2016-17 to FY 2018-19.....	80
Table 5-2: Connected Load (kVA) for FY 2016-17 to FY 2018-19.....	80
Table 5-3: Sales (MU) for FY 2016-17 to FY 2018-19.....	81
Table 5-4: Energy Requirement (MU) for FY 2016-17 to FY 2018-19	83
Table 5-5: New Power Plants considered by the Petitioner for FY 2016-17 to FY 2018-19.....	85
Table 5-6: Power Purchase (MU) considered by the Petitioner for FY 2016-17 to FY 2018-19	86
Table 5-7: Power Purchase Cost (In Rs Crores) considered by the Petitioner for FY 2016-17 to FY 2018-19...88	

Table 5-8: New Power Plants Approved by the Commission for FY 2016-17 to FY 2018-19	93
Table 5-9: Power Purchased Quantum (MU) and Cost (Rs Crores) Approved by the Commission for FY 2016-17	95
Table 5-10: Power Purchased Quantum (MU) and Cost (Rs Crores) Approved by the Commission for FY 2017-18	96
Table 5-11: Power Purchased Quantum (MU) and Cost (Rs Crores) Approved by the Commission for FY 2018-19	97
Table 5-12: Approved Power purchase quantum from Renewable Energy Sources (MU and %)	99
Table 5-13: Employee Expenses as per Norms for FY 2016-17 to FY 2018-19 (Rs. Crores)	100
Table 5-14: Employee Expense Approved for FY 2016-17 to FY 2018-19 (Rs. Crores).....	100
Table 5-15: A&G Expenses as per Norms for FY 2016-17 to FY 2018-19 (Rs. Crores).....	101
Table 5-16: A&G Expense Approved for FY 2016-17 to FY 2018-19 (Rs. Crores).....	101
Table 5-17: R&M Expenses as per Norms for FY 2016-17 to FY 2018-19 (In Rs. Crores)	102
Table 5-18: R&M Expenses Approved for FY 2016-17 to FY 2018-19 (In Rs. Crores)	102
Table 5-19: O&M Expenses Approved for FY 2016-17 to FY 2018-19 (Rs. Crores).....	103
Table 5-20: Capital Expenditure and Capitalization Approved for FY 2016-17 to FY 2018-19 (Rs. Crores) ...	103
Table 5-21: Depreciation rate specified by Hon'ble CERC	104
Table 5-22: GFA and Depreciation as Approved for FY 2016-17 to FY 2018-19 (Rs Crores).....	104
Table 5-23: Interest on Normative Loan as Approved for FY 2016-17 to FY 2018-19 (Rs Crores).....	105
Table 5-24: Interest on Working Capital as Approved for FY 2016-17 to FY 2018-19 (Rs Crores)	107
Table 5-25: Interest on Security Deposit as Approved for FY 2016-17 to FY 2018-19 (Rs Crores)	108
Table 5-26: Return on Equity as Approved for FY 2016-17 to FY 2018-19 (Rs Crores).....	108
Table 5-27: Non- Tariff Income as Approved for FY 2016-17 to FY 2018-19 (Rs Crores).....	110
Table 5-28: Revenue from Existing Retail Tariff for FY 2016-17 to FY 2018-19 (Rs Crores)	111
Table 5-29: Aggregate Revenue Requirement for FY 2016-17 to FY 2018-19 (Rs Crores).....	112
Table 6-1: Existing and Proposed Tariff for FY 2016-17 proposed by the Petitioner.....	115
Table 6-2: Commission Approved Tariff for FY 2016-17	119
Table 6-3: ARR Vs. ACoS for FY 2016-17	121
Table 6-4: Revenue from Approved Retail Tariff for FY 2016-17 to FY 2018-19 (Rs Crores)	122
Table 8-1: Allocation of ARR between Wheeling and Retail as approved by the Commission (Rs Crores).....	134
Table 8-2: Determination of input energy for network usage percentage	135
Table 8-3: Wheeling Charge Approved for FY 2016-17	135
Table 8-4: Calculation of "T" Approved for FY 2016-17	136
Table 8-5: Calculation of "C" Approved for FY 2016-17	136
Table 8-6: Cross-Subsidy Surcharge Approved for FY 2016-17	137

List of Abbreviations

Abbreviation	:	Full Form
A&G	:	Administration & General
Act	:	The Electricity Act, 2003
ARR	:	Aggregate Revenue Requirement
CAGR	:	Compound Annualized Growth rate
Capex	:	Capital Expenditure
CC	:	Current Consumption
CEA	:	Central Electricity Authority
CERC	:	Central Electricity Regulatory Commission
CGS	:	Central Generating Station
COD	:	Commercial Operation Date
Commission/JERC	:	Joint Electricity Regulatory Commission for the state of Goa and Union Territories
CKt. Km	:	Circuit Kilometer
DDUGJY	:	Deendayal Upadhyaya Gram Jyoti Yojana
DISCOM	:	Electricity Department of Andaman and Nicobar Islands
CPSU	:	Central Public Sector Undertaking
EA 2003	:	The Electricity Act, 2003
FC	:	Fixed Charges
FPPCA	:	Fuel & Power Purchase Cost Adjustment
FY	:	Financial Year
GFA	:	Gross Fixed Assets
HP	:	Horse Power
HT	:	High Tension
IPDS	:	Integrated Power Development Scheme
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
LT	:	Low Tension
MU	:	Million Unit
MW	:	Mega Watt
MYT	:	Multi Year Tariff
NDS	:	Non-Domestic Supply
NFA	:	Net Fixed Assets
O&M	:	Operation & Maintenance
PGCIL	:	Power Grid Corporation of India Ltd.
PLF	:	Plant Load Factor
PX	:	Power Exchange
R-APDRP	:	Restructured Accelerated Power Development and Reforms Programme
REC	:	Renewable Energy Certificate

RoE	:	Return on Equity
RPO	:	Renewable Purchase Obligation
R&M	:	Repair & Maintenance
SBI CAPS	:	SBI Capital Market Limited
SBI PLR/SBAR	:	SBI Prime Lending Rate/State Bank Advance Rate
SCC	:	System Control Centre
T&D	:	Transmission & Distribution
UI	:	Unscheduled Interchange
VC	:	Variable Charges

1. Introduction

1.1. About JERC

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 02nd May 2005. Later 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 30th May 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 Gurgaon, Haryana.

1.2. Electricity Regulatory Process in Daman & Diu

The Electricity Department of Daman and Diu had submitted their Petitions for Determination of Aggregate Revenue Requirement and Tariff before the Commission and the Commission subsequently issued the following Tariff Orders.

Table 1-1: Details of Tariff Petitions so far submitted by the Petitioner & Tariff Order's issued by JERC

Sr. No.	For FY	Filing date	Date of Tariff Order
1.	2010-11	27 th March 2010	01 st November 2010
2.	2011-12	28 th March 2011	03 rd October 2011
3.	2012-13	30 th November 2011	25 th August 2012
4.	2013-14	30 th November 2012	22 nd March 2013
5.	2014-15	01 st November 2013	01 st May 2014
6.	2015-16	02 nd December 2014	31 st March 2015
7.	Business Plan for 1 st MYT Control Period	05 th August 2015	09 th December 2015

1.3.Filing and Admission of Present Petition

As per clause 5.1 of the first amendment to the JERC Multi-year Distribution Tariff Regulations 2014, issued vide notification dated 10th August 2015, the Control Period for Multi-Year Tariff implementation is from FY 2016-17 to FY 2018-19.

The Commission had directed the Petitioner to submit the duly approved MYT Petition for the Control period from FY 2016-17 to FY 2018-19 within 30 days of the issuance of the Business Plan Order (issued in Petition no. 180/2015 dated 09th December 2015). On request of the Petitioner via letter dated 07th January for extension, the Commission allowed an extension till 15th January 2016.

The MYT Petition was then filed vide letter dated 15th January 2016 and was received at the Commission's office on 19th January 2016.

The Commission, in the interest of timely issuance of the Order, admitted the Petition on 19th January 2016 as Petition no. 192/2016.

1.4.Interaction with the Petitioner

The Order has referred at numerous places to various actions taken by the "Commission". It may be mentioned for the sake of clarity, that the term "Commission", except for the hearing and orders, denotes Secretariat of the Commission for carrying out the technical due diligence and validation of data of the Petitions filed by the utilities, obtaining and analyzing information/clarifications received from the utilities and submitting relevant issues for consideration of the Commission.

For purpose of analysis of the Petition, the Commission's staff held discussions with the Petitioner/Petitioner's representative, obtained information/clarifications wherever required and carried out technical validation with regard to the information provided by the Petitioner. The Commission's staff interacted regularly with the Petitioner to seek clarifications and justification on various issues essential for the analysis of the Business Plan. The Commission's staff conducted Technical validation session (TVS) with the Petitioner during which discrepancies in the Petition were pointed out and additional information as required by the Commission was indicated. The Petitioner submitted its replies, as shown below, in response to the various queries raised by the Commission

during the course of analysis of the Petition, which were taken into account for finalization of the present Petition.

Table 1-2: List of Interactions with the Petitioner

Sr. No.	Date	Subject
1.	19 th January 2016	Admission of Petition
2.	28 th January 2016	Deficiency note on the Petition sent by the Commission
3.	02 nd March 2016	Reply to the deficiency note
4.	16 th February 2016	Technical Validation Session (TVS) held at the Commission's office
5.	16 th March 2016	Reply by the Petitioner on the queries raised by the Commission during the TVS

1.5.Public Hearing Process

The Commission directed the Petitioner to publish the summary of the present Petition in the abridged form to ensure public participation. The public notices were published by the Petitioner for inviting objections/ suggestions from the stakeholders on the True-Up of FY 2014-15, Review of FY 2015-16, Aggregate Revenue Requirement for 1st Control Period (FY 2016-17 to FY 2018-19) & Wheeling and Retail Tariff Proposal for FY 2016-17:

Table 1-3: Details of public notices published by the Petitioner

Sr. No.	Date	Name of Newspaper	Place of Circulation
1	26 th January 2016	Asli Azadi (Hindi)	Gujarat, Daman and Diu
2	26 th January 2016	Savera India Times (Hindi)	Daman
3	26 th January 2016	VartmanPravah (Gujarati)	Daman and Surat

The Petitioner also uploaded the Petition on its website (www.dded.gov.in) for inviting objections and suggestions on the Petition. Interested parties/stakeholders were requested to file their objections/ suggestions on the Petition to the Commission with a copy to the Petitioner on or before 18th February 2016. The copies of the public notices published by the Petitioner are attached as **Annexure 1** to this order.

The Commission also published public notices in the leading newspapers giving due intimation to stakeholders, consumers, objectors and the public at large about the public hearings to be conducted by the Commission on **18th February 2016 at 10:30 AM (Daman)** and **15th March 2016 at 10.30 AM (Diu)** in **Swami Vivekananda Auditorium, Nanidaman** and **Auditorium at Malala, Diu** respectively as given below:

The details of the public notice published by the Commission are as below.

Table 1-4: Details of public notices published by the Commission

Sr. No.	Date	Description	Name of Newspaper	Place of Circulation
1.	28 th January 2016	1 st Notice	Asli Azadi (Hindi)	Daman
2.	26 th January 2016	1 st Notice	Savera India Times (Hindi)	Daman
3.	28 th January 2016	1 st Notice	Divya Bhaskar (Gujarati)	Surat & Rajkot
4.	15 th February 2016	Repeat Notice	Asli Azadi (Hindi)	Daman
5.	15 th February 2016	Repeat Notice	Savera India Times (Hindi)	Daman
6.	15 th February 2016	Repeat Notice	Divya Bhaskar (Gujarati)	Surat & Rajkot
7.	13 th March 2016	Repeat Notice	Asli Azadi (Hindi)	Daman
8.	13 th March 2016	Repeat Notice	Savera India Times (Hindi)	Daman
9.	13 th March 2016	Repeat Notice	Divya Bhaskar (Gujarati)	Surat & Rajkot

Copies of the public notice published by the Commission for intimation of the public hearing are attached as **Annexure 2** to this order.

The Commission received 7 written objections/suggestions on the Petition, for filing objections/suggestion. The replies to the objections during the public hearing were sent by the Petitioner after the hearing.

During the public hearing, each objector was provided with an opportunity to present his views on the Petition filed by the Petitioner. All those present in the hearing, irrespective of whether they had given a written objection or not, were given an equal opportunity to express their views. The list of objectors is attached at **Annexure 3** to this order. The list includes the objectors who gave their written objections; those who gave their written objections and presented before the Commission; and other stakeholders who did not give their written objection or prior intimation but presented before the Commission orally. The Commission has examined the issues and concerns expressed by the stakeholders. The major issues raised/indicated during the public hearing, along with the comments/replies of the utility and the views of the Commission, thereon, have been summarized in **Chapter 2** of this order.

1.6. Organization of the Order

This Order is organized in the following chapters:

- ❖ **Chapter 1** of the Order provides the background and brief description of the regulatory process undertaken by the Commission.
- ❖ **Chapter 2** of the Order lists out various suggestions and objections raised by the objectors in writing as well as during the public hearing before the Commission. Various suggestions and objections have been summarized, followed by the response of the Petitioner and the rulings of the Commission on the various issues.
- ❖ **Chapter 3** of the Order discusses the views of the Commission on True-Up of FY 2014-15.
- ❖ **Chapter 4** of the Order discusses the views of the Commission on Review of FY 2015-16.
- ❖ **Chapter 5** of the Order discusses various components of ARR for the MYT Control Period FY 2016-17 to FY 2018-19, key issues and Commission's ruling on the same.
- ❖ **Chapter 6** of the Order discusses the Tariff Principles and Design & Category Wise Tariffs for FY 2016-17 approved by the Commission.
- ❖ **Chapter 7** of the Order discusses the Tariff Schedule approved by the Commission.
- ❖ **Chapter 8** of the Order discusses the Open Access Charges for FY 2016-17 approved by the Commission.
- ❖ **Chapter 9** of the Order provides necessary directions of the Commission to ED-DD.

2. Summary of Objections/Suggestions received, Response from the Petitioner and the Commission's Views

2.1. Regulatory Process

On admitting the Petition, the Commission directed the Petitioner to make copies of the Petition available to the public, upload the Petition on the website and also published in the newspapers in abridged form in the given format duly inviting comments/objections from the public as per provisions of the JERC (Terms and Conditions for Determination of Tariff) Regulations, 2009 and JERC (Multiyear Distribution Tariff) Regulations 2014 as amended.

The public hearing was held on 18th February 2016 & 15th March 2016 at Daman and Diu respectively. During the public hearing, some persons who had submitted the objections in writing presented their objections/suggestions in person before the Commission. Other participants from the general public, who did not submit written objections earlier, were also given an equal opportunity to offer their views/suggestions in respect of the present Petition.

The list of objectors is attached as **Annexure 3** to this order which includes the stakeholders:

- 1) Those who gave their written objections and did not intend to present orally during the public hearing.
- 2) Those who gave their written objections and expressed desire to present orally also during the public hearing.
- 3) Those who gave their written objections but had not desired to express orally, but later chose to present orally also. They were also given an opportunity to present orally before the Commission during the public hearing.
- 4) Those who did not give their written objection or prior intimation, but participated in the hearing on the spot and/or also gave written submissions.

All stakeholders were provided the opportunity to present their suggestions. Those stakeholders who did not give prior written objections/suggestions and expressed their views, objections, suggestions during the hearing were replied to by the Petitioner after the hearing.

2.2.Objections/Suggestions, Response of the Petitioner and Commission's Comments

The Commission appreciates the efforts of various stakeholders for providing suggestions / comments / observations and making the Power Sector responsive and efficient. The details of issues raised by the Stakeholders, response of the Petitioner thereon and the views of the Commission on the same are as follows:

2.2.1. Tariff of steel industry to be brought at par with HT General Tariff

Stakeholder's View

The stakeholder submitted that the Commission has categorized steel industry as power intensive industry. There are other industries, for e.g. textile, which are power intensive and have continuous load but their tariff is different.

Due to difference in tariff, 10 steel industries out of 15 to 20 industries have already closed down and the remaining are on verge of the closing. The stakeholder has requested the Commission to bring the tariff of steel industry to HT general tariff so that the steel industry could survive.

Petitioner's reply

The Petitioner has submitted that the fixed charges of the HT Ferro category is more than the HT General category but at the same time the variable charges of the HT Ferro category are less than the HT General category. Also, the agreement executed between the department and the industrial consumers is governed by the Supply Code and the format of the agreement has been approved by the Commission.

As the variable charges of the HT Ferro category are less than the variable charges of the HT general category, the Petitioner has submitted that there is no need to bring the tariff of steel industry to HT General Tariff.

Commission's View

For determining the tariff for various categories of consumers, the Commission is guided by the provisions of Section 61 and 62 of Electricity Act, 2003 and the Tariff Policy notified by Government of India and JERC Tariff Regulations and amendments issued therein.

2.2.2. Declaration of power staggering

Stakeholder's View

The stakeholder submitted that since last 2 years the quality of power has improved. It is requested that if there is power staggering, then the same should be declared so that they can plan our their production.

Petitioner's reply

The Petitioner has submitted that the department has completely stopped staggering of power and is now providing continuous power supply to the consumers of the UT of Daman and Diu. The same has also been officially declared by the Petitioner.

However, for the purpose of carrying out the maintenance of feeder area wise, the department has to shut down the system as per the monthly schedule for the maintenance, regarding which prior information is given to the consumers.

Commission's View

The Commission has noted the submission of stakeholder and response of the Petitioner and directs the Petitioner to inform the consumers well in advance through different mediums for power staggering and maintenance schedules.

2.2.3. Against introduction of Fixed Charges in Domestic and Commercial Category

Stakeholder's View

The stakeholder submitted that as ARR is in surplus and solar generation is starting, proposal to introduce fixed charges on Domestic and Commercial consumers should not be accepted.

Petitioner's reply

The Petitioner would like to submit that the department has proposed the minimum charges in order to recover some minimum amount from those consumers whose premises are locked. Hence, the Petitioner requests the Commission to approve the minimum charges on Domestic and Commercial consumer categories.

Commission's View

For determining the tariff for various categories of consumers the Commission is guided by the provisions of Section 61 of Electricity Act, 2003 and the Tariff Policy notified by Government of India and JERC Tariff Regulations and amendments issued therein. The Commission has discussed the issue in the Chapter 8 “Tariff Philosophy”.

2.2.4. Reduction in tariff for fishing activities

Stakeholder’s View

The stakeholder has submitted that in order to promote fishing activities, the tariff of related activities is required to be reduced.

The stakeholder also submitted that some fishing related activities should be considered as agricultural activities.

Petitioner’s reply

The Petitioner would like to submit that the fishing activity majorly consists of the ice factory which comes mostly under the LT industry category and the tariff rates applicable to them are at par with any other LT industry in Daman & Diu. Further, levying the agriculture tariff on the ice factory would result in discrimination on the part of other LT industries and may not go down well with the other consumers. Also, the categorization of the consumers in the various consumer categories is the sole prerogative of the Commission.

Commission's View

For determining the tariff for various categories of consumers the Commission is guided by the provisions of Section 61 of Electricity Act, 2003 and the Tariff Policy notified by Government of India and JERC Tariff Regulations and amendments issued therein.

2.2.5. To extend tariff benefits to the Hotel Industry

Stakeholder’s View

The stakeholder has submitted that for promotion of tourism, more benefits should be extended to the Hotel industry.

Petitioner's reply

The Petitioner has submitted that as the hotel industry is billed under the commercial category and the tariff of the same is already quite low, the Commission is requested not to further reduce the tariff of the Commercial category.

Commission's View

For determining the tariff for various categories of consumers the Commission is guided by the provisions of Section 61 of Electricity Act, 2003 and the Tariff Policy notified by Government of India and JERC Tariff Regulations and amendments issued therein.

2.2.6. Reduction in Agricultural tariff for Diu

Stakeholder's View

The stakeholder submitted that agricultural consumers in Gujrat use more electricity compared to Diu consumers but tariff rates are comparatively lower in Gujarat. Thus, there should be reduction in Agricultural tariff for Diu.

Petitioner's reply

The Petitioner has submitted that the tariff of the agriculture category is already quite low and has accordingly requested the Commission not to reduce the tariff of the agriculture category.

Commission's View

For determining the tariff for various categories of consumers the Commission is guided by the provisions of Section 61 of Electricity Act, 2003 and the Tariff Policy notified by Government of India and JERC Tariff Regulations and amendments issued therein.

2.2.7. Reduction in overall tariff in view of Reducing Coal and Oil prices globally

Stakeholder's View

The stakeholder submitted that the power tariff should be reduced as there is an overall recession in the market and the prices of crude oil and coal are also going down.

Petitioner's reply

The Petitioner has noted the observations of the objector. However, the Commission is empowered to take any decision in the matter.

Commission's View

The Commission is of the view that the Petitioner does not have its own generation and is dependent on the purchase of power from various Central Generating Stations (CGS). Any change in fuel cost of these stations is directly passed on to the consumers as per the provisions of FPPCA.

2.2.8. Any loss on account of Open Access should not be passed on to regular consumers

Stakeholder's View

The stakeholder submitted that some consumers have opted for partial open access and they are also drawing power from Electricity Department, Daman. The stakeholder is of the view that open access should not be allowed at the cost of additional burden on other consumers and in this process, if the department incurs any additional losses due to open access, those losses should be recovered from open access consumers only.

Petitioner's reply

The Petitioner has not submitted any response.

Commission's View

The Commission is guided by the JERC (Open Access in Transmission and Distribution) Regulation, 2009 and amendments issued therein with regards to open access charges. However, in order to take a balanced view, the Commission will consider specific suggestions, if any in this regard.

2.2.9. No tariff revision from retrospective date.

Stakeholder's View

The stakeholder has submitted that the revision of tariff should not be from retrospective date and should be divided in the remaining period after passing tariff order so that industries can add the revised cost of electricity in their costing as industries does not have any mechanism to recover the cost charge by the Electricity Department with retrospective effect.

Petitioner's reply

The Petitioner has not submitted any response.

Commission's View

The Commission would like to emphasize on the fact that normally, the revised tariff is applicable from the first day of the financial year.

2.2.10. The notice for Public Hearing should be given well in advance.**Stakeholder's View**

The stakeholder has requested for grant of personal hearing with sufficient advance notice before determining the tariff for FY 2016-17 and passing the Tariff Order.

Petitioner's reply

The Petitioner has not submitted any response.

Commission's View

The Commission would like to emphasize on the fact that advance notices in compliance to JERC Conduct of Business Regulations 2009 are published both by the Commission and the Petitioner in various newspapers, copies of which are annexed with this order.

2.2.11. Transmission & Distribution Loss.**Stakeholder's View**

The stakeholder has submitted that T&D losses claimed by the Petitioner are high and unrealistic.

Petitioner's reply

The Petitioner has submitted that there is no merit in the issue sought to be raised by the Objector. The Petitioner had achieved the losses of 8.94% in FY 2014-15, which is one of the lowest in the country. The Petitioner also submitted that it will put in all its efforts and try to achieve the loss levels as approved by the Commission in the Business Plan for the MYT Control Period. Further, the Petitioner carries out the third party energy audit every year and the report of the same is submitted to the Commission.

Commission's View

The Commission has determined the losses based on actuals for the true up of FY 2014-15 and accordingly disallowed the excess power purchase on account of higher T&D losses than approved. Further, the Commission has already determined a decreasing loss trajectory in its previous Tariff and the Business Plan Orders.

2.2.12. Change in billing cycle.**Stakeholder's View**

The stakeholder submitted that the change of billing cycle from bi-monthly to monthly has increased billing expenses. Thus, reverting to bi-monthly billing will help reduce expenses which in turn will help reduce power tariff.

Petitioner's reply

The Petitioner would like to submit that the department reduced the billing cycle from two months to one month to improve the efficiency of the system by increasing the collection efficiency. The Petitioner also reduced the period of the billing cycle to reduce the arrears. Now the meters of the consumers are checked on a monthly basis and maintenance of the same is also done regularly. The Petitioner would also like to submit that the same has not resulted in any escalation of cost of the department rather it has streamlined and smoothen the working of the department.

Commission's View

The Commission agrees with the submission of the Petitioner and would like to emphasize that the practice as adopted by the Petitioner is in conformity with the JERC Supply Code Regulations 2010 and amendment issued thereon.

2.2.13. Promotion of Solar Power.**Stakeholder's View**

The stakeholder has suggested that more solar power should be produced in Daman & Diu and benefits of reduction in cost of power should be transferred to consumers.

Petitioner's reply

The Petitioner has noted the observations regarding solar power and would like to submit that the department is installing solar plants in the UT of Daman and Diu to meet the

Renewable Purchase Obligation (RPO) as per the JERC (Procurement of Renewable Energy) Regulations 2010.

Commission's View

The Commission appreciates the efforts of the Petitioner in terms of development of renewable energy sources to ensure compliance of Renewable Purchase Obligation (RPO) as per the JERC (Procurement of Renewable Energy) Regulations 2010. However, the Commission would like to clarify that solar power is slightly costlier than the average power purchase cost of the licensee from the conventional sources. However, the Petitioner has to fulfill its RPO's.

2.2.14. Power Theft.

Stakeholder's View

The stakeholder has submitted that the Petitioner should form a vigilance squad to check illegal power connections, and figures of theft detected and penalty levied should be made public.

Petitioner's reply

The Petitioner has submitted that the department has a vigilance squad to check illegal power connections and the report from the vigilance squad has already been submitted to the Commission.

Commission's View

The Commission has noted the response of the Petitioner and directs it to submit report on the same on quarterly basis along with details (number of thefts cases detected, fine collected, FIR registered etc.).

2.2.15. Determination of Voltage wise Wheeling Charges.

Stakeholder's View

The stakeholder has submitted that the Petitioner has not calculated correct voltage wise wheeling charges and requested the Commission to ask the Petitioner for voltage wise cost of supply data for correct determination of the voltage wise wheeling charges.

Petitioner's reply

The Petitioner has submitted that industrial consumers contribute towards more than 80% of the total consumption. The concept of voltage wise cost of supply, wheeling charges to be determined voltage wise etc. are relevant for a regular distribution licensee wherein the supply is spread over a large area, and has various consumer categories, at various voltage levels etc. Applying the same principle to the Petitioner would only result in distorted consequences.

Commission's View

The Commission has noted the submission of the Petitioner.

2.2.16. Unutilized units in Open Access on account of Distribution network failure.**Stakeholder's View**

The stakeholder has requested the Commission to devise a mechanism which directs the Petitioner to settle the unutilized open access units of a consumer at UI rate/deviation settlement mechanism of CERC for any loss of open access units on account of distribution network failure of the Petitioner.

Petitioner's reply

The Petitioner has submitted that there have been very few instances of distribution network failure in the UT of Daman and Diu due to some contingency situation like DT failure etc. due to which the open access consumers are not able to utilize the units purchased by way of open access. The Department takes all the measures to restore the system and prevent any shut down of the system for a long duration. Hence, it is submitted that the Department is not liable to give rebate to the open access consumers on account of the network failure.

Commission's View

The Commission has noted the submission of the Petitioner and will deal with this issue separately at the time of finalization of amendments in Open Access Regulations.

2.2.17. Implementation of Voltage wise cost of supply for the determination of tariff for the consumers existing on 66 kV voltage level in DNH.

Stakeholder's View

The stakeholder has requested the Commission for the implementation of Voltage wise cost of supply for the determination of tariff for the consumers existing on 66KV voltage level in DNH. The approach is in line with the recent Supreme Court judgment and the Hon'ble Tribunal directives for the in-principle implementation of the scheme of Electricity Act, National Electricity Policy and National Tariff Policy. Both Hon'ble Supreme Court & Tribunal have directed that the Commission should move from average cost of supply principle to voltage wise cost of supply calculation for determination of tariffs and other charges.

Petitioner's reply

The Petitioner has submitted that the Hon'ble Appellate Tribunal for Electricity has already rejected the contention that the tariff should be determined based on voltage wise cost of supply in various judgments. Further, in the Union Territory of Daman and Diu where the industrial consumption is about 80% or more, the principles of tariff being +/- 20% of the average cost of supply does not apply. In view of the above, there is no merit in the objections raised by the objector.

Commission's View

As the issue related to DNHPDCL is pending before the Hon'ble APTEL, the Commission will take appropriate decision only after the matter is decided by the Hon'ble APTEL.

3. True-up for FY 2014-15

3.1.Applicable Provisions of Tariff Regulations 2009

The True-up of FY 2014-15 is to be carried out as per the following provisions of Regulation 8 of Tariff Regulations, 2009:

Quote

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

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

The Truing Up for any year will ordinarily not be considered after more than one year of ‘Review’.

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

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

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

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

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

Unquote

3.2. Approach for True-Up of FY 2014-15

The Petitioner, in its true-up Petition for FY 2014-15 has submitted the details of expenditure and revenue for FY 2014-15 based on the audited accounts submitted by the Petitioner for FY 2014-15. The Petitioner provided the comparison of actual revenue and expenditure against each head with the revenue and expenditure approved by the Commission.

It is to be noted that the Petitioner had submitted the True-up Petition for FY 2014-15 along with audited accounts for FY 2014-15. In this Chapter, the Commission has analyzed all the elements of actual revenue and expenses for FY 2014-15 based on the audited accounts submitted by the Petitioner, and has carried out the true up of expenses and revenue with reference to the final actual figures as per the audited accounts, after prudence check and has permitted necessary adjustments in cases where variations are for reasonable and justifiable reasons.

3.3. Energy Sales

Petitioner Submission:

The Petitioner had submitted the category-wise actual energy sales of 1621.72 MU for FY 2014-15.

Commission Analysis:

The Petitioner had forecasted the energy sales of 1948 MU in its ARR and Tariff Petition for FY 2014-15, and the Commission had approved sales of 2083.87 MU in its ARR and Tariff Order dated 01st May 2014. Further, the Commission during the approval for the Review of FY 2014-15 had approved sales for the period FY 2014-15 at 1609.81 MU (dated 31st March 2015). The Petitioner has submitted the energy sales of 1621.72 MU to be considered for trueing up of FY 2014-15. Since the actual sales and consumer data is available for FY 2014-15, the Commission considers it appropriate to take into consideration the actual sales and consumers for FY 2014-15.

Further, the Commission finds the energy sales for the other consumer categories (other than the LIG category) to be an uncontrollable factor for the utility. The variation in sales from the approved values (as per tariff order dated 31st March 2015) is mainly on account of increase in energy sales in industrial HT category, which comprises about 81.57% of the total energy consumption of Electricity Department of Daman and Diu. The Commission as per additional submission of the Petitioner has considered the auxiliary consumption of 5 MU under commercial category as against Industrial HT envisaged by the Petitioner in its

Petition. **Therefore, the Commission approves the total sales of 1621.72 MU for FY 2014-15 based on actual submitted by the Petitioner.** The detailed category wise sales as projected by the Petitioner and approved by the Commission is given below:

Table 3-1: Energy Sales for FY 2014-15 (In MU)

S. No.	Category / Consumption Slab	FY 2014-15					
		(Petitioner's submission) in ARR	Approved in T.O. dt. 01.05.14 for FY 2014-15	Petitioner's submission for APR	Approved in Review Order dt.31.03.15	Petitioner's Submission for True-Up	True-Up Approved By Commission
A	Domestic	88.37	94.31				83.14
1	0-50 units	0.15	0.16	90.76	90.76	83.14	0.14
2	51-200 units	11.54	12.53				11.04
3	201 - 400 units	11.90	12.69				15.61
4	401 and above	64.58	68.89				56.27
5	Low Income Group (LIG)	0.20	0.04				0.08
B	Commercial	47.42	82.50				46.57
1	1- 100 units	18.97	33.00	46.90	46.90	41.57	18.63
2	101 and above units	28.45	49.50				27.94
C	Agriculture	3.09	3.31				2.30
1	Up to 10 HP	2.15	2.30	2.33	2.33	2.30	1.60
2	Above 10 HP	0.94	1.01				0.70
D	LTP Industry	164.51	171.87	154.12	154.12	153.70	153.70
E	Public Lighting	7.07	5.80	9.12	9.12	8.80	8.80
F	Public Water Works	1.05	1.14	3.84	3.84	3.28	3.28
G	HT	1,635.98	1,724.95				1,322.84
1	11/ 66 kV	1,504.95	1,207.35	1,301.77	1,301.77	1,327.84	926.49
2	HT Ferro	130.87	517.49				396.35
H	Hoardings/ Signboards	-	-	-	-	-	-
I	Temporary	0.50	0.01	0.98	0.98	1.09	1.09
J	Total	1,948.00	2,083.87	1,609.81	1,609.81	1,621.72	1,621.72

3.4.Surplus Energy Sale/UI sales

Petitioner Submission:

The Petitioner has submitted the actual under drawal of Nil MU under UI mechanism for FY 2014-15 but has claimed Rs 4.60 Crores as revenue from sale of surplus power during FY 2014-15.

Commission Analysis:

The Commission has verified the weekly summary sheets/bills of UI from the WRPC for the complete year of FY 2014-15 and for the purpose of this order has considered the over drawl and under drawl of UI separately. The Commission has considered the UI over-

drawal of 50.48 MU and UI under-drawal of 19.99 MU for FY 2014-15 as per the UI bills for FY 2014-15. The Petitioner in its Petition has shown UI over-drawal of 30.18 MU.

For the purpose of the true-up of FY 2014-15, the Commission has considered the surplus energy sale of 19.99 MU as verified from the UI bills from the WRPC for FY 2014-15.

3.5. Inter-State Transmission losses

Petitioner Submission:

The Petitioner has submitted the energy balance for FY 2014-15, wherein the Petitioner has considered the actual pool losses as 82.29 MU at 3.70%. The Petitioner in its reply to data gaps has revised the Inter-State Transmission Loss at 69.52 MU.

Commission Analysis:

The Commission in its Tariff Order for FY 2014-15 dated 01st May 2014 had approved the loss level of 3.70% considering the actual figures of regional pool losses of 3.70% for FY 2013-14 as inter-state loss of Electricity Department of Daman and Diu based on the pooled losses of the Western Region as per the data available on the WRLDC site. Now with the introduction of the new POC transmission charges and losses, the methodology for the apportionment of losses of the region to beneficiaries has undergone a change. Accordingly, the Commission has considered inter-state transmission losses based on energy scheduled by the licensee and the energy scheduled at the generation end.

The Commission has verified weekly WRPC UI bills, according to which the actual schedule for the Petitioner was 2117.56 MU including open access purchase. The Commission has verified the open access purchase by open access consumers of Electricity Department of Daman and Diu from REA statement and found drawl from IEX to the tune of 336.24 MU. This results in 1781.32 MU as energy schedule for the Petitioner excluding open access purchase. The total power available to the Petitioner as verified from the power purchase bills and REA was 1849.12 MU. This results in the inter-state transmission losses of 67.81 MU, which is 3.67% of the gross energy purchased.

The Commission considers the inter-state transmission loss level of 3.67% as reasonable and approves the same for True up of FY 2014-15 as the same is beyond the control of the utility.

3.6. Intra-State Transmission and Distribution losses

Petitioner Submission:

The Petitioner has submitted that the actual loss level achieved in FY 2014-15 was 8.94% as against the loss level of 8.70% approved by the Commission in its Tariff Order dated 01st May 2014.

Commission Analysis:

The Commission in its Tariff Order for FY 2014-15 dated 01st May 2014 had approved the targeted T&D loss level of 8.70%. The Commission has considered the schedule drawal from WRPC i.e. 2148.05 MU including open access injection as against 2132.92 MU submitted by the Petitioner. Accordingly, the Commission approves the intra-state transmission and distribution loss level of 9.59% as below:

Table 3-2: Variation of Intra-State Transmission and Distribution Losses (in% age)

Sr. No.	Particulars	FY 2014-15					
		(Petitioner's submission) in ARR	Approved in T.O. dt. 05.05.14 for FY	Petitioner's submission for APR	Approved in Review Order dt.01.04.15	Petitioner's Submission for True-Up	True-Up Approved By Commission
1	ENERGY REQUIREMENT						
1	Energy sales within the State/UT	1,948.00	2,083.87	1,609.82	1,609.81	1,621.72	1,621.72
2	Open Access Sales	-	-	-	-	320.43	320.43
3	Total Sales within the State/UT	1,948.00	2,083.87	1,609.82	1,609.81	1,942.15	1,942.15
4	Distribution losses						
i)	%	8.70%	8.70%	8.70%	8.70%	8.94%	9.59%
	MU	185.63	198.57	153.40	153.40	190.77	205.90
5	Energy required at State Periphery for Sale to Retail Consumers	2,133.63	2,282.45	1,763.22	1,763.21	2,132.92	2,148.05

3.7. Energy Requirement

Petitioner Submission:

The Petitioner has submitted the energy requirement for FY 2014-15, based on the actual sales, power purchase quantum and actual losses for FY 2014-15.

Commission Analysis:

The Commission has approved the T&D losses and the inter-state transmission losses as elaborated in the foregoing paragraphs. The Commission has considered the actual drawal of 2148.05 MU including open access sales at the ex-bus periphery of the licensee as per the weekly UI sheets of WRPC for FY 2014-15. The Petitioner in its Petition has submitted that the energy availability from generator end excluding open access purchase by open access consumers of Electricity Department of Daman and Diu was 1878.63 MU. The Petitioner in its submission in response to data gaps has revised the same to 1878.97 MU. As a result, there was a difference of 0.34 MU. The energy requirement for FY 2014-15 is drawn based on the approved inter-state and intra-state transmission & distribution losses and the approved energy sales. The gross energy requirement approved for FY 2014-15 is shown in

the Table below, along with the energy requirement submitted by the Petitioner in its true-up Petition for ARR of FY 2014-15.

Table 3-3: Gross Energy Requirement for FY 2014-15 (In MU)

Sr. No.	Particulars	FY 2014-15					
		(Petitioner's submission) in ARR	Approved in T.O. dt. 01.05.14 for FY 2014-15	Petitioner's submission for APR	Approved in Review Order dt.31.03.15	Petitioner's Submission for True -Up	True-Up Approved By Commission
I	ENERGY REQUIREMENT						
1	Energy sales within the State/UT	1,948.00	2,083.87	1,609.82	1,609.81	1,621.72	1,621.72
2	Open Access Sales	-	-	-	-	320.43	320.43
II	Total Sales within the State/UT	1,948.00	2,083.87	1,609.82	1,609.81	1,942.15	1,942.15
III	Distribution losses						
i)	%	8.70%	8.70%	8.70%	8.70%	8.94%	9.59%
	MU	185.63	198.57	153.40	153.40	190.77	205.90
IV	Energy required at State Periphery for Sale to Retail Consumers	2,133.63	2,282.45	1,763.22	1,763.21	2,132.92	2,148.05
V	Add: Sales to common pool consumers/ UI	141.03	-	231.53	239.44	-	19.99
VI	Total Energy Requirement for State	2,274.66	2,282.45	1,994.75	2,002.65	2,132.92	2,168.04
VII	Transmission losses						
i)	%	3.90%	3.70%	4.09%	3.71%	3.70%	3.67%
	MU	92.31	87.57	85.06	77.16	82.29	67.81
VIII	ENERGY REQUIRED AT GENERATOR END	2,366.97	2,370.02	2,079.81	2,079.81	2,215.21	2,235.85
IX	Gross Availability	2,366.97	2,370.02	2,079.81	2,079.81	2,215.21	2,235.85
1	Power Purchase from Renewable Sources	56.00	68.77	68.76	68.76	0.40	0.40
2	NPCIL	142.03	145.78	143.61	143.61	149.41	149.41
3	Unscheduled Interchange	-	-	42.53	42.53	30.18	50.48
4	Power Purchase from other sources	2,168.94	2,155.47	1,824.91	1,824.91	1,698.98	1,699.31
5	Open Access Purchase	-	-	-	-	336.24	336.24

Accordingly, the Commission approves the energy requirement of 1899.61 MU (2235.85 MU – 336.24 MU) excluding open access purchase of 336.24 MU at generator end for the true-up of FY 2014-15.

3.8. Power Purchase Quantum & Cost for FY 2014-15

Petitioner Submission:

The Petitioner has submitted that the actual power purchase for FY 2014-15 is Rs. 707.56 Crores to procure 1878.63 MU of energy for FY 2014-15 (including energy purchased

through UI over drawal excluding open access purchase by open access consumers of Electricity Department of Daman and Diu), as against the power purchase cost of Rs. 781.48 Crores to procure 2079.81 MU as approved by the Commission in its Tariff Order dated 31st March 2015.

Commission Analysis:

The Commission had approved the power purchase cost including transmission charges at Rs. 781.48 Crores for purchase of 2079.81 MU in its review for FY 2014-15 and Tariff Order dated 31st March 2015. The Petitioner in its true-up Petition has submitted that the actual power purchase for FY 2014-15 is Rs. 707.56 Crores including transmission costs during FY 2014-15 to procure 1878.63 MU for FY 2014-15 (including UI over-drawal). The Petitioner has submitted that it has considered the source-wise power purchase cost including transmission charges as per the audited accounts of FY 2014-15. The total power purchase cost as submitted by the Petitioner in true-up includes the arrears on account of revision in CERC Regulations, revision in Income tax and increase in coal charges along with rebate on the prompt payment received by the utility. Further, during the Technical Validation Session held on 16th February 2015 and in reply to the Commission's listing of data gaps, the Petitioner submitted the month wise power purchase quantum and cost along with its summary for full FY 2014-15 which stated that the Petitioner has purchased 1878.97 MU with a cost of Rs 709.27 Crores. This has resulted in an overall discrepancy of 0.34 MU and Rs 1.71 Crores between the Petition and the audited accounts and the reply to the data gaps as submitted by the Petitioner for true up of FY 2014-15. The Commission as part of prudence check verified the month and station-wise bills of power purchase Cost submitted by the Petitioner for FY 2014-15 and has considered the month and summary wise cost as verified from bills and audited accounts for FY 2014-15. Further, the quantum has been verified from Regional Energy Accounts and power purchase bills.

As mentioned in the foregoing paragraphs of this order, the Commission has considered the separate effect of UI over-drawal / under-drawal for FY 2014-15; therefore the UI over-drawl of 50.48 MU and UI under-drawl of 19.99 MU (verified from the weekly UI bills as available with WRPC) under UI mechanism for FY 2014-15 is considered for the purpose of true-up.

The Commission has verified the power purchase cost and units from the power purchase bills for FY 2014-15 and arrived at Rs 716.76 Crores for 1899.61 MU as against the audited accounts figures of Rs 707.56 Crores for 1878.97 MU respectively. **The Commission allows the power purchase cost of 707.56 Crores as per the audited accounts and 1899.61 MU as per the REA statement and power purchase bills for FY 2014-15.** In accordance with the power purchase cost as per the audited accounts, auditor's report, and JERC Tariff Regulations, 2009, the Commission has found it reasonable and therefore

considers Rs. 707.56 Crores (including rebate) with reference to the final actual figures as per the audited accounts for the purpose of further analysis of true-up.

The summary of power purchase quantum and costs, for FY 2014-15 as approved by the Commission after the true-up including UI over-drawal, is given in the following table:

Table 3-4: Power Purchase Units approved by the Commission and actuals submitted by the Petitioner for FY 2014-15 (MU)

Power Purchase - Quantum (MUs) & Cost (Rs Crores)									
FY 2014-15									
Sr. No.	Particulars				Cost (Rs Crores)				Per Unit (Paisa/kWh)
		Petitioner's Submission	True Up Order	Difference	Fixed	Variable	Other	Total	
A	NTPC	1,115.19	1,115.52	(0.33)	146.31	165.94	10.05	322.29	288.92
1	KSTPP 1&2	354.80	354.81	(0.01)	18.25	38.65	(2.98)	53.92	151.98
2	KSTPP 3	44.30	44.31	(0.01)	6.78	4.84	0.19	11.82	266.71
3	VSTPP 1	91.92	91.92	(0.00)	5.88	14.85	3.87	24.60	267.57
4	VSTPP 2	64.55	64.56	(0.01)	4.21	9.83	3.19	17.23	266.91
5	VSTPP 3	81.71	81.71	(0.00)	8.88	12.18	3.62	24.68	301.99
6	VSTPP 4	89.59	89.60	(0.01)	12.57	13.54	0.60	26.71	298.07
7	KAWAS GPP	59.35	59.48	(0.13)	17.63	16.01	(0.29)	33.35	560.72
8	GANDHAR GPP	44.72	44.73	(0.01)	22.68	11.14	0.12	33.94	758.76
9	SIPAT 1	184.67	184.67	(0.00)	25.05	27.12	0.33	52.51	284.32
10	SIPAT 2	77.52	77.52	(0.00)	9.05	11.19	1.73	21.96	283.27
11	KHSTPS 2	13.96	14.11	(0.15)	1.64	3.44	0.48	5.56	393.94
12	MAUDA	8.10	8.10	(0.00)	13.69	3.15	(0.82)	16.03	1,978.30
B	NSPCL	583.79	583.79	(0.00)	100.48	130.83	(0.34)	230.97	395.64
1	BHILAI (ALLOCATED)	583.79	583.79	(0.00)	100.48	130.83	(0.34)	230.97	395.64
C	NPCIL	149.41	149.41	(0.00)	-	39.02	0.46	39.48	264.20
1	KAPPS	59.39	59.39	(0.00)	-	14.06	(0.28)	13.78	231.98
2	TAPPS 3&4	90.02	90.02	(0.00)	-	24.96	0.74	25.70	285.46
		-	-	-	-	-	-	-	-
D	OTHERS	-	-	-	13.60	-	2.59	16.18	
1	RGPL	-	-	-	13.60	-	2.59	16.18	
E	UI	30.18	50.48	(20.30)	-	25.12	-	25.12	497.67
		-	-	-	-	-	-	-	-
F	RPO	0.40	0.40	-	-	0.36	-	0.36	900.00
1	Solar	0.40	0.40	-	-	0.36	-	0.36	900.00
2	Non Solar								
G	Other Charges	-	-	-	-	-	-	82.36	
1	PGCIL CHARGES	-	-	-	-	-	-	70.28	
2	Reactive charges	-	-	-	-	-	-	0.78	
3	WRLDC	-	-	-	-	-	-	0.53	
4	Less: Rebate	-	-	-	-	-	-	(3.28)	
H	TOTAL	1,878.97	1,899.61	(20.64)	260.38	361.26	12.76	716.76	377.32
I	Difference							9.21	
J	TOTAL	1,878.97	1,899.61	(20.64)	260.38	361.26	12.76	707.56	372.47

As per Regulation 9 of the Tariff Regulations 2009, Excess or Under Recovery with Respect to Norms and Targets

Quote

1) *The generating company or the licensee, as the case may be, shall pass on to the consumers, the 70% of the gain arising from over achievement of the norms laid down by the Commission in these Regulations or targets set by the Commission from time to time and retaining balance 30% with themselves.*

2) *The generating company or the licensee, as the case may be, shall bear the entire loss on account of its failure to achieve the norms laid down by the Commission or targets set by the Commission from time to time."*

Unquote

Consequent to the increase in percentage losses over the target approved by the Commission, the power purchased in actual is more than that corresponding to the approved % of losses in the review order for FY 2014-15 for the same sale of power. The excess in the power purchase cost due to higher percentage losses is to be deducted from the power purchase cost to be allowed in the true-up for FY 2014-15. The approved per unit power purchase cost (paisa per kWh) has been determined after considering energy requirement at state periphery minus open access power purchase and cost as approved by the Commission as per the audited accounts minus revenue from open access sales.

Table 3-5: Assessment of Losses for FY 2014-15 (Rs Crores)

Particulars	FY 2014-15	
	Approved	Actual
Retail sales within the UT (MUs)	1621.72	1621.72
Open Access Sales (MUs)	320.43	320.43
Total Sales including Open Access (MUs)	1942.15	1942.15
T&D Loss within the UT (%)	8.70%	9.59%
Energy required at UT Periphery for Sale to Retail Consumers including open access (MUs)	2127.22	2148.05
Excess Power Purchase (MUs)	20.83	
Approved Per unit Power Purchase Cost (Paisa per kWh)	388	
Penalty for Underachievement	8.08	

Keeping in view of the above mentioned provisions of the Regulations, the Commission disallows Rs 8.08 Crores from the power purchase cost considered in the true up for FY 2014-15.

The Commission after the verification of the audited accounts for FY 2014-15, and deducting the excess power purchase cost of Rs 8.08 Crores as discussed in the foregoing paragraph, **considers the final power purchase cost of Rs 699.48 (Rs 707.56 Crores – Rs 8.08 Crores) for the purpose of True up of ARR for FY 2014-15 towards the purchase of 1899.61 MU.**

Renewable Purchase Obligations

As per JERC (Procurement of Renewable Energy) Regulations 2010 Regulation 1 sub clause (1):

Quote

“Each distribution licensee shall purchase electricity (in kWh) from renewable energy sources, at a defined minimum percentage of the total consumption of all the consumers in its area during a year.”

Unquote

The Petitioner had to purchase 3.30% of the total power purchase from renewable sources for FY 2014-15 including 0.60% for Solar and 2.70% for Non-Solar. The Petitioner in its submission has submitted that it has not procured any Renewable Energy Certificates for FY 2014-15. The Commission has observed that in order to comply with the RPO's obligation, the Petitioner has to procure 53.52 MU from the Renewable Energy Sources for FY 2014-15. **The Petitioner in its Petition has provided nil MU and cost in respect to its RPO for FY 2014-15. Further, the Petitioner in its reply to data gaps has submitted that it has purchased 0.40 MU of solar power at Rs 0.36 Crores and REC of 79.73 Units of Non Solar REC's. The Petitioner provided the supporting documents in respect to RPO, but it failed to support the same in terms of cost. As per the audit accounts the total power purchase cost was Rs 707.56 Crores.**

In accordance with the JERC (Procurement of Renewable Energy) Regulations 2010 Regulation 4:

Quote

“4. Consequences of default

If the obligated entity does not fulfill the renewable purchase obligation as provided in these Regulations during any year and also does not purchase the certificates, the Commission may direct the obligated entity to deposit into a separate fund, to be created and maintained by State Agency, such amount as the Commission may determine on the basis of the shortfall in units of RPO and the forbearance price. It shall also be liable for penalty as may be provided by the Commission under Section 142 of Electricity Act, 2003.

Provided

- 1. That the fund so created shall be utilized as may be directed by the Commission for purchase of the certificates.*
- 2. Further that the Commission may empower an officer of the State Agency to operate the fund and procure from the Power Exchange the required number of certificates to the extent of the shortfall in the fulfillment of the obligations, out of the amount in the fund.*
- 3. That the obligated entities shall be in breach of its license condition if it fails to deposit the amount directed by the Commission within 15 days of the communication of such direction.*
- 4. That in case of genuine difficulty in complying with the renewable purchase obligation because of non-availability of certificates, the obligated entity can approach the Commission for carry forward of compliance requirement to the next year.”*

Unquote

The treatment of shortfall in RPO's is detailed in the review of FY 2015-16.

3.9.Operation and Maintenance Expenses**Petitioner Submission:**

The Petitioner has submitted that the Operation and Maintenance expenses comprise of the following heads:

- **Employees Expenses** which includes the salaries, dearness allowance, dearness pay, other allowances and retirement benefits paid to the staff;
- **Repair and Maintenance (R&M) Expenses**, which include all expenditure incurred on the maintenance and upkeep of transmission and distribution assets; and
- **Administrative and General Expenses**, which include all expenditure incurred in operating a business such as telephone charges, regulatory and consultancy fees such as energy auditing and chartered accountant fees, conveyance and travel expenses, water charges etc.

Employee Expenses

The Petitioner has submitted the employee expenses of Rs. 10 Crores in its true-up Petition for FY 2014-15 as compared to the employee expenses of Rs. 9.24 Crores approved by the Commission in its Tariff Order dated 01st May 2014 and Rs. 9.91 Crores for FY 2014-15 in its Tariff Order dated 31st March 2015.

Administration and General Expenses

The Petitioner has submitted the A&G expenses of Rs. 6.44 Crores in its true-up Petition for FY 2014-15 as compared to the A&G expenses of Rs. 3.75 Crores approved by the Commission in its Tariff Order dated 01st May 2014 and Rs. 4.84 Crores for FY 2014-15 in its Tariff Order dated 31st March 2015.

Repair and Maintenance Expenses

The Petitioner has submitted the R&M expenses of Rs. 10.98 Crores in its true-up Petition for FY 2014-15 as compared to the R&M expenses of Rs. 8.47 Crores approved by the Commission in Tariff Order dated 01st May 2014 and Rs. 9.12 Crores for FY 2014-15 in its Tariff Order dated 31st March 2015.

Commission Analysis:

Operation and Maintenance expenses comprise of the following heads:

- **Employees Expenses** which includes the salaries, dearness allowance, dearness pay, other allowances and retirement benefits paid to the staff;

- **Repair and Maintenance (R&M) Expenses**, which include all expenditure incurred on the maintenance and upkeep of transmission and distribution assets; and
- **Administrative and General Expenses**, which include all expenditure incurred in operating a business such as telephone charges, regulatory and consultancy fees such as energy auditing and chartered accountant fees, conveyance and travel expenses, water charges etc.

Employee Expenses

The Petitioner has submitted the employee expenses of Rs. 10 Crores in its true-up Petition for FY 2014-15 as compared to the employee expenses of Rs. 9.24 Crores approved by the Commission in its Tariff Order dated 01st May 2014 and Rs. 9.91 Crores for FY 2014-15 in its Tariff Order dated 31st March 2015. The Petitioner has submitted the detailed break-up of employee expenses on each of the expenditure heads for consideration by the Commission. The Commission has verified the same through the audit accounts of the Petitioner for FY 2014-15 and found it correct and **accordingly approves the employee expenses at Rs 10 Crores as per Table below.**

Table 3-6: Employee Expenses for FY 2014-15 (Rs. Crores)

Sr. No	Particulars	FY 2014-15					
		(Petitioner's submission) in ARR	Approved in T.O. dt. 01.05.14 for FY 2014-15	Petitioner's submission for APR	Approved in Review Order dt.31.03.15	Petitioner's Submission for True -Up	True-Up Approved By Commission
1	Total Employee Expenses	9.78	9.24	10.04	9.91	10.00	10.00

Administration and General Expenses

The Petitioner has submitted the A&G expenses of Rs. 6.44 Crores in its true-up Petition for FY 2014-15 as compared to the A&G expenses of Rs. 3.75 Crores approved by the Commission in its Tariff Order dated 01st May 2014 and Rs. 4.84 Crores for FY 2014-15 in its Tariff Order dated 31st March 2015. The Petitioner has submitted the detailed break-up of Administrative and General Expenses on each of the expenditure heads for consideration by the Hon'ble Commission. The Commission has verified the same through the audited accounts of the Petitioner for FY 2014-15 and found it correct and **accordingly approves the administration and general expenses at Rs 6.44 Crores as per the Table below:**

Table 3-7: Administrative and General Expenses for FY 2014-15 (Rs. Crores)

Sr.No	Particulars	FY 2014-15					
		(Petitioner's submission) in ARR	Approved in T.O. dt. 01.05.14 for FY 2014-15	Petitioner's submission for APR	Approved in Review Order dt.31.03.15	Petitioner's Submission for True -Up	True-Up Approved By Commission
1	Total A&G Expenses	3.93	3.75	4.91	4.84	6.44	6.44

Repair and Maintenance Expenses

The Petitioner has submitted the R&M expenses of Rs. 10.98 Crores in its true-up Petition for FY 2014-15 as compared to the R&M expenses of Rs. 8.47 Crores approved by the Commission in its Tariff Order dated 01st May 2014 and Rs. 9.12 Crores for FY 2014-15 in its Tariff Order dated 31st March 2015. The Commission has verified the same through the audited accounts of the Petitioner for FY 2014-15 and found it correct and **accordingly approves the repair and maintenance expenses at Rs 10.98 Crores as per the Table below:**

Table 3-8: Repair and Maintenance Expenses for FY 2014-15 (Rs. Crores)

Sr. No	Particulars	FY 2014-15					True-Up Approved By Commission
		(Petitioner's submission) in ARR	Approved in T.O. dt. 01.05.14 for FY 2014-15	Petitioner's submission for APR	Approved in Review Order dt.31.03.15	Petitioner's Submission for True -Up	
1	Total R&M expenses	8.97	8.47	9.25	9.12	10.98	10.98

3.10. Capitalization, GFA & Depreciation

Petitioner Submission:

The Petitioner in its true-up Petition for FY 2014-15 has submitted the actual capital expenditure incurred by the utility as Rs 85.46 Crores and capitalization achieved during FY 2014-15 is Rs. 57.17 Crores which is on par with the capitalization of Rs. 57.17 Crores approved by the Commission for FY 2014-15 in its Tariff Order dated 31st March 2015.

The Petitioner has computed the depreciation at Rs. 16.82 Crores as against the depreciation of Rs. 17.87 Crores approved by the Commission for FY 2014-15 in its Tariff Order dated 31st March 2015. The Petitioner has submitted that the depreciation has been computed by applying the depreciation rates as given in the depreciation schedule of CERC (Terms and Conditions of Tariff) Regulations, 2009 on the opening Gross Fixed Assets and the subsequent additions to it in FY 2014-15 as shown in the audited accounts for FY 2014-15.

Commission Analysis:

Regulation 26 (1) (i) of the JERC Tariff Regulations, 2009 specifies *“the value base for depreciation shall be historical cost of assets, that is actual expenses limited to approved capital cost where such capital cost has been approved by the Commission”*.

The Petitioner has wrongly shown the addition of assets in FY 2014-15 as Rs 57.17 Crores. The Commission has verified the capitalization from the audited accounts and found that assets to the tune of Rs 49.72 Crores have only been added during the FY 2014-15 which was also confirmed by the Petitioner in its additional submission. The Commission had

approved Rs 337.42 Crores as closing value of GFA for FY 2013-14 in TO dated 31st March 2015 and the Commission has considered the same as opening GFA for FY 2014-15 along with capitalization of Rs 49.72 Crores during the FY 2014-15. **Accordingly the Commission approves depreciation of Rs 16.82 Crores in the true up Petition for FY 2014-15 as per audited accounts as Table below:**

Table 3-9: Gross Fixed Assets, Capitalization and Depreciation for FY 2014-15 (Rs. Crores)

Sr. No	Particulars	FY 2014-15					
		(Petitioner's submission) in ARR	Approved in T.O. dt. 01.05.14 for FY 2014-15	Petitioner's submission for APR	Approved in Review Order dt.31.03.15	Petitioner's Submission for True -Up	True-Up Approved By Commission
1	Opening Gross Fixed Assets	333.82	333.87	337.42	337.42	337.42	337.42
2	Addition During the FY	57.59	57.59	57.77	57.17	57.17	49.72
3	Adjustment/Retirement During the FY	-	-	-	-	-	-
4	Closing Gross Fixed Assets	391.41	391.46	394.58	394.59	387.13	387.14
5	Average Gross Fixed Assets	362.62	362.67	366.00	366.01	362.28	362.28
6	Rate of Depreciation (%)	4.89%	4.89%	4.88%	4.88%	4.64%	4.64%
7	Depreciation for the FY	17.72	17.72	17.87	17.87	16.82	16.82

3.11. Interest and Finance Charges

Petitioner Submission:

The Petitioner has considered the Opening Balance of Loans for FY 2014-15 as approved by the Commission in its Tariff Order dated 31st March 2015 for the Review of the ARR for FY 2014-15. The normative loan addition in FY 2014-15 has been computed as 70% of the capitalization for FY 2014-15 which works out to Rs. 34.80 Crores. The capitalization for FY was Rs. 57.17 Crores as per the annual accounts for FY 2014-15. In line with the approach adopted by the Commission in its previous Tariff Orders, 10% of the opening loans have been considered as the repayment during the year. Further the rate of interest has been considered as equal to the SBI PLR of 14.75%. The Petitioner has claimed the interest and finance charges of Rs. 10.12 Crores to be considered for true up of FY 2014-15.

Commission Analysis:

As per Regulation 25 of JERC (Terms and Conditions for Determination of Tariff) Regulations, 2009

Quote

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

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

Unquote

The Commission places reliance on the Section 23 of JERC Tariff Regulations which is reproduced below:

Quote*“23. Debt-Equity Ratio*

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

Provided that the Commission may, in appropriate cases, consider equity higher than 30% for the purpose of determination of tariff, where the generating company or the licensee is able to establish to the satisfaction of the Commission that deployment of equity more than 30% is in the interest of the general public: .

(2) The debt and equity amounts arrived at in accordance with sub-Regulation (1) above shall be used for all purposes including for determining interest on loan, return on equity, Advance against Depreciation and Foreign Exchange Rate Variation.

Provided that in the case of an Integrated Utility, till the time it remains Integrated Utility, it shall be entitled to return on its capital base as per Schedule VI to the repealed Electricity (Supply) Act, 1948.”

Unquote

The above stated Regulations mandate the debt equity ratio for assets deployed. Further, the Commission has considered the actual capitalization of assets at Rs 49.72 Crores during the FY 2014-15. The Commission for the purpose of funding of the capitalization has considered the normative debt equity ratio of 70:30, whereby it has considered the addition in normative loan at Rs. 34.81 Crores for the FY 2014-15 and the opening normative loan of Rs. 53.89 Crores as approved by the Commission in its Tariff Order dated 31st March 2015 for the Review of the ARR for FY 2014-15. 10% of the opening loans have been considered as the repayment during the year. Further, the Commission has considered the weighted average interest rate (SBI PLR) for the FY 2014-15

(<https://www.sbi.co.in/portal/web/interest-rates/benchmark-prime-lending-rate-historical-data>). The calculation for the interest on the normative loan is given below:

Table 3-10: Interest and Finance Charges for FY 2014-15 (Rs. Crores)

Sr.No	Particulars	FY 2014-15					
		(Petitioner's submission) in ARR	Approved in T.O. dt. 01.05.14 for FY 2014-15	Petitioner's submission for APR	Approved in Review Order dt.31.03.15	Petitioner's Submission for True-Up	True-Up Approved By Commission
1	Opening Normative Loan	52.17	51.19	54.97	53.89	53.89	53.89
2	Add: Normative Loan during the year	40.31	40.31	40.02	40.02	34.80	34.81
3	Less: Normative Repayment 10% of Opening in FY 15 & FY 16 and Equal to Dep from FY 17 to FY 19	4.62	5.76	4.75	17.87	5.39	5.39
4	Closing Normative Loan	87.86	85.74	90.24	76.04	83.30	83.31
5	Average Normative Loan	70.02	68.47	72.61	64.97	68.60	68.60
6	Rate of Interest (@SBAR rate)	14.75%	14.75%	14.75%	14.75%	14.75%	14.75%
7	Interest on Normative Loan including bank charges	10.33	10.10	10.71	9.58	10.12	10.12

In view of the submissions made by the Petitioner and the capitalization considered for FY 2014-15 in the foregoing para of this order, the Commission has considered the Normative Interest on loans at Rs. 10.12 Crores as reasonable and approves the same for true-up of FY 2014-15.

3.12. Interest on Working Capital

Petitioner Submission:

The Petitioner has computed the interest on working capital for FY 2014-15 on the normative principles outlined by the Commission in the JERC (Terms and Conditions for determination of Tariff), Regulations, 2009. The Petitioner has computed interest on working capital at 14.75% as equal to the SBI PLR as Rs. 1.67 Crores as against Rs. 2.99 Crores approved by the Commission in its

Tariff Order dated 31st March 2015 for FY 2014-15 and Rs. 9.68 Crores in its ARR and Tariff order dated 01st May 2014.

Commission Analysis:

As per Regulation 29 of JERC Tariff Regulations

Quote

29. Working capital and interest rate on working capital

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

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

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

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

- a. *Power purchase cost*
- b. *Employees cost*
- c. *Administration & general expenses*
- d. *Repair & Maintenance expenses.*
- e. *Sum of two-month requirement for meeting Fuel cost.*

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

Unquote

The Commission has considered the calculation of the different components of the interest on working capital as per JERC Tariff Regulations. The Commission has gone through the Petitioner submission and has found that the Petitioner has wrongly considered the average interest rate of 14.73% to arrive at figure of Rs 1.67 Crores instead of 14.75% of its submission in the true-up Petition.

The Petitioner in its reply to the data gaps submitted that it has an average security deposit balance of Rs 38.16 Crores in the form of DD/cash for FY 2014-15 which it has wrongly shown as Rs 49.91 Crores in the true up Petition for FY 2014-15. Further, as the consumer security deposit has not been kept in any separate account and is available to the Petitioner to meet its working capital requirements, the Commission has therefore considered that the average amount against the consumer security deposit available till 31st March 2015 to meet the working capital required for FY 2014-15 is Rs 38.16 Crores. Further, the Commission has considered the interest rate (SBI PLR) as on 01st April 2014 (<https://www.sbi.co.in/portal/web/interest-rates/benchmark-prime-lending-rate-historical-data>). The calculation for the interest on the working capital is given below:

Table 3-11: Interest on Working Capital for FY 2014-15 (Rs. Crores)

Sr. No	Particulars	FY 2014-15					
		(Petitioner's submission) in ARR	Approved in T.O. dt. 01.05.14 for FY 2014-15	Petitioner's submission for APR	Approved in Review Order dt.31.03.15	Petitioner's Submission for True-Up	True-Up Approved By Commission
1	Fuel Cost for 2 months	-	-	-	-	-	-
2	Power Purchase Cost for one month	79.02	73.62	-	65.12	58.96	58.96
3	O&M Expenses for one month	1.90	1.79	-	1.99	2.29	2.29
4	Total Working Capital for one month	80.91	75.41	-	67.11	61.25	61.25
5	Security Deposit	-	9.79	-	46.83	49.91	38.16
6	Total Working after deduction of Security Deposit from Working Capital Requirement	80.91	65.62	-	20.28	11.34	23.09
7	SBI PLR (%)	14.75%	14.75%	14.75%	14.75%	14.75%	14.75%
8	Interest on Working Capital	11.93	9.68	3.07	2.99	1.67	3.41

In view of the discussion in the above paragraphs, the Commission has considered the Interest on Working Capital at Rs. 3.41 Crores as reasonable and approves the same for true-up of FY 2014-15.

3.13. Interest on Security Deposit

Petitioner Submission:

The Petitioner has claimed Rs 3.50 Crores as the interest on security deposit from consumers for FY 2014-15.

Commission Analysis:

In terms of the section 47 (4) of the Electricity Act, 2003 '*the distribution licensee is required to pay interest on security deposit collected from consumers equivalent to bank rate or more as may be specified by the Commission.*' The Petitioner in its reply to the data gaps submitted that it has an average security deposit balance of Rs 38.16 Crores in the form of DD/cash for FY 2014-15 which it has wrongly shown as Rs 49.91 Crores in the true up Petition for FY 2014-15. The Petitioner has failed to explain the breakup of actual security deposit available as per audited accounts balance sheet i.e. Rs 49.91 Crores. The Petitioner is directed to provide the breakup of security deposit in its next tariff Petition along with the interest paid. **The Commission has considered the opening and closing security deposit as submitted by the Petitioner in response to data gaps and accordingly**

approves interest paid on security deposit to consumers for FY 2014-15 as Rs 3.38 Crores for FY 2014-15 as below:

Table 3-12: Interest on Security Deposit for FY 2014-15 (Rs. Crores)

Sr. No	Particulars	FY 2014-15					
		(Petitioner's submission) in ARR	Approved in T.O. dt. 01.05.14 for FY 2014-15	Petitioner's submission for APR	Approved in Review Order dt.31.03.15	Petitioner's Submission for True-Up	True-Up Approved By Commission
1	Opening Security Deposit	-	9.79	-	-	36.98	36.98
2	Add: Deposits during the Year	-	-	-	-	5.76	5.76
3	Less: Deposits refunded	-	-	-	-	3.39	3.39
4	Closing Security Deposit	-	9.79	-	-	39.34	39.34
5	Average Security Deposit	-	9.79	-	-	38.16	38.16
6	Bank Rate					9.17%	8.85%
7	Interest on Security Deposit	-	0.86	2.21	-	3.50	3.38

3.14. Return on Capital Base/Return on Equity

Petitioner Submission:

The Petitioner has computed the return at 3% on net block of approved assets as per the Tariff Regulations of the Commission. The return on equity of Rs. 6.47 Crores has been claimed by the Petitioner for true up of FY 2014-15.

Commission Analysis:

The Commission is of the view that the Petitioner, being an integrated utility is eligible for the return on capital base under the provisions of Schedule VI of the repealed Electricity (Supply) Act, 1948 vide provision under Regulation 23 of JERC (Terms and Conditions for Determination of Tariff) Regulations, 2009. The Commission has considered the opening GFA for FY 2014-15 and accumulated depreciation till FY 2013-14 for arriving at net block for FY 2014-15. It has computed the return at 3% on net block of approved assets as below:

Table 3-13: Return on Capital Base for FY 2014-15 (In Rs. Crores)

Sr. No	Particulars	FY 2014-15					
		(Petitioner's submission) in ARR	Approved in T.O. dt. 01.05.14 for FY 2014-15	Petitioner's submission for APR	Approved in Review Order dt.31.03.15	Petitioner's Submission for True-Up	True-Up Approved By Commission
1	Gross block at beginning of the FY/Opening GFA or equity	333.82	333.87	-	337.42	337.42	337.42
2	Accumulated depreciation/Addition in Equity at beginning of FY	121.80	122.97	-	124.07	121.59	121.60
3	Net block at beginning of the FY /Closing Equity	212.02	210.90	-	213.35	215.83	215.82
4	Accumulated consumer contribution	-	-	-	-	-	-
5	Net fixed assets at beginning of the FY /Average Equity Amount/Net Capital Base	212.02	210.90	-	213.35	215.83	215.82
6	Reasonable return @3% of NFA till FY 16	6.36	6.33	6.47	6.47	6.47	6.47

The Commission considers the Return on Capital Base of Rs. 6.47 Crores as reasonable and approves the same for true up of FY 2014-15.

3.15. Provision for bad and doubtful debts

Petitioner Submission:

The Petitioner has claimed Rs 0.79 Crores against the bad and doubtful debts in its true-up Petition for FY 2014-15.

Commission Analysis:

As specified in the Regulation no. 28 of JERC Tariff Regulations

“28. Bad and Doubtful Debts

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

JERC Tariff Regulation allows a provision for bad and doubtful debts up to 1% of receivables in the revenue requirement. The Petitioner has passed a nil amount on account of provision for bad and doubtful debts in the audited accounts for FY 2014-15. The Commission has verified the same based on the audit accounts of FY 2014-15 and **accordingly approves nil amount on account of bad & doubtful debt for true-up of ARR for FY 2014-15.**

3.16. Non-Tariff Income

Petitioner Submission:

The non-tariff income comprises of metering, late payment charges, interest on staff loans, reconnection fee, miscellaneous revenue etc. The Petitioner claimed actual non-tariff income for FY 2014-15 as Rs. 18.11 Crores as against Rs. 6.79 Crores approved by the Commission in its Tariff Order dated 01st May 2014 and Rs 11.58 Crores approved in the Tariff Order dated 31st March 2015. The Petitioner has further submitted that variation in non-tariff income is uncontrollable and accordingly requested the Commission to allow the variation in non-tariff income as uncontrollable for the purpose of trueing up.

Commission Analysis:

It is evident from the Table below that income from these charges are primarily of non – tariff nature as per the provision 33 of the JERC Terms and Conditions of Tariff Regulations 2009. The Commission has verified the non-tariff income from the audited accounts of the FY 2014-15 of the Petitioner and found it to be correct and the same has been represented below:

Table 3-14: Non-Tariff Income for FY 2014-15 (Rs. Crores)

Sr. No	Particulars	FY 2014-15					
		(Petitioner's submission) in ARR	Approved in T.O. dt. 01.05.14 for FY 2014-15	Petitioner's submission for APR	Approved in Review Order dt.31.03.15	Petitioner's Submission for True-Up	True-Up Approved By Commission
1	Total	6.79	6.79	11.53	11.58	18.11	18.11

The Commission has, therefore, considered Rs 18.11 Crores expenses on account of Non-Tariff Income for true-up of ARR for FY 2014-15.

3.17. Revenue from Sale of Surplus Power

Petitioner Submission:

The Petitioner has submitted the actual under drawal of nil MU under UI mechanism for FY 2014-15 but has claimed Rs.4.60 Crores as revenue from sale of surplus power during FY 2014-15.

Commission Analysis:

The Commission has verified the weekly summary sheets/bills of UI from the WRPC for the complete year of FY 2014-15 and for the purpose of this Order has considered the over drawl and under drawl of UI separately.

For the purpose of the true-up of FY 2014-15, the Commission has considered the surplus energy sale of 19.99 MU (as verified from the UI bills from the WRPC for the complete year of FY 2014-15) under UI mechanism for FY 2014-15 at Rs 4.60 Crores as per audited accounts.

3.18. Revenue at approved retail tariff of FY 2014-15

Petitioner Submission:

The Petitioner has submitted the actual revenue of Rs. 785.95 Crores (including the amount received on account of FPPCA charges i.e. Rs 31.91 Crores, open access charges i.e. Rs 11.80 Crores and REC Charges of Rs 0.04 Crores) as against Rs. 997.48 Crores and Rs. 776.44 Crores as approved by the Hon'ble Commission vide its Tariff Orders dated 01st May 2014 and 31st March 2015 respectively. The Petitioner in its Petition has submitted the detailed reconciled statement of revenue from sale of power at existing tariff with reference to the final actual figures of income & expenditure as per the audited accounts of FY 2014-15.

Commission Analysis:

The Petitioner has submitted the final actual figures of revenue from sale of power at approved tariff of FY 2014-15, therefore the Commission has considered the final actual

figures of revenue from sale of power as per the audited accounts of FY 2014-15 for true up of FY 2014-15. The Petitioner in the technical formats of the Petition has provided the breakup of revenue from sale of power as Rs 785.49 Crores whereas in its Petition it has shown the same as Rs. 785.95 Crores i.e. a difference of Rs 0.46 Crores.

As per audited accounts for FY 2014-15, the total income for the Petitioner including non-tariff income is Rs 808.66 Crores. **The Commission after considering Non-Tariff Income of Rs 18.11 Crores as discussed in the foregoing paragraphs, FPPCA of Rs 31.91 Crores, a rebate of Rs 0.16 Crores and sale of surplus power i.e. Rs 4.60 Crores has approved Rs 754.04 Crores as income from sale of power to retail consumers including income from open access of Rs 11.80 Crores. As per the sub-Regulation 2 (i) of Regulation 8 of JERC Tariff Regulations 2009, the Commission has considered the final actual figures of revenue from the sale of power including the revenue from retail tariff and treated revenue from FPPCA separately as per audited accounts and approved Rs. 754.04 Crores as revenue from retail sales for true-up of FY 2014-15.**

3.19. Aggregate Revenue Requirement, Revenue Surplus/Deficit for true-up of FY 2014-15 and Carrying Cost

Petitioner Submission:

The Petitioner has submitted the gross revenue requirement of Rs. 756.25 Crores (Rs 774.36 Crores as total revenue requirement – Rs 18.11 Crores as non-tariff income) for FY 2014-15 and has estimated a revenue gap/(surplus) of Rs. (34.31) Crores for the purpose of true up of FY 2014-15.

Commission Analysis:

The Commission has considered and approved the true-up of ARR for FY 2014-15 based on the items of expenditure discussed in the preceding paragraphs and the same has been summarized in the table below vis-à-vis the Petitioner's claim in the true-up Petition for FY 2014-15. It has also considered the FPPCA as claimed by the Petitioner while arriving at the revenue gap/ (surplus) for FY 2014-15.

As per the sub-Regulation 2 (i) of Regulation 8 of JERC Tariff Regulations 2009, the Commission has considered the final actual figures as per audited accounts for the purpose of true-up of FY 2014-15 as below

**Table 3-15: Aggregate Revenue Requirement and Revenue Surplus/Deficit for true-up of FY 2014-15
(In Rs. Crores)**

Sr. No	Particulars	FY 2014-15					
		(Petitioner's submission) in ARR	Approved in T.O. dt. 01.05.14 for FY 2014-15	Petitioner's submission for APR	Approved in Review Order dt.31.03.15	Petitioner's Submission for True-Up	True-Up Approved By Commission
1	Cost of fuel	-	-	-	-	-	-
2	Cost of power purchase for full year	948.26	883.45	781.48	781.48	707.56	699.48
3	Provision for RPO Compliance	-	-	-	-	-	-
4	Employee costs	9.78	9.24	10.04	9.91	10.00	10.00
5	Administration and General Expenses	3.93	3.75	4.91	4.84	6.44	6.44
6	Repair and Maintenance Expenses	8.97	8.47	9.25	9.12	10.98	10.98
7	Depreciation	17.72	17.72	17.87	17.87	16.82	16.82
8	Interest and Finance charges	10.33	10.10	10.71	9.58	10.12	10.12
9	Interest on Working Capital	11.93	9.68	3.07	2.99	1.67	3.41
10	Interest on Security Deposit	-	0.86	2.21	-	3.50	3.38
11	Return on NFA /Equity	6.36	6.33	6.47	6.47	6.47	6.47
12	Provision for Bad Debt	4.77	4.99	3.82	-	0.79	-
13	Income Tax	-	1.04	-	-	-	-
14	Incentive on achievement of norm of T&D loss	-	-	-	-	-	-
15	Total Revenue Requirement	1,022.05	955.62	849.83	842.27	774.36	767.11
16	Less: Non Tariff Income	6.79	6.79	11.53	11.58	18.11	18.11
17	Less: Revenue from Surplus Power Sale/UI	28.21	-	49.32	51.00	4.60	4.60
18	Less: Revenue from Short term sale	-	-	-	-	-	-
19	Net Revenue Requirement	987.05	948.83	788.98	779.69	751.65	744.39
20	Revenue from Retail Sales at Existing Tariff	954.17	999.34	776.44	776.44	785.95	754.04
21	Net Gap / (Surplus)	33.10	(50.52)	12.54	3.24	(34.31)	(9.65)
22	Recovery on account of PPC variations	-	-	-	-	-	31.91
23	Gap after adjusting PPC variations	33.10	(50.52)	12.54	3.24	(34.31)	(41.56)
24	Gap/(Surplus) for the previous year	(34.44)	49.41	-	(81.36)	(81.36)	(81.36)
25	Carrying Cost	-	-	-	(12.00)	-	(12.00)
26	Past Arrears/Refunds to Consumers	-	-	-	-	-	-
27	Total Gap/ (Surplus)	(1.34)	(1.10)	12.54	(90.11)	(115.67)	(134.92)

While the Petitioner, has not considered any carrying cost for the carry forward of the revenue surplus of Rs 81.36 Crores (approved during true up for FY 2013-14 dated 31st March 2015) during the true-up of FY 2014-15, the Commission, considering the carry forward of the revenue surplus of Rs 41.56 Crores along with carrying cost, has estimated the revenue surplus of Rs. 134.92 Crores as reasonable and approves the same for true-up of FY 2014-15. This estimated surplus is carried over to next year and has accordingly been considered in Review of ARR of FY 2015-16.

4. Review of FY 2015-16

4.1. Applicable Provisions of Tariff Regulations 2009

The Review of FY 2015-16 is to be carried out as per the following provisions of Regulation 8 of Tariff Regulations, 2009:

Quote

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

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

The Truing Up for any year will ordinarily not be considered after more than one year of ‘Review’.

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

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

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

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

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

Unquote

4.2. Approach for Review of FY 2015-16

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 and depreciation etc. This has been done based on actual data for 6 months for power purchase cost, and sales, and revised estimates of FY 2015-16 based on six months actuals for O&M expenses, interest and depreciation submitted by the Petitioner.

4.3. Energy Sales

Petitioner Submission:

The Petitioner has submitted the revised estimates of 1743.44 MU for FY 2015-16. The actual energy sale in the Petitioner's periphery (excluding open access sales) in the first eight months of the FY 2015-16 was 1141.23 MU. Further, the Petitioner highlighted that its overall sales is significantly dependent on HT/EHT consumers with close to 81.50% of total sales to this group.

Commission Analysis:

The Commission has noted the actual audited sales figures for the FY 2014-15 and nine months unaudited sales figures for FY 2015-16. The Commission while approving the Business Plan for MYT Control Period from FY 2016-17 to FY 2018-19 has considered the FY 2015-16 as base FY and revised the sales for FY 2015-16 on 15th December 2015. Since this is a review for FY 2015-16 the Commission has considered the base figures as considered for FY 2015-16 in Business Plan Order dated 09th December 2015 for projecting sales, number of consumers and connected load. The Petitioner has not submitted the detailed slab wise breakup of sales, connected load and number of consumers for FY 2015-16 in its Petition. The Commission based on breakup as available for FY 2014-15, has bifurcated the sales, number of consumers and connected load for FY 2015-16. The detailed category wise sales to retail consumers excluding open access sales as approved is shown below:

Table 4-1: Sales Approved for FY 2015-16 (MU)

S. No.	Category / Consumption Slab	FY 2015-16			
		ARR Submission	Approved in Tariff Order dt.31.03.15	APR Submission	APR TO
A	Domestic				90.99
1	0-50 units				0.15
2	51-200 units				12.08
3	201 - 400 units				17.08
4	401 and above				61.58
5	Low Income Group (LIG)				0.09
					44.53
B	Commercial				
1	1- 100 units	53.44	54.80	45.64	17.81
2	101 and above units				26.72
					2.41
C	Agriculture				
1	Up to 10 HP	2.44	2.44	2.53	1.68
2	Above 10 HP				0.73
D	LTP Industry	161.95	161.95	168.75	159.83
E	Public Lighting	10.29	10.29	9.66	9.89
F	Public Water Works	4.15	4.15	3.60	3.54
G	HT				1,373.39
1	11/ 66 kV	1,410.47	1,410.47	1,420.79	961.89
2	HT Ferro				411.50
H	Hoardings/ Signboards	-	-	-	-
I	Temporary	0.99	0.99	1.20	-
J	Total	1,743.37	1,744.74	1,743.44	1,684.58

4.4. Intra-State Transmission & Distribution Loss

Petitioner Submission:

The Petitioner has considered the distribution losses of 8.60% for FY 2015-16 as approved by the Commission in its last Tariff Order dated 31st March 2015.

Commission Analysis:

The Commission has retained the loss level of 8.60% as submitted by the Petitioner for the purpose of Review of FY 2015-16 and approved by the Commission in its Tariff Order dated 31st March 2015. However, the sharing of gain on account of over-achievement of target specified by the Commission will be dealt in the true up of FY 2015-16 on the basis of actual T&D loss level and audited figures of quantum of power purchase and sales for FY 2015-16.

Accordingly, the Commission has considered the loss level of 8.60% as the T&D loss level for the purpose of Review of ARR of FY 2015-16.

4.5. Inter-State Transmission losses

Petitioner Submission:

The Petitioner has considered the recent 52-week moving average of regional losses available at the level of 3.60% for estimating the power availability at the periphery.

Commission Analysis:

The Commission in its Tariff Order for FY 2015-16 had considered the recent 52-week moving average of regional losses and approved 3.71% as the inter-state transmission loss for FY 2015-16.

Since the recent 52 week moving average of regional losses is 3.66% for the week ending 27th February 2015, the Commission now considers the figures of regional pool losses of 3.66% as the inter-state loss and approves the same for review of ARR of FY 2015-16 which would be revised based on actuals during the truing up exercise.

4.6. Energy Requirement

Petitioner Submission:

The Petitioner has considered the overall energy requirement at the generator end for FY 2015-16 as 2362.87 MU including open access sales.

Commission Analysis:

The Commission has considered the actual under drawal of 8.82 MU as per the weekly UI sheets of WRPC for first six months of FY 2015-16. Further, a sale of 28.21 MU has been considered to open market/exchange as there would be surplus power for sale under MoD principle during the FY 2015-16. The energy requirement for the FY 2015-16 is drawn based on the approved inter-state and intra-state transmission & distribution losses and the approved energy sales as discussed in the foregoing paragraphs and actual open access sales for FY 2015-16 (till Feb 16 and proportionately escalated for remaining one month) i.e. 391.51 MU. The Commission has verified the open access purchase by open access consumers of Electricity Department of Daman and Diu from REA statement and found drawal from IEX to the tune of 410.83 MU. The gross energy requirement approved for FY 2015-16 is shown in the Table below, along with the energy requirement submitted by the Petitioner in its review Petition for ARR of FY 2015-16.

Table 4-2: Energy Requirement Approved for FY 2015-16(MU)

Sr. No.	Particulars	FY 2015-16			
		ARR Submission	ARR TO dt. 31.03.15	APR Submission	APR TO
I	ENERGY REQUIREMENT				
1	Energy sales within the State/UT	1,743.37	1,744.74	1,743.44	1,684.58
2	Open Access Sales	-	-	336.45	391.51
II	Total Sales within the State/UT	1,743.37	1,744.74	2,079.89	2,076.09
III	Distribution losses				
i)	%	8.60%	8.60%	8.60%	8.60%
	MU	164.04	164.17	195.70	195.34
IV	Energy required at State Periphery for Sale to Retail Consumers	1,907.41	1,908.90	2,275.59	2,271.43
V	Add: Sales to common pool consumers/ UI	204.57	-	2.21	37.03
VI	Total Energy Requirement for State	2,111.98	1,908.90	2,277.80	2,308.46
VII	Transmission losses	-	-	-	-
i)	%	3.94%	3.71%	3.60%	3.66%
	MU	86.63	73.55	85.07	72.09
VIII	ENERGY REQUIRED AT GENERATOR END	2,198.61	1,982.45	2,362.87	2,380.55
IX	Gross Availability	2,198.61	1,982.45	2,362.87	2,380.55
1	Power Purchase from Renewable Sources	77.30	77.30	37.48	37.99
2	NPCIL	138.20	142.00	138.20	138.14
3	Unscheduled Interchange	-	-	-	35.52
4	Power Purchase from other sources	1,983.11	1,763.15	1,834.14	1,758.07
5	Open Access Purchase	-	-	353.05	410.83

Accordingly, the Commission approves the energy requirement of 1969.73 MU (2380.55 MU - 410.83 MU) excluding open access purchase of 410.83 MU at generator end for the review of FY 2015-16.

4.7. Power Purchase Quantum & Cost for FY 2015-16

Petitioner Submission:

The Petitioner has furnished its revised estimates of FY 2015-16 based on six months actuals and remaining six months projections. For projection of remaining six months of power purchase for FY 2015-16, firm and infirm allocation from various generating stations has been considered. The Petitioner had also submitted that the per unit variable

cost, fixed cost and other charges for the remaining period have been considered at the same level as the actuals from April 2015 to September 2015.

The Petitioner further submitted that the Government of India, Ministry of Power has allocated 1.93% (38 MW) power to the Petitioner on a long-term basis from RGPPL. The Petitioner had accordingly projected the revised estimates of purchase of 2009.82 MU at Rs. 837.22 Crores.

During FY 2015-16, the Petitioner has purchased 93260 non solar energy certificates at the rate of Rs. 1500 per certificate to meet its non-solar obligation. Further, it proposes to buy 35.39 MU of hydro power at the rate of Rs. 5.04 per unit from the Himachal Pradesh State Electricity Board Limited (HPSEBL) from January to March 2016 to fulfil its non-solar obligation. To fulfil its solar obligation during the FY 2015-16, it has purchased 34290 solar energy certificates at the rate of Rs. 3500 per certificate. Further, it will also generate 2.09 MU of energy through the 1 MW solar plant commissioned in Daman and 3 MW in Diu.

Commission Analysis:

As brought out in the section on energy requirement, the power purchase quantum approved by the Commission in its last Tariff Order dated 31st March 2015 for FY 2015-16 was 2079.82 MU at an approved power purchase cost of Rs. 769.90 Crores including transmission charges.

The Commission, as part of prudence check, verified the station-wise Power purchase bills as submitted by the Petitioner for FY 2015-16 for first six months. The Commission has considered the submissions made by the Petitioner after verification of power purchase bills of first six months of FY 2015-16. The Commission noticed errors at revised submission in response to data gaps as submitted by the Petitioner i.e. 14.42 MU purchased at Rs 1.72 Crores from RGPPL in first six months of FY 2015-16 and therefore has verified the actual quantum of power purchase from the REA reports on actual basis which comes to nil. The Commission has considered the actual rebate availed by the Petitioner on power purchase bills of first six months and actual arrears paid as part of review of FY 2015-16. The verified quantum of Power Purchase units and cost including transmission charges are mentioned in the Table below as per the power purchase bills submitted by the Petitioner for the first six months of FY 2015-16 excluding open access purchase by the open access consumers of the Petitioner:

Table 4-3: Power Purchase (MU) and Cost (Rs Crores) for FY 2015-16 (April to September)

FY 2015-16									
Sr. No.	Particulars	Energy MUs			Cost (Rs Crores)				
		APR Submission	APR Order Six Months as per REA	Difference	Fixed	Variable	Other	Total	Per Unit (Paisa/kWh)
A	NTPC	579.31	579.11	0.20	69.39	85.75	(5.48)	149.66	258.42
1	KSTPP 1&2	183.59	183.39	0.20	8.77	17.92	(1.34)	25.34	138.20
2	KSTPP 3	19.83	19.83	-	3.01	2.01	(0.83)	4.19	211.29
3	VSTPP 1	46.83	46.83	-	2.84	7.34	0.37	10.56	225.43
4	VSTPP 2	30.37	30.37	-	1.92	4.58	0.40	6.89	226.93
5	VSTPP 3	41.88	41.88	-	4.28	6.52	0.51	11.31	270.17
6	VSTPP 4	51.26	51.26	-	6.12	7.60	0.18	13.90	271.26
7	VSTPP 5	-	-	-	-	-	-	-	-
8	KAWAS GPP	39.06	39.06	-	8.41	12.04	(1.45)	19.00	486.37
9	GANDHAR GPP	28.59	28.60	(0.01)	10.68	8.99	(1.85)	17.82	622.95
10	SIPAT 1	85.79	85.79	-	11.60	11.21	(0.92)	21.89	255.13
11	SIPAT 2	36.39	36.39	-	4.35	5.08	0.13	9.57	262.87
12	KHSTPS 2	7.28	7.27	0.00	0.80	1.48	(0.20)	2.07	285.20
13	MAUDA	8.46	8.46	-	6.61	1.00	(0.49)	7.12	841.77
		-	-	-	-	-	-	-	-
B	NSPCL	289.65	255.89	33.76	52.52	70.27	0.35	123.13	481.20
1	BHILAI (ALLOCATED)	289.65	255.89	33.76	52.52	70.27	0.35	123.13	481.20
		-	-	-	-	-	-	-	-
C	NPCIL	68.45	68.45	-	-	18.26	0.61	18.87	275.66
1	KAPPS	19.58	19.58	-	-	4.65	0.05	4.70	240.17
2	TAPPS 3&4	48.88	48.88	-	-	13.61	0.56	14.17	289.87
		-	-	-	-	-	-	-	-
D	OTHERS	14.42	-	14.42	-	-	1.72	1.72	
1	RGPPL	14.42	-	14.42	-	-	1.72	1.72	
E	UI	42.53	35.52	7.01	-	10.95	-	10.95	308.30
F	Other Charges	-	-	-	-	-	-	48.19	
1	PGCIL CHARGES	-	-	-	-	-	-	34.21	
2	MSTCL	-	-	-	-	-	-	13.75	
3	WRLDC							0.24	
G	TOTAL	994.37	938.98	55.39	121.91	185.22	(2.80)	352.52	354.52

Power Purchase Quantum and Cost for remaining six months of FY 2015-16

The Petitioner has firm allocation in the Central Sector Generating Stations of NTPC, NPCIL, NSPCL and others from the following stations

- Korba Super Thermal Power Station - I, II and III.
- Vindhyachal Super Thermal Power Station - I, II, III, IV and V (Commissioned on 30th October 2015)
- Kawas Gas Power Station
- Gandhar Gas Power Station
- Sipat Super Thermal Power Station- I &II
- Ratnagiri Gas and Power
- Kahalgaon Super Thermal Power Station - II (Eastern Region)
- Kakrapara Atomic Power Station (KAPS)
- Tarapur Atomic Power Station (TAPS)
- NSPCL-Bhilai

The Commission while estimating the energy availability from the above stations has considered the following assumption:

Allocation of Share: The Commission has considered the firm allocation and allocation from the unallocated quota from the above stations, except Kahalgaon STPS-II and RGPPL, as per the notification of the Western Region Power Committee vide WRPC/Comml-1/6Alloc/2015/8945 Dated October 27, 2015. The allocation for Kahalgaon STPS-II is considered as per the notification of the Eastern Region power Committee (http://www.ercpc.gov.in/uploads/meeting/1437652669merged_document_71.pdf). For RGPPL the Commission has considered nil allocation for FY 2015-16 since FY 2015-16 is almost over with nil generation allocated to the Petitioner in the first six months of FY 2015-16.

Gross Energy Availability: The Commission has estimated the gross energy availability from the existing stations based on the installed capacity and the average plant load factor for the past five years. The availability from each station has been considered based on merit order dispatch. However, the fixed charges are approved for full allocation. The net energy sent out has been considered after considering the applicable auxiliary consumption as per the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and as approved by the Commission in its Tariff Order dated 31st March 2015. As mentioned in the foregoing paragraphs of this order, the Commission has considered the separate effect of UI over-drawal / under-drawal for FY 2015-16 (First Six Months); therefore the UI over-drawal of 35.52 MU (verified from the weekly UI bills as available with WRPC) under UI mechanism for FY 2015-16 is considered for the purpose of review of FY 2015-16. The Petitioner in reply to the data gaps has submitted the RPO compliance till FY 2015-16 (Feb 16) wherein it has submitted that it has bought physical

power of 8.88 MU (Solar – 2.60 MU and 6.28 MU from Non-Solar) and REC certificates to the tune of 163.77 Units (Solar – 57.15 Units and 106.62 Units). The Commission has considered the Petitioner submission in this regard except in physical non-solar power purchase wherein the Commission has considered it as 35.39 MU as projected in the Petition to be purchased from HPSEBL. The Commission has considered the REC quantum as per submission made by the petitioner during the reply to the data gaps. The Commission has further decided to approve the cost of purchase of REC Certificates (both Solar and Non Solar) at the floor price approved by the CERC (<http://www.cercind.gov.in/2014/Regulation/ord16.pdf>). Accordingly, the Commission has considered the same as per the Petitioner submission and the quantum including cost would be revisited during the true up of FY 2015-16.

Energy Available to the Petitioner: The effective share from the stations is applied on the energy sent out to arrive at the energy available for the Petitioner from respective stations.

The Commission has considered the following assumptions to arrive at the Power purchase cost for the remaining six months of FY 2015-16:

Fixed Charges: The fixed charges are considered based on the formula specified for the stations in the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009. The Annual Fixed Charges for each station have been taken as per the latest Tariff orders for the respective stations as applicable with 5% escalation in each FY. However, the fixed charges of EMCO have been taken as per the actual fixed cost submitted by the Petitioner.

Variable Charges: The Commission has considered the average variable cost for the period April 2015 to September 2015 verified by the Commission from the power purchase bills submitted by the Petitioner for consideration of the per unit variable charges for the remaining six months of FY 2015-16.

Approved Power Purchase Quantum and Cost for FY 2015-16

For determining the power purchase cost, merit order dispatch principles have been applied. The must-run stations have been assumed at the top of the merit order and variable cost incurred for meeting the energy requirement within the state has been calculated from the plants at the top of the merit order. The transmission charges for FY 2015-16 for the remaining six months have been considered as per the POC charges applicable for FY 2015-16 (No.L-1/44/2010-CERC Dated 03.11.2015) and the first six months as per bills submitted by the Petitioner based on half yearly actuals. The Other Charges (MSTCL etc.) have been extrapolated for full FY based on actual six months of FY 2015-16. The Commission has considered payment to RGPPL based on fixed cost only as per share allocation. The purchase from solar power has been estimated at Rs 5/kWh as against the Petitioner's projection of Rs 57.41/kWh (Rs 12 Crores for 2.09 MU) whereas from the non-solar end it has been estimated at Rs 5.04/kWh and the same would be

revisited at the time of true up for FY 2015-16. Based on the above, the total power purchase quantum and cost from various sources (including over-drawal of power under UI mechanism and transmission charges) as approved for review of FY 2015-16 is mentioned below:

Table 4-4: Approved Power Purchase (MU) and Cost (Rs Crores) for FY 2015-16

Power Purchase - Quantum (MUs) & Cost (Rs Crores)							
FY 2015-16							
Sr. No.	Particulars	Energy MUs	Cost (Rs Crores)				Per Unit (Paisa/kWh)
			Fixed	Variable	Other	Total	
A	NTPC	1,192.72	156.22	182.10	(5.48)	332.84	279.06
1	KSTPP 1&2	356.56	19.28	34.83	(1.34)	52.77	148.01
2	KSTPP 3	41.40	6.72	4.19	(0.83)	10.08	243.52
3	VSTPP 1	93.26	6.32	14.62	0.37	21.32	228.56
4	VSTPP 2	62.74	4.41	9.46	0.40	14.26	227.30
5	VSTPP 3	81.22	9.44	12.65	0.51	22.60	278.31
6	VSTPP 4	95.53	13.33	14.17	0.18	27.68	289.72
7	VSTPP 5	22.37	1.62	2.77	-	4.39	196.33
8	KAWAS GPP	89.54	19.23	27.61	(1.45)	45.38	506.88
9	GANDHAR GPP	80.11	24.47	25.18	(1.85)	47.79	596.59
10	SIPAT 1	169.62	25.30	22.15	(0.92)	46.53	274.33
11	SIPAT 2	69.97	9.78	9.76	0.13	19.68	281.27
12	KHSTPS 2	13.18	1.73	2.68	(0.20)	4.21	319.36
13	MAUDA	17.22	14.60	2.03	(0.49)	16.13	936.96
B	NSPCL	565.35	117.55	155.24	0.35	273.14	483.13
1	BHILAI (ALLOCATED)	565.35	117.55	155.24	0.35	273.14	483.13
C	NPCIL	138.14	-	36.50	0.61	37.11	268.63
1	KAPPS	47.99	-	11.40	0.05	11.45	238.59
2	TAPPS 3&4	90.15	-	25.10	0.56	25.66	284.62
D	OTHERS	-	16.81	-	1.72	18.53	
1	RGPPL	-	16.81	-	1.72	18.53	
E	UI	35.52	-	10.95	-	10.95	308.30
F	RPO	37.99	-	55.13	-	55.13	-
1	Solar	2.60	-	1.30	-	1.30	500.00
2	Non Solar	35.39	-	17.84	-	17.84	504.00
3	Solar REC	-	-	20.00	-	20.00	-
4	Non Solar REC	-	-	15.99	-	15.99	-
G	PXIL	-	-	-	-	-	
H	Other Charges	-	-	-	-	110.33	-
1	PGCIL CHARGES	-	-	-	-	82.36	-
2	MSTCL	-	-	-	-	27.49	-
3	WRLDC	-	-	-	-	0.24	-
I	TOTAL	1,969.73	290.58	439.92	(2.80)	838.03	425.45

The Commission considers the power purchase cost for FY 2015-16 of Rs. 838.03 Crores for procurement of 1969.73 MU of energy (excluding Open Access Requirement) as reasonable and approves the same for Review of FY 2015-16.

4.8. Renewable Purchase Obligation

Petitioner Submission:

The Petitioner in its Petition had submitted a provision of Rs 43.83 Crores in FY 2015-16 to meet its renewable purchase obligation by purchasing 37.48 MU.

Commission Analysis:

As per JERC (Procurement of Renewable Energy) Regulations 2010 clause 1 sub clause (1)

Each distribution licensee shall purchase electricity (in kWh) from renewable energy sources, at a defined minimum percentage of the total consumption of all the consumers in its area during a year.

Further, the Commission has notified the amendment to the JERC (Procurement of Renewable Energy) Regulations, 2010 on 19th February 2014. As per the amendment issued, the Petitioner has to purchase 3.55% of total energy purchase from renewable sources for FY 2015-16 including 0.85% for Solar and 2.70% for Non-Solar.

The Petitioner in its additional submission has stated that during the period from April 15 to February 16 it has bought physical power of 8.88 MU (Solar – 2.60 MU and 6.28 MU from Non-Solar) and REC certificates of 163.77 Units (Solar – 57.15 Units and 106.62 Units). The Commission has considered the Petitioner’s submission in this regard except in physical non-solar power purchase wherein the Commission has considered it as 35.39 MU as projected in the Petition to be purchased from HPSEBL. The Commission accordingly has considered the same as per the Petitioner submission and the quantum including cost would be revisited during the true up of FY 2015-16. The Petitioner in reply to the data gaps has only submitted proof of REC certificates as follows:

Table 4-5: REC Certificates Purchased by the Petitioner from PXIL as submitted for FY 2015-16

Sr. No	Particulars	Month	Units	Rate
1	Solar REC	November 15	34285	3500/MWh
2	Non-Solar REC	May 15	26666	1500/MWh
3	Non-Solar REC	June 15	13300	1500/MWh
4	Non-Solar REC	July 15	13333	1500/MWh
5	Non-Solar REC	August 15	13333	1500/MWh
6	Non-Solar REC	September 15	13333	1500/MWh
7	Non-Solar REC	October 15	13333	1500/MWh

As can be confirmed from the above submission and discussed in foregoing paragraphs, the Commission has approved the REC quantum as per the Petitioner's additional submission, though the actual proof of REC certificates and physical RPO is lower than as projected by the Petitioner. In absence of any clarity from the Petitioner, the Commission has computed the backlog on the basis of submissions made by the Petitioner during the true up of FY 2010-12, FY 2011-12, FY 2012-13, FY 2013-14 and FY 2014-15. Till FY 2014-15, there is a shortfall of 115.02 MU (Solar: 33.05 MU and Non-Solar: 81.97 MU) for RPO Compliance. The Petitioner is estimated to exceed its RPO as it would be purchasing 201.76 MU (Solar: 59.75 MU and Non-Solar: 142.01 MU) by way of REC and physical solar and non-solar power as against requirement of 59.80 MU (Solar: 14.32 MU and Non-Solar: 45.48 MU) for FY 2015-16. As a result, cumulative shortfall would be nil for RPO Compliance till FY 2015-16.

Table 4-6: Computation of RPO backlog up to FY 2015-16 and Provision for RPO Compliance (MU and Rs Crores)

Sr. No	Particulars	FY 2010-11	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
1	Sales Within UT	1,655.00	1,771.16	1,862.94	1,754.05	1,621.72	1,684.58
2	RPO Obligation (in MU)	16.55	35.42	55.89	52.62	53.52	59.80
	- Solar	4.14	5.31	7.45	7.02	9.73	14.32
	-Non Solar	12.41	30.11	48.44	45.61	43.79	45.48
3	RPO Compliance (Actual Purchase)	-	-	-	0.20	0.40	37.99
	- Solar	-	-	-	0.20	0.40	2.60
	-Non Solar	-	-	-	-	-	35.39
4	RPO Compliance (REC Certificate Purchase)	-	0.75	4.70	13.20	79.73	163.77
	- Solar	-	-	-	-	-	57.15
	-Non Solar	-	0.75	4.70	13.20	79.73	106.62
5	Total RPO Compliance	-	0.75	4.70	13.40	80.13	201.76
	- Solar	-	-	-	0.20	0.40	59.75
	-Non Solar	-	0.75	4.70	13.20	79.73	142.01
6	Cumulative Requirement till current year	16.55	51.97	107.86	160.48	214.00	273.80
	- Solar	4.14	9.45	16.90	23.92	33.65	47.97
	-Non Solar	12.41	42.52	90.96	136.56	180.35	225.83
7	Cumulative Compliance till current year	-	0.75	5.45	18.85	98.98	300.74
	- Solar	-	-	-	0.20	0.60	60.35
	-Non Solar	-	0.75	5.45	18.65	98.38	240.39
8	Net Shortfall in RPO Compliance till current year	16.55	51.22	102.41	141.63	115.02	(26.94)
	- Solar	4.14	9.45	16.90	23.72	33.05	(12.38)
	-Non Solar	12.41	41.77	85.51	117.91	81.97	(14.56)

As can be verified from the above table cumulative shortfall in RPO compliance till FY 2015-16 in case of the Petitioner is negative. The Commission in its Business Plan Order 180/2015 dated 09th December 2015 has reiterated that all pending RPO's up to FY 2015-16 must be fulfilled by the Petitioner by 31st March 2016 and no backlog would be allowed to be carried forward to the control period FY 2016-17 to FY 2018-19. The Commission accordingly reiterates that the quantum including cost would be revisited during the true up of FY 2015-16.

4.9.Operation and Maintenance Expenses

Petitioner Submission:

The Petitioner has submitted that the Operation and Maintenance expenses comprise of the following heads:

- **Employees Expenses** which include the salaries, dearness allowance, dearness pay, other allowances and retirement benefits paid to the staff;
- **Repair and Maintenance (R&M) Expenses**, which include all expenditure incurred on the maintenance and upkeep of transmission and distribution assets; and
- **Administrative and General Expenses**, which include all expenditure incurred in operating a business such as telephone charges, regulatory and consultancy fees such as energy auditing and chartered accountant fees, conveyance and travel expenses, water charges etc.

Employee Expenses

The Petitioner has submitted the employee expenses of Rs. 10.60 Crores in its review Petition for FY 2015-16 as compared to the employee expenses of Rs. 10.50 Crores approved by the Commission in its Tariff Order dated 31st March 2015.

Administration and General Expenses

The Petitioner has submitted the A&G expenses of Rs. 6.83 Crores in its review Petition for FY 2015-16 as compared to the A&G expenses of Rs. 5.13 Crores approved by the Commission in its Tariff Order dated 31st March 2015.

Repair and Maintenance Expenses

The Petitioner has submitted the R&M expenses of Rs. 12.42 Crores in its review Petition for FY 2015-16 as compared to the R&M expenses of Rs. 9.67 Crores approved by the Commission in its Tariff Order dated 31st March 2015.

Commission Analysis:

As per Regulation 27 of JERC Tariff Regulations 2009,

Quote

27. Operation and Maintenance Expenses

1) 'Operation & Maintenance expenses' or 'O&M expenses' shall mean & include repair and maintenance (R&M) expenses, employee expenses and administrative & general (A&G) expenses including insurance. While determining the O&M expenses for generation functions within the State, the Commission shall be guided, as far as feasible, by the principles and methodologies of CERC on the manner, as amended from time to time.

2) While determining the O&M expenses for transmission functions within the State, the Commission shall be guided, as far as feasible by the principles and methodologies specified by CERC on the matter, as amended from time to time: Provided further that the Commission may, if it considers it just, practical and proper considering the size of the total transmission system of, and the quantum of electricity handled by, an integrated utility, treat its transmission system as an integral part of its distribution system itself.

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

a) O&M expenses as approved by the Commission for the first time for a year shall be considered as base O&M expenses for determination of O&M expenses for subsequent years;

b) Base O&M expenses as above shall be adjusted according to variation in the rate of WPI per annum to determine the O&M expenses for subsequent year, where WPI is the Wholesale Price index on April 1 of the relevant year;

c) In case of unbundling of the Electricity Department and formation of separate distribution companies, the Commission will make suitable assessment of base O&M expenses of individual distribution companies separately and allow O&M expenses for subsequent years for individual companies on the basis of such estimation and above principle.

Unquote

Operation and Maintenance expenses comprise of the following heads:

- **Employees Expenses** which include the salaries, dearness allowance, dearness pay, other allowances and retirement benefits paid to the staff;
- **Repair and Maintenance (R&M) Expenses**, which include all expenditure incurred on the maintenance and upkeep of transmission and distribution assets; and
- **Administrative and General Expenses**, which include all expenditure incurred in operating a business such as telephone charges, regulatory and consultancy fees such as energy auditing and chartered accountant fees, conveyance and travel expenses, water charges etc.

Employee Expenses

The Petitioner has submitted the employee expenses of Rs. 10.60 Crores in its review Petition for FY 2015-16 as compared to the employee expenses of Rs. 10.50 Crores approved by the Commission in its Tariff Order dated 31st March 2015. As specified in Regulation 27 (3) (b) of JERC Regulations, 2009 the O&M expenses will be adjusted according to variation in WPI per annum to determine the O&M expenses for subsequent FYs. The Commission has therefore considered the actuals of FY 2014-15 as a revised base for calculating the employee cost for FY 2015-16. The escalation factor used by the Commission is 5.11% per annum. The WPI index up to March 2015 has been used (as available on the website of Economic Advisor, Ministry of Commerce and Industry) for

estimation of the increase in the average of WPI index from FY 2011-12 to FY 2014-15. The employee expenses approved for FY 2014-15 have been escalated by the WPI factor of 5.11% to determine the employee expenses for FY 2015-16.

The Commission considers the employee cost of Rs. 10.51 Crores as reasonable and approves the same for Review of ARR for FY 2015-16.

Administration and General Expenses

The Petitioner has submitted the A&G expenses of Rs. 6.83 Crores in its review Petition for FY 2015-16 as compared to the A&G expenses of Rs. 5.13 Crores approved by the Commission in its Tariff Order dated 31st March 2015. The Commission is of the view that the actual audited data of FY 2014-15 is a true depiction of expenses incurred by the utility. The Commission has therefore considered the actuals of FY 2014-15 as a revised base for calculating the A&G expenses for FY 2015-16 in line with the JERC Tariff Regulations.

The Commission has considered the WPI index up to March 2015 (as available on the website of Economic Advisor, Ministry of Commerce and Industry) for estimation of the increase in the average of WPI index from FY 2011-12 to FY 2014-15. The actual expenses for FY 2014-15 have been escalated by the WPI factor of 5.11% to determine the expenses for FY 2015-16.

The Commission considers the employee cost of Rs. 6.77 Crores as reasonable and approves the same for Review of ARR for FY 2015-16.

Repair and Maintenance Expenses

The Petitioner has submitted the R&M expenses of Rs. 12.42 Crores in its review Petition for FY 2015-16 as compared to the R&M expenses of Rs. 9.67 Crores approved by the Commission in its Tariff Order dated 31st March 2015. The Commission has considered the actuals of FY 2014-15 as a revised base for calculating the repair and maintenance expenses for FY 2015-16. The escalation factor used by the Commission is 5.11% per annum.

Therefore, the Commission considers the Repair and Maintenance expenses of Rs. 11.55 Crores as reasonable and approves the same for Review of ARR for FY 2015-16.

4.10. Summary of Operation and Maintenance Expenses

Petitioner Submission:

The Petitioner has projected a total O&M Expenses of Rs 29.84 Crores in its review Petition for FY 2015-16.

Commission Analysis:

The Commission based on the analysis done in the foregoing paragraphs has approved total O&M Expenses of Rs 28.63 Crores in the review of ARR for FY 2015-16 as compared to the O&M expenses of Rs. 25.30 Crores in its Tariff Order dated 31st March 2015.

4.11. Capital Expenditure and Capitalization

Petitioner Submission:

The Petitioner has projected a total capital investment of Rs 28.78 Crores in Review of FY 2015-16 along with capitalization of Rs 17.27 Crores. The capitalization of new schemes has been considered at 60% of the planned capital expenditure in the same year while the balance 40% has been capitalized in the subsequent year. The schemes are divided under the following two categories:

- Ongoing Schemes
- New Schemes

Commission Analysis:

The Commission observes that the capital expenditure and the capitalization submitted by the Petitioner for FY 2015-16 is required to maintain the reliable supply for the consumers of UT of Daman and Diu. It is also a deep concern for the Commission that as against the approved capital expenditure and capitalization of Rs. 129.12 Crores and Rs 94.69 Crores as approved by the Commission on 31st March 2015, the Petitioner has revised its estimate to Rs 28.78 Crores and Rs 17.27 Crores respectively. **The Commission provisionally approves the capital expenditure of Rs. 28.78 Crores and capitalization of Rs 17.27 Crores proposed by the Petitioner for Review of ARR for FY 2015-16. A detailed statement of the capital expenditure incurred quarterly, the assets capitalized and added in the gross fixed assets up to 31.03.2016 on different dates during the year may be provided for true up for FY 2015-16.**

4.12. GFA and Depreciation

Petitioner Submission:

The Petitioner in ARR and tariff Petition for FY 2015-16 had submitted that the opening Gross Fixed Assets (GFA) is Rs. 387.13 Crores in FY 2015-16. Based on the provisional asset capitalization during FY 2015-16, assets amounting to Rs. 17.27 Crores have been estimated to be added in the GFA during FY 2015-16.

Depreciation is charged on the basis of straight-line method, on the Gross Fixed Assets in use at the beginning of the year and addition in assets during the financial year. The depreciation is based on the original cost of the Gross Fixed Assets. Based on the CERC

norms, the Petitioner has applied the depreciation rates as specified by CERC in the Tariff Regulations for FY 2009-10 to FY 2013-14.

Commission Analysis:

The Regulation 26 of JERC (Terms and Conditions for Determination of Tariff) Regulations, 2009 specifies that depreciation for the assets shall be calculated annually at the rates specified by CERC from time to time. The depreciation rates for distribution assets as specified by CERC (Terms and Conditions of Tariff) Regulations, 2014 have been used to calculate the depreciation. Addition in assets has been fully considered in Plant & machinery and the same would be trued up based on actuals and audited accounts for FY 2015-16. The Commission considered the weighted average depreciation rate of 5.00% for calculation of depreciation,

Table 4-7: GFA & Depreciation submitted by the Petitioner and approved in the review for FY 2015-16 (in Rs. Crores)

Sr. No.	Particulars	FY 2015-16			
		ARR Submission	ARR TO dt. 31.03.15	APR Submission	APR TO
1	Opening Gross Fixed Assets	394.58	394.59	387.13	387.14
2	Addition During the FY	94.69	94.59	17.27	17.27
3	Adjustment/Retirement During the FY	-	-	-	-
4	Closing Gross Fixed Assets	489.27	489.18	404.40	404.41
5	Average Gross Fixed Assets	441.93	441.89	395.77	395.78
6	Rate of Depreciation (%)	4.95%	4.95%	4.81%	5.00%
7	Depreciation for the FY	21.88	21.88	19.47	19.79

The Commission provisionally approves the depreciation of Rs 19.79 Crores for Review of ARR for FY 2015-16

4.13. Interest and Finance Charges

Petitioner Submission:

The Petitioner has claimed the Interest charges of Rs. 12.56 Crores on long-term loans in the revised estimates of FY 2015-16.

Commission Analysis:

As per Regulation 25 of JERC (Terms and Conditions for Determination of Tariff) Regulations, 2009

Quote

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

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

Unquote

The Commission places reliance on Section 23 of the JERC Tariff Regulations which is reproduced below:

Quote

"23. Debt-Equity Ratio

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

Provided that the Commission may, in appropriate cases, consider equity higher than 30% for the purpose of determination of tariff, where the generating company or the licensee is able to establish to the satisfaction of the Commission that deployment of equity more than 30% is in the interest of the general public: .

(2) The debt and equity amounts arrived at in accordance with sub-Regulation (1) above shall be used for all purposes including for determining interest on loan, return on equity, Advance against Depreciation and Foreign Exchange Rate Variation.

Provided that in the case of an Integrated Utility, till the time it remains Integrated Utility, it shall be entitled to return on its capital base as per Schedule VI to the repealed Electricity (Supply) Act, 1948."

Unquote

The above stated Regulations mandate the debt equity ratio for assets deployed, post the commencement of the JERC Tariff Regulations. Further, the Commission has considered the actual capitalization of assets as approved in the foregoing paragraphs at Rs 17.27 Crores during the FY 2015-16. The Commission for the purpose of funding of the capitalization has considered the normative debt equity ratio of 70:30, whereby it has considered the addition in normative loan at Rs. 12.09 Crores for the FY 2015-16 and the closing normative loan of Rs. 83.31 Crores as opening loan for FY 2015-16 as approved by the

Commission in true up for FY 2014-15. 10% of the opening loans have been considered as the repayment during the year. Further, the Commission has considered the weighted average interest rate (SBI PLR) as for FY 2015-16 (<https://www.sbi.co.in/portal/web/interest-rates/benchmark-prime-lending-rate-historical-data>). The calculation for the interest on the normative loan is given below:

Table 4-8: Interest and Finance Charges for FY 2015-16 (In Rs. Crores)

Sr. No.	Particulars	FY 2015-16			
		ARR Submission	ARR TO dt. 31.03.15	APR Submission	APR TO
1	Opening Normative Loan	90.24	93.91	83.30	83.31
2	Add: Normative Loan during the year	66.28	66.28	12.09	12.09
3	Less: Normative Repayment 10% of Opening in FY 15 & FY 16 and Equal to Dep from FY 17 to FY 19	7.83	21.88	8.33	8.33
4	Closing Normative Loan	148.70	120.44	87.06	87.07
5	Average Normative Loan	119.47	98.24	85.18	85.19
6	Rate of Interest (@SBAR rate)	14.75%	14.75%	14.75%	14.29%
7	Interest on Normative Loan including bank charges	17.62	14.49	12.56	12.17

In view of the submissions made by the Petitioner and the capitalization considered for FY 2015-16 in the foregoing para of this order, the Commission has considered the Normative Interest on loans at Rs. 12.17 Crores as reasonable and approves the same for review of FY 2015-16.

4.14. Interest on Working Capital

Petitioner Submission:

The Petitioner has projected the normative interest on working capital for FY 2015-16 as Rs. 3.30 Crores. A rate of interest of rate of interest of 14.45% has been considered for FY 2015-16 on the working capital requirement as approved by the Commission in its last Tariff Order.

Commission Analysis:

The Commission has considered the approved estimates of power purchase expenses of FY 2015-16 and approved O&M expenses to work out the normative working capital required for FY 2015-16

As per Regulation 29 of JERC Tariff Regulations

Quote*29. Working capital and interest rate on working capital*

For generation and transmission business, the working capital shall be as per CERC norms. Subject to prudence check, the working capital for distribution business shall be the sum of one-month requirement for meeting:

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

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

- a. Power purchase cost*
- b. Employees cost*
- c. Administration & general expenses*
- d. Repair & Maintenance expenses.*
- e. Sum of two-month requirement for meeting Fuel cost.*

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

Unquote

In accordance with Section 47(4) of the Electricity Act 2003, the distribution licensee is required to pay interest on security deposits collected from the consumers. However it is noted that the Petitioner has not invested any of the security deposits held and the said amount is available to the Petitioner. Accordingly, the Commission has allowed the interest payable to the consumers as expense in this order. The Commission has considered the security deposit available with the Petitioner as a source to meet working capital requirements and has deducted this amount from the working capital requirement considered for interest for review of FY 2015-16. Further, the Commission clarifies that it has taken the SBI PLR rate of 14.75% as on 1st April 2015 for Review of ARR of FY 2015-16. The detailed calculation for the interest on working capital as mentioned below:

Table 4-9: Interest on Working Capital for FY 2015-16 (In Rs. Crores)

Sr. No.	Particulars	FY 2015-16			
		ARR Submission	ARR TO dt. 31.03.15	APR Submission	APR TO
1	Fuel Cost for 2 months	-	-	-	-
2	Power Purchase Cost for one month	-	64.16	69.77	69.84
3	O&M Expenses for one month	-	2.12	2.49	2.40
4	Total Working Capital for one month	-	66.28	72.26	72.24
5	Security Deposit	-	46.83	40.51	39.34
6	Total Working after deduction of Security Deposit from Working Capital Requirement	-	19.44	31.75	32.89
7	SBI PLR (%)		14.75%	14.45%	14.75%
8	Interest on Working Capital	3.26	2.87	3.30	4.85

The Commission has considered the Interest on Working Capital at Rs. 4.85 Crores as reasonable and approves the same for review of FY 2015-16.

4.15. Interest on Security Deposit

Petitioner Submission:

The Petitioner has claimed it has made a provision to pay Rs 3.50 Crores as interest on consumer security deposit in FY 2015-16.

Commission Analysis:

In terms of the section 47 (4) of the Electricity Act, 2003 'the distribution licensee is required to pay interest on security deposit collected from consumers equivalent to bank rate or more as may be specified by the Commission.'

The Commission has considered the closing security deposit for FY 2014-15 as opening security deposit for FY 2015-16. No addition in Security deposit has been envisaged during the FY 2015-16 and the same would be revisited from the audited accounts for FY 2015-16 at the time of true up of FY 2015-16. The Commission has considered the RBI bank Rate for calculation of Interest rate as on 01st April 2015 i.e. 8.50% and the detailed calculation is shown below:

Table 4-10: Interest on Security Deposit for FY 2015-16 (In Rs. Crores)

Sr. No.	Particulars	FY 2015-16			
		ARR Submission	ARR TO dt. 31.03.15	APR Submission	APR TO
1	Opening Security Deposit	-	-	39.34	39.34
2	Add: Deposits during the Year	-	-	2.96	-
3	Less: Deposits refunded	-	-	0.63	-
4	Closing Security Deposit	-	-	41.67	39.34
5	Average Security Deposit	-	-	40.51	39.34
6	Bank Rate	-	-	8.64%	8.50%
7	Interest on Security Deposit	2.21	-	3.50	3.34

The Commission has considered the Interest on Security Deposit at Rs. 3.34 Crores as reasonable and approves the same for review of FY 2015-16.

4.16. Return on Capital Base/Return on Equity

Petitioner Submission:

The Petitioner has computed the return at 3% on net block of approved assets as per the Tariff Regulations of the Commission. The return on equity of Rs. 7.46 Crores has been claimed by the Petitioner for review of FY 2015-16.

Commission Analysis:

The Commission is of the view that the Petitioner being an integrated utility is eligible for the return on capital base under the provisions of Schedule VI of the repealed Electricity (Supply) Act, 1948 vide provision under Regulation 23 of JERC (Terms and Conditions for Determination of Tariff) Regulations, 2009. The Commission has considered the opening GFA for FY 2015-16 and accumulated depreciation till FY 2014-15 for arriving at the net block for FY 2015-16. It has computed the return at 3% on net block of approved assets as below:

Table 4-11: Return on Capital Base for FY 2015-16 (In Rs. Crores)

Sr. No.	Particulars	FY 2015-16			
		ARR Submission	ARR TO dt. 31.03.15	APR Submission	APR TO
1	Gross block at beginning of the FY/Opening GFA or equity	-	394.59	387.13	387.14
2	Accumulated depreciation/Addition in Equity at beginning of FY	-	145.94	138.42	138.42
3	Net block at beginning of the FY /Closing Equity	-	248.65	248.71	248.72
4	Accumulated consumer contribution	-	-	-	-
5	Net fixed assets at beginning of the FY /Average Equity Amount/Net Capital Base	-	248.65	248.71	248.72
6	Reasonable return @3% of NFA till FY 16	7.65	7.65	7.46	7.46

The Commission considers the Return on Capital Base of Rs. 7.46 Crores as reasonable and approves the same for review of FY 2015-16.

4.17. Provision for bad and doubtful debts

Petitioner Submission:

The Petitioner has claimed Rs 0.84 Crores against provision for bad and doubtful debts in its review Petition for FY 2015-16.

Commission Analysis:

As specified in Regulation no. 28 of JERC Tariff Regulation

Quote

"28. Bad and Doubtful Debts

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

Unquote

JERC Tariff Regulations allow a provision for bad and doubtful debts up to 1% of receivables in the revenue requirement on the basis of audited accounts only. **As FY 2015-16 is not actual and is based on projections, no amount is considered for Provision for bad and doubtful debts for FY 2015-16.**

4.18. Non-Tariff Income

Petitioner Submission:

The Petitioner has claimed Rs 18.96 Crores against non-tariff income in its review Petition for FY 2015-16.

Commission Analysis:

The Commission has escalated the actuals for FY 2014-15 by 5% to arrive at the Non-Tariff Income for FY 2015-16. **The Commission considers non-tariff income of Rs. 19.02 Crores as reasonable and approves the same for review of FY 2015-16.**

4.19. Revenue from Sale of Surplus Power**Petitioner Submission:**

The Petitioner has submitted revenue from sale of surplus power/UI under drawal of 2.21 MU for FY 2015-16 and has claimed Rs 0.71 Crores as revenue from sale of surplus power during FY 2015-16.

Commission Analysis:

The Commission has verified the weekly summary sheets/bills of UI from the WRPC for the complete year of FY 2015-16 (Apr-Sep) and for the purpose of this order has considered the over drawal and under drawal of UI separately.

For the purpose of the review of FY 2015-16, the Commission has considered the surplus energy sale of 8.82 MU (as verified from the UI bills from the WRPC) under UI mechanism for FY 2015-16 at Rs 1.30 Crores. Further, the Commission has estimated a sale of 13.17 MU @ Rs 3/kWh amounting to Rs 8.46 Crores. Therefore, the Commission approved a total of 37.03 MU to be sold through UI/Exchange at Rs 9.77 Crores in FY 2015-16.

4.20. Revenue at approved retail tariff of FY 2015-16**Petitioner Submission:**

The Petitioner has submitted the projected revenue of Rs. 835.94 Crores in its Petition and Rs. 835.64 Crores in technical formats of the Petition i.e. a discrepancy of Rs 0.30 Crores in FY 2015-16 as against Rs. 838.81 Crores as approved by the Commission vide its Tariff Order dated 31st March 2015 respectively.

Commission Analysis:

The Petitioner has submitted the revised figures of revenue from sale of power at approved tariff of FY 2015-16; therefore the Commission has considered the same based on revised sales and connected load and number of consumers and approved Rs. 835.66 Crores. In reply to the data gaps, the Petitioner stated that FPPCA charged during FY 2015-16 till December is nil. Further, the Commission has estimated an increase of 5% over FY 2014-15 in respect to revenue from sale of power through open access.

Table 4-12: Revenue at Approved Retail Tariff including open access for FY 2015-16 (In Rs. Crores)

S. No.	Category / Consumption Slab	FY 2015-16			
		ARR Submission	ARR TO dt. 31.03.15	APR Submission	APR TO
A	Domestic	20.99	23.69	21.70	21.67
1	0-50 units	20.98	23.68	0.02	0.02
2	51-200 units	-	-	2.18	2.17
3	201 - 400 units	-	-	4.01	3.76
4	401 and above	-	-	15.47	15.70
5	Low Income Group (LIG)	0.01	0.01	0.01	0.01
B	Commercial	18.16	17.80	14.83	14.47
1	1- 100 units	18.16	17.80	4.83	4.72
2	101 and above units	-	-	10.00	9.75
C	Agriculture	0.21	0.21	0.20	0.19
1	Up to 10 HP	0.21	0.21	0.12	0.12
2	Above 10 HP	-	-	0.08	0.07
D	LTP Industry	62.06	58.94	61.61	61.00
E	Public Lighting	5.40	4.32	4.06	4.15
F	Public Water Works	1.53	1.55	1.35	1.35
G	HT	717.49	731.78	731.25	732.84
1	11/ 66 kV	717.49	731.78	519.97	514.94
2	HT Ferro	-	-	211.29	217.90
H	Hoardings/ Signboards	-	-	-	-
I	Temporary	0.52	0.52	0.64	-
		-	-	-	-
J	Total	826.36	838.81	835.64	835.66
K	Add: Open Access Income				11.75
L	Income from Sle of Power to Retail Consumers	826.36	838.81	835.64	847.41

For the purpose of the review of FY 2015-16, the Commission has considered the revenue from sale of retail power including open access income for FY 2015-16 at Rs 847.41 Crores. The same would be trued up based on audited accounts of FY 2015-16.

4.21. Aggregate Revenue Requirement, Revenue Surplus/Deficit for review of FY 2015-16 and Carrying Cost

Petitioner Submission:

The Petitioner has submitted the gross revenue requirement of Rs. 894.53 Crores (Gross ARR of Rs 914.20 Crores – Non-Tariff Income of Rs 18.96 Crores – Revenue from sale of surplus power of Rs 0.71 Crores) for FY 2015-16 and has estimated a revenue gap/(surplus) of Rs. (56.78) Crores for the purpose of review of FY 2015-16.

Commission Analysis:

The Commission has considered and approved the review of ARR for FY 2015-16 based on the items of expenditure discussed in the preceding Chapters and the same has been summarized in the Table below (vis-à-vis Petitioner's claim in the true-up Petition for FY 2015-16).

Table 4-13: Aggregate Revenue Requirement and Revenue Surplus/Deficit for true-up of FY 2015-16 (In Rs. Crores)

Sr. No.	Particulars	FY 2015-16			
		ARR Submission	ARR TO dt. 31.03.15	APR Submission	APR TO
1	Cost of fuel	-	-	-	-
2	Cost of power purchase for full year	898.26	769.90	837.22	838.03
3	Provision for RPO Compliance	-	-	-	-
4	Employee costs	10.79	10.50	10.60	10.51
5	Administration and General Expenses	5.27	5.13	6.83	6.77
6	Repair and Maintenance Expenses	10.81	9.67	12.42	11.55
7	Depreciation	21.88	21.88	19.47	19.79
8	Interest and Finance charges	17.62	14.49	12.56	12.17
9	Interest on Working Capital	3.26	2.87	3.30	4.85
10	Interest on Security Deposit	2.21	-	3.50	3.34
11	Return on NFA /Equity	7.65	7.65	7.46	7.46
12	Provision for Bad Debt	4.13	-	0.84	-
13	Income Tax	-	-	-	-
14	Incentive on achievement of norm of T&D loss	-	-	-	-
15	Total Revenue Requirement	981.88	842.09	914.20	914.47
16	Less: Non Tariff Income	12.06	12.16	18.96	19.02
17	Less: Revenue from Surplus Power Sale/UI	43.65	-	0.71	9.77
18	Less: Revenue from Short term sale	-	-	-	-
19	Net Revenue Requirement	926.17	829.93	894.53	885.68
20	Revenue from Retail Sales at Existing Tariff including open access income	826.36	838.81	835.64	847.41
21	Net Gap / (Surplus)	99.81	(8.86)	58.89	38.27
22	Recovery on account of PPC variations	-	-	-	-
23	Gap after adjusting PPC variations	99.81	(8.86)	58.89	38.27
24	Gap/(Surplus) for the previous year	-	(90.11)	(115.67)	(134.92)
25	Carrying Cost	-	-	-	(19.90)
26	Past Arrears/Refunds to Consumers	-	-	-	-
27	Total Gap/ (Surplus)	99.81	(98.97)	(56.78)	(116.55)

The Commission considers the estimated revenue surplus of Rs. 116.55 Crores including carrying cost as reasonable and approves the same for review of FY 2015-16. This estimated revenue surplus is carried over to next year and has accordingly been considered in Aggregate Revenue Requirement of FY 2016-17 with carrying cost.

5. Approval of the various ARR components for the MYT Control Period FY 2016-17 to FY 2018-19

5.1. Applicable Provisions of MYT Regulations 2014

The ARR Components for the MYT Control Period FY 2016-17 to FY 2018-19 are to be projected as per the following provisions of Regulation 6 of JERC (Multi Year Distribution Tariff) Regulations 2014:

Quote

6. ARR Forecast

6.1 *“The Applicant shall, based on Business Plan as approved by the Commission by order, submit the forecast of Aggregate Revenue Requirement and expected revenue from tariff, for the control period by a Petition in accordance with the JERC (Terms and Condition for determination of tariff), Regulations 2009 by 30th November of the year prior to the commencement of the control period and accompanied by such fees payable, as specified in JERC (Conduct of Business) Regulations, 2009.*

6.2 *The forecast of Aggregate Revenue Requirement shall be developed using the assumptions relating to the behavior of individual variables that comprise the Aggregate Revenue Requirement during the control period.*

6.3 *The forecast of expected revenue from tariff and charges shall be developed based on the following:*

- a) *Estimates of quantum of electricity to be supplied to consumers and wheeled on behalf of Distribution system users for each financial year within the control period, and;*
- b) *Prevailing tariff at the date of making Regulations;”*

Unquote

5.2. Approach for Approval of Aggregate Revenue Requirement for MYT Control Period

This chapter has details of the individual elements constituting the Aggregate Revenue Requirement for MYT Control Period for FY 17 to FY 19. The following sections explain in detail the various elements for FY 17 to FY 19:

- Determination of Aggregate Revenue Requirement by taking the approved figures in the Business Plan Order in Petition No 180/2015 dated 09th December 2015 the following:
 - i. Energy Sales
 - ii. Distribution Loss and Energy Requirement
 - iii. AT&C Losses
 - iv. Power Purchase Sources
- Determination of Aggregate Revenue Requirement by forecasting the following Costs, other Income & Returns:
 - i. Power Purchase Cost
 - ii. Employee Cost
 - iii. Repairs & Maintenance Cost
 - iv. Administrative & General Expenses
 - v. Depreciation
 - vi. Interest on Normative Loan
 - vii. Interest on Working Capital
 - viii. Interest on Security Deposit
 - ix. Provision for Bad Debts
 - x. Return on Equity
 - xi. Non-Tariff Income

The Projections for FY 17 to FY 19 have been derived from the following:

- Computation of total ARR
- Computation of revenue at existing tariffs
- Determination of gap between revenue at existing tariff and costs

5.3.Number of Consumers, Connected Load and Energy Sales

Petitioner Submission:

The Petitioner has projected the number of Consumers, Connected Load and Energy Sales as per the Commission's Business Plan Order no. 180/2015 dated 09th December 2015 for the Petitioner.

Commission Analysis:

The Commission notes that the Petitioner submission in respect to number of consumers, connected load and energy sales is in line with the Business Plan Order for the MYT Control Period. The Commission has further bifurcated the number of consumers, connected load and energy sales based on FY 2014-15 actuals. **The number of Consumers, Connected Load and Sales as submitted by the Petitioner and approved by the Commission are as follows:**

Table 5-1: No of Consumers for FY 2016-17 to FY 2018-19

S. No.	Category / Consumption Slab	FY 2016-17 to FY 2018-19					
		Petitioner's Projection for FY 2016-17	Petitioner's Projection for FY 2017-18	Petitioner's Projection for FY 2018-19	Approved in Order for FY 2016-17	Approved in Order for FY 2017-18	Approved in Order for FY 2018-19
A	Domestic	47,693	48,937	50,214	47,693	48,937	50,215
1	0-50 units						
2	51-200 units						
3	201 - 400 units						
4	401 and above						
5	Low Income Group (LIG)						
B	Commercial	8,452	8,668	8,889	8,452	8,668	8,889
1	1- 100 units						
2	101 and above units						
C	Agriculture	1,246	1,272	1,298	1,246	1,272	1,298
1	Up to 10 HP						
2	Above 10 HP						
D	LTP Industry	1,789	1,806	1,823	1,789	1,806	1,823
E	Public Lighting	544	555	565	544	555	565
F	Public Water Works	109	109	109	109	109	109
G	HT	798	804	810	798	804	810
1	11/ 66 kV				770	775	781
2	HT Ferro				28	29	29
H	Hoardings/ Signboards						
I	Temporary						
J	Total	60,631	62,151	63,710	60,631	62,151	63,710

Table 5-2: Connected Load (kVA) for FY 2016-17 to FY 2018-19

S. No.	Category / Consumption Slab	FY 2016-17 to FY 2018-19					
		Petitioner's Projection for FY 2016-17	Petitioner's Projection for FY 2017-18	Petitioner's Projection for FY 2018-19	Approved in Order for FY 2016-17	Approved in Order for FY 2017-18	Approved in Order for FY 2018-19
A	Domestic	131,472	132,124	132,780	131,472	132,124	132,780
1	0-50 units						
2	51-200 units						
3	201 - 400 units						
4	401 and above						
5	Low Income Group (LIG)						
B	Commercial	21,811	21,984	22,158	21,811	21,984	22,158
1	1- 100 units						
2	101 and above units						
C	Agriculture	4,887	5,391	5,945	4,887	5,391	5,945
1	Up to 10 HP						
2	Above 10 HP						
D	LTP Industry	114,808	116,537	118,291	114,808	116,537	118,291
E	Public Lighting	1,869	1,884	1,898	1,869	1,884	1,898
F	Public Water Works	898	905	913	898	905	913
G	HT	651,717	749,158	861,167	651,717	749,158	861,167
1	11/ 66 kV				573,384	659,113	757,659
2	HT Ferro				78,333	90,045	103,508
H	Hoardings/ Signboards						
I	Temporary						
J	Total	927,464	1,027,983	1,143,153	927,464	1,027,983	1,143,153

Table 5-3: Sales (MU) for FY 2016-17 to FY 2018-19

S. No.	Category / Consumption Slab	FY 2016-17 to FY 2018-19					
		Petitioner's Projection for FY 2016-17	Petitioner's Projection for FY 2017-18	Petitioner's Projection for FY 2018-19	Approved in Order for FY 2016-17	Approved in Order for FY 2017-18	Approved in Order for FY 2018-19
A	Domestic	99.59	108.99	119.29	99.59	108.99	119.29
1	0-50 units				0.17	0.18	0.20
2	51-200 units				13.22	14.47	15.84
3	201 - 400 units	99.59	108.99	119.29	18.70	20.47	22.40
4	401 and above				67.40	73.77	80.74
5	Low Income Group (LIG)				0.10	0.10	0.11
B	Commercial	47.69	51.08	54.71	47.69	51.08	54.71
1	1- 100 units				19.08	20.43	21.89
2	101 and above units	47.69	51.08	54.71	28.61	30.65	32.82
C	Agriculture	2.53	2.65	2.77	2.53	2.65	2.77
1	Up to 10 HP				1.76	1.84	1.93
2	Above 10 HP	2.53	2.65	2.77	0.77	0.81	0.84
D	LTP Industry	166.19	172.82	179.71	166.19	172.82	179.71
E	Public Lighting	11.11	12.49	14.04	11.11	12.49	14.04
F	Public Water Works	3.83	4.14	4.47	3.83	4.14	4.47
G	HT	1,469.52	1,572.39	1,682.46	1,469.52	1,572.39	1,682.46
1	11/ 66 kV				1,029.22	1,101.27	1,178.36
2	HT Ferro	1,469.52	1,572.39	1,682.46	440.30	471.12	504.10
H	Hoardings/ Signboards	-	-	-	-	-	-
I	Temporary	-	-	-	-	-	-
J	Total	1,800.46	1,924.56	2,057.45	1,800.47	1,924.56	2,057.45

5.4. Intra –State Transmission and Distribution Loss

Petitioner Submission:

The Petitioner has projected the Intra-State Transmission and Distribution Loss as per the Commission's Business Plan Order no. 180/2015 dated 09th December 2015.

Commission Analysis:

The Commission in its last Tariff Order dated 31st March 2015 had approved loss of 8.60% for FY 2015-16 and considers T&D losses with 0.10% reduction for each year of the Control Period FY 2016-17 to FY 2018-19 as approved in the Business Plan Order no. 180/2015 dated 09th December 2015.

5.5. Inter – State Transmission Loss

Petitioner Submission:

The Petitioner has submitted Inter-State Transmission Loss of 3.60% for the entire control period based on 52 weeks moving average.

Commission Analysis:

The Commission has approved Inter-State Transmission Loss of 3.66% for FY 2015-16 based on recent 52 weeks moving average of regional losses for the week ending 27th February 2015 and approves the same for the entire control period for FY 2016-17 to FY 2018-19 which would be revised based on actuals during the truing up exercise.

5.6. Energy Requirement

Petitioner Submission:

The Petitioner has considered the overall energy requirement including open access at the generator end for the control period from FY 2016-17 to FY 2018-19 as 2445.16 MU, 2605.55 MU and 2773.34 MU respectively.

Commission Analysis:

The Commission has calculated the energy requirement for the control period from FY 2016-17 to FY 2018-19 based on the approved inter-state and intra-state transmission and distribution losses and the approved energy sales as discussed in the foregoing paragraphs. The Commission has considered 5% increase in open access transactions (sales and purchase) on FY 2015-16 for the MYT control period. The gross energy requirement approved for the control period from FY 2016-17 to FY 2018-19 is shown in the Table below, along with the energy requirement submitted by the Petitioner:

Table 5-4: Energy Requirement (MU) for FY 2016-17 to FY 2018-19

S.No.	Particulars	FY 2016-17 to FY 2018-19					
		Petitioner's Projection for FY 2016-17	Approved in Order for FY 2016-17	Petitioner's Projection for FY 2017-18	Approved in Order for FY 2017-18	Petitioner's Projection for FY 2018-19	Approved in Order for FY 2018-19
I	ENERGY REQUIREMENT						
1	Energy sales within the State/UT	1,800.46	1,800.47	1,924.56	1,924.56	2,057.45	2,057.45
2	Open Access Sales	353.27	411.09	370.94	431.64	389.48	453.22
3	Less: Energy Savings		(0.35)		(0.35)		(0.35)
II	Total Sales within the State/UT	2,153.73	2,211.21	2,295.50	2,355.85	2,446.93	2,510.32
III	Distribution losses						
i)	%	8.50%	8.50%	8.40%	8.40%	8.30%	8.30%
	MU	200.07	205.41	210.50	216.04	221.48	227.22
IV	Energy required at State Periphery for Sale to Retail Consumers	2,353.80	2,416.62	2,506.00	2,571.89	2,668.41	2,737.54
V	Add: Sales to common pool consumers/ UI/Exchange	3.33	103.24	5.75	142.18	5.09	8.35
i)	Sales outside state/UT : UI	3.33	-	5.75	-	5.09	-
ii)	Sales through Exchange	-	103.24	-	142.18	-	8.35
VI	Total Energy Requirement for State	2,357.13	2,519.86	2,511.75	2,714.07	2,673.50	2,745.88
VII	Transmission losses						
i)	%	3.60%	3.66%	3.60%	3.66%	3.60%	3.66%
	MU	88.03	79.34	93.80	85.90	99.84	86.25
VIII	ENERGY REQUIRED AT GENERATOR END	2,445.16	2,599.20	2,605.55	2,799.97	2,773.34	2,832.13
IX	Gross Availability	2,445.16	2,599.20	2,605.55	2,799.97	2,773.34	2,832.13
1	Power Purchase from Renewable Sources	112.60	112.60	123.80	123.80	128.60	128.60
2	NPCIL	174.86	138.99	174.86	175.45	174.86	175.45
3	Unscheduled Interchange	-	-	-	-	-	-
4	Power Purchase from other sources	1,787.00	1,916.23	1,917.65	2,047.79	2,061.18	2,052.50
5	Open Access Purchase	370.70	431.37	389.24	452.94	408.70	475.59

Accordingly, the Commission approves the energy requirement of 2167.83 MU (2599.20 MU – 431.37 MU), 2347.04 MU (2799.97 MU – 452.94 MU) & 2356.55 MU (2832.13 MU – 475.59 MU) excluding open access purchase at generator end for the MYT Control Period from FY 2016-17 to FY 2018-19 respectively.

5.7. Power Purchase Quantum & Cost for FY 2016-17 to FY 2018-19

Petitioner Submission:

Power Purchase Quantum as projected by the Petitioner:

The Petitioner has submitted that ED-DD has no generating stations of its own and relies on the firm and infirm allocation of power from Central Generating Stations like Korba, Vinashyachal, Kahalgaon, Kawas, Sipat, Tarapur, Kakrapar etc. to meet its energy requirement.

The Petitioner for the purpose of estimation of the power availability during the Control Period from FY 2016-17 to FY 2018-19 has considered the following sources of power:

- NTPC Western Region Generating Stations
- NTPC Eastern Region Generating Stations
- NSPCL (NTPC-SAIL Power Company Ltd)
- Nuclear Power Corporation of India Limited
- Ratnagiri Gas Power Plant (RGPPL)
- Renewable energy sources – Solar and Non-Solar
- Other market sources

The Petitioner has allocation from Western as well as Eastern region from coal, gas and nuclear power stations. However, for meeting the supply-demand gap during the peak hours, the Petitioner has relied on over-drawal from the Grid (UI). For projecting of energy availability for the MYT control period, firm and infirm allocation from various generating stations has been considered. The power availability for the MYT Control Period has been estimated based on the revised allocation issued by the Western Region Power Committee (WRPC) vide no's. WRPC/Comml-1/6/Alloc/2015/8945 dated 27.10.2015.

It is expected that ED-DD will not be getting any power from Ratnagiri (RGPPL) during the MYT Control Period and therefore no power purchase from the plant has been considered. The Government of India, Ministry of Power had allocated 2% (38 MW) power on a long term basis from RGPPL and ED-DD has executed PPA with RGPPL and Transmission Service Agreement (TSA) with MSETCL for transmission of above allocated power of RGPPL. The state of Maharashtra has 95% share allocation from RGPPL and they are not scheduling power due to non-availability of natural gas to this project. Due to non-availability of technical minimum schedule to run the plant, presently there is no generation from the plant. Therefore, for the MYT Control Period, the Petitioner has not considered any power purchase from RGPPL. However, as per the terms of the PPA signed with RGPPL, it has to pay the capacity charges for the allocated capacity share from the plant. Therefore the fixed charges have been considered for the MYT Control Period from RGPPL.

During the control period, it is expected that capacity from the following plants will also be allocated to the Petitioner as given in the Table below:

Table 5-5: New Power Plants considered by the Petitioner for FY 2016-17 to FY 2018-19

Particulars	Plant Capacity MW	Avg. ED-DD Allocation MW	Avg. ED-DD Allocation (%)	Expected CoD
NTPC Stations				
LARA	4,000	4	0.10%	FY 2017-18
Gadarwara	2640	2	0.08%	FY 2017-18
Mauda II	1000	6	0.60%	FY 2016-17
Solapur	1920	8	0.42%	FY 2016-17
Subtotal	9560	20		
KAPPS 3 & 4	100	5.44	5.44%	FY 2016-17
Grand Total	9660	25.44		

For the Control Period the ED-DD has considered purchase of non-solar energy of 70 MU to meet its RPO target and has floated tenders twice but there was no participation. So ED-DD has decided to float the tender once again for the 70 MU non solar. Also ED-DD shall procure 17 MU from 8 MW wind farms. To meet the solar obligation for the control period FY 2016-17 to FY 2018-19, apart from the 4 MW solar plants another 6 MW solar plant is coming up in Diu which is expected to be commissioned by the end of FY 2015-16. Further, another 4 MW will come up in Daman in FY 2017-18. Therefore, for the control period the Petitioner will meet its solar obligation through these four plants. The per MW unit generation from the solar plants will be approx. 1.6 MU. ED-DD has installed grid interactive roof top solar panels on the government buildings in Daman & Diu. Till now the department has installed 1.157 MW capacity solar rooftop panels all across Daman & Diu and it is proposed to further augment this capacity by 1.165 MW by the end of FY 2016-17. Further, the total rooftop solar capacity is expected to reach 6 MW by the end of FY 2016-17, 9 MW by the end of FY 2017-18 and 12 MW by the end of FY 2018-19. The grid connected roof-top solar plants are expected to generate approximately 1.6 MU per year, thus generating 9.6 MU in FY 2016-17, 14.4 MU in FY 2017-18 and 19.2 MU in FY 2018-19. Thus, the total solar generation during the MYT Control Period will be 25.6 MU during FY 2016-17, 36.8 MU FY 2017-18 and 41.6 MU during FY 2018-19.

Power purchase quantum from the NTPC stations for the MYT Control Period has been calculated based on the installed capacity of each plant and by applying the average of previous four years PLF to calculate the plant-wise gross generation. For NSPCL, an average PLF of 90% has been considered. For gas based generating stations i.e. Kawas (KGPP) and Gandhar (GGPP) weighted average PLF of the last three years has been taken into account. Auxiliary consumption of 9% and 3% has been considered for coal and gas based generating stations, respectively.

For computing the power availability at the periphery, 3.60% external transmission losses have been applied on the gross power purchase for the MYT Control Period. The total gross power purchase requirement excluding open access as projected by the Petitioner is shown below:

Table 5-6: Power Purchase (MU) considered by the Petitioner for FY 2016-17 to FY 2018-19

Source	FY 2016-17 (Projected)	FY 2017-18 (Projected)	FY 2018-19 (Projected)
NTPC Stations			
KSTPP	338.55	338.55	338.55
KSTPP-III	41.98	41.98	41.98
VSTPP-I	93.30	93.30	93.30
VSTPP-II	65.06	65.06	65.06
VSTPP- III	79.05	79.05	79.05
VSTPP- IV	88.96	88.96	88.96
KAWAS	4.68	44.68	114.68
JGPP	12.72	62.72	132.72
Bhilai Unit-I &II(NTPC)	646.27	646.27	649.80
Sipat-I	149.04	149.04	149.04
Sipat-II	58.42	58.42	58.42
MSTPS-I	50.71	50.71	50.71
VSTPS-V	56.15	56.15	56.15
LARA	0.00	27.10	27.10
MOUDA-II	40.66	40.66	40.66
SOLAPUR	54.21	54.21	54.21
GADARWARA	0.00	13.55	13.55
Subtotal	1779.76	1910.41	2053.94
Eastern Region			
KHSTPP-II	7.24	7.24	7.24
Subtotal	7.24	7.24	7.24
NPCIL			
KAPPS	60.12	60.12	60.12

Source	FY 2016-17 (Projected)	FY 2017-18 (Projected)	FY 2018-19 (Projected)
TAPP 3&4	78.08	78.08	78.08
KAPPS (III & IV)	36.66	36.66	36.66
Subtotal	174.86	174.86	174.86
Others			
Ratnagiri	0.00	0.00	0.00
Subtotal	0.00	0.00	0.00
Power purchase from Other Sources			
Power purchase from Indian E. Exchange	0.00	0.00	0.00
UI	0.00	0.00	0.00
Solar	25.60	36.80	41.60
Non Solar (Exchange)	87.00	87.00	87.00
Subtotal	112.60	123.80	128.60
Gross Power Purchase	2074.46	2216.31	2364.64

Power Purchase Cost as projected by the Petitioner:

The cost of purchase from the central generating stations for the MYT Control Period is estimated based on the following assumptions:

- Fixed cost for the MYT Control Period has been projected considering a 5% escalation over the estimated fixed cost for various stations for FY 15-16.
- Variable cost for each NTPC generating station for the Control Period has been projected considering a 5% escalation over the estimated variable cost for various stations for FY 15-16.
- ED-DD has projected other charges (tax, incentives, etc) for the Control Period at similar level as estimated for full year of FY 15-16.
- For nuclear plants i.e. KAPP and TAPP single part tariff increase in the actual average variable cost per unit has been considered for projecting the power purchase cost for the Control Period.
- For power purchase from renewable energy sources, the Commission's approved tariff for solar and non-solar power in the Tariff Order has been taken into account for FY 15-16. For the Control Period, the ED-DD has outsourced the maintenance cost of the solar plants to BHEL and therefore its running cost has been considered under the O&M expenses. For the non-solar power, the Commission's approved tariff for non-solar power in the Tariff Order for FY 2015-16 has been taken into account for projecting the cost during the Control Period.
- Transmission charges payable to PGCIL are based on the total capacity allocation in the transmission network. ED-DD has a mix of firm and infirm capacity allocation

from various Central Generating Stations which is revised by the Ministry of Power at regular intervals. Therefore considering the changing capacity allocation it has estimated the transmission charges.

- For projecting the PGCIL transmission charges for the Control Period, an escalation of 5% over the estimated FY 15-16 transmission charges has been considered in view of the increase in transmission charges. Further, ED-DD has taken into account the additional capacity share in the new stations while estimating the Inter-State transmission charges for ensuing year.

Table 5-7: Power Purchase Cost (In Rs Crores) considered by the Petitioner for FY 2016-17 to FY 2018-19

Source	FY 2016-17 (Projected)	FY 2017-18 (Projected)	FY 2018-19 (Projected)
NTPC Stations			
KSTPP	63.50	66.68	70.01
KSTPP-III	12.67	13.30	13.96
VSTPP-I	24.24	25.40	26.61
VSTPP-II	17.39	18.20	19.05
VSTPP- III	24.73	25.92	27.16
VSTPP- IV	30.83	32.33	33.91
KAWAS	20.95	35.75	62.82
JGPP	29.59	48.20	75.80
Bhilai Unit-I &II(NTPC)	272.77	286.41	301.72
Sipat-I	54.39	57.09	59.93
Sipat-II	21.47	22.47	23.51
MSTPS-I	47.69	50.07	52.57
VSTPS-V	17.29	16.84	16.84
LARA	0.00	8.86	8.86
MOUDA-II	12.36	10.98	10.98
SOLAPUR	21.09	19.03	19.03
GADARWARA	0.00	4.92	4.92
Subtotal	670.96	742.45	827.69
Eastern Region			
KHSTPP-II	4.30	4.39	4.48
Subtotal	4.30	4.39	4.48
NPCIL			
KAPPS	14.09	14.12	14.15
TAPP 3&4	22.79	23.10	23.42
KAPPS (III & IV)	8.72	8.72	8.72
Subtotal	45.60	45.95	46.30
Others			

Source	FY 2016-17 (Projected)	FY 2017-18 (Projected)	FY 2018-19 (Projected)
Ratnagiri	17.57	18.45	19.36
Subtotal	17.57	18.45	19.36
Power purchase from Other Sources			
Power purchase from Indian E. Exchange	0.00	0.00	0.00
UI	0.00	0.00	0.00
Solar	0.00	0.00	0.00
Non Solar (Exchange)	28.00	28.00	28.00
Subtotal	28.00	28.00	28.00
Misc. Arrears			
NTPC Rebate			
Gross Power Purchase	766.43	839.23	925.83
PGCIL charges	78.75	82.69	86.83
WRLDC	0.31	0.32	0.34
MSTCL	3.97	4.17	4.37
REC	2.52	2.65	2.78
Total Power Purchase Cost (including Transmission Cost)	851.98	929.06	1020.15
PGCIL charges	78.75	82.69	86.83
WRLDC	0.31	0.32	0.34
MSTCL	3.97	4.17	4.37
REC	2.52	2.65	2.78
Total Power Purchase Cost (including Transmission Cost)	851.98	929.06	1020.15

The Petitioner has projected total power purchase requirement of 2074.46 MU, 2216.31 MU and 2364.64 MU (excluding open access) at total power purchase cost of (including transmission and other charges) of Rs 851.98 Crores, Rs 929.06 Crores and Rs 1020.15 Crores respectively.

Commission Analysis:

Power Purchase Quantum and Cost for FY 2016-17 to FY 2018-19

1. Central Generating Stations – NTPC Ltd.

- The Petitioner has firm allocation in the Central Sector Generating Stations of NTPC from the following stations
 - Korba Super Thermal Power Station - I, II and III.
 - Vindhyachal Super Thermal Power Station - I, II, III, IV & V.
 - Kawas Gas Power Station

- Gandhar Gas Power Station
- Sipat Super Thermal Power Station- I &II
- Ratnagiri Gas and Power
- Kahalgaon Super Thermal Power Station - II (Eastern Region)
- Mauda Thermal Power Station

The Commission while estimating the energy availability from the above stations has considered the following assumptions:

- **Allocation of Share:** The Commission has considered the firm allocation and allocation from the unallocated quota from the above stations, except Kahalgaon STPS-II, as per the notification of the Western Region Power Committee vide (WRPC/Comml-1/6Alloc/2015/8945 Dated October 27, 2015 & WRPC/Comml-1/6Alloc/2015/1608 dated December 30, 2015). The allocation for Kahalgaon STPS-II is considered as per the notification of the Eastern Region power Committee. (http://www.ercp.gov.in/uploads/meeting/1437652669merged_document_71.pdf)
- **Gross Energy Availability:** The Commission has estimated the gross energy availability from the existing stations based on the installed capacity and the average Plant Load Factor and Plant Availability Factor for past 5 FYs if applicable i.e. FY 2011-12 to FY 2015-16 till January. The availability from each station has been considered based on merit order dispatch. However the fixed charges are approved for full allocation. The net energy sent out has been considered after considering the applicable auxiliary consumption as per the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014
- **Energy Available to the Petitioner:** The effective share from the stations is applied on the energy sent out to arrive at the energy available for the Petitioner from the respective stations.

The CERC has not issued the Tariff Orders for the FY 2014-15 for the central generating stations even though the Tariff Regulations for the years post FY 2013-14 have been finalized. In the absence of such information this The Commission has considered the following assumptions to arrive at the power purchase cost for FY 2016-17 to FY 2018-19 from the NTPC stations:

- **Fixed Charges:** 5% escalation has been considered in the fixed charges for FY 2016-17 over the approved fixed charges of FY 2013-14 Year on Year basis
- **Variable Charges:** The Commission has considered the average variable cost for the period April 2015 to September 2015 submitted by the Petitioner (verified from the bills) for consideration of the per unit variable charges for the FY 2016-17 to FY 2018-19, and variable charges for new stations have been computed with the charges for similar stations and as per the submission made by the Petitioner.

Accordingly, the Commission approves the availability from NTPC stations based on the merit order dispatch principles.

2. **Central Generating Stations** – Nuclear Power Corporation of India Limited

- The Petitioner has firm allocation in the Central Sector Generating Stations of NPCIL from the following stations
 - Kakrapara Atomic Power Station (KAPS)
 - Tarapur Atomic Power Station (TAPS)

The Commission while estimating the energy availability from the above stations has considered the following assumptions:

- **Allocation of Share:** The Commission has considered the firm allocation and allocation from the unallocated quota from the above stations as per the notification of the Western Region Power Committee vide (WRPC/Comml-1/6Alloc/2015/8945 Dated October 27, 2015).
- **Gross Energy Availability:** The Commission has estimated the gross energy availability from the existing NPCL stations based on the installed capacity and the average Plant Load Factor for the past years as recorded by CEA in its monthly generation reports. The net energy sent out is considered after reducing the recent available levels of auxiliary consumption.
- **Energy Available to the Petitioner:** The effective share from the stations is applied on the energy sent out to arrive at the energy available for the Petitioner from the respective stations.

The Commission has considered the following assumptions to arrive at the single part tariff for the NPCIL stations during FY 2016-17 onwards:

- **Variable Charges:** The Commission has considered the average variable cost for the period April 2015 to September 2015 submitted by the Petitioner (verified from the bills) for consideration of the per unit variable charges for the FY 2016-17 to FY 2018-19.
- **Merit order Dispatch:** The Commission has considered the nuclear plants as must run and has not subjected them for merit order dispatch.

The Petitioner has firm allocation from the following station of NSPCL

3. **NSPCL** – Bhilai

The Commission has considered the following assumptions to arrive at the Power purchase cost for the FY 2016-17 to FY 2018-19 from the NSPCL Bhilai:

- **Fixed Charges:** 5% escalation has been considered in the fixed charges for FY 2016-17 over the approved fixed charges of FY 2013-14 Year on Year basis as the Tariff Orders for FY 2016-17 onwards are yet to be issued by CERC.

- **Variable Charges:** The Commission has considered the average variable cost for the period April 2015 to September 2015 submitted by the Petitioner (verified from the bills) for consideration of the per unit variable charges for the FY 2016-17 to FY 2018-19.
 - **Merit Order Dispatch:** The NSPCL Bhilai station has been subjected to merit order dispatch and accordingly the power purchase quantum and variable cost has been approved. However the fixed charges are approved for full allocation.
4. **RGPPL**

Although the Petitioner has not projected any energy purchase from RGPPL for the MYT control period, the Commission based on recent development and re-operationalization of RGPPL, has considered the availability based on allocation approved by the Western Region Power Committee (WRPC/Comml-1/6Alloc/2015/1608 dated December 30, 2015). The Commission has considered the following assumptions to arrive at the power purchase cost for the FY 2016-17 to FY 2018-19 from RGPPL:

- **Fixed Charges:** 5% escalation has been considered in the fixed charges for FY 2016-17 over the approved fixed charges of FY 2013-14 Year on Year basis as the Tariff Orders for FY 2016-17 onwards are yet to be issued by CERC.
- **Variable Charges:** The Commission has estimated the variable rate of Rs 5.50/kWh as per maximum rate in e-auction.
- **Merit Order Dispatch:** Further, the RGPPL station has been subjected to merit order dispatch and accordingly the power purchase quantum and variable cost has been approved. However the fixed charges are approved for full allocation.

The Commission has considered the Petitioner's submission in respect to physical power purchase from solar plants i.e. 25.60 MU, 36.80 MU and 41.60 MU and non-solar i.e. 87 MU each FY for the MYT control period from FY 2016-17 to FY 2018-19 respectively. In absence of nil cost as projected by the Petitioner in its Petition for the MYT Control Period, the Commission has considered purchase from solar plants @ Rs 5/kwh for the entire control period from FY 2016-17 to FY 2018-19. For Non-Solar the Commission has considered a rate of Rs 4/kWh as projected by the Petitioner for wind power. The Commission has considered the solar plants and non-solar plants as must run and has not subjected them for merit order dispatch.

Apart from these stations, the Commission has approved power purchase sources from other upcoming NTPC/Other stations. The details of share and tentative date are shown below:

Table 5-8: New Power Plants Approved by the Commission for FY 2016-17 to FY 2018-19

Particulars	Plant Capacity MW	ED-DD Allocation MW	Avg. DD-ED Allocation (%)	Tentative Schedule
NTPC Stations				
LARA	4,000	4	0.10%	FY 2017-18
Gadarwara	2640	2	0.08%	FY 2017-18
Mauda II	1000	6	0.60%	FY 2017-18
Solapur	1920	8	0.42%	FY 2017-18
Subtotal	9560	20		
KAPPS 3 & 4	100	5.44	5.44%	FY 2017-18
Grand Total	9660	25.44		

The Commission has considered the following assumptions to arrive at the Power purchase cost for the FY 2016-17 to FY 2018-19 from the new stations:

- **Fixed Charges:** 5% escalation has been considered in the fixed charges Year on Year basis for similar kind of plants after the date of CoD as the plants are yet to be commissioned and cost for 2016-17 onwards is yet to be issued by CERC which would be revised based on actuals during the truing up exercise.
- **Variable Charges:** The Commission has considered the average variable cost for the period April 2015 to September 2015 submitted by the Petitioner (verified from the bills) of similar plants for consideration of the per unit variable charges for the FY 2016-17 to FY 2018-19 as and when the plants commencement date which would be revised based on actuals during the truing up exercise.
- **Merit Order Dispatch:** Further, the new station have been subjected to merit order dispatch and accordingly the power purchase quantum and variable cost has been approved. However the fixed charges are approved for full allocation.

The Commission has considered the PoC rates as specified by the Central Electricity Regulatory Commission vide its order no No.L-1/44/2010-CERC Dated 03.11.2015 applicable from October 2015 to December 2015 for approving the Transmission charges for the FY 2016-17 to FY 2018-19.

The Commission has also approved other charges (WRLDC and MSTCL) as approved for FY 2015-16 and these would be revised based on actuals during the truing up exercise.

For determining the power purchase cost, merit order dispatch principles have been applied. The must-run stations have been assumed at the top of the merit order and

variable cost incurred for meeting the energy requirement within the state has been calculated from the plants at the top of the merit order.

Further, any variation on account of Fuel and Power Purchase cost shall be calculated as per the formula specified by the Commission separately and any impact shall be passed directly to the consumers. The formula will be applicable from FY 2016-17.

The licensee will compute fuel and power procurement cost variations on quarterly basis and adjustment shall be made in the consumer bills starting after a month following the end of the quarter based on the Fuel & Power Purchase Cost Adjustment (FPPCA) formula notified separately by the Commission.

Table 5-9: Power Purchased Quantum (MU) and Cost (Rs Crores) Approved by the Commission for FY 2016-17

Power Purchase - Quantum (MUs) & Cost (Rs Crores)							
FY 2016-17							
Sr. No.	Particulars	Energy MUs	Cost (Rs Crores)				Per Unit (Paisa/kWh)
			Fixed	Variable	Other	Total	
A	NTPC	1,232.27	187.04	193.21	-	380.24	308.57
1	KSTPP 1&2	345.39	22.08	33.74	-	55.82	161.61
2	KSTPP 3	43.03	7.79	4.36	-	12.14	282.25
3	VSTPP 1	92.61	7.31	14.52	-	21.83	235.68
4	VSTPP 2	64.58	5.23	9.73	-	14.96	231.71
5	VSTPP 3	78.46	10.84	12.22	-	23.06	293.91
6	VSTPP 4	88.31	15.13	13.10	-	28.23	319.69
7	VSTPP 5	53.02	8.08	6.57	-	14.65	276.31
8	KAWAS GPP	100.68	22.73	31.04	-	53.77	534.10
9	GANDHAR GPP	102.75	28.96	32.29	-	61.25	596.12
10	SIPAT 1	167.21	28.76	21.84	-	50.60	302.61
11	SIPAT 2	66.97	11.40	9.34	-	20.75	309.76
12	KHSTPS 2	11.77	1.96	2.39	-	4.35	369.81
13	MAUDA	17.48	16.76	2.06	-	18.83	1,076.97
		-					
B	NSPCL	617.23	136.55	169.49	-	306.04	495.83
1	BHILAI (ALLOCATED)	617.23	136.55	169.49	-	306.04	495.83
		-	-	-	-	-	-
C	NPCIL	138.99	-	36.38	-	36.38	261.72
1	KAPPS	56.68	-	13.46	-	13.46	237.50
2	TAPPS 3&4	82.32	-	22.92	-	22.92	278.40
		-	-	-	-	-	-
D	OTHERS	66.73	32.67	36.70	-	69.37	1,039.57
1	RGPPPL	66.73	32.67	36.70	-	69.37	1,039.57
E	RPO	112.60	-	47.60	-	47.60	422.74
1	Solar	25.60	-	12.80	-	12.80	500.00
2	Non Solar	87.00	-	34.80	-	34.80	400.00
		-	-	-	-	-	-
F	PXIL/IEX	-	-	-	-	-	-
		-	-	-	-	-	-
G	Other Charges	-	-	-	-	124.58	-
1	PGCIL CHARGES	-	-	-	-	96.61	-
2	MSTCL	-	-	-	-	27.49	-
3	WRLDC	-	-	-	-	0.47	-
		-	-	-	-	-	-
H	TOTAL	2,167.83	356.26	483.38	-	964.22	444.78

Table 5-10: Power Purchased Quantum (MU) and Cost (Rs Crores) Approved by the Commission for FY 2017-18

Power Purchase - Quantum (MUs) & Cost (Rs Crores)							
FY 2017-18							
Sr. No.	Particulars	Energy MUs	Cost (Rs Crores)				Per Unit (Paisa/kWh)
			Fixed	Variable	Other	Total	
A	NTPC	1,363.82	220.99	211.26	-	432.25	316.94
1	KSTPP 1&2	345.39	23.18	33.74	-	56.92	164.81
2	KSTPP 3	43.03	8.18	4.36	-	12.53	291.29
3	VSTPP 1	92.61	7.68	14.52	-	22.19	239.63
4	VSTPP 2	64.58	5.49	9.73	-	15.23	235.76
5	VSTPP 3	78.46	11.38	12.22	-	23.60	300.82
6	VSTPP 4	88.31	15.89	13.10	-	28.99	328.26
7	VSTPP 5	53.02	8.48	6.57	-	15.05	283.92
8	KAWAS GPP	100.68	23.87	31.04	-	54.91	545.38
9	GANDHAR GPP	102.75	30.41	32.29	-	62.70	610.21
10	SIPAT 1	167.21	30.20	21.84	-	52.04	311.21
11	SIPAT 2	66.97	11.97	9.34	-	21.32	318.28
12	LARA	27.25	4.39	3.80	-	8.19	300.47
13	MAUDA II	40.88	9.91	5.70	-	15.61	381.92
14	SOLAPUR	54.50	9.84	7.60	-	17.44	319.97
15	GADARWARA	13.63	0.89	1.90	-	2.80	205.14
16	KHSTPS 2	7.06	1.64	1.44	-	3.07	434.98
17	MAUDA	17.48	17.60	2.06	-	19.66	1,124.92
B	NSPCL	617.23	143.38	169.49	-	312.87	506.89
1	BHILAI (ALLOCATED)	617.23	143.38	169.49	-	312.87	506.89
		-	-	-	-	-	-
C	NPCIL	175.45	-	46.53	-	46.53	265.18
1	KAPPS	56.68	-	13.46	-	13.46	237.50
2	TAPPS 3&4	82.32	-	22.92	-	22.92	278.40
3	KAPPS III & IV	36.46	-	10.15	-	10.15	278.40
		-	-	-	-	-	-
D	OTHERS	66.73	34.30	36.70	-	71.01	1,064.04
1	RGPPPL	66.73	34.30	36.70	-	71.01	1,064.04
		-	-	-	-	-	-
E	RPO	123.80	-	53.20	-	53.20	429.73
1	Solar	36.80	-	18.40	-	18.40	500.00
2	Non Solar	87.00	-	34.80	-	34.80	
F	PXIL/IEX	-	-	-	-	-	-
		-	-	-	-	-	-
G	Other Charges	-	-	-	-	131.13	-
1	PGCIL CHARGES	-	-	-	-	103.17	-
2	MSTCL					27.49	
3	WRLDC					0.47	
H	TOTAL	2,347.04	398.68	517.18	-	1,046.99	446.09

Table 5-11: Power Purchased Quantum (MU) and Cost (Rs Crores) Approved by the Commission for FY 2018-19

Power Purchase - Quantum (MUs) & Cost (Rs Crores)							
FY 2018-19							
Sr. No.	Particulars	Energy MUs	Cost (Rs Crores)				Per Unit (Paisa/kWh)
			Fixed	Variable	Other	Total	
A	NTPC	1,368.53	232.04	212.22	-	444.26	324.63
1	KSTPP 1&2	345.39	24.34	33.74	-	58.08	168.16
2	KSTPP 3	43.03	8.58	4.36	-	12.94	300.79
3	VSTPP 1	92.61	8.06	14.52	-	22.58	243.77
4	VSTPP 2	64.58	5.77	9.73	-	15.50	240.01
5	VSTPP 3	78.46	11.95	12.22	-	24.17	308.08
6	VSTPP 4	88.31	16.69	13.10	-	29.78	337.26
7	VSTPP 5	53.02	8.90	6.57	-	15.48	291.92
8	KAWAS GPP	100.68	25.06	31.04	-	56.10	557.24
9	Gandhar GPP	102.75	31.93	32.29	-	64.22	625.01
10	SIPAT 1	167.21	31.71	21.84	-	53.55	320.24
11	SIPAT 2	66.97	12.57	9.34	-	21.91	327.21
12	LARA	27.25	4.61	3.80	-	8.41	308.52
13	MAUDA II	40.88	10.40	5.70	-	16.11	394.04
14	SOLAPUR	54.50	10.33	7.60	-	17.93	328.99
15	GADARWARA	13.63	0.94	1.90	-	2.84	208.42
16	KHSTPS 2	11.77	1.72	2.39	-	4.11	349.20
17	MAUDA	17.48	18.48	2.06	-	20.54	1,175.27
		-	-	-	-	-	-
B	NSPCL	617.23	150.55	169.49	-	320.04	518.51
1	BHILAI (ALLOCATED)	617.23	150.55	169.49	-	320.04	518.51
		-	-	-	-	-	-
C	NPCL	175.45	-	46.53	-	46.53	265.18
1	KAPPS	56.68	-	13.46	-	13.46	237.50
2	TAPPS 3&4	82.32	-	22.92	-	22.92	278.40
3	KAPPS III & IV	36.46	-	10.15	-	10.15	278.40
		-	-	-	-	-	-
D	OTHERS	66.73	36.02	36.70	-	72.72	1,089.75
1	RGPPPL	66.73	36.02	36.70	-	72.72	1,089.75
E	RPO	128.60	-	55.60	-	55.60	432.35
1	Solar	41.60	-	20.80	-	20.80	500.00
2	Non Solar	87.00	-	34.80	-	34.80	400.00
F	PXIL/IEX	-	-	-	-	-	#DIV/0!
		-	-	-	-	-	-
G	Other Charges	-	-	-	-	131.13	-
1	PGCIL CHARGES	-	-	-	-	103.17	-
2	MSTCL					27.49	
3	WRLDC					0.47	
H	TOTAL	2,356.55	418.61	520.54	-	1,070.28	454.18

The Commission hereby approves the total power purchase requirement of 2167.83 MU, 2347.04 MU and 2365.55 MU at total power purchase cost (including transmission and other charges) of Rs 964.22 Crores, Rs 1046.99 Crores and Rs

1070.28 Crores respectively for the MYT Control Period from FY 2016-17 to FY 2018-19.

5.8.Renewable Purchase Obligation

Petitioner Submission:

For the Control Period ED-DD has considered purchase of non-solar energy of 70 MU to meet its RPO target and has floated tenders twice but there was no participation. So ED-DD has decided to float the tender once again for the 70 MU non solar. Also ED-DD shall procure 17 MU from 8 MW wind farms. To meet the solar obligation for the control period FY 2016-17 to FY 2018-19, apart from the 4 MW solar plants another 6 MW solar plant is coming up in Diu which is expected to be commissioned by the end of FY 2015-16. Further, another 4 MW will come up in Daman in FY 2017-18. Therefore, for the control period the Petitioner will meet its solar obligation through these four plants. The per MW unit generation from the solar plants will be approx. 1.6 MU. ED-DD has installed grid interactive roof top solar panels on the government buildings in Daman & Diu. Till now the department has installed 1.157 MW capacity solar rooftop panels all across Daman & Diu and it is proposed to further augment this capacity by 1.165 MW by the end of FY 2016-17. Further, the total rooftop solar capacity is expected to reach 6 MW by the end of FY 2016-17, 9 MW by the end of FY 2017-18 and 12 MW by the end of FY 2018-19. The grid connected roof-top solar plants are expected to generate approximately 1.6 MU per year, thus generating 9.6 MU in FY 2016-17, 14.4 MU in FY 2017-18 and 19.2 MU in FY 2018-19. Thus, the total solar generation during the MYT Control Period will be 25.6 MU during FY 2016-17, 36.8 MU FY 2017-18 and 41.6 MU during FY 2018-19.

Commission Analysis:

As per JERC (Procurement of Renewable Energy) Regulations 2010 clause 1 sub clause (1)

Each distribution licensee shall purchase electricity (in kWh) from renewable energy sources, at a defined minimum percentage of the total consumption of all the consumers in its area during a year.

Further, the Commission has notified the amendment to the JERC (Procurement of Renewable Energy) Regulations, 2010 on 19th February 2014. As per the amendment issued, the Petitioner has to purchase a certain percentage of total energy purchase from renewable sources both solar & non solar for FY 2016-17 to FY 2018-19. The Commission has considered the Petitioner's submission in respect to physical power purchase from solar plants i.e. 25.60 MU, 36.80 MU and 41.60 MU and non-solar i.e. 87 MU each FY for the MYT control period from FY 2016-17 to FY 2018-19 respectively. The Petitioner has submitted that they would be purchasing non solar power from HPSEBL during the Control Period. The Petitioner would be purchasing physical power to the tune of 112.60 MU

(solar: 25.60 MU and non-solar: 87 MU), 123.80 MU (solar: 36.80 MU and non-solar: 87 MU), and 128.60 MU (solar: 41.60 MU and non-solar: 87 MU) as against RPO compliance of 71.12 MU (solar: 20.71 MU and non-solar: 50.41 MU), 82.76 MU (solar: 28.87 MU and non-solar: 53.89 MU), and 95.67 MU (solar: 38.06 MU and non-solar: 57.61 MU) for the FY 2016-17 to FY 2018-19 respectively. The cost of the physical power from solar and non-solar has already been covered under power purchase cost in the foregoing paragraphs. As a result, the Petitioner, is not projected to have a shortfall in fulfilling its RPO.

Table 5-12: Approved Power purchase quantum from Renewable Energy Sources (MU and %)

Sr. No	Particulars	FY 2016-17	FY 2017-18	FY 2018-19
1	Sales Within UT (in MUs)	1,800.47	1,924.56	2,057.45
2	RPO Obligation (in %)	3.95%	4.30%	4.65%
	- Solar	1.15%	1.50%	1.85%
	-Non Solar	2.80%	2.80%	2.80%
3	RPO Obligation (in MUs)	71.12	82.76	95.67
	- Solar	20.71	28.87	38.06
	-Non Solar	50.41	53.89	57.61
4	RPO Compliance (Projected Purchase - Physical)	112.60	123.80	128.60
	- Solar	25.60	36.80	41.60
	-Non Solar	87.00	87.00	87.00
4	RPO Compliance (Shortfall)	-	-	-
	- Solar	-	-	-
	-Non Solar	-	-	-

5.9.Operation and Maintenance Expenses

Petitioner Submission:

The Petitioner has submitted that the Operation and Maintenance expenses comprise of the following heads:

- **Employees Expenses** which include the salaries, dearness allowance, dearness pay, other allowances and retirement benefits paid to the staff;
- **Repair and Maintenance (R&M) Expenses**, which include all expenditure incurred on the maintenance and upkeep of transmission and distribution assets; and
- **Administrative and General Expenses**, which include all expenditure incurred in operating a business such as telephone charges, regulatory and consultancy fees such as energy auditing and chartered accountant fees, conveyance and travel expenses, water charges etc.

The Petitioner has projected total O&M expense for FY 2016-17 to FY 2018-19 as Rs. 31.44 Crores, Rs 34.30 Crores and Rs 38.74 Crores for the respective FYs.

Commission Analysis:

The Commission has considered the submission made by the Petitioner in this regard and has approved the O&M expenses as per norms approved in the Business Plan Order in Petition No 180/2015 dated 09th December 2015 for the MYT Control Period FY 2016-17 to FY 2018-19.

Employee Expenses: As per the provision 21 (b) of the Multi Year Distribution Tariff Regulations 2014, norms for employee expenses shall be defined in terms of combination of number of personnel per 1000 consumers and number of personnel per sub-station along with annual expenses per personnel. The Commission considers the norm of 4.59 employees per 1000 consumers as reasonable for the Control Period FY 2016-17 to FY 2018-19 and Rs. 346095 per employee suitably escalated by the Wholesale Price Index (WPI) for the preceding three years, as per Regulation 21.1 of the JERC (Multi Year Distribution Tariff) Regulations 2014 to arrive at the employee expenses for the Control Period. The employee expenses as per norms as approved in the Business Plan Order are shown below:

Table 5-13: Employee Expenses as per Norms for FY 2016-17 to FY 2018-19 (Rs. Crores)

Employee Expenses as per Approved Norms (Rs Crores)							
Sr. No	Particulars	FY 14	FY 15	FY 16	FY 17	FY 18	FY 19
1	Employee Expenses Per Employee	0.03	0.04	0.04	0.04	0.04	0.04
2	No of Employee Per '000 Consumers	4.59	4.59	4.59	4.59	4.59	4.59
3	No of Consumers '000				61	62	64
4	No. of Employees as per norms				278	285	292
5	No of Employee submitted by the Petitioner				240	242	244
6	No. of Employees finally considered by the Commission				278	285	292
7	Employee Expenses				11.19	12.05	12.99

The employee expenses as projected by the Petitioner and approved by the Commission are as follows:

Table 5-14: Employee Expense Approved for FY 2016-17 to FY 2018-19 (Rs. Crores)

S. No.	Particulars	FY 2016-17 to FY 2018-19					
		Petitioner's Projection for FY 2016-17	Approved in Order for FY 2016-17	Petitioner's Projection for FY 2017-18	Approved in Order for FY 2017-18	Petitioner's Projection for FY 2018-19	Approved in Order for FY 2018-19
1	Total Employee Expenses	11.23	11.19	11.90	12.05	12.61	12.99

The Commission thus approves employee expenses of Rs. 11.19 Crores, Rs 12.05 Crores and Rs 12.99 Crores for the MYT control period from FY 2016-17 to FY 2018-19 and the treatment of the employee expenses during the true-up would be in accordance with the provisions of Regulation 9.2, 10 and 11 of the JERC (Multi Year Distribution Tariff) Regulations 2014.

A&G Expenses: As per the provision 21 (b) of the JERC (Multi Year Distribution Tariff Regulations) 2014, norms for A&G Expenses shall be defined in terms of combination of A&G expense per personnel and A&G expense per 1000 consumers. The Commission reiterates that as per the Regulations provision for one-time expenses is there and the same shall be allowed on 'as and when basis' after due prudence check by the Commission. Based on average of A&G expenses per employee, base A&G expense per employee of Rs. 154216 has been considered to be reasonable for the Control Period. Similarly, based on average, base A&G expense per 1000 consumers has been considered as Rs. 710652 to be reasonable for the Control Period. The Commission has considered the weightage of these two factors in overall A&G computation as 50:50. The A&G expenses for the Control Period would be determined in accordance with Regulation 21.3 of the Multi Year Distribution Tariff Regulations 2014. The A&G expenses as per norms as approved in the Business Plan Order are shown below:

Table 5-15: A&G Expenses as per Norms for FY 2016-17 to FY 2018-19 (Rs. Crores)

A&G Expenses as per Approved Norms (Rs Crores)							
Sr. No	Particulars	FY 14	FY 15	FY 16	FY 17	FY 18	FY 19
1	Average A&G Expenses Per Employee	0.02	0.02	0.02	0.02	0.02	0.02
2	Average A&G Expenses Per '000 Consumers	0.07	0.07	0.08	0.08	0.09	0.09
3	No of Employee				278	285	292
4	No of Consumers '000				61	62	64
5	A&G Expenses Per Employee - 50%				2.49	2.69	2.89
6	A&G Expenses Per '000 Consumers - 50%				2.50	2.70	2.90
7	A&G Expenses				4.99	5.38	5.80

The A&G expenses as projected by the Petitioner and approved by the Commission are as follows:

Table 5-16: A&G Expense Approved for FY 2016-17 to FY 2018-19 (Rs. Crores)

S. No.	Particulars	FY 2016-17 to FY 2018-19					
		Petitioner's Projection for FY 2016-17	Approved in Order for FY 2016-17	Petitioner's Projection for FY 2017-18	Approved in Order for FY 2017-18	Petitioner's Projection for FY 2018-19	Approved in Order for FY 2018-19
1	Total A&G Expenses	7.24	4.99	7.67	5.38	8.13	5.80

The Commission thus approves A&G expenses of Rs. 4.99 Crores, Rs 5.38 Crores and Rs 5.80 Crores for the MYT control period from FY 2016-17 to FY 2018-19 and the treatment of the A&G expenses during the true-up would be in accordance with the provisions of Regulation 9.2, 10 and 11 of the JERC (Multi Year Distribution Tariff Regulations 2014.

R&M Expenses: As per Regulation 21 (b) and 21.2 of the JERC (Multi Year Distribution Tariff) Regulations 2014, norm for R&M Expenses shall be defined in terms of percentage of opening gross fixed assets for estimation of R&M expenses. The Commission has analyzed the figures of the R&M expenses and the opening GFA based on the trued-up values. The K-factor of 2.76% was considered by the Commission during approval of the Business Plan Order dated 09th December 2015 and the same has been considered while arriving at the R&M expenses for the Control Period. Inflation index has been considered with weightage of 60:40 (Consumer Price Index and Wholesale Price Index). The A&G expenses as per norms as approved in the Business Plan Order are shown below:

Table 5-17: R&M Expenses as per Norms for FY 2016-17 to FY 2018-19 (In Rs. Crores)

R&M Expenses as per Approved Norms (Rs Crores)				
Sr. No	Particulars	FY 17	FY 18	FY 19
1	Opening GFA	404.41	459.11	560.99
2	K Factor Approved by the Commission		2.76%	
3	Inflation index (60:40=CPI:WPI)		7.33%	
4	R&M Expenses	11.98	13.60	16.62

The R&M expenses as projected by the Petitioner and approved by the Commission are as follows:

Table 5-18: R&M Expenses Approved for FY 2016-17 to FY 2018-19 (In Rs. Crores)

S. No.	Particulars	FY 2016-17 to FY 2018-19					
		Petitioner's Projection for FY 2016-17	Approved in Order for FY 2016-17	Petitioner's Projection for FY 2017-18	Approved in Order for FY 2017-18	Petitioner's Projection for FY 2018-19	Approved in Order for FY 2018-19
1	Total R&M expenses	12.98	11.98	14.73	13.60	18.00	16.62

The Commission thus approves R&M expenses of Rs. 11.98 Crores, Rs 13.60 Crores and Rs 16.62 Crores for the MYT control period from FY 2016-17 to FY 2018-19 and the treatment of the R&M expenses during the true-up would be in accordance with the provisions of Regulation 9.2, 10 and 11 of the JERC (Multi Year Distribution Tariff) Regulations 2014

O&M Expenses: The overall summary of O&M expenditure estimated by the Petitioner vis-à-vis approved by the Commission for FY 2016-17 to FY 2018-19 is given below:

Table 5-19: O&M Expenses Approved for FY 2016-17 to FY 2018-19 (Rs. Crores)

S. No.	Particulars	FY 2016-17 to FY 2018-19					
		Petitioner's Projection for FY 2016-17	Approved in Order for FY 2016-17	Petitioner's Projection for FY 2017-18	Approved in Order for FY 2017-18	Petitioner's Projection for FY 2018-19	Approved in Order for FY 2018-19
1	Employee Cost	11.23	11.19	11.90	12.05	12.61	12.99
2	R&M	12.98	11.98	14.73	13.60	18.00	16.62
3	A&G	7.24	4.99	7.67	5.38	8.13	5.80
4	Total	31.45	28.16	34.30	31.03	38.74	35.40

The Commission thus approves an O&M expense of Rs. 28.16 Crores, Rs 31.03 Crores and Rs 35.40 Crores for the MYT control period from FY 2016-17 to FY 2018-19.

5.10. Capital Expenditure and Capitalization

Petitioner Submission:

The Petitioner has projected a total capital investment of Rs 71.98 Crores, Rs 121.82 Crores and 117.31 Crores for the MYT Control Period from FY 2016-17 to FY 2018-19 along with a capitalization of Rs 54.70 Crores, 101.88 Crores and Rs 119.11 Crores respectively.

Commission Analysis:

The Commission observes that the capital expenditure and the capitalization submitted by the Petitioner for FY 2016-17 to FY 2018-19 is required to maintain the reliable supply for the consumers of the UT of Daman and Diu.

Commission accordingly approves the capital expenditure and capitalization as approved in the Business Plan Order dated 09th December 2015 as below:

Table 5-20: Capital Expenditure and Capitalization Approved for FY 2016-17 to FY 2018-19 (Rs. Crores)

Particulars	FY 2016-17		FY 2017-18		FY 2018-19	
	Projected	Approved	Projected	Approved	Projected	Approved
Capex	71.98	71.98	121.82	121.82	117.31	117.31
Capitalization	54.70	54.70	101.88	101.88	119.11	119.11

5.11. Gross Fixed Assets and Depreciation

Petitioner Submission:

The Petitioner in MYT Petition for FY 2016-17 to FY 2018-19 has projected Rs 21.37 Crores, Rs 25.50 Crores and Rs 31.33 Crores as depreciation. Based on the actual capitalization of the FY 2014-15 and revised estimate for FY 2015-16, assets amounting to

Rs 54.70 Crores, 101.88 Crores and Rs 119.11 Crores have been envisaged by the Petitioner to be added in the GFA during the control period.

Depreciation is charged on the basis of straight-line method on the Gross Fixed Assets in use at the beginning of the year and addition in assets during the financial year. The depreciation is based on the original cost of the Gross Fixed Assets.

Commission Analysis:

Regulation 23 of JERC (Multi Year Distribution Tariff) Regulations 2014 specifies that depreciation for the assets shall be calculated annually at the rates specified by CERC from time to time. The depreciation rates for distribution assets as specified by CERC (Terms and Conditions of Tariff) Regulations, 2014 have been used to calculate the depreciation.

Table 5-21: Depreciation rate specified by Hon'ble CERC

Asset Category	Depreciation Rate %
Plant & Machinery	5.28%
Buildings	3.34%
Vehicles	9.50%
Furniture & Fixtures	6.33%
Computers & Others	15.00%
Land	0.00%

Addition in assets has been fully considered in Plant & Machinery and the same would be trued up based on actuals and audited accounts for the respective FYs, Gross Fixed Assets and Depreciation for the MYT Control period are as follows:

Table 5-22: GFA and Depreciation as Approved for FY 2016-17 to FY 2018-19 (Rs Crores)

S. No.	Particulars	FY 2016-17 to FY 2018-19					
		Petitioner's Projection for FY 2016-17	Approved in Order for FY 2016-17	Petitioner's Projection for FY 2017-18	Approved in Order for FY 2017-18	Petitioner's Projection for FY 2018-19	Approved in Order for FY 2018-19
1	Opening Gross Fixed Assets	404.40	404.41	459.10	459.11	560.98	560.99
2	Addition During the FY	54.70	54.70	101.88	101.88	119.11	119.11
3	Adjustment/Retirement During the FY	-	-	-	-	-	-
4	Closing Gross Fixed Assets	459.10	459.11	560.98	560.99	680.09	680.10
5	Average Gross Fixed Assets	431.75	431.76	510.04	510.05	620.54	620.55
6	Rate of Depreciation (%)	4.65%	5.02%	4.55%	5.06%	4.61%	5.10%
7	Depreciation for the FY	21.37	21.69	25.50	25.82	31.33	31.65

The Commission thus approves a depreciation of Rs. 21.69 Crores, Rs 25.82 Crores and Rs 31.65 Crores for the MYT control period from FY 2016-17 to FY 2018-19.

5.12. Interest on Loan

Petitioner Submission:

Assets capitalized during the MYT Control Period have been considered based on normative debt-equity ratio of 70:30 as per the JERC (Multi Year Distribution Tariff) Regulations, 2014. Interest rate of 14.75% has been considered for computation of interest cost for long-term loans which is similar to the prevailing SBI Prime Lending Rate. The Petitioner in MYT Petition for FY 2016-17 to FY 2018-19 has projected Rs 15.02 Crores, Rs 21.60 Crores and Rs 30.84 Crores as Interest on loan.

Commission Analysis:

As per Regulation 24 of JERC (Multi Year Distribution Tariff) Regulations 2014, if the equity actually deployed is more than 30% of capital cost, then equity in excess of 30% would be considered as normative loan. Actual loan or normative loan, if any shall be referred as gross normative loan. The normative loan outstanding as on 1st April of the control period shall be computed by deducting the cumulative repayment as approved by the Commission till 31st March of current FY. Further, the Commission has considered the actual capitalization of assets as approved in the foregoing paragraphs. The Commission for the purpose of funding of the capitalization has considered the normative debt equity ratio of 70:30. Repayment has been considered to be equal to depreciation allowed during the FY. Further, the Commission has considered the interest rate (SBI PLR) as for FY 2015-16 i.e. at start of the FY 2016-17 i.e. 14.05%. (<https://www.sbi.co.in/portal/web/interest-rates/benchmark-prime-lending-rate-historical-data>). The calculation for the interest on the normative loan is given below:

Table 5-23: Interest on Normative Loan as Approved for FY 2016-17 to FY 2018-19 (Rs Crores)

S.No.	Particulars	FY 2016-17 to FY 2018-19					
		Petitioner's Projection for FY 2016-17	Approved in Order for FY 2016-17	Petitioner's Projection for FY 2017-18	Approved in Order for FY 2017-18	Petitioner's Projection for FY 2018-19	Approved in Order for FY 2018-19
1	Opening Normative Loan	87.06	87.07	116.64	103.67	176.30	149.17
2	Add: Normative Loan during the year	38.29	38.29	71.32	71.32	83.38	83.38
3	Less: Normative Repayment Equal to Depreciation	8.71	21.69	11.66	25.82	17.63	31.65
4	Closing Normative Loan	116.64	103.67	176.30	149.17	242.05	200.89
5	Average Normative Loan	101.85	95.37	146.47	126.42	209.18	175.03
6	Rate of Interest (@SBAR rate)	14.75%	14.05%	14.75%	14.05%	14.75%	14.05%
7	Interest on Normative Loan including bank charges	15.02	13.40	21.60	17.76	30.84	24.59

The Commission thus approves an Interest on Loan of Rs. 13.40 Crores, Rs 17.76 Crores and Rs 24.59 Crores for the MYT control period from FY 2016-17 to FY 2018-19.

5.13. Interest on Working Capital

Petitioner Submission:

The Petitioner has computed the Interest on Working Capital for the Control Period based on normative basis as per the JERC (Multi Year Distribution Tariff) Regulations, 2014.

The working capital requirement for the Control Period has been computed considering the following parameters:

- Receivables of two months of billing
- Less power purchase cost of one month
- Less consumer security deposit but excluding Bank Guarantee/Fixed Deposit
- Inventory for two months based on annual requirement for previous year

A rate of interest of 14.45% has been considered on the working capital requirement, being the SBI Prime Lending Rate as on 1st April of the year. This is in line with the JERC (Multi Year Distribution Tariff) Regulations, 2014 which states that *“The rate of interest on working capital shall be equal to the base rate for the State Bank of India on the 1st April of the relevant financial year.”*

Commission Analysis:

As per Regulation 25 of JERC (Multi Year Distribution Tariff) Regulations 2014, Working capital shall consist of

- Receivables of two months of billing
- Less power purchase cost of one month
- Less consumer security deposit but excluding Bank Guarantee/Fixed Deposit
- Inventory for two months based on annual requirement for previous year

The Interest rate on working capital has been considered as 9.30% (SBI base rate as on 05.10.2015) as per Regulations i.e. this is as the base rate at the start of the relevant FY (<https://www.sbi.co.in/portal/web/interest-rates/base-rate-historical-data>) because no further rate has been announced. The calculation for the interest on the normative loan is given below:

Table 5-24: Interest on Working Capital as Approved for FY 2016-17 to FY 2018-19 (Rs Crores)

S. No.	Particulars	FY 2016-17 to FY 2018-19					
		Petitioner's Projection for FY 2016-17	Approved in Order for FY 2016-17	Petitioner's Projection for FY 2017-18	Approved in Order for FY 2017-18	Petitioner's Projection for FY 2018-19	Approved in Order for FY 2018-19
1	Receivables of 2 Months Billing	143.72	150.07	153.57	161.80	164.12	174.57
2	Power Purchase Cost 1 Month	71.00	80.35	77.42	87.25	85.01	89.19
3	Consumer Security Deposit Excl. BG/FDR	40.51	39.34	40.51	39.34	40.51	39.34
4	Inventory Based on Annual Requirement for Previous FY for 2 months	22.28	0.69	23.39	0.69	24.56	0.69
5	Total Working after deduction of Security Deposit from Working Capital Requirement	54.49	31.06	59.03	35.89	63.16	46.72
6	SBI Base Rate (%)	12.20%	9.30%	12.40%	9.30%	12.55%	9.30%
7	Interest on Working Capital	6.65	2.89	7.32	3.34	7.93	4.35

The Commission has considered the change in Inventory as per accounts i.e. 4.11 Crores for FY 2014-15 and the same has been considered for two months. The Commission thus approves an Interest on Working Capital of Rs. 2.89 Crores, Rs 3.34 Crores and Rs 4.35 Crores for the MYT control period from FY 2016-17 to FY 2018-19.

5.14. Interest on Security Deposit

Petitioner Submission:

The Petitioner has made a provision to pay Rs. 3.50 Crore as interest on consumer security deposits during the MYT Control Period.

Commission Analysis:

The Commission has considered the closing balance of security deposit of FY 2015-16 as determined in the previous chapter as opening balance of security deposit in FY 2016-17. No addition in security deposit has been envisaged by the Commission. The Commission has considered the RBI bank Rate for calculation of Interest rate as on start of FY i.e. 7.75% <https://rbidocs.rbi.org.in/rdocs/Wss/PDFs/5T969D4AB53F5746C58E68C9E53AC70953.PDF> - (Feb 26, 2016) and the detailed calculation is shown below:

Table 5-25: Interest on Security Deposit as Approved for FY 2016-17 to FY 2018-19 (Rs Crores)

S.No.	Particulars	FY 2016-17 to FY 2018-19					
		Petitioner's Projection for FY 2016-17	Approved in Order for FY 2016-17	Petitioner's Projection for FY 2017-18	Approved in Order for FY 2017-18	Petitioner's Projection for FY 2018-19	Approved in Order for FY 2018-19
1	Opening Security Deposit	41.67	39.34	41.67	39.34	41.67	39.34
2	Add: Deposits during the Year	-	-	-	-	-	-
3	Less: Deposits refunded	-	-	-	-	-	-
4	Closing Security Deposit	41.67	39.34	41.67	39.34	41.67	39.34
5	Average Security Deposit	40.51	39.34	40.51	39.34	40.51	39.34
6	Bank Rate	8.64%	7.75%	8.64%	7.75%	8.64%	7.75%
7	Interest on Security Deposit	3.50	3.05	3.50	3.05	3.50	3.05

The Commission thus approves an Interest on Security Deposit of Rs. 3.05 Crores for the MYT control period from FY 2016-17 to FY 2018-19 respectively.

5.15. Return on Equity

Petitioner Submission:

The Petitioner has projected that it is an integrated utility and in its present form it has considered return on capital base as a 3% return on net block of approved assets/capitalization at the beginning of the FY 2014-15 and each year of the Control Period i.e. Rs 7.40 Crores, Rs 8.40 Crores and Rs 10.69 Crores respectively.

Commission Analysis:

As per Regulation 27 of JERC (Multi Year Distribution Tariff) Regulations 2014, Return on Equity shall be computed on 30% of capital base or actual equity whichever is lower. 16% post tax return on equity shall be considered irrespective of whether the distribution licensee has claimed return on equity in the ARR Petition. The Commission has considered the equity as per the audited accounts for FY 2014-15 and has added the equity addition to the tune of 30% of assets capitalized during the FY. The calculation for the Return on Equity is given below:

Table 5-26: Return on Equity as Approved for FY 2016-17 to FY 2018-19 (Rs Crores)

S.No.	Particulars	FY 2016-17 to FY 2018-19					
		Petitioner's Projection for FY 2016-	Approved in Order for FY 2016-17	Petitioner's Projection for FY 2017-	Approved in Order for FY 2017-18	Petitioner's Projection for FY 2018-	Approved in Order for FY 2018-19
1	Opening Equity		28.42		50.01		80.57
2	Addition in Equity on Account of New Capitalization		21.59		30.56		35.73
3	Post Tax Equity		50.01		80.57		116.31
4	Return on Equity @ 16%	7.40	8.00	8.40	12.89	10.69	18.61

The Commission thus approves Return on Equity of Rs. 8.00 Crores, Rs 12.89 Crores and Rs 18.61 Crores for the MYT control period from FY 2016-17 to FY 2018-19 respectively.

5.16. Provision for bad and doubtful debts

Petitioner Submission:

The Petitioner has claimed Rs 0.10% of the receivables against provision for bad and doubtful debts for the MYT Control period from FY 2016-17 to FY 2018-19

Commission Analysis:

As per Regulation 32 of JERC (Multi Year Distribution Tariff) Regulations 2014

Quote

Bad and Doubtful Debts shall be limited to 1% of receivables in the true up, subject to the condition that amount of bad and doubtful debts have actually been written off in the licensee books of accounts.

Unquote

JERC Multi Year Distribution Tariff) Regulations 2014 allows a provision for bad and doubtful debts up to 1% of receivables in the revenue requirement on the basis of audited accounts only. **As FY 2016-17 to 2018-19 is not actual and is based on projections, no amount is considered for Provision for bad and doubtful debts for the MYT control period from FY 2016-17 to FY 2018-19.**

5.17. Non-Tariff Income

Petitioner Submission:

The Petitioner has claimed Rs 19.86 Crores, Rs 20.81 Crores and Rs 21.80 Crores against non-tariff income in MYT Petition for FY 2016-17 to FY 2018-19

Commission Analysis:

The Commission has escalated the revised approved non-tariff income for FY 2015-16 by 5% to arrive at the Non-Tariff Income for FY 2016-17 and beyond as per the Petitioner's submission as shown below:

Table 5-27: Non- Tariff Income as Approved for FY 2016-17 to FY 2018-19 (Rs Crores)

S. No.	Particulars	FY 2016-17 to FY 2018-19					
		Petitioner's Projection for FY 2016-17	Approved in Order for FY 2016-17	Petitioner's Projection for FY 2017-18	Approved in Order for FY 2017-18	Petitioner's Projection for FY 2018-19	Approved in Order for FY 2018-19
1	Total	19.86	19.97	20.81	20.97	21.80	22.02

The Commission considers non-tariff income of Rs 19.97 Crores, Rs 20.97 Crores and Rs 22.02 Crores as reasonable and approves the same for the MYT Control Period.

5.18. Revenue from Sale of Surplus Power

Petitioner Submission:

During the MYT Control period from FY 2016-17 to FY 2018-19, the Petitioner has estimated revenue from sale of surplus power at Rs 1.06 Crores, Rs 1.84 Crores and Rs 1.63 Crores respectively.

Commission Analysis:

The Commission as discussed in the section of power purchase of this chapter has applied merit order dispatch principles in estimating the power procurement requirement of the utility. The Commission has estimated a surplus power of 103.24 MU, 142.18 MU and 8.35 MU to be sold at Rs 3/kWh in FY 2016-17 to FY 2018-19. The same would result in an additional revenue of Rs 30.97 Crores, Rs 42.65 Crores and Rs 2.50 Crores in FY 2016-17 to FY 2018-19 respectively.

5.19. Revenue from Existing Retail Tariff for FY 2016-17 to FY 2018-19

Petitioner Submission:

During the MYT Control period from FY 2016-17 to FY 2018-19, the Petitioner has estimated a revenue from existing retail tariff for FY 2016-17 to FY 2018-19 as Rs 862.44 Crores, Rs 921.57 Crores and Rs 984.63 Crores respectively.

Commission Analysis:

The Commission has found discrepancy in the data as provided in the Petition and technical formats by the Petitioner. In the technical formats of the Petition, the Petitioner has submitted Rs 862.44 Crores, Rs 921.57 Crores and Rs 984.63 Crores as revenue from sale of power whereas in the Petition it has submitted Rs 862.32 Crores, Rs 921.44 Crores and Rs 984.70 Crores for the MYT control period from FY 2016-17 to FY 2018-19 respectively. The Commission has estimated open access income based on open access

charge as approved by the Commission in Tariff Order dated 31st March 2015. The Commission based on existing retail tariff for FY 2015-16 and approved sales, number of consumers and connected load as discussed in the foregoing paragraphs of the chapter has calculated the revenue as follows:

Table 5-28: Revenue from Existing Retail Tariff for FY 2016-17 to FY 2018-19 (Rs Crores)

S. No.	Category / Consumption Slab	FY 2016-17 to FY 2018-19					
		Petitioner's Projection for FY 2016-17	Approved in Order for FY 2016-17	Petitioner's Projection for FY 2017-18	Approved in Order for FY 2017-18	Petitioner's Projection for FY 2018-19	Approved in Order for FY 2018-19
A	Domestic	23.67	23.71	25.90	25.95	28.35	28.40
1	0-50 units	0.02	0.02	0.02	0.02	0.02	0.02
2	51-200 units	2.38	2.38	2.60	2.61	2.85	2.85
3	201 - 400 units	4.38	4.11	4.79	4.50	5.24	4.93
4	401 and above	16.88	17.19	18.47	18.81	20.22	20.59
5	Low Income Group (LIG)	0.01	0.01	0.01	0.01	0.01	0.01
B	Commercial	15.50	15.50	16.60	16.60	17.78	17.78
1	1- 100 units	5.06	5.06	5.41	5.42	5.80	5.80
2	101 and above units	10.44	10.44	11.19	11.19	11.98	11.98
C	Agriculture	0.20	0.20	0.21	0.21	0.21	0.22
1	Up to 10 HP	0.12	0.12	0.13	0.13	0.13	0.13
2	Above 10 HP	0.08	0.08	0.08	0.08	0.08	0.08
D	LTP Industry	60.75	63.30	63.11	65.70	65.56	68.19
E	Public Lighting	4.67	4.67	5.25	5.25	5.90	5.90
F	Public Water Works	1.44	1.46	1.55	1.57	1.67	1.69
G	HT	756.21	791.57	808.95	855.53	865.16	925.24
1	Up to 66 kV	538.78	555.98	579.10	600.64	620.28	649.29
2	HT Ferro	217.43	235.59	229.85	254.88	244.87	275.94
H	Hoardings/ Signboards	-	-	-	-	-	-
I	Temporary	-	-	-	-	-	-
		-	-	-	-	-	-
J	Total Revenue from Retail Sale of Power	862.44	900.40	921.57	970.80	984.63	1,047.42
K	Open Access Income		13.15		13.81		14.50
L	Total Revenue from Retail Sale of Power	862.44	913.56	921.57	984.61	984.63	1,061.92

The Commission considers revenue from existing retail tariff (including open access income) of Rs 913.56 Crores, Rs 984.61 Crores and Rs 1061.92 Crores as reasonable and approves the same for the MYT Control Period.

5.20. Aggregate Revenue Requirement for MYT Control Period from FY 2016-17 to FY 2018-19

Petitioner Submission:

The Petitioner has submitted the net revenue requirement of Rs. 918.36 Crores (Rs 938.22 Crores as total revenue requirement – Rs 19.86 Crores as non- tariff income), Rs 1009.80 Crores (Rs 1030.59 Crores as total revenue requirement – Rs 20.81 Crores as non- tariff income) and 1122.36 Crores (Rs 1144.16 Crores as total revenue requirement – Rs 121.80

Crores as non- tariff income) i.e. before adjustment of revenue from sale of surplus power for the MYT Control Period from FY 2016-17 to FY 2018-19 respectively. Further, it has estimated a cumulative revenue gap/(surplus) of Rs. (1.92) Crores, Rs 84.46 Crores and Rs 220.56 Crores for the purpose of MYT Control Period from FY 2016-17 to FY 2018-19 respectively.

Commission Analysis:

The Commission has considered and approved the Aggregate Revenue Requirement for the FY 2016-17 to FY 2018-19 based on the items of expenditure discussed in the preceding paragraphs in this Chapter of this Order and the same has been summarized in the Table below vis-à-vis Petitioner's claim as follows:

Table 5-29: Aggregate Revenue Requirement for FY 2016-17 to FY 2018-19 (Rs Crores)

S. No.	Particulars	FY 2016-17 to FY 2018-19					
		Petitioner's Projection for FY 2016-17	Approved in Order for FY 2016-17	Petitioner's Projection for FY 2017-18	Approved in Order for FY 2017-18	Petitioner's Projection for FY 2018-19	Approved in Order for FY 2018-19
1	Cost of fuel	-	-	-	-	-	-
2	Cost of power purchase for full year	851.98	964.22	929.06	1,046.99	1,020.15	1,070.28
3	Provision for RPO Compliance	-	-	-	-	-	-
4	Employee costs	11.23	11.19	11.90	12.05	12.61	12.99
5	Administration and General Expenses	7.24	4.99	7.67	5.38	8.13	5.80
6	Repair and Maintenance Expenses	12.98	11.98	14.73	13.60	18.00	16.62
7	Depreciation	21.37	21.69	25.50	25.82	31.33	31.65
8	Interest and Finance charges	15.02	13.40	21.60	17.76	30.84	24.59
9	Interest on Working Capital	6.65	2.89	7.32	3.34	7.93	4.35
10	Interest on Security Deposit	3.50	3.05	3.50	3.05	3.50	3.05
11	Return on NFA /Equity	7.40	8.00	8.40	12.89	10.69	18.61
12	Provision for Bad Debt	0.86	-	0.92	-	0.98	-
13	Income Tax	-	-	-	-	-	-
14	Incentive on achievement of norm of T&D loss	-	-	-	-	-	-
15	Total Revenue Requirement	938.22	1,041.40	1,030.59	1,140.89	1,144.16	1,187.93
16	Less: Non Tariff Income	19.86	19.97	20.81	20.97	21.80	22.02
17	Less: Revenue from Surplus Power Sale/UI	1.06	30.97	1.84	42.65	1.63	2.50
18	Less: Revenue from Short term sale	-	-	-	-	-	-
19	Net Revenue Requirement	917.30	990.46	1,007.94	1,077.27	1,120.73	1,163.41
20	Revenue from Retail Sales at Existing Tariff including open access income	862.44	913.56	921.57	984.61	984.63	1,061.92
21	Net Gap / (Surplus)	54.86	76.90	86.37	92.65	136.10	101.49
22	Recovery on account of PPC variations	-	-	-	-	-	-
23	Gap after adjusting PPC variations	54.86	76.90	86.37	92.65	136.10	101.49
24	Gap/(Surplus) for the previous year	(56.78)	(116.55)	(1.92)	(41.94)	84.46	50.71
25	Carrying Cost	-	(10.84)	-	-	-	-
26	Past Arrears/Refunds to Consumers	-	-	-	-	-	-
27	Total Gap/ (Surplus)	(1.92)	(50.48)	84.46	50.71	220.56	152.20

The Commission has considered net revenue requirement of Rs 990.46 Crores, Rs 1077.27 Crores and Rs 1163.41 Crores for the MYT Control Period. Further, the Commission considered the estimated cumulative revenue gap/(surplus) of Rs.

(50.48) Crores, Rs. 50.71 Crores and Rs 152.20 Crores as reasonable and approves the same for the MYT Control Period from FY 2016-17 to FY 2018-19 respectively.

6. Tariff Philosophy & Category Wise Tariffs for FY 2016-17

6.1.Preamble

The Commission in determining the aggregate revenue requirement and retail supply tariff for the financial year 2016-17 has been guided by the provisions of the Electricity Act, 2003, the Tariff Policy 2016, Regulations on Terms and Conditions of Tariff issued by the Hon'ble Central Electricity Regulatory Commission (CERC) and Regulations on Terms and Conditions of Tariff notified by the JERC under Section 61 of the Act which lays down the broad principles, which shall guide the determination of retail tariff.

6.2.Revenue Gap/Surplus for FY 2016-17

Petitioner's submission

The Petitioner has projected a revenue gap/ (surplus) of Rs. 54.86 Crore for FY 2016-17 and considering the previous year revenue gap/ (surplus) of Rs (56.78) Crore, the cumulative revenue gap/ (surplus) of Rs. (1.92) Crore at the end of FY 2016-17 has been projected at the existing tariff. In view of the estimated revenue gap/ (surplus) of Rs. (1.92) Crore at the end of FY 2016-17, the Petitioner has not proposed any increase in the power tariff for FY 2016-17 except fixed charges in domestic and commercial category.

Commission's Analysis

The Commission in this tariff order for FY 2016-17 has estimated the revenue gap/ (surplus) of Rs. (50.48) Crore at the end of FY 2016-17, based on the APR of FY 2015-16 with carrying cost of one year @ 9.30% in to FY 2016-17 (ARR).

6.3.Tariff for FY 2016-17

Petitioner's submission

The Petitioner has submitted that as there is an estimated revenue gap/ (surplus) of Rs. (1.92) Crore at the end of FY 2016-17, the Petitioner has not proposed any increase in the power tariff for FY 2016-17 except fixed charges in domestic and commercial category. The Petitioner has requested the Commission to approve the retail tariff as proposed for FY 2016-17.

The category wise existing and proposed tariff submitted by the Petitioner is as under:

Table 6-1: Existing and Proposed Tariff for FY 2016-17 proposed by the Petitioner

Tariff Structure	Existing		Proposed	
	Energy Charges (Rs/Kwh)	Fixed Charges	Energy Charges (Rs/Kwh)	Fixed Charges
LT-D/Domestic				
1 st 50 Units	1.20		1.20	First 500 watts - Rs. 20/- or part thereof For every additional 500 watts - Rs. 15/- per month or part thereof
51 to 200 Units	1.80		1.80	
201 to 400 Units	2.20		2.20	
Beyond 401 Units	2.55		2.55	
Low Income Group		Rs. 10/connection /month		Rs. 10/connection /month
LT-C/Commercial				
1st 100 Units	2.65		2.65	Single Phase
Beyond 100 Units	3.65		3.65	First 500 watts - Rs. 25/- or part thereof For every additional 500 watts - Rs. 40/- per month or part thereof Three Phase Rs. 40/HP/kVA/kW per month or part thereof
LT- Ag/ Agriculture				
Up to 10 HP per unit	0.70		0.70	
Beyond 10 HP per unit	1.00		1.00	

Tariff Structure	Existing		Proposed	
	Energy Charges (Rs/Kwh)	Fixed Charges	Energy Charges (Rs/Kwh)	Fixed Charges
LTP Motive Power(Including Water Pumps)				
For the category	3.50	Rs. 25/HP/month	3.50	Rs. 25/HP/month
LT-PL/Public Lighting				
Public Lighting	4.20		4.20	
LT-Public Water Works				
For the category	3.70	Rs. 25/HP/month	3.70	Rs. 25/HP/month
HT				
HTC General Industrial / Motive Power 11KV or 66KV having CMD above 100KVA				
For all units	4.70	Rs. 105/kVA/month	4.70	Rs. 105/kVA/month
HT Industrial((Ferro Metallurgical/ Steel Melting/ Steel Rerolling Power Intensive)				
For all units	4.55	Rs. 375/ kVA /month	4.55	Rs. 375/ kVA /month
Hoardings/Sign Boards				
For all units	7.00	Rs. 100/ kVA /month	7.00	Rs. 100/ kVA /month

The Petitioner has requested the Commission to approve the fuel purchase adjustment formula including the "K" factor for FY 2016-17 as well, which can take care of any variation in the ARR over and above the approved level by the Commission for FY 2016-17.

Commission's analysis

The Commission has determined the retail tariff for FY 2016-17 in view of the guiding principles as stated in the Electricity Act, 2003 and Tariff Policy, 2016, the suggestions/objections of the stakeholders in this regard and the Petitioner's submission as discussed above.

Further, keeping in view the relevant directions given by the Hon'ble APTEL in the judgment in O.P. no. 1 of 2011 as mentioned below, the Commission has taken a considered view in this regard.

The relevant section from Tariff Policy, 2016 is as under:

Quote:

8.3. Tariff design: Linkage of tariffs to cost of service

It has been widely recognized that rational and economic pricing of electricity can be one of the major tools for energy conservation and sustainable use of ground water resources.

In terms of the Section 61(g) of the Act, the Appropriate Commission shall be guided by the objective that the tariff progressively reflects the efficient and prudent cost of supply of electricity.

The State Governments can give subsidy to the extent they consider appropriate as per the provisions of section 65 of the Act. Direct subsidy is a better way to support the poorer categories of consumers than the mechanism of cross subsidizing the tariff across the board. Subsidies should be targeted effectively and in transparent manner. As a substitute of cross subsidies, the State Government has the option of raising resources through mechanism of electricity duty and giving direct subsidies to only needy consumers. This is a better way of targeting subsidies effectively.

Accordingly, the following principles would be adopted:

- 1. Consumers below poverty line who consume below a specified level, as prescribed in the National Electricity Policy may receive a special support through cross subsidy. Tariffs for such designated group of consumers will be at least 50% of the average cost of supply.*
- 2. For achieving the objective that the tariff progressively reflects the cost of supply of electricity, the Appropriate Commission would notify a roadmap such that tariffs are brought within $\pm 20\%$ of the average cost of supply. The road map would also have intermediate milestones, based on the approach of a gradual reduction in cross subsidy.*

3. While fixing tariff for agricultural use, the imperatives of the need of using ground water resources in a sustainable manner would also need to be kept in mind in addition to the average cost of supply. Tariff for agricultural use may be set at different levels for different parts of a state depending on the condition of the ground water table to prevent excessive depletion of ground water. Section 62 (3) of the Act provides that geographical position of any area could be one of the criteria for tariff differentiation. A higher level of subsidy could be considered to support poorer farmers of the region where adverse ground water table condition requires larger quantity of electricity for irrigation purposes subject to suitable restrictions to ensure maintenance of ground water levels and sustainable ground water usage.

4. Extent of subsidy for different categories of consumers can be decided by the State Government keeping in view various relevant aspects. But provision of free electricity is not desirable as it encourages wasteful consumption of electricity. Besides in most cases, lowering of water table in turn creating avoidable problem of water shortage for irrigation and drinking water for later generations. It is also likely to lead to rapid rise in demand of electricity putting severe strain on the distribution network thus adversely affecting the quality of supply of power. Therefore, it is necessary that reasonable level of user charges is levied. The subsidized rates of electricity should be permitted only up to a pre-identified level of consumption beyond which tariffs reflecting efficient cost of service should be charged from consumers. If the State Government wants to reimburse even part of this cost of electricity to poor category of consumers the amount can be paid in cash or any other suitable way. Use of prepaid meters can also facilitate this transfer of subsidy to such consumers.

5. Metering of supply to agricultural/rural consumers can be achieved in a consumer friendly way and in effective manner by management of local distribution in rural areas through commercial arrangement with franchisees with involvement of panchayat institutions, user associations, cooperative societies etc. Use of smart meters may be encouraged as a cost effective option for metering in cases of "limited use consumers" who are eligible for subsidized electricity.

Unquote

Directions given by the Hon'ble APTEL in the Judgment in O.P. no. 1 of 2011 are as follows:

- 1)
- 2)
- 3)

Quote

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

5) Truing up should be carried out regularly and preferably every year. For example, truing up for the financial year 2009-10 should be carried out along with the ARR and tariff determination for the financial year 2011-12.

6) Fuel and Power Purchase cost is a major expense of the distribution Company which is uncontrollable. Every State Commission must have in place a mechanism for Fuel and Power Purchase cost in terms of Section 62 (4) of the Act. The Fuel and Power Purchase cost adjustment should preferably be on monthly basis on the lines of the Central Commission's Regulations for the generating companies but in no case exceeding a quarter. Any State Commission which does not already have such formula/mechanism in place must within 6 months of the date of this order must put in place such formula/mechanism."

Unquote

In view of the cumulative revenue surplus of Rs. 50.48 Crore at the end of FY 2016-17 at the existing tariff levels, the Commission is of the view that the tariff hike for FY 2016-17 is not required. However, the Commission agrees with the submission of the Petitioner for introduction of fixed charges for Domestic and Commercial categories. The Petitioner has proposed fixed charges for these categories on sanctioned load basis, but the Commission is of the view that initially the fixed charges for these categories shall be on installation/premises basis.

Further, in view of the cumulative surplus in the ARR and looking at the difficulties faced by HT Industrial (Ferro Metallurgical / Steel Melting / Steel Rerolling Power Intensive) category, the Commission also decides to reduce the demand charges of this category. The approved tariff for FY 2016-17 is shown in the Table below:

Table 6-2: Commission Approved Tariff for FY 2016-17

Sr. No.	Category / Consumption Slab	Approved Tariff for FY 2016-17			
		Energy Charges (Rs/kWh)	Fixed Charges	Average Tariff** (Rs/Unit)	"K" factor for FPPCA formula for FY 2016-17
1.	LT-D/Domestic				
	1st 50 Units	1.20	Rs/Consumer/Month Single Phase: Rs 20	1.32	0.26
	51 to 200 Units	1.80		1.92	0.39

Sr. No.	Category / Consumption Slab	Approved Tariff for FY 2016-17			
		Energy Charges (Rs/kWh)	Fixed Charges	Average Tariff** (Rs/Unit)	"K" factor for FPPCA formula for FY 2016-17
	201 to 400 Units	2.20	Three Phase: Rs 45	2.32	0.47
	Beyond 401 units	2.55		2.81	0.57
	Low Income Group		Rs.10/Connection/month		
2	LT-C/Commercial				
	1st 100 Units	2.65	Rs/Consumer/Month Single Phase: Rs 25 Three Phase: Rs 50	2.70	0.54
	Beyond 100 Units	3.65		3.76	0.76
3	LT- Ag/ Agriculture				
	Up to 10 HP per unit	0.70		0.70	
	Beyond 10 HP per unit	1.00		1.00	
4	LTP Motive Power (Including Water Pumps)				
	For the category	3.50	Rs.25.00 / HP / month	3.81	0.77
5	LT-PL/Public Lighting				
	Public Lighting	4.20		4.20	0.85
6	LT-Public Water Works				
	For the category	3.70	Rs.25.00 / HP / month	3.80	0.77
7	HT				
A	HTC General Industrial / Motive Power 11KV or 66KV having CMD above 100KVA				
	For all units	4.70	Rs.105 / KVA / Month	5.40	1.09
B	HT Industrial (Ferro Metallurgical / Steel Melting / Steel Rerolling Power Intensive)				
	For all units	4.55	Rs.275 / KVA / Month	5.14	1.04
8	Hoardings / Sign Boards				
	For all units	7.00	Rs.100 / KVA / Month		

** Average tariff means the average revenue realization from the category i.e. revenue/sales and is inclusive of both the fixed charges and the variable charges.

6.4.Average Cost of Supply

The Commission has worked out the Average Cost of Supply (ACoS) as Rs.4.59/kWh as per true-up of ARR of FY 2014-15 and Rs. 5.50/kWh for FY 2016-17. The Average Cost of Supply (ACoS) as approved in the Tariff Order dated 31st March 2015 for FY 2015-16 was Rs.4.76/kWh.

Table 6-3: ARR Vs. ACoS for FY 2016-17

Sr. No.	Category / Consumption Slab	Average Revenue Realization for FY 2015-16 (Existing Tariff)	Average Revenue Realization as a percentage of ACoS for FY 2015-16 (Existing tariff)	Average Revenue Realization for FY 2016-17 (Approved tariff)	Average Revenue Realization as a percentage of ACoS for FY 2016-17 (Approved tariff)
1	LT-D/Domestic	2.38	45.29%	2.59	47.14%
	1st 50 Units	1.20	22.82%	1.32	23.91%
	51 to 200 Units	1.80	34.24%	1.92	34.81%
	201 to 400 Units	2.20	41.84%	2.32	42.08%
	Beyond 401 units	2.55	48.50%	2.81	51.06%
	Low Income Group	1.14	21.72%	1.04	18.97%
2	LT-C/Commercial	3.25	61.81%	3.34	60.62%
	1st 100 Units	2.65	50.40%	2.70	49.14%
	Beyond 100 Units	3.65	69.42%	3.76	68.28%
3	LT-Ag / Agriculture	0.79	15.05%	0.79	14.38%
	Up to 10 HP per unit	0.70	13.31%	0.70	12.72%
	Beyond 10 HP per unit	1.00	19.02%	1.00	18.18%
4	LTP Motive Power (Including Water Pumps)				
	For the category	3.81	72.59%	3.81	69.24%
5	LT-PL / Public Lighting				
	Public Lighting	4.20	79.88%	4.20	76.35%
6	LT-Public Water Works				
	For the category	3.80	72.51%	3.80	69.16%
7	HT				
A	HTC General Industrial / Motive Power 11KV or 66KV having CMD above 100KVA				

Sr. No.	Category / Consumption Slab	Average Revenue Realization for FY 2015-16 (Existing Tariff)	Average Revenue Realization as a percentage of ACOS for FY 2015-16 (Existing tariff)	Average Revenue Realization for FY 2016-17 (Approved tariff)	Average Revenue Realization as a percentage of ACOS for FY 2016-17 (Approved tariff)
	For all units	5.40	101.82%	5.40	98.20%
B	HT Industrial (Ferro Metallurgical / Steel Melting / Steel Rerolling Power Intensive)				
	For all units	5.35	100.72%	5.14	93.38%
8	Hoardings / Sign Boards				
	For all units				

** Average Revenue Realization is defined as the revenue for the category divided by the sales for the category i.e. it is inclusive of both the fixed charges and the variable charges.

6.5.Revenue from Approved Retail Tariff for FY 2016-17

The Commission has estimated open access income based on open access charge as approved by the Commission in this Tariff Order. The Commission based on approved retail tariff for FY 2016-17 and approved sales, number of consumers and connected load as discussed in the previous chapter has calculated the revenue as follows:

Table 6-4: Revenue from Approved Retail Tariff for FY 2016-17 to FY 2018-19 (Rs Crores)

S. No.	Category / Consumption Slab	Revised Revenue for FY 2016-17
A	Domestic	25.83
1	0-50 units	0.02
2	51-200 units	2.53
3	201 - 400 units	4.33
4	401 and above	18.93
5	Low Income Group (LIG)	0.01
B	Commercial	15.90
1	1- 100 units	5.16
2	101 and above units	10.75
C	Agriculture	0.20
1	Up to 10 HP	0.12
2	Above 10 HP	0.08
D	LTP Industry	63.30
E	Public Lighting	4.67
F	Public Water Works	1.46
G	HT	782.17
1	Up to 66 kV	555.98
2	HT Ferro	226.19
H	Hoardings/ Signboards	-
I	Temporary	-
J	Total Revenue from Retail Sale of Power	893.52
K	Open Access Income	11.49
L	Total Revenue from Retail Sale of Power	905.02

The Commission considers revenue from revised retail tariff (including open access income) of Rs 905.02 Crores as reasonable and approves the same for the FY 2016-17.

6.6.Revised Revenue Gap/ (Surplus) till FY 2016-17

The Commission in the foregoing paragraphs has estimated Rs 913.56 Crores as revenue from existing retail tariff including open access income. Further, the Commission has revised the tariff which leads to a revenue from revised retail tariff including open access income of Rs 905.02 Crores. As a result, revenue from retail tariff including open access income has reduced by Rs 8.54 Crores. The Commission hereby approves revised revenue gap/ (surplus) of Rs (41.94) Crores (Rs 50.48 Crores – 8.54 Crores) due to reduction in revenue from revised tariff for FY 2016-17.

6.7.Applicability of Time of Day (TOD) tariff

Petitioner's submission

For the purpose of TOD tariff, the peak/off-peak/normal hours and charges for the corresponding period shall be as under:

Time of use	Demand Charges	Energy Charges
Normal period (6:00 a.m. to 6:00 p.m)	Normal Rate	Normal rate of energy charges
Evening peak load period (6:00 p.m to 10.00 p.m)	Normal Rate	130% of normal rate of energy charges
Off-peak load period (10:00 p.m to 6:00 a.m)	Normal Rate	85% of normal rate of energy charges

Commission's analysis

The Commission is of the view that TOD tariff helps in better demand side management. For the purpose of TOD tariff to all the HT consumers and LT industrial consumers (Above 20 HP), the peak/off-peak/normal hours and charges for the corresponding period shall be as under:

Time of use	Demand Charges	Energy Charges
Normal period (6:00 a.m. to 6:00 p.m)	Normal Rate	Normal rate of energy charges
Evening peak load period (6:00 p.m to 10.00 p.m)	Normal Rate	120% of normal rate of energy charges
Off-peak load period (10:00 p.m to 6:00 a.m)	Normal Rate	90% of normal rate of energy charges

6.8. Tariff Initiatives:

Promotion of Solar Energy

Petitioner's submission

With the aim of promoting solar energy in the UT of Daman and Diu and also to meet its RPO as mandated by the Hon'ble Commission, the Petitioner proposes that all the HT consumers in the UT of Daman and Diu shall also meet the RPO in proportion to their yearly energy consumption based on the RPO targets as mandated in the JERC (Procurement of Renewable Energy) First Amendment Regulations 2014. The RPO target is 3.95% for FY 2016-17, 4.30% for FY 2017-18 and 4.65% for FY 2018-19 as per the mentioned JERC Regulations.

Commission's view:

As per the JERC (Procurement of Renewable Energy) First Amendment Regulations 2014, the obliged entity is the licensee and open access consumers only.

7. Tariff Schedule

7.1. Tariff Schedule

Sr. No.	CATEGORY	FIXED CHARGES PER CONNECTED LOAD OR PART THEREOF PER MONTH	ENERGY CHARGES (Rs./kWh)
1.	DOMESTIC		
i	0-50 units	Rs/Consumer/Month Single Phase: Rs 20 Three Phase: Rs 45	1.20
ii	51-200 units		1.80
iii	201-400 units		2.20
iv	401 and above		2.55
v	Low Income Group (Up to 2x40 W bulbs only)	Power supply to low income group connections will be charged at Rs.10 per service connection per month For any unauthorized increase in the load beyond 2*40 watts, penal charges at the rate of Rs.20 per month per point will be levied and the installation will be liable for disconnection.	
2.	COMMERCIAL		
i	1-100 units	Rs/Consumer/Month Single Phase: Rs 25 Three Phase: Rs 50	2.65
ii	101 units and above		3.65
3.	LT INDUSTRIAL		
i	LTP Motive Power (for all units)	Rs.25.00/- per HP or part thereof	3.50
ii	LT Public Water Works (For all units)		3.70

Power Factor Charges:

Any motive power connection above 3 HP running without proper capacitors installed so as to maintain Power Factor 0.90 as per the Commission's Regulation 11/2010 shall be charged extra 2.5 % of units consumed as additional power factor charges. Payment of the power factor charge won't exempt the consumer from his responsibility to maintain the power factor. In case of abnormal power factor decrease, the department will give the consumer 15 days' time to install appropriate capacitors and maintain the standard power factor. If the consumer is not able to rectify the problem within the notice time, the connection will be liable for disconnection. ED-DD reserves the right to install a suitable capacitor at its own cost and recover the cost thereof as arrears of energy charges. In case the monthly average power factor is less than 0.70 lagging, the installation is liable for disconnection after due notice.

Sr. No.	CATEGORY	FIXED CHARGES PER CONNECTED LOAD OR PART THEREOF PER MONTH	ENERGY CHARGES (Rs./kWh)
4.	HT/EHT		
i	High Tension Consumer (For all units)	Rs.105.00/kVA/month or part thereof	4.70
ii	HT Industrial (Ferro Metallurgical/ Steel Melting/ Steel Rerolling/Power Intensive (For all units)	Rs.275.00/- per kVA per month	4.55

1. Penalty Charges: Twice the applicable charges.

- a) Penalty charges will be levied on those units which are drawn beyond the contract demand. These units will be worked out on pro-rata basis co-relating the total consumption of the month with billing demand.
b) If Industries are overdrawing power by more than 20% of the Contract Demand, their electricity connection will be disconnected immediately.

2. Power Factor Charges

- (a) The monthly average power factor of the supply shall be maintained by the consumer not less than 0.90 (lagging). If the monthly average power factor of a consumer falls below 90% (0.9 lagging), such consumer shall pay a surcharge in addition to his normal tariff @ 1% on billed demand and energy charges for each fall of 0.01 in power factor up to 0.7 (lagging).
(b) In case the monthly average power factor of the consumer is more than 95% (0.95 lagging), a power factor incentive @ 1.00% on demand and energy charges shall be given for each increase of 0.01 in power factor above 0.95 (lagging).
(c) If the average power factor falls below 0.70 (lagging) consecutively for 3 months, the licensee reserves the right to disconnect the consumer's service connection without prejudice for the levy of the surcharge.
(d) The power factor shall be rounded off to two decimal places. For example, 0.944 shall be treated as 0.94 and 0.946 shall be treated as 0.95

3. Billing Demand

Billing demand will be the highest among the following:

- (a) 100 kVA
(b) 75% of the Contract demand
(c) Actual Demand Established

5.	AGRICULTURE		
i	For sanctioned load up to 10 HP	-	0.70
ii	Beyond 10 HP and up to 99 HP sanctioned load	-	1.00

1. Power Factor Charges

Any motive power connection above 3 HP running without proper capacitors installed so as to maintain Power Factor 0.90 as per the Commission's Regulation 11/2010 shall be charged extra 2.5% of units consumed as additional power factor charges. Payment of the power factor charge won't exempt the consumer from his responsibility to maintain the power factor. In case of abnormal power factor decrease, the department will give the consumer 15 days' time to install appropriate capacitors and maintain the standard power factor. If the consumer is not able to rectify the problem within the notice time, the connection will be liable for disconnection.

Sr. No.	CATEGORY	FIXED CHARGES PER CONNECTED LOAD OR PART THEREOF PER MONTH	ENERGY CHARGES (Rs./kWh)
ED-DD reserves the right to install a suitable capacitor at its own cost and recover the cost thereof as arrears of energy charges. In case the monthly average power factor is less than 0.70 lagging, the installation is liable for disconnection after due notice.			
6.	PUBLIC LIGHTING		
i	For all units	-	4.20
7.	HOARDINGS/SIGNBOARDS		
i	Hoarding/Signboards	Rs.100 per kVA per Month or part thereof	7.00
8.	Temporary Supply		
<p>Tariff for Temporary Connection shall be Fixed/ Demand charges (if any) plus energy charges (for relevant slab, if any) under corresponding permanent supply category plus 50% of both.</p> <p>For multi activity pursuit, applicable tariff for temporary connection shall be with reference to that of non-domestic category for permanent supply.</p> <p>The Temporary Tariff are applicable for temporary period of supply up to 1 (one) month, which can be extended for another period of supply up to a maximum period of 2 years.</p>			

7.2.Schedule of Other Charges:

7.2.1. Meter Rent

Sr. No.	Meter Type	Tariff (in Rs.) / Month or part thereof
1.	Single Phase	Rs.10 per month or part thereof
2.	Three Phase	Rs.25 per month or part thereof
3.	LT Meter with MD indicator	Rs.200 per month or part thereof
4.	Tri- vector Meter	Rs.500 per month or part thereof

Note: The type of meters to be installed in consumer premises will be decided by the department. Generally the consumers having connected load above 50 HP will be provided with L.T.M.D meters.

7.2.2. Reconnection Charges

Sr. No.	Connection Type	Tariff (in Rs.)
1.	Single Phase LT	Rs.50
2.	Three Phase LT	Rs.100
3.	HT	Rs.1000

7.2.3. Service Connection Charges

Sr. No.	Connection	Tariff (in Rs.)
1.	Single Phase LT	Rs.250
2.	Three Phase LT	Rs.1000
3.	HT (First 500 KVA)	Rs.10000
4.	HT (Beyond 500 KVA)	Rs.1000 per 100 KVA or part thereof

7.2.4. Extra Length Charges

Sr. No.	Connection	Tariff / Meter (in Rs.)
1.	Single Phase	Rs.25/meter
2.	Three Phase	Rs.50/meter

Extra length chargeable will be beyond the permissible 30 meters free length from existing network for new connections for all categories except agriculture. Free length in respect of new agriculture consumer is 300 meters.

7.2.5. Cost of HT Connection

Entire Cost of setting up HT connection would be borne by the consumer and the agreement period would be two years for the category. 15% supervision charges shall be recovered by ED-DD.

7.2.6. Service connection charges for- Under Ground Lines

1. Single phase consumers
 - a. Area outside municipal limit - Full cost plus 15% supervision charges
 - b. Area within municipal limit - Rs. 150/- plus Rs. 40/- per meter beyond 30 meters
2. Three phase consumers
 - a. Area outside municipal limit - Full cost plus 15 % supervision charges
 - b. Area within municipal limit - Rs. 550/- plus Rs. 60 /- per meter beyond 30 meters

3. In case of all the connections (both industrial and non-industrial) U/G service cable and metering system approved by the Department will have to be provided by the consumer at his own cost.

7.2.7. Testing Fee for various Metering Equipment

Sr. No.	Types of Metering Equipment	Fee Per Unit (in Rs.)
1.	Single Phase	100
2.	Three Phase	300
3.	Three Phase Tri-vector Meter (0.5 Class) Industrial LT Consumer	500
4.	Three Phase Tri-vector Meter (0.5 Class) 11 kV HT Consumer	500
5.	Three Phase Tri-vector Meter (0.2 Class) 66KV EHT Consumers	1000
6.	Combined CTPT Unit for 11 KV Consumer	500
7.	66 KV C T / PT Unit	500
8.	Three Phase CT Block	300
9.	CT Coil	100

7.2.8. Fees (Non-refundable) for submission of Test Report of wiring Completion

Sr. No.	Types of Connection	Fee Per Test Report (in Rs.)
1.	Single Phase Lighting / Domestic	10
2.	Three Phase Lighting / Domestic	25
3.	Single Phase Lighting / Non Domestic	50
4.	Three Phase Lighting / Non Domestic	100
5.	Three Phase LT Industries	250
6.	Single Phase / Three phase Agriculture / Streetlight / Public Lighting & others	50
7.	HT Industries upto 500 KVA	1000
8.	HT Industries upto 2500 KVA	5000
9.	HT Industries above 2500 KVA	10000

7.3.Applicability

Category	Applicability	Point of Supply/Notes
1. Domestic	This schedule shall apply to Private Houses, Hostels, hospitals run on Non-Commercial Lines, Charitable, Educational and Religious Institutions for Light, Fans, Radios, domestic heating and other	

Category	Applicability	Point of Supply/Notes
	household appliances including water pumps up to 2 HP.	
2. Commercial	This schedule shall apply for Shops, Offices, Restaurants, Bus Stations, Photo Studios, Laundries, Cinema Theatres, Industrial Lighting, clubs and other Commercial installations.	This includes all categories which are not covered by other tariff categories including Domestic Category, Low Income Group, Industrial LT, HT/EHT Category (A&B), Agriculture and Poultry, Public Lighting.
3. LT Industrial	This schedule shall apply to all Low Tension Industrial Motive Power Connections including water pumps with sanctioned load up to 99 HP.	
4. LT Public Water Works		
5. HT Consumers	This schedule shall apply to all Industrial/Motive power consumers drawing through 11 kV and 66 kV systems having contract demand of 100 kVA and above.	
6. HT Industrial (Ferro Metallurgical/ Steel Melting/ Steel Rerolling/Power Intensive (For all units))		
7. Agriculture	This schedule shall apply to agriculture or poultry loads up to 99 HP sanctioned load will be considered in this category.	
8. Public Lighting		
9. Hoardings / Signboards	This schedule shall apply for supply of Electricity for lighting external advertisements, external hoardings	

Category	Applicability	Point of Supply/Notes
	and displays at departments stores, malls, multiplexes, theatres, clubs, hotels, bus shelters, Railway Stations shall be separately metered and charged at the tariff applicable for "Advertisements and Hoardings" category, except such displays which are for the purpose of indicating / displaying the name and other details of the shop, commercial premises itself. Such use of electricity shall be covered under the prevailing tariff for such shops or commercial premises. The connection for "Advertisements and Hoardings" category would be covered under the permanent supply of connection.	
10. Temporary Supply	The Temporary Tariff are applicable for temporary period of supply up to 1 (one) month, which can be extended for another period of supply up to a maximum period of 2 years.	

7.4.General Terms and Conditions

1. The tariffs are exclusive of electricity duty, taxes and other charges levied by the Government or other competent authority from time to time which are payable by the consumers in addition to the charges levied as per the tariffs.
2. Unless otherwise agreed to, these tariffs for power supply are applicable for supply at one point only.
3. Supply to consumers having contracted load between 100 KVA to 4000 KVA (including licensee common feeders and express feeders/dedicated feeders) shall generally be at 11 KV and for more than 4000 KVA up to 25000 KVA at 66 KV. The consumer who requires load more than 25000 KVA load, the supply voltage shall be at 220 KV level.
4. If energy supplied for a specific purpose under a particular tariff is used for a different purpose, not contemplated in the contract for supply and/or for which higher tariff is applicable, it will be deemed as unauthorized use of electricity and shall be dealt with for assessment under the provisions of Section 126 of the Electricity Act, 2003 & Supply Code Regulation notified by JERC.

5. If connected load of a domestic category is found to be at variance from the sanctioned/contracted load as a result of replacement of appliances such as lamps, fans, fuses, switches, low voltage domestic appliances, fittings, it shall not fall under Section 126 and Section 135 of the EA 2003.
6. If the consumer fails to pay the energy bill presented to him by the due date, the Department shall have the right to disconnect the supply after giving 15 days' notice as per provision of the Act & Supply Code Regulation.
7. Fixed charges, wherever applicable, will be charged on pro-rata basis from the date of release of connection. Fixed charges, wherever applicable, will be double as and when bi-monthly billing is carried out. Similarly, slabs of energy consumption will also be considered accordingly in case of bi-monthly billing.
8. The billing in case of HT/EHT 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 rate. The definition of the maximum demand would be in accordance with the provisions of the Supply Code Regulation. If such over-drawal is more than 20% of the contract demand then the connections shall be disconnected immediately.

Explanation: Assuming the contract demand as 100 KVA, maximum demand at 120 KVA and total energy consumption as 12000 kWh, then the consumption corresponding to the contract demand will be 10000 kWh ($12000 \times 100 / 120$) and consumption corresponding to the excess demand will be 2000 kWh. This excess demand of 20 KVA and excess consumption of 2000 kWh will be billed at twice the respective normal rate. Such connections drawing more than 120 kVA, shall be disconnected immediately.

9. Unless specifically stated to the contrary, the figures of energy charges relates to paisa per unit (kWh) charge for energy consumed during the month.
10. Delayed payment surcharge shall be applicable to all categories of consumers. Delayed payment surcharge of 2% per month or part thereof shall be levied on all arrears of bills. Such surcharge shall be rounded off to the nearest multiple of one rupee. Amount less than 50 paisa shall be ignored and amount of 50 paisa or more shall be rounded off to next rupee. In case of permanent disconnection, delayed payment surcharge shall be charged only up to the month of permanent disconnection.
11. **Advance Payment Rebate:** If payment is made in advance well before commencement of consumption period for which bill is prepared, a rebate @ 1% per month shall be given on the amount (excluding security deposit) which remains with the licensee at

the end of the month. Such rebate, after adjusting any amount payable to the licensee, shall be credited to the account of the consumer.

12. **Prompt Payment Rebate:** If payment is made at least 7 days in advance of the due date of payment, a rebate for prompt payment @ 0.25 % of the bill amount shall be given. Those consumers having arrears shall not be entitled for such rebate.
13. **TOD tariff:** For the purpose of TOD tariff, the peak/off-peak/normal hours and charges for the corresponding period shall be as under:

Time of use	Demand Charges	Energy Charges
Normal period (6:00 a.m. to 6:00 p.m)	Normal Rate	Normal rate of energy charges
Evening peak load period (6:00 p.m to 10.00 p.m)	Normal Rate	120% of normal rate of energy charges
Off-peak load period (10:00 p.m to 6:00 a.m)	Normal Rate	90% of normal rate of energy charges

14. The adjustment on account of Fuel and Power Purchase Cost variation shall be calculated in accordance with FPPCA formula separately notified by the Commission under the Regulation. Such charges shall be recovered/refunded in accordance with the terms and conditions specified in the FPPCA formula.
15. The values of the 'K' factor applicable for the different consumer categories for use in the FPPCA formula shall be as specified in this Tariff Order for FY 2016-17.

8. Open Access Charges for FY 2016-17

8.1. Allocation Matrix - Allocation of ARR into Wheeling and Retail Supply of Electricity

The Commission in order to facilitate open access has approved the Open Access Charges for FY 2016-17. It is seen from the Petitioner's submission that the Transmission and Distribution business has not been segregated and ED-DD continues to function as an integrated utility. The Commission has considered the fact that the expenses of the utility are consolidated and has therefore considered "NIL" transmission charges for the open access consumers in the UT.

8.2. Allocation Matrix

Petitioner Submission:

The Petitioner has submitted the allocation of ARR into wheeling and Retail Supply of Electricity as approved in the ARR of FY 2015-16 in Tariff Order 01st April 2015.

Commission Analysis:

The Commission feels that there has to be proper bifurcation of all expenses pertaining to the Petitioner between functions of wheeling business (wire business) and retail supply business. The Commission has considered it prudent to consider the allocation matrix for bifurcation of wheeling and retail ARR as proposed by the Petitioner and approved by the Commission in Tariff Order for FY 2015-16 dated 31st March 2015. The allocation between wheeling and retail supply business for FY 2016-17 as per the ARR approved in this order is provided in the Table below:

Table 8-1: Allocation of ARR between Wheeling and Retail as approved by the Commission (Rs Crores)

Sr. No.	Particulars	Allocation (%)		FY 2016-17		
		Wheeling	Supply	Wheeling	Supply	Total
1	Cost of power purchase for full year	0%	100%	-	964.22	964.22
2	Provision for RPO Compliance	0%	100%	-	-	-
3	Employee costs	70%	30%	7.83	3.36	11.19
4	Administration and General Expenses	90%	10%	4.49	0.50	4.99
5	Repair and Maintenance Expenses	50%	50%	5.99	5.99	11.98
6	Depreciation	90%	10%	19.52	2.17	21.69
7	Interest and Finance charges	90%	10%	12.06	1.34	13.40
8	Interest on Security Deposit & Interest on Working Capital	22%	78%	1.31	4.63	5.94
9	Return on NFA /Equity	90%	10%	7.20	0.80	8.00
10	Provision for Bad Debt	0%	100%	-	-	-
11	Total Revenue Requirement			58.40	983.00	1,041.40
12	Less: Non Tariff Income	0%	100%	-	19.97	19.97
13	Less: Revenue from Surplus Power Sale/UI/Exchange	0%	100%	-	30.97	30.97
14	Net Revenue Requirement			58.40	932.06	990.46

8.3.Voltage Wise Wheeling Charges

Petitioner Submission:

The Petitioner has considered the voltage wise losses for FY 2016-17 as considered by the Hon'ble Commission in its Tariff Order for FY 2015-16 dated 01st April 2015 and have arrived at a wheeling charge of Rs 0.31/kWh for FY 2016-17.

Commission Analysis:

The Commission opines that in the absence of the details of bifurcation of assets and expenses, it has decided to continue the determination of wheeling charges for HT/EHT and LT level. Accordingly, the total approved wheeling ARR is bifurcated between HT/EHT level and LT level based on the sales and losses. The Commission has considered the losses at the HT and EHT level at 2.86% for FY 2016-17 as per the Energy Audit Report for FY 2014-15.

To arrive at the network usage, the input energy at each level has been arrived as shown in the Table below:

Table 8-2: Determination of input energy for network usage percentage

Sr. No	Particulars	UoM	Amount
1	Sales at 11 kV and above (HT/EHT Level)	MU	1,469.52
2	Losses in % for HT/EHT Network	%	2.86%
3	Input required for sales at 11 kV & above	MU	1,512.79
4	Projected total input	MU	2,088.49
5	Projection of HT/EHT network usage	%	72.43%
6	Balance proportion of LT network usage	%	27.57%

Accordingly the wheeling cost has been considered in the ratio of 72.43: 27.57 and the wheeling charge so arrived has been shown in the table below:

Table 8-3: Wheeling Charge Approved for FY 2016-17

Sr. No	Particulars	UoM	Formulae	Amount
1	Wheeling Cost	Rs Crores	A	58.40
2	Wheeling Cost for HT/EHT network	Rs Crores	B=A*72.43%	42.30
3	Input required for sales at 11 kV & above	MU	C	1,512.79
4	Wheeling charges for HT/EHT network usage	Rs/kWh	D=B/C*10	0.28
5	Wheeling cost for LT network	Rs Crores	E=A*27.57%	16.10
6	Input required for sales at LT level	MU	F	559.23
7	Wheeling charges for LT network usage	Rs/kWh	G=E/F*10	0.29

Accordingly, the Commission hereby approves wheeling charge for HT/EHT category as Rs 0.28/kWh and for LT category as Rs 0.29/kWh for FY 2016-17.

8.4. Cross-Subsidy Surcharge

The Government of India has notified the National Tariff Policy, 2016 on 28th January 2016. The Cross subsidy surcharge is based on the following formula given in the Tariff Policy, 2016 as below:

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

Where,

S is the surcharge

T is the tariff payable by the relevant category of consumers, including reflecting the Renewable Purchase Obligation;

C is the per unit weighted average cost of power purchase by the Licensee, including meeting the Renewable Purchase Obligation;

D is the aggregate of transmission, distribution and wheeling charge applicable to the relevant voltage level

L is the aggregate of transmission, distribution and commercial losses, expressed as a percentage applicable to the relevant voltage level

R is the per unit cost of carrying regulatory assets.

The Computation of cross subsidy surcharge for EHT/HT consumers getting supply above 11 KV voltage level is given below.

The cross subsidy surcharge shall be taken as 'NIL' if negative. The calculation of cross-subsidy surcharge is given below:

Table 8-4: Calculation of "T" Approved for FY 2016-17

Particular	Sale (MU)	Revenue from approved tariff (Rs Crores)	Average Tariff (Rs/kWh)
T	1,469.52	782.17	5.32

Table 8-5: Calculation of "C" Approved for FY 2016-17

Particulars	Quantum (MU)	Rs Crores	Rs/kWh
Power purchase at generator end excluding open access purchase	2,167.83	964.22	4.45
Less: Interstate Losses	79.34		
Total power purchase for Distribution Licensee - C	2,088.49	964.22	4.62

Table 8-6: Cross-Subsidy Surcharge Approved for FY 2016-17

Cross Subsidy Surcharge	UoM	HT & EHT Industry
T	Rs. per kwh	5.32
C	Rs. per kwh	4.62
D	Rs. per kwh	0.28
L	%	2.86%
R	Rs. per kwh	0
Surcharge	Rs. per kwh	0.42

Accordingly, the Commission hereby approves cross subsidy surcharge of Rs 0.42/kWh for FY 2016-17.

8.5.Application and Agreement Fees

The application and agreement fees are approved as Rs. 5000/- and Rs. 50,000/- respectively.

9. Directives

9.1. Liable for action under Section 142 of the Electricity Act 2003 and various provisions of applicable Regulations in case of further non-compliance of directives as listed below:

While examining the compliance note and supporting documents submitted by the Petitioner in the present Petition, it has been observed that some of the directives issued in previous Tariff Orders have not been fully complied with by the Petitioner.

The Commission is of view that substantial time has already been given to the utility for compliance of these directions. Thus, the Commission hereby directs the utility to comply with the directions given below in the timeframe failing which the Commission will be forced to take appropriate action under various provisions of the Electricity Act 2003 and Regulations framed by JERC.

9.1.1. Management Information System

The Petitioner is directed to submit the quarterly reports in the RIMS formats specified by CERC for the implemented computerized system.

Reference Order/ Petitions	Petitioner Submission	Commission Analysis
Compliance/Action taken by the Petitioner and the Commission's comments as per Tariff Order dated March 22nd 2013	ED-DD had submitted that RACE (Revenue Administration through Computerized Energy Billing System) is running and is being upgraded for all consumers and necessary changes in report generation are also in progress. Simultaneously, the study of preparation of report in the format of RIMS is under progress	Action taken is noted and the Petitioner is directed to submit the status report and progress of the said facility. The submission should be ensured before the next ARR filing.

	and is expected to be completed in this financial year	
Compliance/Action taken by the Petitioner and the Commission's comments as per Tariff Order dated 1st May, 2014	ED-DD has submitted that integration and validation of the reports in the RIMS format with RACE (Revenue Administration through Computerized Energy Billing System) is under progress and the report would be submitted to the Commission by the end of FY 2013-14.	The pending submission should be ensured as per the date committed by the Petitioner.
Compliance/Action Taken by the Petitioner and the Commission's comments as per Tariff Order dated 31st March, 2015	The ED-DD would like to submit that the integration and validation of the reports in the RIMS format with RACE (Revenue Administration through Computerized Energy Billing System) has been done and the said facility is running online.	Action taken is noted. A copy of the latest report prepared the RIMS format with RACE (Revenue Administration through Computerized Energy Billing System) may be submitted for perusal of the Commission.
Present Petition	A copy of the latest report prepared in the RIMS format with RACE (Revenue Administration through Computerized Energy Billing System) is being enclosed along with this Petition as Annexure	The Petitioner hasn't submitted the Annexure. A copy of the latest report prepared in the RIMS format with RACE (Revenue Administration through Computerized Energy Billing System) shall be submitted by 30 th June 2016 failing which the Commission will be constrained to take appropriate action under various provisions of Electricity Act 2003 and Regulations framed by

		JERC.
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9.1.2. Demand Side Management and Energy Conservation

Even after 8 months as directed earlier by the Commission, the utility is still in the process of sharing the scope of work and not the result of the study for implementation of DSM activities in D&D. The Commission directs that the process of completion of the study be expedited and the same shall be submitted to the Commission by November 30' 2012.

Reference Order/ Petitions	Petitioner Submission	Commission Analysis
Compliance/Action taken by the Petitioner and the Commission's comments as per Tariff Order dated March 22nd 2013	ED-DD had submitted that studies are being carried out for implementation of the various Demand Side Management (DSM) activities in the UT of Daman & Diu. The final study report of the consultant on DSM implementation shall be submitted to the Commission in this financial year.	Action taken is noted. The pending submission should be made before the next ARR filing.
Compliance/Action Taken by the Petitioner and the Commission's comments as per Tariff Order dated 1st May, 2014	The final study report of the consultant on DSM implementation has been enclosed along with this submission as Annexure I.	The Commission has noted the compliance of the directive by the Petitioner. The Commission finds that no concrete proposal as regards to the DSM implementation has been given in the report. The Commission directs the Petitioner to submit concrete proposals with specific schemes along with timeline and funding sources by

		September 30' 2014.
Compliance/Action taken by the Petitioner and the Commission's comments as per Tariff Order dated 31st March, 2015	The EDDD would like to submit that a comprehensive scheme for DSM is under preparation and will be submitted shortly to the Hon'ble Commission.	The comprehensive scheme for DSM shall cover the LED lighting, demand response and peak load shavings etc. and the same should be submitted positively by 30th June, 2015.
Present Petition	The EDDD would like to submit that a comprehensive scheme for DSM shall cover the LED lighting, demand response and peak load shavings etc. is under preparation and shall be submitted to the Hon'ble Commission shortly.	The Petitioner is directed to submit the details by 30 th September 2016 failing which the Commission will be constrained to take appropriate action under various provisions of Electricity Act 2003 and Regulations framed by JERC.

9.1.3. Enforcement Cell

The Petitioner is directed to submit the status of the functioning of enforcement cell and quarterly progress report detailing number of cases, amount involved sub-judice cases, and reduction in losses as a consequence. The 1st status report for FY 2011-12, first half of FY 2012-13 i.e. April to September 2012 is to be submitted in the ARR filing for FY 2013-14.		
Reference Order/ Petitions	Petitioner Submission	Commission Analysis
Compliance / Action Taken by the Petitioner and the Commission's comments as per Tariff Order dated March 22nd 2013	It is submitted that the Electricity Department Daman & Diu has a separate section headed by Assistant Engineer for Vigilance to conduct vigilance check on all category of consumers. The 1st status report for	Action taken is noted. The Commission directs that the process of completion of the study be expedited and the same be submitted to the Commission by September 2013.

	first half of FY 2012-13 i.e. April to September 2012 will be submitted to the Hon'ble Commission shortly.	
Compliance/Action taken by the Petitioner and the Commission's comments as per Tariff Order dated 1st May, 2014	ED-DD has submitted that the report is still with the vigilance department and is being compiled by them. Once it is finalized by the vigilance department and submitted to ED - DD, it will be validated and submitted to the Commission by the end of FY 2013-14.	The submission of the Petitioner is noted. The submission of the report should be ensured as per the time-line committed by the Petitioner.
Compliance/Action taken by the Petitioner and the Commission's comments as per Tariff Order dated 31st March, 2015	The 1st quarter progress report from vigilance department is submitted.	The Compliance of the Petitioner is noted. The Petitioner is directed to ensure submission of the reports on half yearly basis as already directed.
Present Petition	No Response Submitted	The Petitioner is directed to ensure submission of the reports on half yearly basis as already directed by 30 th September 2016 failing which the Commission will be constrained to take appropriate action under various provisions of Electricity Act 2003 and Regulations framed by JERC.

9.1.4. Roadmap for reduction in cross-subsidy

The Petitioner is directed to propose a road map for an increase in the tariff rate which progressively reduces the gap between per unit tariff and the average cost of supply over a period of 5 years in two phases i.e. first 3 years from FY 2013-14, FY 2014-15 and FY

2015-16, a review thereafter and further reduction during FY 2016-17 and FY 2017-18.

Reference Order/ Petitions	Petitioner Submission	Commission Analysis
Compliance/Action taken by the Petitioner and the Commission's comments as per Tariff Order dated March 22nd 2013	‘The EDDD is pursuing the matter with the Administration of the UT of Daman & Diu and a letter written to the Administration for the same is being enclosed along with this Petition as Annexure V’	Action taken is noted. Persistent efforts should be made by the Petitioner to formulate the proposed road map for reduction of cross-subsidy and submit the same to the Commission keeping in view the demographics and the consumer-mix of the licensee.
Compliance/Action taken by the Petitioner and the Commission's comments as per Tariff Order dated 1st May, 2014	Not submitted.	The Petitioner has not submitted the road-map for reduction of cross-subsidy. The Commission views it seriously; and directs the Petitioner to submit the report along with the next ARR & tariff filing failing which the Commission shall initiate action as per the Act/Regulation.
Compliance/Action taken by the Petitioner and the Commission's comments as per Tariff Order dated 31st March, 2015	It is submitted that road-map for reduction of cross-subsidy is under preparation and the report will be submitted to the Commission shortly.	The report on the road map for reduction of cross subsidy should be submitted positively by 31st July, 2015.
Present Petition	The EDDD would like to submit that report on the road map for reduction of cross subsidy is under preparation and shall be submitted to the Hon’ble	The Petitioner is directed to submit the report by 30 th September 2016 failing which the Commission will be constrained to take appropriate action under various provisions of Electricity Act 2003 and Regulations framed by JERC.

	Commission shortly.	
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9.2. Directives continued in this Tariff Order

While examining the compliance note and supporting documents submitted by the Petitioner in the present Petition, it has been observed that some of the directives issued in previous tariff orders have not been fully complied with by the Petitioner.

The Commission, considering the constraints/submissions of the Petitioner, is of the view that some of the directions need further action by the Petitioner. Thus, the Commission has decided to continue with the following directives:

9.2.1. Standard of Performance

The Commission has notified the JERC (Standards of Performance) Regulation 2009, wherein the guaranteed and overall standard of performance is prescribed to ensure the quality of supply. The Petitioner is bound to adhere to the Regulations prescribed and impart the stipulated performance standards. The Commission in this regard directs the Petitioner to submit the information regarding the standards of performance achieved for FY 2011 -12 within one month from the issuance of this order. Further, the licensee should ensure timely submission of the information as per the requirements laid down in the JERC (Standards of Performance) Regulation, 2009.

Reference Order/ Petitions	Petitioner Submission	Commission Analysis
Compliance / Action taken by the Petitioner and the Commission's comments as per Tariff Order dated March 22nd 2013	The SOP data up to September, 2012 has been submitted to the Hon'ble Commission and from now onwards the quarterly data as per the requirement will be submitted to the Hon'ble Commission. The EDDD is in the process to develop software for availing the data of each complaint centre and office details on month to month basis.	The submission of the Petitioner is noted. Timely submission as per the requirements laid down in the JERC (Standards of Performance) Regulation, 2009 should be duly adhered to. The process of developing the software for availing the data of each complaint centre and office details should be expedited so that data collection can happen in a timely manner.
Compliance/Action	Not Submitted	The Petitioner has not submitted the

taken by the Petitioner and the Commission's comments as per Tariff Order dated 1st May, 2014		report with the ARR & tariff Petition for FY 2014-15 although the Commission has observed that ED-DD has been submitting it regularly to the Commission. For the next ARR & tariff filing, the submission on the Standard of Performance should be done along with the Petition.
Compliance/Action taken by the Petitioner and the Commission's comments as per Tariff Order dated 31st March, 2015	The ED-DD submitted that the report on Standard of Performance is being regularly submitted to the Commission on a quarterly basis.	The action taken by the Petitioner is noted and is directed to ensure submission of the reports on quarterly basis.
Present Petition	Not Submitted	The Petitioner is directed to ensure submission of the reports on quarterly basis in accordance with the JERC Standard of Performance Regulations, 2015.

9.2.2. Unbundling and Corporatization of Electricity Department as per EA 2003

Reforms in the Energy sector are absolutely necessary to overhaul the energy sector to make it more vibrant and commercially, viable. As part of the reforms envisaged, the state government will have to consider seriously, the huge monopolistic role of government departments in the generation, transmission and distribution of electricity in the state.

The Electricity Department, Daman and Diu, in consultation with the Government of Daman and Diu, should initiate action for unbundling of the Electricity Department into separate Generation, Transmission and Distribution Departments duly corporatizing the same.

The action plan for the same may be submitted to the Commission by 31st December, 2015.

Reference Order/	Petitioner Submission	Commission Analysis
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Petitions		
Present Petition	The EDDD would like to submit to the Hon'ble Commission that the area of the UT and Daman and Diu is very small and the transmission network of the EDDD is also very small. The key function of the EDDD is distribution of electricity in the union territory and hence there is very limited scope and usefulness of unbundling the ED-Daman and Diu.	The Commission directs the Petitioner that reforms in the Energy sector are absolutely necessary to overhaul the energy sector to make it more vibrant and commercially, viable. It should initiate action for unbundling of the Electricity Department into separate Generation, Transmission and Distribution Departments duly Corporatizing the same.

9.2.3. Safety Measures undertaken

The ED-DD is directed to submit a report on the safety measures initiated by it to prevent fatal/ non-fatal accidents for the departmental persons and general public, by 31st July, 2015.

The Petitioner is also directed to submit quarterly reports on departmental/ non departmental, fatal/ non-fatal accidents occurred in the U.T and steps taken to prevent recurrence of the same. The first quarterly report should be submitted by 31st July, 2015.

Reference Order/ Petitions	Petitioner Submission	Commission Analysis
Present Petition	The EDDD would like to submit to the Hon'ble Commission that the department has undertaken the following measures to prevent the fatal/non-fatal	Action taken is noted. Quarterly reports should be submitted to the Commission periodically.

	<p>accidents:</p> <ul style="list-style-type: none">i) Conversion of existing Overhead lines into underground distribution system.ii) Proper guarding of existing overhead lines and proper earthing is provided.iii) Electronic relay are provided at sub-stations for instant tripping of line in case of any fault.iv) Safety belts, hand gloves, earthing rods, helmets etc. are provided to the department persons working on distribution lines.v) All the linemen of the Department are being given regular training on the safety aspects to prevent fatal/non-fatal accidents. <p>The quarterly reports on departmental/ non departmental, fatal/ non-fatal accidents occurred in the U.T shall be submitted to the Hon'ble Commission</p>	
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	shortly.	
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9.2.4. Renewable Purchase Obligation (RPO)

The Commission has taken note of the submission of the Petitioner regarding steps being taken to fulfil the RPO and appreciates efforts being made to fulfil the RPO. The Commission expects that the Petitioner would give priority to obtaining the physical solar and non-solar power. Further, actual compliance would be reviewed at the time of true-up of the respective years and all pending RPOs up-to FY 2014-15 (based on actual) must be accounted for while submitting the data for FY 2015-16. Supporting details such as purchase of RECs, bills from solar/non-solar plants for the respective years must be duly submitted along with the MYT filing.

The Commission, directs, that all pending RPO's up-to FY 2015-16 must be fulfilled by 31st March 2016 and no backlog would be allowed to be carried forward to the control period FY 2016-17 to FY 2018-19.

Reference Order/ Petitions	Petitioner Submission	Commission Analysis
Present Petition	The EDDD would like to submit to the Hon'ble Commission that the 1MW plant at Daman and 3MW plant in Diu have been commissioned. The 6 MW plant at Diu will be commissioned by March, 2016 and the 4 MW plant at Daman is likely to be commissioned by the end of FY 2016-17. The quarterly report of solar power generation of roof top and ground mounted is being submitted to Hon'ble	Action taken is noted. The Petitioner is directed to submit the further compliance this directive i.e. fulfillment of RPO up to FY 2015-16 by 30 th June 2016.

	Commission regularly.	
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9.2.5. Billing and Collection Efficiency

The Commission has noted in the submission of the Petitioner that the actual collection efficiency for FY 2012-13 is 88.56% and for FY 2013-14 is 92.68%. Such collection figures are very low and The Commission does not find such low levels of collection as acceptable. Further, the collection efficiency considered by the Petitioner for the control period is in the range of 95-97% which needs improvement as it directly impacts the revenue stream (on cash basis) of the Petitioner.

The Commission gives strict directions to the Petitioner to improve the collection efficiency and recover timely dues from the consumers. Quarterly status-report in this regard should be submitted to the Commission.

The Commission reiterates that its earlier directive on the collection of arrears must be adhered to. The Petitioner must submit quarterly progress report on the status of the collection of arrears along with an action plan for liquidating the same.

Reference Order/ Petitions	Petitioner Submission	Commission Analysis
Present Petition	The EDDD would like to submit that the department will submit the quarterly progress report on the status of the collection of arrears along with an action plan for liquidating the same to the Hon'ble Commission shortly.	Action taken is noted. Quarterly reports should be submitted to the Commission periodically.

9.3.New Directives issued in this Tariff Order

The Commission is of view that with the implementation of MYT regime and changing power sector scenario, there is requirement of issuance of new directions to the Petitioner.

9.3.1. Implementation of Smart Grid

The Petitioner is directed to submit a detailed action plan by 30th September 2016 for roll out of smart grid in Daman and Diu within this MYT Control Period.

9.3.2. Promotion of Solar Generation

The Petitioner is directed to take-up with the Government for formulation of a comprehensive policy for promotion of solar energy in its licensee area especially among the industrial consumers.

9.3.3. Information for determination of Voltage-wise Wheeling Charges

The Petitioner is directed to provide the details of voltage wise assets and expenses along with the allocation methodology if any for the determination of voltage wise wheeling charges in the next tariff petition.

9.4. Directives dropped in this Tariff Order

While examining the compliance note and supporting documents submitted by the Petitioner in the present Petition, it has been observed that the some of the directives issued in previous Tariff Orders are no longer required.

The Commission is of view that since these directions have been complied with satisfactorily, these directions are no longer required in present context and thus required to be dropped or replaced with new directions.

9.4.1. Collection of Arrears

The Petitioner is directed to furnish details of the pending arrears opening balance, liquidation during the year and additions during the year as on 31st March for the years

2007, 2008, 2009, 2010, 2011 and 2012 by end of October 2012.

Reference Order/ Petitions	Petitioner Submission	Commission Analysis
Compliance/Action taken by the Petitioner and the Commission's comments as per Tariff Order dated March 22nd 2013	ED-DD had submitted that the system of billing and collection of receipts was maintained manually and records were not kept as required by the Commission. However, on implementation of RACE, necessary modification has already been done to generate such types of reports for industrial consumers. The total arrears at the end of FY 2011-12 were Rs. 1.93 Crores. For other than industrial consumers, the same modification is being carried out and is under validation and is expected to be completed by the end of financial year.	Action taken is noted and the pending submission should be ensured before the next ARR filing.
Compliance/Action taken by the Petitioner and the Commission's comments as per Tariff Order dated 1st May, 2014	The Petitioner has submitted that the arrears for the HT industrial and LT industrial category stood at Rs. 2.59 Crores and Rs. 3.60 Crores at the end of FY 2012-13.	The submission is noted. The Petitioner is directed that the outstanding arrears must be liquidated at the earliest and quarterly progress be submitted to the Commission by 15 th day of the following month.
Compliance/Action	Information regarding	The action is noted. The quarterly

taken by the Petitioner and the Commission's comments as per Tariff Order dated 31st March, 2015	arrears liquidated during FY 2013-14 and addition during FY 2013-14 is submitted.	reports on the progress of liquidation of arrears should be submitted regularly. The status report as on 31 st March 2015, shall be submitted by 30th June 2015.
Present Petition	The status report as on 31 st March 2015 has been submitted to the Hon'ble Commission on 30.06.2015.	Action taken is noted.

9.4.2. Augmentation of Transmission and Distribution System

Even after 8 months report has not been submitted. The requisite suggestions of the Petitioner and the required capital expenditure of the schemes be put up before the Commission by September 30' 2012 and be included in the next ARR filing of the Petitioner for FY 2013-14.

Reference Order / Petitions	Petitioner Submission	Commission Analysis
Compliance/Action taken by the Petitioner and the Commission's comments as per Tariff Order dated March 22nd 2013	ED-DD had submitted that the Transmission Network Analysis and Recommendation Report for ED-DD has been submitted by Techlabs, New Delhi and enclosed as an annexure.	Action taken is noted. The capital expenditure required should be put up before the next ARR & tariff filing for FY 2013-14.
Compliance/Action taken by the Petitioner and the	ED-DD has submitted that following the recommendation of Techlabs, New Delhi, a few schemes were initiated by the Department to augment the transmission and distribution system.	The submission of the Petitioner as regards the

Commission's comments as per Tariff Order dated 1st May, 2014	The details of the schemes are as given below.			planned capital expenditure schemes to augment the transmission and distribution systems of the utility are noted. The Commission expects that the work on these capital schemes would be completed as per the details/timelines mentioned by the Petitioner in its submission. The Commission further expects that the capital schemes would help bring down the T&D losses further in the utility's territory.	
	S. No.	Name of Scheme	Estimated Amount (Rs. Crs)		Status of work
	1	Establishment of 66/11 KV 2 x 15 MVA Sub-station along with associated line at Bhimpore, Daman	9.98		Work completed
	2	Replacement of Existing ACSR Panther Conductor of 66 KV Magarwada - Kachigam, Magarwada - Varkund line by HI TASCRC Conductor	3.00		Work will be completed during FY 2013-14
3	Establishment of 66/11 KV 2 x 15 MVA Sub-station along with associated line at Zari, Daman	11.77	Work under progress and will be completed during current FY 2013-14		

	4	Augmentation of capacity of 220/66 KV 66 KV S/S at Magarwada by replacing 2x50 MVA Transformer to 1x160 MVA at Daman	3.64	Work under progress and will be completed during current FY 2013-14	
<p>Compliance/Action taken by the Petitioner and the Commission's comments as per Tariff Order dated 31st March, 2015</p>	<p>The existing substation at Dalwara was overloaded, therefore a new 66/11 kVA 2x15 MVA was established at Bhimpore, Daman.</p> <p>The existing 66 kV Magarwada-Kachigam line is being supplemented by the Magarwada-Varkund line by replacing the existing ACSR panther conductor by HI TASCRC conductor.</p> <p>The existing substation at Kachigam was overloaded; therefore a new 66/11 kVA 2x15 MVA substation is being established at Zari, Daman.</p> <p>At the 220/66 KV S/S at Magarwada, the existing 2x50 MVA transformer is being replaced by 1*160 MVA transformer to augment its capacity.</p>			<p>The compliance of the Petitioner is noted. The latest status report as on 31st March 2015 shall be submitted by 30th June</p>	

		2015.
Present Petition	The EDDD would like to submit that the latest status report as on 31 st March, 2015 has been submitted to the Hon'ble Commission on 30 th June 2015.	Action taken is noted.

9.4.3. Online Bill Payment

<p>The facility of online payments may be made more visible in a consumer friendly manner and extra charge (if any) on online payment should be discontinued forthwith. The Petitioner is directed to introduce multiple payment gateways for online collection and status of 'online bill payment facility be submitted by October 31' 2012.</p>		
Reference Order/ Petitions	Petitioner Submission	Commission Analysis
Compliance/Action taken by the Petitioner and the Commission's comments as per Tariff Order dated March 22nd 2013	EDDD would like to submit that facility of payment through debit/credit cards is being implemented with effect from 1st Jan'2013. Further there is no provision of extra charges to be paid to the department for online payment.	The status of the said facility has not been received by the Commission. The progress of the facility of 'online bill payments' as per the earlier directions should be submitted to the Commission by September 2013.
Compliance/Action taken by the Petitioner and the Commission's comments as per Tariff Order dated 1st May, 2014	ED-DD has submitted to the Commission that the facility of payment through debit/credit cards has been implemented with effect from 1st Jan'2013 for all consumer categories. Further, the Department has also come up with independent kiosks at cash collection centers on trial basis to facilitate payment of the electricity bills.	The submission of the Petitioner is noted. The Commission expects that the facility of online payment will work properly in the future.

Compliance/Action taken by the Petitioner and the Commission's comments as per Tariff Order dated 31st March, 2015	It is submitted that the consumers of Daman and Diu are using the online facility to pay their bills.	Action taken is noted.
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9.4.4. Shifting of existing consumers to higher voltage

In compliance of the Hon'ble APTEL judgment 35/2012, as regards the issue of shifting of existing consumers to higher voltage, the Petitioner is directed to provide the following information to the Commission by November 30' 2012.

- a) The Supporting data on the number of existing consumers at 11 kV having contracted demand above 1500 kVA.
- b) Maximum contracted demand sanctioned to the existing consumers as referred in point no. 1 above.
- c) Cost benefit analysis of shifting to higher voltage of the existing consumers as referred to in point no. 1 above.

Reference Order/ Petitions	Petitioner Submission	Commission Analysis
Compliance/Action taken by the Petitioner and the Commission's comments as per Tariff Order dated March 22nd 2013	<p>'The data on the number of existing consumers at 11 kV having contracted demand above 1500 kVA and the contracted demand sanctioned to the existing consumers therein is being enclosed along with this Petition as Annexure VII.</p> <p>Further the EDDD is carrying out the cost benefit analysis of</p>	<p>The submission of the Petitioner is noted and the pending submission should be made to the Commission by September 2013. The Commission observes that the Petitioner has proposed the following in the tariff schedule:</p> <p><i>"Supply to consumers having contracted load between 100 kVA to 4000 kVA will be generally at 11 kV and for more than 4000 kVA at 66 kV. The consumer who requires load more than 25000 kVA, the voltage of supply shall be at 220 kV</i></p>

	<p>shifting the existing consumers at 11 kV having contracted demand above 1500 kVA to higher voltage and will submit the report on the same to the Hon'ble Commission shortly.'</p>	<p>level.”</p> <p>The Commission has noted that the Petitioner has made the above proposal without any supporting cost-benefit analysis as directed earlier by the Commission. In absence of the same, the Commission is constrained to take a view in the matter and has decided to maintain the status-quo. The Commission may take a further view once the compliance is submitted with cost - benefit analysis.</p>
<p>Compliance/Action taken by the Petitioner and the Commission's comments as per Tariff Order dated 1st May, 2014</p>	<p>“The report is being enclosed along with this submission as Annexure V”</p>	<p>The submission of the Petitioner is noted. The Petitioner has submitted the cost- benefit analysis along with the list of existing consumers at 11 kV having contracted demand above 1500 kVA. The Commission observes that the T&D losses of ED-DD for FY 2012-13 are 8.84%, as approved in this tariff order. The Commission is of the view that since the consumers at 11 kV having contracted load above 1500 kVA are very few, the T&D loss would not be affected significantly even if the consumer at 11 kV is supplied at 4000 kVA in place of the existing 1500 kVA.</p> <p>The Commission, accordingly, approves the following to be included in the tariff schedule.</p> <p>“Supply to consumers having contracted load between 100 KVA to 4000 KVA (including licensee common feeders and express feeders/dedicated feeders) shall generally be at 11 KV and for more than 4000 KVA up to 25000</p>

		KVA at 66 KV. The consumer who requires load more than 25000 KVA load, the supply voltage shall be at 220 KV level. However, wherever the existing feeders are required to be augmented, the Electricity Department shall carry out such augmentation by 30th September, 2014.'
Compliance/Action taken by the Petitioner and the Commission's comments as per Tariff Order dated 31st March, 2015	The EDDD submitted that the department has proposed new 66/11 KV substation at Zari and 90% work has been completed. After commissioning of the said 66/11 KV Substation, the load of 66/11 KV Kachigam sub-station will be bifurcated and no major augmentation work will be required. Moreover, after publication of the said condition in the JERC Tariff Order for the FY 2014-15, only 4 nos. of applicants have requested for demand above 1500 KVA and up to 4000 KVA. Among them, 2 nos. of applicant have opted to erect their independent 11 KV feeder. For other, the work of preparation of proposal is under progress and will be	The action taken by the Petitioner is noted. The latest status report of the compliance shall be submitted by 30th September, 2015.

	carried out soon.	
Present Petition	The Petitioner would like to submit to the Hon'ble Commission that the 66 kV Zari S/s has been commissioned and the 11 kV feeders have been bifurcated to balance the load on the feeders. A new 66 kV GIS substation is being proposed at Dabhel check post. The DPR has been prepared and submitted to the CEA for approval. Similarly, a new 66 kV GIS substation is also being proposed at Panchal which will balance the overloaded 11 KV feeder of existing 66 KV Dalwada Substation and cater the future load of Bhimpore and Panchal area.	The action taken by the Petitioner is noted.

9.4.5. RPO – Installation of solar plants at Daman and Diu. - Petitioner's submission

The EDDD has intimated that the department is in the process of installing two solar plants i.e., 1MW plant at Daman and 3MW plant in Diu and the plants are likely to be commissioned by March 2015. Two more solar plants i.e., 6MW solar in Diu and one 4MW solar plant at Daman are likely to be commissioned by end of FY 2015. Further, the department has installed 263 kW capacity solar panels across Daman and Diu and will further augment the capacity by 300 kW by end of FY 2014- 15.

The ED-DD is directed to submit the latest report on installation of solar plants at Daman

and Diu and monthly generation during FY 2014-15.

Reference Order/ Petitions	Petitioner Submission	Commission Analysis
Present Petition	The EDDD would like to submit to the Hon'ble Commission that the 1MW plant at Daman and 3MW plant in Diu have been commissioned. The 6 MW plant at Diu will be commissioned by March, 2016 and the 4 MW plant at Daman is likely to be commissioned by the end of FY 2016-17. The quarterly report of solar power generation of roof top and ground mounted is being submitted to Hon'ble Commission regularly.	The action taken by the Petitioner is noted.

9.4.6. Strengthening of the Consumer Grievance Redressal System

The Commission directs the Petitioner to find a way to dispose all pending applications for ownership of service connections as per the provisions under Section 43 of the Electricity Act, and relevant JERC Regulations, other than the cases pending due to lack of documentary evidence of legal heirs after the death of original owner of the premises.

The Commission also directs the Petitioner to follow the Standards of Performance notified by the Commission strictly and the status report on all new/shifting connection applications pending for more than 45 days, with the reasons for their pendency be submitted to the Commission by 31st July, 2015.

The Petitioner is directed to promote and give publicity to the functioning of the Consumer Grievance Redressal Forum (CGRF), so that consumers can approach CGRF for redressal of

their grievances.

The Commission also directs the Petitioner to publicize the benefit to consumers, highlighting the steps and necessary documents required for redressal of complaints and to initiate action on the following:

- Complaints against fast meters/defective meters
- Application for shifting of electricity connection
- Application for new connection
- Complaints regarding no-supply.
- Any other complaints

The Commission further directs the Petitioner to prepare monthly/ quarterly schedule for visit to different areas i.e. S.D.O., Executive Engineers EDDD to bring in greater efficiency in the working of EDDD and also to hear and settle the public grievances and complaints of the consumers at the spot so that no consumer is forced to visit the main office of the EDDD.

Reference Order/ Petitions	Petitioner Submission	Commission Analysis
Present Petition	The EDDD would like to submit to the Hon'ble Commission that there are 15 complaint centers in Daman and Diu, eight in Daman and seven in Diu. The details of the complaint centers along with the phone no. are uploaded on the website of the department. Further, the name, mobile no. and e-mail Id of the JE in-charge has also been uploaded on toytuhjnm	Action taken is noted. The Commission reiterates to prepare monthly/ quarterly schedule for visit to different areas i.e. S.D.O., Executive Engineers EDDD to bring in greater efficiency in the working of EDDD and also to hear and settle the public grievances and complaints of the consumers at the spot so that no consumer is forced to visit the main office of the EDDD.

	the website. Thus the consumers can contact the complaint center of their area any time to register their complaint with the department.	
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9.4.7. Public Grievance Meetings

The Commission, as earlier directed, reiterates the Petitioner to convene monthly public grievance meetings with the consumers to sort out issues related to the supply of power/electricity/connections by the Department. These meetings shall be held on monthly basis and monthly report in this regard be submitted to the Commission. The Commission insists that the department should sort out the stakeholder grievances in these meetings.

Reference Order/ Petitions	Petitioner Submission	Commission Analysis
Present Petition	The EDDD would like to submit to the Hon'ble Commission that there are 15 complaint centres in Daman and Diu, eight in Daman and seven in Diu. The details of the complaint centres along with the phone no. are uploaded on the website of the department. Further, the name, mobile no. and e-mail Id of the JE in-charge has also been uploaded on to the website. Thus the consumers can contact the complaint centre of their area any time to register their complaint with the department. Further, the department shall also convene	Already covered in above point in foregoing paragraphs.

	monthly public grievance meetings with the consumers to sort out issues related to the supply of power/electricity/connections.	
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9.4.8. Business Plan for MYT Control Period

As elaborated in para 1.8 of this Tariff Order, the details in the Business Plan submitted by the Petitioner are insufficient. The supporting data such as scheme-wise cost benefit analysis, financing plan, loss reduction trajectory have not been adequately submitted. In view of this the Commission is constrained to defer the implementation of Multi-Year Tariff and concomitant business plan. The Petitioner is therefore directed to submit the revised Business Plan for the period FY 2016-17 to FY 2018-19, along with the requisite details as provided in JERC (Multi -Year Tariff) Regulations, 2014 latest by 31st July, 2015. **No further extension will be given as the MYT Petition would be required to be prepared only after approval of the Business Plan. The MYT filing deadline remains as 30th November 2015.**

Reference Order/ Petitions	Petitioner Submission	Commission Analysis
Present Petition	The EDDD would like to submit that the Business Plan for the MYT Control period FY 2016-17 to FY 2018-19 has already been submitted to the Hon'ble Commission.	Action taken is noted.

9.4.9. True-up for FY 2014-15

It is noted that the audited accounts for FY 2014-15 have not been submitted along with the MYT business plan Petition. It is directed that the finalisation of the audited accounts

for FY 2014-15 be expedited and the true-up for FY 2014-15 be submitted along with the MYT tariff Petition for the control period FY 2016-17 to FY 2018-19.

Reference Order/ Petitions	Petitioner Submission	Commission Analysis
Present Petition	The EDDD would like to submit that the audited accounts along with the true up is being submitted along with the MYT and tariff Petition for the Control period FY 2016-17 to FY 2018-19.	Action taken is noted.

9.4.10. Repair and Maintenance Works

The Commission expects that with the various capital expenditure schemes being undertaken, the network outages would come down. It is also expected that the preventive maintenance activities would be well-planned and regular up-keep of the infrastructure would take place. Details of load shedding should be informed to the consumers in advance through newspapers etc.

Reference Order/ Petitions	Petitioner Submission	Commission Analysis
Present Petition	The EDDD would like to submit to the Hon'ble Commission that it is already informing the consumers in advance regarding the details of load shedding.	Action taken is noted.

9.4.11. MYT Tariff Petition for FY 2016-17 to FY 2018-19

It is directed that the MYT Petition for the control period FY 2016-17 to FY 2018-19 be filed before the Commission within 30 days of the issuance of this business plan order. The retail tariff proposal are to be submitted only for the first year of control period namely FY 2016-17 whereas ARR calculations are to be submitted for the full control period FY 2016-17 to FY 2018-19.

Reference Order/ Petitions	Petitioner Submission	Commission Analysis
Present Petition	The EDDD has noted the directive of the Hon'ble Commission and shall comply accordingly.	Action taken is noted.

Annexure 1: Public Notices published by the Petitioner

Annexure 2: Public Notices published by the Commission for intimation of Public Hearing

Annexure 3: List of Objectors/Stakeholders

The following is the list of the stakeholders who have submitted objections/ suggestions:

Sl. No.	Name of Stakeholder	Representation (in Writing)	Representation (In Person)
1.	Mr. Sanjay Dalal	√	√
2.	Wellknown Polyster Limited	√	√
3.	Mr. Dipesh Tandel (BJP)	√	√
4.	Mr. V.P. Gaur (Daman Industries Association)	√	√
5.	Mr. Ramesh Kundanani (Polycab Wires Pvt. Ltd)		√
6.	Mr. Mohan Laxman		√
7.	Mr. Anand Goyal (JK Plast)		√