

**True up for FY 2014-15,
ARR for Multi Year Tariff Determination for
Control Period FY 2016-17 to FY 2018-19**

And

Tariff Revision Proposal for FY 2016-17

Main Text & Formats (Volume I)

Submitted to

**Joint Electricity Regulatory Commission
Gurgaon**

By:

**Electricity Department of Daman & Diu
(Daman)**

January 2016

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

Filing No.....

Case No.....

IN THE MATTER OF: Filing of Aggregate Revenue Requirement (ARR) for Multi Year Tariff Determination for the Control Period FY 2016-17 to FY 2018-19 under Section 62 and 86 of the Electricity Act, 2003

AND

IN THE MATTER OF Electricity Department of Daman & Diu (hereinafter referred to as "EDDD" or "The Petitioner")
Daman - Applicant

The Applicant respectfully submits as under: -

1. The Electricity Department of Daman & Diu ("EDDD") is a statutory body engaged in the electricity transmission and distribution in the Union Territory of Daman & Diu. Consequent to the enactment of the Electricity Act, 2003 (hereinafter referred to as the "Act"), the process of approval of proposed tariffs is vested with the State Commission. Based on the provisions of Section 62 of the Act, EDDD is filing the current petition, in order to meet its financial requirements.
2. This is a Petition indicating the True up Petition for FY 14-15 and the Aggregate Revenue Requirement (ARR) for Multi Year Tariff Determination for the Control Period FY 2016-17 to FY 2018-19 and Tariff Revision Proposal of EDDD for the FY 16-17 (Financial Year 2016-17).

TABLE OF CONTENTS

CHAPTER I: INTRODUCTION.....	9
1.1 EDDD PROFILE	9
1.2 MULTI YEAR TARIFF DISTRIBUTION TARIFF REGULATIONS, 2014	10
1.2.1 UNCONTROLLABLE PARAMETERS INCLUDE	11
1.2.2 CONTROLLABLE PARAMETERS INCLUDE	11
1.3 CONTENTS OF THIS PETITION.....	11
CHAPTER 2: TRUE UP FOR FY 2014-15.....	13
2.1 PRINCIPLES FOR TRUE UP FOR FY 2014-15	13
2.2 ENERGY SALES FOR FY 2014-15	13
2.3 DISTRIBUTION LOSS FOR FY 2014-15.....	14
2.4 ENERGY REQUIREMENT AND ENERGY BALANCE	15
2.5 POWER PURCHASE COST	16
2.6 OPERATION AND MAINTENANCE EXPENSES.....	17
2.7 CAPITAL EXPENDITURE & CAPITALIZATION	18
2.8 DEPRECIATION	18
2.10 INTEREST AND FINANCE CHARGES.....	19
2.11 INTEREST ON WORKING CAPITAL	19
2.12 RETURN ON CAPITAL EMPLOYED	20
2.13 NON TARIFF INCOME.....	21
2.14 AGGREGATE REVENUE REQUIREMENT FOR FY 14-15	21
2.15 REVENUE FOR FY 14-15.....	22
2.16 REVENUE (GAP) / SURPLUS FOR FY 14-15	22
CHAPTER 3: ARR FOR THE MYT CONTROL PERIOD FY 2016-17 TO FY 2018-19	24
3.1 LOAD GROWTH	24
3.2 CONSUMER GROWTH	26
3.3 ENERGY SALES GROWTH.....	27
3.4 T&D LOSS REDUCTION.....	28
3.5 ENERGY REQUIREMENT OF THE SYSTEM	29
3.6 ENERGY AVAILABILITY	30
3.6.1 POWER PURCHASE	31
3.6.2 ENERGY REQUIREMENT & AVAILABILITY.....	36
3.6.3 POWER PURCHASE COST	37
3.6.4 TRANSMISSION AND OTHER CHARGES.....	39
3.7 OPERATION & MAINTENANCE COSTS.....	40
3.7.1 EMPLOYEE EXPENSE	40
3.7.2 REPAIRS & MAINTENANCE EXPENSE	41

3.7.3	ADMINISTRATION & GENERAL EXPENSE.....	42
3.7.4	TOTAL OPERATION AND MAINTENANCE EXPENSE	44
3.8	CAPITAL EXPENDITURE PLAN	44
4.9	GROSS FIXED ASSETS	48
4.10	DEPRECIATION	48
4.11	INTEREST & FINANCE COSTS.....	50
4.11.1	INTEREST ON LONG-TERM / CAPITAL LOANS.....	50
4.11.2	INTEREST ON WORKING CAPITAL BORROWINGS	51
4.12	RETURN ON CAPITAL EMPLOYED	53
4.13	PROVISION FOR BAD & DOUBTFUL DEBTS	53
4.14	NON-TARIFF & OTHER INCOME.....	53
4.15	AGGREGATE REVENUE REQUIREMENT.....	54
4.16	REVENUE AT EXISTING TARIFF	55
4.17	COVERAGE OF REVENUE GAP	56
4.18	AVERAGE COST OF SUPPLY	57
4.19	INITIATIVES	58
4.20	TARIFF PROPOSAL FOR FY 16-17	59
	CHAPTER 4: DETERMINATION OF OPEN ACCESS CHARGES	61
4.1	ALLOCATION MATRIX.....	61
4.2	VOLTAGE WISE WHEELING CHARGES	62
4.3	CROSS SUBSIDY SURCHARGE.....	63
4.4	APPLICATION AND AGREEMENT FEES	64
	CHAPTER 5: COMPLIANCE OF DIRECTIVES	65
	TARIFF SCHEDULE	82
	PRAYER.....	96
	FORMATS	97

LIST OF TABLES

TABLE 1: CONSUMER CATEGORY WISE ENERGY SALES FOR FY 2014-15.....	13
TABLE 2: DISTRIBUTION LOSS	15
TABLE 3: ENERGY BALANCE FOR FY 2014-15.....	15
TABLE 4: POWER PURCHASE COST FOR FY 2014-15.....	16
TABLE 5: OPERATION & MAINTENANCE EXPENSES FOR FY 2014-15.....	17
TABLE 6: CAPITAL EXPENDITURE AND CAPITALIZATION FOR FY 14-15	18
TABLE 7: DEPRECIATION FOR FY 2014-15	18
TABLE 8: INTEREST ON LOAN FOR FY 14-15	19
TABLE 9: INTEREST ON WORKING CAPITAL FOR FY 2014-15	20
TABLE 10: RETURN ON EQUITY FOR FY 14-15.....	20
TABLE 11: NON TARIFF INCOME FOR FY 14-15	21
TABLE 12: AGGREGATE REVENUE REQUIREMENT FOR FY 14-15	21
TABLE 13: REVENUE FOR FY 14-15	22
TABLE 14: REVENUE (GAP)/SURPLUS FOR FY 14-15.....	23
TABLE 15: PAST YEAR'S LOAD GROWTH	25
TABLE 16: PROJECTED LOAD GROWTH DURING CONTROL PERIOD (FY 2016-17 TO FY 2018-19).....	25
TABLE 17: PAST YEAR'S CONSUMER GROWTH.....	26
TABLE 18: PROJECTED CONSUMER GROWTH DURING CONTROL PERIOD (FY 2016-17 TO FY 2018-19)	26
TABLE 19: PAST YEARS' ENERGY SALES GROWTH	27
TABLE 20: PROJECTED CATEGORY WISE ENERGY SALES FOR MYT CONTROL PERIOD.....	28
TABLE 21: PROPOSED T&D LOSS TRAJECTORY	29
TABLE 22: ENERGY REQUIREMENT OF THE SYSTEM	29
TABLE 23: ENERGY ALLOCATION FROM CENTRAL GENERATING STATIONS	31
TABLE 24: CAPACITY ALLOCATION FROM UPCOMING CENTRAL GENERATING STATIONS FOR THE CONTROL PERIOD.....	32
TABLE 25: EXPECTED INSTALLED CAPACITY OF SOLAR PLANTS FOR THE CONTROL PERIOD	34
TABLE 26: EXPECTED GENERATION FROM SOLAR PLANTS FOR THE CONTROL PERIOD	35
TABLE 27: POWER PURCHASE QUANTUM	35
TABLE 28: ENERGY BALANCE	36
TABLE 29: POWER PURCHASE COST.....	38
TABLE 30: TOTAL POWER PURCHASE COST FOR FY 15-16 AND THE MYT CONTROL PERIOD	39
TABLE 31: EMPLOYEE EXPENSES.....	41
TABLE 32: CPI.....	42
TABLE 33: REPAIRS & MAINTENANCE EXPENSE	42
TABLE 34: A&G EXPENSE	43
TABLE 35: TOTAL O&M EXPENSE	44
TABLE 36: ONGOING SCHEMES	45
TABLE 37: NEW SCHEMES	46
TABLE 38: CAPITAL EXPENDITURE & CAPITALIZATION	48
TABLE 39: OPENING AND CLOSING GFA FOR THE CONTROL PERIOD	48
TABLE 40: DEPRECIATION.....	49
TABLE 41: TOTAL INTEREST ON LONG-TERM LOANS.....	50
TABLE 42: INTEREST ON WORKING CAPITAL FOR THE FY 2015-16.....	51
TABLE 43: INTEREST ON WORKING CAPITAL FOR THE CONTROL PERIOD	52

TABLE 44: PROPOSED RETURN ON CAPITAL EMPLOYED	53
TABLE 45: PROVISION FOR BAD & DOUBTFUL DEBTS.....	53
TABLE 46: NON-TARIFF INCOME	54
TABLE 47: AGGREGATE REVENUE REQUIREMENT	54
TABLE 48: REVENUE FROM SALE OF POWER AT EXISTING TARIFF	55
TABLE 49: REVENUE GAP FOR FY 2015-16.....	56
TABLE 50: AVERAGE COST OF SUPPLY & REVENUE REALIZATION	57
TABLE 51: PROPOSED TARIFF STRUCTURE FOR FY 16-17	59
TABLE 52: ALLOCATION OF ARR BETWEEN WHEELING AND RETAIL SUPPLY	61
TABLE 53: DETERMINATION OF INPUT ENERGY FOR NETWORK USAGE PERCENTAGE	62
TABLE 54: WHEELING CHARGES PROPOSED FOR FY 2016-17	63
TABLE 55: CALCULATION OF "T"	64
TABLE 56: CALCULATION OF "C"	64
TABLE 57: PROPOSED CROSS SUBSIDY SURCHARGE FOR FY 2016-17.....	64

ACRONYM	DEFINITION
A&G Expenses	Administrative & General Expenses
CEA	Central Electricity Authority
CERC	Central Electricity Regulatory Commission
Ckt. Km / ckm	Circuit Kilometres
EA 2003	Electricity Act 2003
G,T and D	Generation, Transmission and Distribution
GFA	Gross Fixed Assets
GoI	Government of India
IPPs	Independent Power Producers
JERC	Joint Electricity Regulatory Commission
EDDD	Electricity Department of Daman & Diu
MU	Million Units
MYT	Multi-Year Tariff
O&M	Operations and Maintenance
PGCIL	Power Grid Corporation of India Limited
R&M Expenses	Repair & Maintenance Expenses
RoE	Return on Equity
T&D	Transmission and Distribution
S/S	Sub Station

Notes:

In this Petition:

All currency figures used in this Petition, unless specifically stated otherwise, are in Rs. Crore and Million Units.

This petition contains the Main Text of the Petition and Format (Volume I) and Annexure (Volume II).

Chapter I: Introduction

1.1 EDDD Profile

Daman and Diu is a union territory in India. Daman District comprises of an area of 72 sq. km whereas Diu District comprises of an area of 40 sq. km. The total population of Daman & Diu as per 2011 census was 242,911 with population density being 2400 persons per sq. km.

The Electricity Department of Daman & Diu (EDDD) is responsible for supply of uninterrupted & quality power to all categories of consumers in Daman & Diu at the most economical rates. The (EDDD) is engaged in the procurement, transmission and distribution of electricity to the various consumer categories in the Union Territory of Daman and Diu. The EDDD mainly relies on the Central Sector Generating Stations (CSGS) in Western Region to meet its energy demand. EDDD also has some allocation from Eastern Region Central Generating Stations.

The present transmission and distribution system of EDDD consists of 26 circuit kms of 220 kV Double Circuit (D/C) lines, 85.30 kms of 66kV lines, 420 circuit kms of 11kV O/H as well as U/G along with 639 transformers. Presently, there are 99 no. 11 kV feeders and 4 no. 66 kV feeders in the network of Daman & Diu.

The key duties being discharged by Daman & Diu Electricity Department are:

- Laying and operating of such electric line, sub-station and electrical plant that is primarily maintained for the purpose of distributing electricity in the area of supply of 'Daman & Diu Electricity Department', notwithstanding that such line, sub-station or electrical plant are high pressure cables or overhead lines or associated with such high pressure cables or overhead lines; or used incidentally for the purpose of transmitting electricity for others, in accordance with Electricity Act. 2003 or the Rules framed there under.
- Operating and maintaining sub-stations and dedicated transmission lines connected there with as per the provisions of the Act and the Rules framed there under.

- Arranging, in-coordination with the Generating Company(ies) operating in or outside the State, for the supply of electricity required within the State and for the distribution of the same in the most economical and efficient manner;
- Supplying electricity, as soon as practicable to any person requiring such supply, within its competency to do so under the said Act;
- Preparing and carrying out schemes for distribution and generally for promoting the use of electricity within the State.

The present power allocation of Daman & Diu is approximately 358 MW from various generating stations including 92 MW from NTPC-SAIL plant located at Bhilai and 38 MW from Ratnagiri Gas and Power Private Limited (RGPPL). At present, Daman gets power at 220/66 KV Magarwada substation from two sources. First source is 220 KV (D/C) Ambethi-Magarwada line and second source is from 220 KV (D/C) Magarwada (PGCIL) Magarawada, Daman and Diu gets power from 66 kV Una substation through 66 kV double circuit line emanating from 220 /66 kV Kansari substation of GETCO.

Earlier in FY 12-13, electricity drawl of EDDD was approximately 220 to 250 MW against the daily scheduled availability of 280 to 290 MW resulting in a surplus of 30 to 40 MW during FY 12-13. The current demand is primarily dependent on the HT and LT Industrial consumers contributing approx. 94% of the total sales in FY 13-14. The demand from the industrial consumers is primarily due to tax holiday benefit extended by the Govt of India in UT of Daman & Diu which has attracted a large number of industries to set up base in this area.

Considering the increase in demand from the large industries, the demand is likely to reach to 290-300 MW by FY 2015-16. In view of the huge power demand in future, EDDD had proposed a number of schemes to be implemented during the coming years for strengthening and augmentation of the transmission and distribution system in the territory. EDDD is also undertaking efforts to get higher allocation from the Central Generating Stations. The EDDD is undertaking all necessary actions to tie-up for long-term power purchase for meeting the deficit in the UT of Daman and Diu

1.2 Multi Year Tariff Distribution Tariff Regulations, 2014

EDDD's tariff determination is now governed by "The Joint Electricity Regulatory Commission for the State of Goa and Union Territories (Multi Year Distribution Tariff Regulations, 2014" (referred to as "MYT Regulations, 2014"). The MYT Regulations, 2014 provide a framework for calculating tariffs on a cost-plus basis initially for a period of three years and allow the licensee to recover operational expenses including

depreciation, interest on working capital and debt, and return on equity amongst others. The MYT Regulations, 2014 segregate the items impacting tariffs into controllable and uncontrollable factors. Items that are uncontrollable are passed through to the consumers. Further, the MYT Regulations, 2014 identifies the uncontrollable and controllable parameters as follows:

1.2.1 Uncontrollable Parameters include

- 1 Force Majeure events, such as acts of war, fire, natural calamities, etc.
- 2 Change in law;
- 3 Taxes and Duties;
- 4 Variation in sales; and
- 5 Variation in the cost of power generation and/or power purchase due to the circumstances, as specified in the MYT Regulations, 2014

1.2.2 Controllable Parameters include

- 1 Variations in CAPEX due to time and/or cost overruns/efficiencies;
- 2 Variations in transmission and distribution losses;
- 3 Variations in depreciation and working capital requirements;
- 4 Failure to meet the standards specified in the Joint Electricity Regulatory Commission (Standards of Performance) Regulations, 2009 except where exempted;
- 5 Variation in operation & maintenance expenses, except those attributable to directions of the Commission;
- 6 Variation in Wires Availability and Supply Availability; and
- 7 Variation on account of inflation.

1.3 Contents of this Petition

This Petition covers the truing up for FY 14-15, revised estimates for FY 15-16 and the basis, assumptions and projections of individual elements constituting the determination of ARR for the Control Period FY 16-17 to FY 18-19. The Joint Electricity Regulatory Commission for the state of Goa and union territories (JERC) had issued the first Tariff Order for Electricity Department of Daman & Diu (EDDD) on 1st November 2010 and subsequently the second, third, fourth, fifth and sixth Tariff order for FY 11-12, FY 2012-13, FY 2013-14, FY 2014-15 and FY

2015-16 for EDDD were issued on 3rd October, 2011, 25th August, 2012, 22nd March, 2013, 1st May, 2014 and 31st March, 2015 respectively. The Commission in its Tariff Order for FY 15-16 has approved the ARR for FY 15-16 based on the actual cost for FY 13-14 and estimated expenses for FY 14-15.

Chapter 2: True Up for FY 2014-15

2.1 Principles for True Up for FY 2014-15

As per JERC Terms and Conditions for determination of Tariff Regulations, 2009, the Hon'ble Commission shall undertake the True Up of licensee for FY 2014-15 based on the comparison of the actual performance of the past year with the approved estimates for such year.

In line with the provisions of JERC Regulations, EDDD is filing its True Up for the year FY 2014-15. Information provided in the True Up for FY 2014-15 is based on the Annual Accounts and principles adopted by the Hon'ble Commission in its previous orders on Interest on Term Loan, Return on Equity, Interest on Working Capital and Depreciation. This actual performance has been compared with the approved parameters as per the order dated 1st May, 2014 and 31st March, 2015 for the FY 14-15.

Accordingly, revised Aggregate Revenue Requirement, revenue and gap for FY 2014-15 are given in the following paragraphs of this chapter.

2.2 Energy Sales for FY 2014-15

The actual energy sale for FY 2014-15 has been shown below along with approved sales by Hon'ble Commission vide Tariff Order dated 1st May, 2014. The actual energy sales for FY 2014-15 are as under:

Table 1: Consumer category wise energy sales for FY 2014-15

Particulars	(MU)		
	FY 14-15 Approved (1st May, 2014)	FY 14-15 Approved (31st March, 2015)	FY 14-15 Actual
Domestic	94.26	90.69	83.06
LIG/ Kutir Jyoti	0.04	0.07	0.08
Commercial	82.49	46.90	41.57
Agriculture	3.31	2.33	2.30
LT Industry	171.87	154.12	153.70
HT/EHT Industry	1724.95	1301.77	1,327.84*
Public Lighting	5.80	9.12	8.80
Public Water Works	1.14	3.84	3.28
Temp. Supply	0.01	0.98	1.09
Total Sales	2,083.87	1,609.82	1,621.72

*Includes auxiliary consumption of 5.00 MUs

It can be observed from the above that there is a slight variation in the actual energy sold as compared to the energy sales approved by the Commission vide the Tariff Order dated 31st March, 2015. The reasons attributable for the same are:

- The actual sales of the HT category for the FY 2014-15 was 1323.94 MUs as compared to 1301 MUs approved by the Hon'ble Commission in its Tariff Order dated 31st March, 2015.
- The actual sold to the Commercial category was 41.57 MUs as compared to 46.90 MUs approved by the Hon'ble Commission in its Tariff Order dated 31st March, 2015.
- The actual sold to the Domestic category was 83.06 MUs as compared to 90.69 MUs approved by the Hon'ble Commission in its Tariff Order dated 31st March, 2015.
- Overall the actual sales has decreased by around 8.00 MUs in comparison to the sales approved by the Hon'ble Commission vide its Tariff Order dated 31st March, 2015.
- Further, in the Business Plan submitted to the Hon'ble Commission for the MYT Control Period the sales for the FY 2014-15 was 1577.42 MUs. However, as per the energy audit report for the FY 2014-15 the actual sales during the FY 2014-15 was 1621.72 MUs. At present all the HT and LT consumers are being billed from main meter but if there is some error in main meter consumer (i.e. CTPT failure, No display in meter, etc.) then its billing is been done from check meter which is installed at LT side. At present there is no system implemented in our billing software which can bill the consumer form its LT consumption therefore all the calculation are done manually and same amount (as per the calculated consumption) is been added in other charges in their respective bill of HT & LT consumers. Hence, the actual sales during the FY 2014-15 was 1621.72 MUs including the LT consumption which has now been added to the total energy sold during the FY 2014-15.

The EDDD requests the Hon'ble Commission to approve the actual sales for FY 14-15.

2.3 Distribution Loss for FY 2014-15

EDDD is making all efforts to reduce the distribution losses in the UT of Daman & Diu. In FY 2014-15, the actual distribution losses were 8.94% as against the approved level of 8.70%.

In the Tariff Order dated 1st May, 2014 and 31st March, 2015 the Hon'ble Commission had approved the distribution losses at 8.70% for the FY 2014-15. However, now EDDD has computed the distribution loss based on the actual sales data for FY 14-15. Based on that the distribution loss for FY 14-15 has been worked out at 8.94%. The table below highlights the comparison of actual distribution losses of the EDDD against that approved by the Hon'ble Commission vide its Tariff Order dated 1st May, 2014 and 31st March, 2015.

Table 2: Distribution Loss

Particulars	FY 14-15 (%)		
	Approved (1st May, 2014)	Approved (31st March, 2015)	Actual
Distribution Loss	8.70%	8.70%	8.94%

The EDDD requests the Hon'ble Commission to approve the actual T&D losses for FY 14-15.

2.4 Energy Requirement and Energy Balance

Based on the actual energy sales and the transmission & distribution loss units, the actual energy requirement for FY 14-15 has been furnished below. The energy requirement had been met through various sources as described in the subsequent sections.

Table 3: Energy Balance for FY 2014-15

Particulars	FY 2014-15 (MU)
	Retail Sales (a)
Open Access Sales (b)	320.43
Total Sales (c=a+b)	1,942.15
Distribution Loss (MU) (d=f-c)	190.77
Distribution Loss (%) (e=d/f)	8.94%
Energy Required at Periphery (f=i-g)	2132.92
Energy Available at Periphery (g=j-h)	2132.92
Inter state loss (MU) (h=i*j)	81.95
Inter state loss (%) (i)	3.70%
Total energy available (j=k+l)	2214.87
Total Energy Available through CPSUs (k)	1878.63
Injection through Open access (l)	336.24
Surplus Power (m=g-f)	0.00

The net energy requirement for sale during FY 2014-15 was 1942.15 MUs.

2.5 Power Purchase Cost

EDDD sources power from Central Generating Stations like Korba, Vindychal, Kahalgaon, Kawas of National Thermal Power Corporation (NTPC) and Tarapur and Kakrapar atomic power stations of Nuclear Power Corporation of India Limited (NPCIL) etc. The actual power purchase for the FY 14-15 is provided in the table below and compared with the power purchase approved by the Hon'ble Commission.

Table 4: Power purchase cost for FY 2014-15

Particulars	MUs		Cost (Rs. Crore)	
	FY 14-15	FY 14-15	FY 14-15	FY 14-15
	Approved	Actual	Approved	Actual
Power Purchase	2,079.81	1,878.63	781.48	707.56

The power purchase depends on various parameters such as the energy sales, distribution loss, energy requirement and the energy availability. The variation in the power purchase cost from the Tariff Order is on account of variation in sales and variation in actual cost with respect to the base rate along with purchase of power from short-term sources to meet the shortfall during the year.

The Hon'ble Commission had approved the power purchase at Rs. 781.48 Crore in the Tariff Order dated 31st March, 2015. Now, the EDDD has claimed a power purchase cost of Rs. 707.56 Crore based on the Annual accounts for FY 14-15 and there is a decrease in the power purchase cost as compared to the power purchase cost approved by the Hon'ble Commission.

The EDDD also requests the JERC to allow the UI purchase during FY 14-15 without any penalty as the EDDD has already incurred that amount. Therefore, the EDDD has included that total UI amount paid in the total power purchase cost for FY 14-15.

The EDDD purchased 44.06 MU during FY14-15 through UI at the cost of Rs. 25.12 Crore to meet the energy shortfall during the year.

The EDDD, therefore, requests the Hon'ble Commission to approve the actual power purchase cost for FY 14-15 without any deduction.

2.6 Operation and Maintenance Expenses

Operations and Maintenance (O&M) Expenses of the department consists of the following elements:

- Employee Expenses
- Repairs and Maintenance Costs
- Administrative and General Expenses

Employee expenses comprise of salaries, dearness allowance, bonus, terminal benefits in the form of pension & gratuity, leave encashment and staff welfare expenses.

Repairs and Maintenance Expenses go towards the day to day upkeep of the transmission and distribution network of the department and form an integral part of its effort towards reliable and quality power supply as also in the reduction of losses in the system.

Administration expenses mainly comprise of rents, telephone and other communication expenses, professional charges, conveyance and travelling allowances, other debits.

The Hon'ble Commission had approved the O&M cost at Rs. 21.46 Crore and Rs. 23.87 Crore vide Tariff Orders dated 1st May, 2014 and 31st March, 2015 respectively. During FY 14-15, EDDD incurred actual O&M expense of Rs. 27.43 Crore which was inclusive of employee cost of Rs. 10.00 Crore, Repair & Maintenance Charges of Rs. 10.98 Crore and Administration & General Expenses of Rs. 6.44 Crore as shown in the table below:

Table 5: Operation & Maintenance Expenses for FY 2014-15

Particulars	(Rs. Crore.)		
	FY 14-15 Approved (1st May, 2014)	FY 14-15 Approved (31st March, 2015)	FY 14-15 Actual
Employee Cost	9.24	9.91	10.00
R&M	8.47	9.12	10.98
A&G	3.75	4.84	6.44
O&M Expenses	21.46	23.87	27.43

The O&M cost has increased due to the increase in the actual cost incurred by the EDDD during the FY 2014-15 as against the O&M cost approved by the Hon'ble

Commission. The revised estimates submitted by the EDDD for FY 2014-15 were based on the half yearly actual cost incurred by the department. However, the O&M cost as submitted for the truing up purpose is based on the actual cost incurred by the EDDD during the FY 2014-15. The EDDD, therefore, requests the Hon'ble Commission to approve the O&M expenses for FY 13-14 as submitted in herewith.

2.7 Capital Expenditure & Capitalization

The actual capital expenditure incurred by EDDD during the FY 14-15 was Rs. 85.46 Crore, which is lower than that of approved by the Hon'ble Commission in its Tariff Orders dated 1st May, 2014. The capital expenditure incurred and actual capitalization made by the department for FY 14-15 against that approved by the Hon'ble Commission is as shown below:

Table 6: Capital expenditure and capitalization for FY 14-15

(Rs. Crore.)

Particulars	FY 14-15	FY 14-15	FY 14-15
	Approved (1st May, 2014)	Approved (31st March, 2015)	Actual
Capital Expenditure	96.61	100.88	85.46
Capitalization	57.59	57.17	57.17

The EDDD, therefore, requests the Hon'ble Commission to approve the capital expenditure and capitalization for FY 14-15.

2.8 Depreciation

The depreciation has been worked out after applying the Depreciation rates as per the JERC (Terms and Conditions for determination of Tariff), Regulations, 2009. Accordingly, the depreciation so arrived and approved depreciation for FY 2014-15 is shown in the table below:

Table 7: Depreciation for FY 2014-15

(Rs. Crore.)

Particulars	FY 14-15	FY 14-15	FY 14-15
	Approved (1st May, 2014)	Approved (31st March, 2015)	Actual
Opening GFA	333.87	337.42	337.42
Addition during the year	57.59	57.17	57.17
Closing GFA	391.46	394.59	387.13
Average GFA	362.67	366.01	362.28
Depreciation during the year	17.72	17.87	16.82

The EDDD, requests the Hon'ble Commission to approve the actual depreciation for FY 14-15 without any deduction.

2.10 Interest and Finance Charges

For assessing interest on Loans in FY 14-15, EDDD has considered the opening balance of loans for FY 14-15 as approved by the Hon'ble Commission vide its Tariff Order dated 31st March, 2015 for the Review of the ARR for FY 14-15. The normative loan addition in FY 14-15 has been computed as 70% of the capitalization for FY 2014-15 which works out to Rs. 40.02 Crore. The capitalization for FY 14-15 was Rs. 57.17 Crore as per the audited annual accounts for FY 14-15.

In line with the approach adopted by the Hon'ble Commission in its Tariff Order dated 31st March, 2015, 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 following table depicts the total Interest & Financial charges for FY 14-15 computed by EDDD and compared the same with the approved Interest and Financial charges amount for the consideration of the Hon'ble Commission:

Table 8: Interest on Loan for FY 14-15

Particulars	(Rs. Crore.)		
	FY 14-15 Approved (1st May, 2014)	FY 14-15 Approved (31st March, 2015)	FY 14-15 Actual
Opening Loan	51.19	53.89	53.89
Loan for additional Capex (70:30 debt-equity)	40.31	40.02	34.80
Loan Repayment (10% of Opening Balance)	5.76	17.87	5.39
Closing Loan	85.74	76.04	83.30
Interest Cost on Avg. Loans	10.10	9.58	10.12

The EDDD, requests the Hon'ble Commission to approve the interest on loan computed for FY 14-15.

2.11 Interest on Working Capital

The interest on working capital has been calculated based on the normative principles outlined by the Hon'ble Commission in the JERC (Terms and Conditions for determination of Tariff), Regulations, 2009.

EDDD has computed interest on working capital at 14.75% as equal to the SBI PLR rate. The following table shows the interest on working capital for FY 2014-15 incurred by EDDD against the approved amount for the consideration of the Hon'ble Commission:

Table 9: Interest on Working Capital for FY 2014-15

Particulars	(Rs. Crore.)		
	FY 14-15 Approved (1st May, 2014)	FY 14-15 Approved (31st March, 2015)	FY 14-15 Actual
O&M expense for 1 month	1.79	1.99	2.29
Power Purchase Cost for 1 month	73.62	65.12	58.96
Fuel cost for two months	0.00	0.00	0.00
Total Working Capital requirement	75.41	67.11	61.25
Security Deposit	9.79	46.83	49.91
Net Working Capital required after deduction of Security Deposit	65.62	20.28	11.34
Interest on Working Capital	9.68	2.99	1.67

The EDDD, requests the Hon'ble Commission to approve the interested on working capital computed for FY 14-15.

2.12 Return on Capital Employed

As per the Regulation 23 of JERC (Terms and Conditions for Determination of Tariff) Regulations, 2009, EDDD is entitled to a return on capital base of 3% on net block of approved assets. Accordingly, EDDD has computed the Return on capital base at 3% of the net block at the beginning of FY 2014-15.

The return on capital base as computed for FY 2014-15 is as shown below:

Table 10: Return on Equity for FY 14-15

Particulars	(Rs. Crore.)		
	FY 14-15 Approved (1st May, 2014)	FY 14-15 Approved (31st March, 2015)	FY 14-15 Actual
Return on Capital Base	6.33	6.4	6.47

The EDDD, requests the Hon'ble Commission to approve the return on capital base computed for FY 14-15.

2.13 Non Tariff Income

The actual Non-Tariff Income of EDDD for FY 14-15 was Rs. 18.11 Crore as against Rs. 11.58 Crore approved by the Hon'ble Commission. The non tariff income includes meter rent of Rs. 0.99 Crores, Delayed Payment Charges of Rs. 9.38 Crores and Miscellaneous Income of Rs. 7.74 Crores (including interest income of Rs. 6.81 Crores). The following table presents and approved and actual Non Tariff Income of EDDD for the approval of the Hon'ble Commission.

Table 11: Non Tariff Income for FY 14-15

Particulars	(Rs. Crore.)		
	FY 14-15 Approved (22nd March, 2013)	FY 14-15 Approved (31st March, 2015)	FY 14-15 Actual
Non tariff Income	6.79	11.58	18.11

The EDDD, requests the Hon'ble Commission to approve the actual Non Tariff Income for FY 14-15.

2.14 Aggregate Revenue Requirement for FY 14-15

Based on above expenses, table below summarizes actual Aggregate Revenue Requirement for FY 14-15 for EDDD vis-à-vis the ARR approved by the Hon'ble Commission in the previous two Tariff Orders.

Table 12: Aggregate Revenue Requirement for FY 14-15

Particulars	(Rs. Crore.)		
	FY 14-15 Approved (1st May, 2014)	FY 14-15 Approved (31st March, 2015)	FY 14-15 Actual
Power Purchase Cost	883.45	781.48	707.56
O&M Expense	21.46	23.87	27.43
Depreciation	17.72	17.87	16.82
Interest Cost on Long-term Capital Loans	10.10	9.58	10.12
Interest on Working Capital Loans	9.68	2.99	1.67
Return on Equity	6.33	6.40	6.47
Provision for Bad Debt	4.99	0.00	0.79
Interest on security deposit	0.86	0.00	3.50
Less:			
Non-Tariff Income	6.79	11.58	18.11
Annual Revenue Requirement	947.80	830.61	756.25

The EDDD, requests the Hon'ble Commission to approve the ARR computed for FY 14-15.

2.15 Revenue for FY 14-15

During the FY 14-15, EDDD's actual revenue amounted to Rs. 785.95 Crore (including the amount received on account of PPCA charges of Rs. 31.91 Crore, Open Access charges of Rs. 11.80 Crore, REC charges of Rs. 0.04 Crore) as against Rs. 997.48 Crore and Rs. 776.44 Crore as approved vide its Tariff Order dated 1st May, 2014 and 31st March, 2015 respectively by the Hon'ble Commission.

Table 13: Revenue for FY 14-15

Particulars	(Rs. Crore.)		
	FY 14-15 Approved (1st May, 2014)	FY 14-15 Approved (31st March, 2015)	FY 14-15 Actual
Revenue from sale of power	997.48	776.44	785.95
Revenue from Surplus Power Sale	0.00	51.00	4.60
Total revenue	997.48	827.44	790.55

2.16 Revenue (Gap) / Surplus for FY 14-15

The Hon'ble Commission in Order dated 1st May, 2014 has approved a total Aggregate Revenue Requirement (ARR) of Rs. 947.80 Crore for FY 14-15. Further, the Commission has computed the revised ARR for FY 14-15 in the Order dated and 31st March, 2015 of Rs. 830.61 Crore. Based on the annual accounts for FY 14-15 and the actual expenses incurred by the EDDD, the revised ARR for FY 2014-15 has been arrived at Rs. 756.25 Crore.

This revised ARR is compared against the actual income highlighted in the previous section under various heads. Revenue realized from the existing tariff of Rs. 785.95 Crore and revenue from sale of surplus energy of Rs. 4.60 Crore is summing up to Rs. 790.55 Crore. Accordingly, total revenue surplus of EDDD for FY 14-15 is computed at Rs. 34.31 Crore as depicted in the Table below:

Table 14: Revenue (Gap)/surplus for FY 14-15

(Rs. Crore.)

Particulars	FY 14-15	FY 14-15
	Approved (31st March, 2015)	Actual
Annual Revenue Requirement (a)	830.61	756.25
Revenue from sale of power (b)	776.44	785.95
Revenue from Surplus Power Sale (c)	51.00	4.60
Revenue (Gap)/Surplus (d=b+c-a)	(3.17)	34.31
Previous Years (Gap)/Surplus carried over (e)	81.36	81.36
Carrying Cost (f)	12.00	0.00
Net (Gap)/Surplus (g=d+e+f)	90.11	115.67

EDDD requests the Hon'ble Commission to approve afore-mentioned revenue surplus for FY 14-15.

Chapter 3: ARR for the MYT Control Period FY 2016-17 to FY 2018-19

EDDD is submitting its ARR for the MYT Control Period FY 2016-17 to FY 2018-19 broadly on the basis of the principles outlined in MYT Tariff Regulations notified by JERC. EDDD has considered the past trends and taken cognizance of other internal and external developments to estimate the likely performance for the MYT Control Period FY 2016-17 to FY 2018-19.

The following sections explain in detail the basis and forecasts of the following elements for the MYT Control Period 2016-17 to FY 2018-19.

- a. Category wise Energy Sales & Revenues at existing tariffs
- b. T&D Losses and Energy Requirement
- c. 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. Administration & General Expenses
 - v. Capital Investment Plan
 - vi. Interest Cost
 - vii. Interest on Working Capital
 - viii. Depreciation
 - ix. Provision for bad & doubtful debts
 - x. Return on Equity
 - xi. Non-Tariff Income
- d. Determination of Gap between Revenue & Costs and the arrangements to cover the revenue gap for the FY 2015-16.

3.1 Load Growth

1. The Table given below summarizes the growth in sanctioned load over the past 4 years. The HT Industrial category has registered a load growth of 7.12% over this period. Overall growth for the UT has been 6.85%.

Table 15: Past Year's Load Growth

(kVA)

Consumer Category	FY 11-12	FY 12-13	FY 13-14	FY 14-15
kVA	Actual	Actual	Actual	Actual
Domestic	55,440	55,080	55,991	1,17,161
Commercial	35,214	18,180	17,654	19,322
Agriculture	2,065	2,252	2,512	3,617
LT Industry	94,901	96,818	97,780	1,00,284
HT/EHT Industry	369,685	483,024	488,495	4,84,208
Public Lighting	1,624	1,919	1,649	1,657
Public Water Works	675	654	664	795
Total	559,604	657,927	664,745	729,544

- As can be seen in the table given above the commercial is showing a negative load growth. In the commercial category, earlier separate connections were released for the factory lighting till FY 2011-12. However, due to problems faced by the department during billing of such connections from FY 2013-14 such connections were disconnected and presently only one connection is released for one premises.
- The projected load for the control period for all the categories has been given in the table below:

Table 16: Projected load growth during Control Period (FY 2016-17 to FY 2018-19)

(kVA)

Consumer Category	FY 15-16	FY 16-17	FY 17-18	FY 18-19
	RE	Projected	Projected	Projected
Domestic	1,30,823	1,31,472	1,32,124	1,32,780
Commercial	21,639	21,811	21,984	22,158
Agriculture	4,431	4,887	5,391	5,945
LT Industry	1,13,105	1,14,808	1,16,537	1,18,291
HT/EHT Industry	5,66,950	6,51,717	7,49,158	8,61,167
Public Lighting	1,855	1,869	1,884	1,898
Public Water Works	891	898	905	913
Total	8,39,696	9,27,464	10,27,983	11,43,153

- The same is in line with the Connected load approved by the Hon'ble Commission for the various categories for the MYT Control Period in the Business Plan dated 9th December, 2015.

3.2 Consumer Growth

1. The Table 17 below summarizes the category wise growth in consumers over the past 4 years.

Table 17: Past Year's Consumer Growth

Consumer Category	FY 11-12	FY 12-13	FY 13-14	FY 14-15
	Actual	Actual	Actual	Actual
Domestic	46023	42,507.0	43,962	45,298
Commercial	9236	8,158.0	7,972	8,037
Agriculture	1,157	1,173.0	1,191	1,195
LT Industry	1,765	1,926.0	1,799	1,755
HT/EHT Industry	827	801.0	798	786
Public Lighting	188	369.0	339	524
Public Water Works	77	77.0	71	109
Total	59,273.0	55,011.0	56,132	57,704

2. Annual Growth in the number of consumers for the MYT Control Period is projected on the basis of the y-o-y growth in the consumers across different categories. The CAGR along with the projected consumer growth for the control period has been given in the table below:

Table 18: Projected consumer growth during Control Period (FY 2016-17 to FY 2018-19)

Consumer Category	FY 15-16	FY 16-17	FY 17-18	FY 18-19
	RE	Projected	Projected	Projected
Domestic	46,480	47,693	48,937	50,214
Commercial	8,242	8,452	8,668	8,889
Agriculture	1,220	1,246	1,272	1,298
LT Industry	1,772	1,789	1,806	1,823
HT/EHT Industry	792	798	804	810
Public Lighting	534	544	555	565
Public Water Works	109	109	109	109
Total	59,149	60,631	62,151	63,710

5. The same is in line with the no. of consumers approved by the Hon'ble Commission for the various categories for the MYT Control Period in the Business Plan dated 9th December, 2015.

3.3 Energy Sales Growth

- EDDD has forecasted the energy sales taking into account the past trends in the number of consumers, connected load and energy sales customer category-wise. Actual data available for the period from FY 2009-10 to FY 2014-15 has been considered to arrive at the Compound Annual Growth Rate (CAGR) for each of the customer categories. As the data available for FY 2015-16 pertains only to the first 6 months of the year, the figures for FY 2015-16 were not considered for arriving at the growth rates. However, the figures available for 6 months of FY 2015-16 have been annualized, in line with the past trends to arrive at sales estimates for FY 2015-16. The figures for FY 2015-16 have been further used as the base for forecasting the values for the Control Period, viz. FY 2016-17, FY 2017-18 and FY 2018-19.
- Table 19 below presents the category-wise energy sales for the past 5 years. The overall growth in sales has been 4.10% p.a., mainly contributed by increase in the HT industrial Category.

Table 19: Past Years' Energy Sales Growth

(MU)

Consumer Category	FY 09-10	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 14-15
	Actual	Actual	Actual	Actual	Actual	Actual
Domestic	57.92	64.20	73.85	77.79	84.16	83.06
LIG/ Kutir Jyoti	0.05	0.10	0.10	0.04	0.08	0.08
Commercial	27.73	29.30	33.83	38.74	46.75	41.57
Agriculture	2.53	2.60	2.70	4.22	3.05	2.30
LT Industry	139.12	151.00	156.84	161.21	169.59	153.70
HT/EHT Industry	1,236.51	1,402.00	1,496.83	1,572.81	1,441.53	1,327.84
Public Lighting	4.36	4.40	5.59	6.51	7.06	8.80
Public Water Works	0.88	0.90	0.92	1.12	1.20	3.28
Temp. Supply	0.00	0.70	0.51	0.51	0.67	1.09
Total Sales	1,469.10	1,655.20	1,771.17	1,862.95	1,754.08	1,621.72

- The EDDD is of the view that the factors affecting the actual consumption of electricity are numerous and often beyond the control of the utility including factors such as Government Policy, economic climate, weather conditions and force majeure events like natural disasters, etc. EDDD, therefore for projecting the category-wise consumption for the MYT Control Period FY 2016-17 to FY 2018-19

has considered the past growth trends in each of the consumer category including growth trend in number of consumers and connected load.

4. The sales for the FY 2015-16 has been projected by considering the actual sales for the first six months of FY 2015-16 and estimating the sales of the remaining six months on the basis of the four year CAGR for the different consumer categories. EDDD would like to highlight that for estimating energy sales to various consumer categories for FY 15-16, previous years CAGRs have been considered as well as the new connections that are likely to be released by the EDDD in the remaining period of FY 15-16.
5. The table given below summarizes the projections of category wise increase in energy sales over the control period (FY 2016-17 to FY 2018-19). As can be observed, the overall energy sales in UT of Daman & Diu are significantly dependent upon HT industrial consumption.
6. EDDD submits to the Hon'ble Commission to approve the energy sales forecasted herein.

Table 20: Projected Category wise Energy Sales for MYT Control Period

(MU)				
Consumer Category	FY 15-16	FY 16-17	FY 17-18	FY 18-19
MUs	RE	Projected	Projected	Projected
Domestic	91.20	99.49	108.88	119.17
LIG/ Kutir Jyoti	0.09	0.10	0.11	0.12
Commercial	45.64	47.69	51.08	54.71
Agriculture	2.53	2.53	2.65	2.77
LT Industry	168.75	166.19	172.82	179.71
HT/EHT Industry	1,420.79	1,469.52	1,572.39	1,682.46
Public Lighting	9.66	11.11	12.49	14.04
Public Water Works	3.60	3.83	4.14	4.47
Temp. Supply	1.20	0.00	0.00	0.00
Total Sales	1,743.44	1,800.46	1,924.56	2,057.45

6. The same is in line with the energy sales approved by the Hon'ble Commission for the various categories for the MYT Control Period in the Business Plan dated 9th December, 2015.

3.4 T&D Loss Reduction

1. The EDDD would like to submit that the system improvement works executed every year under the planned schemes as well as increase in energy sales quantum

to the HT consumers have resulted in the reduction of T & D losses in its distribution area.

- EDDD has achieved T&D loss level of 8.94% for the FY 2014-15. Reduction of T&D below 10% involves significant amount of capital expenditure and it is EDDD's endeavor to bring the T&D loss level further down in the subsequent years. Further, the Hon'ble Commission had set a T&D loss level target of 8.60% for the FY 2015-16 in the Tariff Order dated 31st March, 2015. The EDDD proposes to reduce the T&D losses to 8.60% for FY 15-16. The loss reduction trajectory for the Control Period is as given in the table below:

Table 21: Proposed T&D Loss Trajectory

	FY 16	FY 17	FY 18	FY 19
	RE	Projected	Projected	Projected
T&D Losses	8.60%	8.50%	8.40%	8.30%

- The same is in line with the T&D Loss Trajectory approved by the Hon'ble Commission for the various categories for the MYT Control Period in the Business Plan dated 9th December, 2015.
- The EDDD submits to the Commission to approve the T&D losses submitted herein.

3.5 Energy Requirement of the System

- Based on the proposed loss levels and projected energy requirement and availability within the state, the Energy Balance is presented in the following table:

Table 22: Energy Requirement of the System

Particulars	(MU)			
	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
	RE	Projected	Projected	Projected
Retail Sales (a)	1,743.44	1,800.46	1,924.56	2,057.45
Open Access Sales (b)	336.45	353.27	370.94	389.48
Total Sales (c=a+b)	2,079.89	2,153.73	2,295.50	2,446.93
Distribution Loss (MU) (d=f-c)	195.70	200.07	210.50	221.48
Distribution Loss (%) (e=d/f)	8.60%	8.50%	8.40%	8.30%
Energy Required at Periphery (f=i-g)	2275.59	2353.81	2506.00	2668.41
Energy Available at	2277.80	2357.13	2511.75	2673.50

Particulars	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
	RE	Projected	Projected	Projected
Periphery (g=j-h)				
Inter - state loss (MU) (h=i*j)	85.06	88.03	93.80	99.84
Inter - state loss (%) (i)	3.60%	3.60%	3.60%	3.60%
Total energy available (j=k+l)	2362.87	2445.16	2605.55	2773.34
Total Energy Available through CPSUs (k)	2009.82	2074.46	2216.31	2364.64
Injection through Open access (l)	353.05	370.70	389.24	408.70
Surplus Power (m=g-f)	2.21	3.33	5.75	5.09

3.6 Energy Availability

1. Daman & Diu being a Union Territory with no generating stations of its own, mainly relies on the firm and infirm allocations of power from Central Generating Stations like Korba, Vindychal, Kahalgaon, Kawas, Tarapur and Kakrapar atomic power stations of NPCIL etc. to meet its energy requirement.
2. The EDDD for the purpose of estimation of the power availability during FY 13-14 and FY 14-15 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;
 - Private sector power generating entities;
 - Renewable energy sources (solar and non-solar); and
 - Other Arrangements, in case of un-scheduled deficit of power
3. The Petitioner has allocation from Western as well as Eastern region power generating stations including coal, gas and nuclear power stations. However, for meeting the supply-demand gap during the peak hours, the Petitioner has relied on the short term arrangement of power.
4. For projecting the energy availability for FY 15-16, actual power purchase for the first six months of FY 15-16 has been considered. For projection of energy availability for the MYT Control Period, firm and infirm allocation from various

generating stations has been considered. Detailed methodology for projecting the power availability to the Petitioner from various sources is summarized below.

3.6.1 Power Purchase

1. Daman & Diu has firm and infirm allocations in Central Sector Generating Stations of NTPC, Nuclear Power Corporation of India Ltd (NPCIL), NTPC Sail Power Company Ltd (NSPCL) and Ratnagiri Gas and Power Private Limited (RGPPL).
2. Since first six months of FY 15-16 have already elapsed, the actual power purchase data for the same is available with the department. Therefore, the power availability for remaining six months i.e. October 2015 to March 2016 has been estimated based on the revised allocation issued by the Western Region Power Committee (WRPC) dated 30th October, 2015. The energy allocation from various generating stations is summarized in table below:

Table 23: Energy Allocation from Central Generating Stations

Particulars	Plant Capacity	EDDD Allocation	Avg. EDDD Allocation
	MW	MW	(%)
NTPC Stations			
KSTPP	2,100	49	2.31%
KSTPP-III	500	6	1.20%
VSTPP-I	1,260	13	1.06%
VSTPP-II	1,000	9	0.93%
VSTPP- III	1,000	11	1.13%
VSTPP- IV	500	13	2.54%
KAWAS	656	31	4.73%
JGPP	657	31	4.77%
Bhilai Unit-I &II(NTPC)	500	91.5	18.30%
Sipat-I	1,980	25	1.29%
Sipat-II	1,000	10	1.00%
MSTPS-I	500	13	2.54%

Particulars	Plant Capacity	EDDD Allocation	Avg. EDDD Allocation
	MW	MW	(%)
VSTPS-V	500	8	1.66%
Subtotal	11654	312	
Eastern Region			
KHSTPP-II	1000	1.30	0.13%
Subtotal	1000	1.30	
NPCIL			
KAPPS	440	8.30	1.89%
TAPP 3&4	1080	12.77	1.18%
Subtotal	1520	21.07	
Others			
Ratnagiri	1967	38	1.93%
Subtotal	1967	38	
Grand Total	16141	372	

- Actual power purchase in first six months of FY 15-16 and power allocation of 92 MW from NTPC-SAIL Bhilai power plant has been considered while estimating the power availability from this plant during FY 15-16.
- Actual power purchase in first six months of FY 15-16 from Ratnagiri Gas Power Plant has been considered. However, it is expected that EDDD will not be getting any power from Ratnagiri for the rest of the FY 2015-16 and therefore no power purchase from the plant has been considered for the remaining six months of FY 2015-16.
- During the control period, it is expected that capacity from the following plants will also be allocated to EDDD. The details of the plants and the capacity to be allocated to EDDD are given in the table below:

Table 24: Capacity Allocation from Upcoming Central Generating Stations for the Control Period

Particulars	Plant Capacity	EDDD Allocation	Avg. EDDD Allocation
-------------	----------------	-----------------	----------------------

	MW	MW	(%)
NTPC Stations			
LARA	4,000	4	0.10%
MOUDA-II	1,000	6	0.60%
SOLAPUR	1,920	8	0.42%
GADARWARA	2,640	2	0.08%
Subtotal	9560	20	
NPCIL			
KAPPS (III & IV)	100	5.44	5.44%
Subtotal	100	5.44	
Grand Total	9660	25.44	

6. The EDDD will start getting power from MOUDA-II, Solapur and KAPPS (III&IV) from FY 2016-17 and from LARA and GADARWARA from FY 2017-18. The power purchase from the plants has been considered accordingly.
7. For projecting the power availability for FY 16-17 to FY 2018-19, EDDD has considered average allocation of firm and infirm power from the western region generation stations (NTPC and NPCIL) of Western Regional Power Committee. For projecting the power purchase from eastern region NTPC generating stations, an allocation of 1.30 MW from KhSTPP has been taken into account.
8. Additionally, EDDD has 92 MW allocations from NSPCL Bhilai power stations. Energy availability from NSPCL Bhilai power stations for FY 16-17 to FY 2018-19 has been considered by taking 92 MW allocation from the plant.
9. Power purchase quantum from the NTPC stations of the current year and FY 2016-17 to FY 2018-19 has been calculated based on the installed capacity of each plant and by applying the average of previous four years (FY 12 to FY 15) PLF to calculate the plant-wise gross generation. For NSPCL, an average PLF of 90% has been considered.
10. For gas based generating stations i.e. Kawas (KGPP) and Gandhar (GGPP) weighted average PLF of FY 12-13, FY 2013-14 and FY 2014-15 have been taken into account.
11. Auxiliary consumption of 9% and 3% has been considered for estimating the gross generation from coal and gas based generating stations respectively.
12. Merit Order Dispatch: Further, the NTPC stations have been subjected to merit order

dispatch and accordingly the power purchase quantum and variable cost has been projected. However the fixed charges have been approved for full allocation.

13. During the FY 2015-16 the EDDD purchased 93260 non solar energy certificates at the rate of Rs. 1500 per certificate to meet its non solar obligation. Further, the EDDD proposes to buy 35.39 MUs 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 the EDDD purchased 34290 non solar energy certificates at the rate of Rs. 3500 per certificate. Further, EDDD will also generate 2.09 MUs of energy through the 1 MW solar plant commissioned in Daman and 3 MW in Diu.
14. For the Control Period the EDDD has considered purchase of non solar energy of 70 MUs to meet its RPO target through this route. EDDD has floated tender for non solar twice for 70 MUs but there was no participation seen. So EDDD has decided to float the tender once again for the 70 MUs non solar. Also EDDD shall procure 17 MUs from 8 MW wind farms.
15. 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 and it is expected that the plant will 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 EDDD will meet its solar obligation through these four plants. The per MW unit generation from the solar plants will be approx. 1.6 MUs.
16. The department 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 MUs per year, thus generating 9.6 MUs in FY 2016-17, 14.4 MUs in FY 2017-18 and 19.2 MUs in FY 2018-19. Thus, the total solar generation during the MYT Control Period will be 25.6 MUs during FY 2016-17, 36.8 MUs FY 2017-18 and 41.6 MU during FY 2018-19. A summary of the same is given in the table below:

Table 25: Expected Installed Capacity of Solar Plants for the Control Period

Solar Capacity (MW)	FY 2016-17	FY 2017-18	FY 2018-19
Daman	1	5	5
Diu	9	9	9
Rooftop	6	9	12
Total	16	23	26

Table 26: Expected Generation from Solar Plants for the Control Period

Solar Generation (MUs)	FY 2016-17	FY 2017-18	FY 2018-19
Daman	1.6	8	8
Diu	14.4	14.4	14.4
Rooftop	9.6	14.4	19.2
Total	25.6	36.8	41.6

17. For computing the power availability at the periphery, 3.60% weighted average external transmission losses have been applied on the gross power purchase for FY 15-16 and FY 2016-17 to FY 2018-19.

18. Table 27 below depicts the station wise power purchase for FY 15-16 and FY 2016-17 to FY 2018-19.

Table 27: Power Purchase Quantum

(MU)

Source	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
	RE	Projected	Projected	Projected
NTPC Stations				
KSTPP	338.55	338.55	338.55	338.55
KSTPP-III	41.98	41.98	41.98	41.98
VSTPP-I	93.30	93.30	93.30	93.30
VSTPP-II	65.06	65.06	65.06	65.06
VSTPP- III	79.05	79.05	79.05	79.05
VSTPP- IV	88.96	88.96	88.96	88.96
KAWAS	70.68	4.68	44.68	114.68
JGPP	88.72	12.72	62.72	132.72
Bhilai Unit-I &II(NTPC)	646.27	646.27	646.27	649.80
Sipat-I	149.04	149.04	149.04	149.04
Sipat-II	58.42	58.42	58.42	58.42
MSTPS-I	50.71	50.71	50.71	50.71
VSTPS-V	56.15	56.15	56.15	56.15
LARA	0.00	0.00	27.10	27.10
MOUDA-II	0.00	40.66	40.66	40.66
SOLAPUR	0.00	54.21	54.21	54.21
GADARWARA	0.00	0.00	13.55	13.55
Subtotal	1826.90	1779.76	1910.41	2053.94
Eastern Region				
KHSTPP-II	7.24	7.24	7.24	7.24
Subtotal	7.24	7.24	7.24	7.24
NPCIL				
KAPPS	60.12	60.12	60.12	60.12
TAPP 3&4	78.08	78.08	78.08	78.08
KAPPS (III & IV)	0.00	36.66	36.66	36.66
Subtotal	138.20	174.86	174.86	174.86

Source	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
	RE	Projected	Projected	Projected
Others				
Ratnagiri	0.00	0.00	0.00	0.00
Subtotal	0.00	0.00	0.00	0.00
<u>Power purchase from Other Sources</u>				
Power purchase from Indian E. Exchange	0.00	0.00	0.00	0.00
UI	0.00	0.00	0.00	0.00
Solar	2.09	25.60	36.80	41.60
Non Solar (Exchange)	35.39	87.00	87.00	87.00
Subtotal	37.48	112.60	123.80	128.60
Misc. Arrears				
NTPC Rebate				
Gross Power Purchase	2009.82	2074.46	2216.31	2364.64
External Losses	80.67	80.24	85.58	91.45
Total Power Purchase	1929.15	1994.22	2130.73	2273.19

19. The Petitioner submits to the Commission to approve the Power Purchase level estimated in table above.

3.6.2 Energy Requirement & Availability

1. Based on the data on estimated & projected sales and power purchase, an Energy Balance has been prepared to assess the T&D losses in FY 15-16 and the MYT Control Period FY 16-17 to FY 2018-19.

Table 28: Energy Balance

Particulars	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
	RE	Projected	Projected	Projected
Retail Sales (a)	1,743.44	1,800.46	1,924.56	2,057.45
Open Access Sales (b)	336.45	353.27	370.94	389.48
Total Sales (c=a+b)	2,079.89	2,153.73	2,295.50	2,446.93
Distribution Loss (MU) (d=f-c)	195.70	200.07	210.50	221.48
Distribution Loss (%) (e=d/f)	8.60%	8.50%	8.40%	8.30%
Energy Required at Periphery (f=i-g)	2275.59	2353.81	2506.00	2668.41
Energy Available at Periphery (g=j-h)	2277.80	2357.13	2511.75	2673.50
Inter - state loss (MU) (h=i*j)	85.06	88.03	93.80	99.84
Inter - state loss (%) (i)	3.60%	3.60%	3.60%	3.60%

Particulars	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
	RE	Projected	Projected	Projected
Total energy available (j=k+l)	2362.87	2445.16	2605.55	2773.34
Total Energy Available through CPSUs (k)	2009.82	2074.46	2216.31	2364.64
Injection through Open access (l)	353.05	370.70	389.24	408.70
Surplus Power (m=g-f)	2.21	3.33	5.75	5.09

3.6.3 Power Purchase Cost

1. The cost of purchase from the central generating stations for FY 15-16 and the MYT Control Period is estimated based on the following assumptions:

- Fixed cost for the FY 2015-16 and the MYT Control Period has been projected considering a 5% escalation over the estimated fixed cost for various stations for FY 14-15.
- Variable cost for each NTPC generating stations for the Control Period has been projected considering a 5% escalation over the estimated variable cost.
- The EDDD 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 have been considered for projecting the power purchase cost for the Control Period.
- For power purchase from renewable energy sources, 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 EDDD 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, 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.

2. The Total Power Purchase cost from various sources for FY 15-16 and for the MYT Control Period is summarized in the Table below:

Table 29: Power Purchase Cost

(Rs. Crore.)

Source	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
	RE	Projected	Projected	Projected
NTPC Stations				
KSTPP	60.48	63.50	66.68	70.01
KSTPP-III	12.07	12.67	13.30	13.96
VSTPP-I	23.13	24.24	25.40	26.61
VSTPP-II	16.61	17.39	18.20	19.05
VSTPP- III	23.59	24.73	25.92	27.16
VSTPP- IV	29.40	30.83	32.33	33.91
KAWAS	40.54	20.95	35.75	62.82
JGPP	51.80	29.59	48.20	75.80
Bhilai Unit-I &II(NTPC)	259.79	272.77	286.41	301.72
Sipat-I	51.81	54.39	57.09	59.93
Sipat-II	20.52	21.47	22.47	23.51
MSTPS-I	45.42	47.69	50.07	52.57
VSTPS-V	19.26	17.29	16.84	16.84
LARA	0.00	0.00	8.86	8.86
MOUDA-II	0.00	12.36	10.98	10.98
SOLAPUR	0.00	21.09	19.03	19.03
GADARWARA	0.00	0.00	4.92	4.92
Subtotal	654.43	670.96	742.45	827.69
Eastern Region				
KHSTPP-II	4.21	4.30	4.39	4.48
Subtotal	4.21	4.30	4.39	4.48
NPCIL				
KAPPS	14.06	14.09	14.12	14.15
TAPP 3&4	22.48	22.79	23.10	23.42
KAPPS (III & IV)	0.00	8.72	8.72	8.72
Subtotal	36.54	45.60	45.95	46.30
Others				
Ratnagiri	16.74	17.57	18.45	19.36
Subtotal	16.74	17.57	18.45	19.36
Power purchase from Other Sources				
Power purchase from Indian E. Exchange	0.00	0.00	0.00	0.00
UI	0.00	0.00	0.00	0.00
Solar	12.00	0.00	0.00	0.00
Non Solar (Exchange)	31.83	28.00	28.00	28.00
Subtotal	43.83	28.00	28.00	28.00
Misc. Arrears				
NTPC Rebate				
Gross Power Purchase	755.75	766.43	839.23	925.83
External Losses				

Source	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
	RE	Projected	Projected	Projected
Total Power Purchase	755.75	766.43	839.23	925.83

3.6.4 Transmission and Other Charges

Transmission charges payable to PGCIL are based on the total capacity allocation in the transmission network. EDDD has a mix of firm and infirm capacity allocations from various Central Generating Stations which is revised by the Ministry of Power at regular intervals. Therefore, considering the changing capacity allocation, EDDD has estimated the transmission charges for FY 15-16 based on, an escalation of 5% over the actual transmission charges of FY 14-15. Further, EDDD has taken into account the additional capacity share in the new stations while estimating the Inter-State transmission charges for ensuing year.

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, EDDD has taken into account the additional capacity share in the new stations while estimating the Inter-State transmission charges for ensuing year.

Table 30: Total Power Purchase Cost for FY 15-16 and the MYT Control Period

(Rs. Crore.)

Particulars	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
	RE	Projected	Projected	Projected
Gross Power Purchase Cost	755.75	766.43	839.23	925.83
PGCIL charges	75.00	78.75	82.69	86.83
WRLDC	0.29	0.31	0.32	0.34
MSTCL	3.78	3.97	4.17	4.37
REC	2.40	2.52	2.65	2.78
Total Power Purchase Cost (including Transmission Cost)	837.22	851.98	929.06	1020.15

3.7 Operation & Maintenance Costs

1. Operation and Maintenance expenses comprise of the following heads:
 - **Employees Expenses** which includes the basic pay, dearness pay, dearness allowances, house rent allowances, and other allowances 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, consultancy and regulatory fee etc.
2. The methodology adopted by EDDD for projecting the values of each component of the O&M expense for FY 15-16 & the MYT Control Period has been explained in the following section.

3.7.1 Employee Expense

1. The Employee expense estimated by the Petitioner comprise of all costs related to employees like basic salary, dearness allowances, medical expenses, leave travel allowances, honorarium, etc. But the Petitioner does not maintain cost related to leave salary contribution, pension and terminal benefits of the employee in the employee cost. Therefore, the Petitioner will claim these expenses relating to the employee cost at an appropriate time when the respective cost items become payable.
1. Based on the various expense head related to employee booked during six months of FY 15-16, EDDD has estimated the total employee cost for full year of FY 15-16 as Rs. 10.60 Crore. Salary expenses for the MYT Control Period is estimated based on the average increase in the Wholesale Price Index (WPI) for immediately preceding three years. The average WPI for the last three years is 5.98%.
2. As per the MYT Regulations, 2014, the employees' expenses have been calculated as per the following formulae:

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

where:

EMP_n: Employee expense for the year n

EMP_b; including yearly increments of employees, bonus, promotion. VRS.

Employee expense as per the norm

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

Provision: Provision for expenses as necessitated by the licensee due to expansion of the consumer base, yearly increments of Employees, and any expected one-time expenses as such as recovery/adjustment of terminal benefits, implications of pay commission, arrears and Interim Relief.

- The average growth in the WPI for the last three years is 5.98%. Total employee cost of EDDD for FY 15-16 and the Control Period is as given in the table below:

Table 31: Employee Expenses

(Rs. Crore)				
Employee Expenses (Rs. Crs)	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
	RE	Projected	Projected	Projected
Employee Expenses	10.60	11.23	11.90	12.61

- EDDD submits to the Hon'ble Commission to approve the employee costs as projected by the Petitioner.

3.7.2 Repairs & Maintenance Expense

- Repairs and maintenance expense comprise of expenses incurred by the Petitioner with regard to maintenance and upkeep of the transmission and distribution system. Adequate R&M activities help in reduction of transmission and distribution losses and breakdowns in the system.
- The actual R&M expense for FY 2014-15 is Rs. 12.42 Crore.
- As per the JERC Tariff Regulations the R&M expenses shall be calculated as percentage (as per the norm defined) of Opening Gross Fixed Assets for the year governed by following formula:

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

where:

R&M_n: Repairs & Maintenance expense for nth year

GFAn: Opening Gross Fixed Assets for nth year

K_b: Percentage point as per the norm

GFA : Gross Fixed Assets at the beginning of the Financial Year

Inflation Index is CPI : WPI :: 60 : 40

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

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

The computation of the WPI has been given in the table 32. The CPI inflation has been computed as given in the table below:

Table 32: CPI

Financial Year	WPI Index	Growth (WPI)
FY 2010-11	180.64	
FY 2011-12	194.83	7.86%
FY 2012-13	215.17	10.44%
FY 2013-14	236.00	9.68%
FY 2014-15	250.83	6.29%
Average		8.57%

4. For projecting the R&M expense for the Control Period, the EDDD has considered the inflation index as 8.67% (CPI: WPI :: 60 : 40). Total & maintenance cost of EDDD for FY 15-16 and the Control Period is summarized in the table below:

Table 33: Repairs & Maintenance Expense

(Rs. Crore)

Repair & Maintenance Expense (Rs. Crs)	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
	RE	Projected	Projected	Projected
R&M Expenses	12.42	12.98	14.73	18.00

5. EDDD requests the Commission to approve the R&M expense without any disallowances as the same is necessary for proper maintenance and strengthening of the system and quality of supply in the region in order to ensure consumer satisfaction. Further, Commission should considered the fact that price of most of the basic commodities like iron, copper, zinc and cement used in the repairs and maintenance has increased tremendously over the last 5 years.

3.7.3 Administration & General Expense

1. Administrative and General (A&G) expenses comprise of various expenses as given below:

- Rent
 - Rates and taxes
 - Travel and conveyance expenses
 - Consultancy and regulatory fees
 - Energy auditing fee and consumer indexing
 - Insurance and other administration expenses
2. The actual A&G expense for FY 14-15 is Rs. 6.83 Crore.
3. For projecting the A&G expenses for the Control Period the following formula has been used as given in the MYT Regulations:
 $A\&G_n = (A\&G_b * WPI \text{ inflation}) + \text{Provision}$
 where:
 A&G_n: A&G expense for the year n
 A&G_b: A&G expense as per the norm
 WPI inflation: is the average increase in the Wholesale Price Index (WPI) for immediately preceding three years
 Provision: Cost for initiatives or other one-time expenses as proposed by the Distribution Licensee and validated by the Commission.
 The computation of the WPI has been given in the table 32. The R&M expenses projected for the Control Period have been given in the table below:

Table 34: A&G Expense

(Rs. Crore)				
A&G Expense (Rs. Crs)	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
	RE	Projected	Projected	Projected
A&G Expenses	6.83	7.24	7.67	8.13

4. The Regulatory & Consultancy expenses for the Control Period has been projected as per the existing agreements, contracts with the consultants and the best estimates for the future regulatory and consultancy works.
5. In line with the above, the Hon'ble Commission is requested to approve the A&G costs without any disallowance.

3.7.4 Total Operation and Maintenance Expense

Based on the employee cost, R&M and A&G expense projected above, the total O&M expenditure for FY 15-16 and the Control Period is summarized in table below.

Table 35: Total O&M Expense

(Rs. Crore.)

O&M Expenditure	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
	RE	Projected	Projected	Projected
Employee Cost	10.60	11.23	11.90	12.61
R&M Cost	12.42	12.98	14.73	18.00
A&G Expenditure	6.83	7.24	7.67	8.13
Total O&M Expenditure	29.85	31.44	34.30	38.74

The EDDD requests the Hon'ble Commission to approve the O&M expense as projected above.

3.8 Capital Expenditure Plan

1. As has been discussed above, the (EDDD) is engaged in the procurement, transmission and distribution of electricity to the various consumer categories in the Union Territory of Daman and Diu. Apart from the upcoming solar plants, it does not have its own power generation station and completely rely on the Central Sector Generating Stations (CSGS) in Western Region to meet its energy demand.
2. Based upon the above mandate the CAPEX Plan proposals (scheme wise) for FY 16-17 to FY 18-19 under the MYT Control Period FY 2016-17 have been formulated by EDDD in order to effect better planning, budgeting and monitoring at macro & micro levels. The schemes are divided under the following two categories:
 - A. Ongoing Schemes
 - B. New Schemes
 - A. Ongoing Schemes**

The ongoing schemes have been given in the table below:

Table 36: Ongoing Schemes

(Rs. Crore)

Sr.No.	Name of Scheme	Approved Expenditure			
		2015-16	2016-17	2017-18	2018-19
1	Improvement and Renovation of 220 KV Sub-station	6.00	2.00	2.00	1.00
2	Establishment of 1x160 MVA + 2x50MVA, 220/66 KV Sub-station at Ringanwada, Nani Daman alongwith associated 220KV D/C line from 220 KV lines for Ringanwada Sub-station in Daman	3.73	13.79	13.79	0.00
3	Normal Development and Release of Service Connection	1.00	4.50	4.50	4.50
4	Providing Underground power Distribution system in Daman & Diu city/rural and extension of the scheme to Industrial Estate.	5.00	12.50	12.50	12.50
5	Augmentation of 66/11 KV existing Sub-stations at Daman and Diu	8.00	0.53	0.53	0.00
6	Construction of control room and office Building at Daman & Diu	0.50	1.00	0.50	0.50
7	Providing Off-grid solar PV system and Solar street lights in Daman and Diu	1.00	4.00	2.00	2.00
8	Installation of Solar PV-Lighting system on places of common use such as Panchayat Building, Community Halls, Schools etc	0.40	0.80	0.60	0.60
9	Electrification of Tribal area and providing Street Lighting in village road in Daman	0.40	0.25	0.15	0.10

Sr.No.	Name of Scheme	Approved Expenditure			
		2015-16	2016-17	2017-18	2018-19
10	Replacement of existing ACSR Panther Conductor of 66KV Varkund-Dalwada, Kachigam-Dabhel, Dalwada-Dabhel line HI TASCAR - 160 sq.mm Conductor	2.50	1.00	1.00	1.00
11	Providing improved metering system, Communication, MRT facilities and special tools & Plants/Workshop in Diu	0.24	1.00	1.20	1.26
12	Scheme for Construction of New Government Quarter for Executive Engineer	0.01	0.06	0.00	0.00
	Total	28.78	41.43	38.77	23.46

B. New Schemes

The new schemes have been given in the table below:

Table 37: New Schemes

(Rs. Crore)

Sr.No.	Name of Scheme	Approved Expenditure			
		2015-16	2016-17	2017-18	2018-19
1	Establishment of 2 x100 MVA, 220/66 KV Sub-station at Dabhel, Nani Daman	0.00	0.00	20.00	28.00
2	Establishment of 66/11 KV, 2x20 MVA GIS Sub-station alongwith associated line at Dabhel, Daman	0.00	5.00	15.00	5.00
3	Establishment of new hybrid bay in Sub-stations(i.e Dalwada, Bhimpore, Dabhel, Kachigam, Magarwada)	0.00	0.00	2.50	2.00

Sr.No.	Name of Scheme	Approved Expenditure			
		2015-16	2016-17	2017-18	2018-19
4	Scheme for inter connection of 66KV line from Zari Sub-station to Eurocaustic and replacement of Panther conductor from Kachigam Sub-station to EPL	0.00	3.00	3.00	2.00
5	Providing Solar Lighting system and Solar water heater to different classes of consumers of UT of Daman & Diu	0.00	0.55	0.55	0.55
6	Replacement of electromechanical energy meters in Daman & Diu	0.00	3.00	1.50	0.80
7	Procurement of Capacitor Bank in Existing Sub-station in Daman & Diu	0.00	1.00	0.50	0.50
8	Establishment of 66/11 KV GIS Sub-station at Bhimpore, Daman	0.00	0.00	10.00	15.00
9	Strengthening of 11 KV Feeders in Daman and Diu	0.00	3.00	3.00	3.00
10	Scheme of integrated solution for Electrical Network Modeling & Distribution Analysis Software	0.00	5.00	7.00	7.00
11	Strengthening of existing underground cabling network in Daman and Diu	0.00	10.00	20.00	30.00
	Total	0.00	30.55	83.05	93.85

- The capital expenditure proposed is in line with the capital expenditure approved by the Hon'ble Commission for the MYT Control Period in the Business Plan dated 9th December, 2015.
- 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 subsequent year as approved by the Hon'ble Commission for the MYT Control Period in the Business Plan dated 9th December, 2015. A summary of the capital expenditure and capitalization for FY 15-16 and the Control Period is summarized in Table below:

**Table 38: Capital Expenditure & Capitalization
for FY 15-16 and the MYT Control Period**

(Rs. Crore)

Capital Expenditure & Capitalization	FY 2015-16	FY 16-17	FY 2017-18	FY 2018-19
	RE	Projected	Projected	Projected
Capital Expenditure	28.78	71.98	121.82	117.31
Asset Capitalization	17.27	54.70	101.88	119.11

4.9 Gross Fixed Assets

1. EDDD had Rs. 337.42 Crore of Opening Gross Fixed Assets (GFA) in FY 14-15. Assets amounting to Rs. 57.17 Crore have been added to the GFA during the FY 2014-15.
2. Assets amounting to Rs. 17.27 Crore have been estimated to be added in the GFA during FY 15-16.
3. Similarly, based on the capital expenditure plan as detailed above, Rs. 54.70 Crore, Rs. 101.88 Crore and Rs. 119.11 Crore is proposed to be capitalized during the FY 2016-17, FY 2017-18 and FY 2018-19.
4. A summary of the Opening and Closing GFA and capitalization has been summarized in table below:

Table 39: Opening and Closing GFA for the Control Period

(Rs. Crore)

Particulars	Opening GFA	Additions during the Year	Closing GFA
FY 2014-15 (Revised Estimate)	337.42	54.27	387.13
FY 2015-16 (Projected)	387.13	17.27	404.40
FY 2016-17(Projected)	404.40	101.88	560.99
FY 2017-18(Projected)	560.99	119.11	680.10

4.10 Depreciation

1. Depreciation is charged on the basis of straight-line method, on the GFA 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.

2. Based on the CERC norms, EDDD has applied the following depreciation rates as specified in the Central Electricity Regulatory Commission (Terms & Conditions of Tariff) Regulations, 2014.

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

3. Depreciation for the current year and FY 15-16 is determined by applying aforesaid category-wise assets depreciation rates on the opening balance of Gross Fixed assets and average of the addition during the year projected for FY 15-16 and the Control Period. The EDDD would like to submit to the Hon'ble Commission that it has computed the depreciation based on the closing value of GFA for FY 2014-15 as given in the fixed asset register and the estimated capitalization for FY 15-16 and the Control Period.
4. Therefore the EDDD requests the Hon'ble Commission to approve the depreciation as given in the table below:

Table 40: Depreciation

Particulars	(Rs. Crore)			
	FY 15-16 Revised Estimate	FY 16-17 Projected	FY 17-18 Projected	FY 18-19 Projected
Opening GFA	387.13	404.40	459.10	560.99
Additions	17.27	54.70	101.88	119.11
Closing GFA	404.40	459.10	560.99	680.10
Average GFA	395.77	431.75	510.04	620.54
Depreciation Amount	19.47	21.37	25.50	31.33
<i>Average Depreciation Rate</i>	4.81%	4.65%	4.55%	4.61%

4.11 Interest & Finance Costs

4.11.1 Interest on Long-term / Capital Loans

1. The entire capital expenditure of EDDD since its inception has been funded by the Central Government through budgetary support each year. Therefore, the department does not have any loan liabilities.
2. However, EDDD is now migrating from a Government owned utility to a commercial utility under the Electricity Act, 2003, it has come under the direction of the Joint Electricity Regulatory Commission. It has been assumed that EDDD would work as a separate commercial utility and therefore would be utilizing the debt facilities in the coming years.
3. Assets capitalized during the Control Period have been considered based on normative debt-equity ratio of 70:30 as per the JERC (Multi Year Distribution Tariff) Regulations, 2014.
4. 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. Details of the loan amounts and interest cost computed for FY 15-16 and the Control period is summarized in Table below:

Table 41: Total Interest on Long-term Loans

(Rs. Crore)

Interest on Long-term Loans	FY 15-16	FY 16-17	FY 17-18	FY 18-19
Rs Crore	Revised Estimate	Projected	Projected	Projected
Opening Loan	83.30	87.06	116.64	176.30
Addition in Loan (70% of Asset Capitalization)	12.09	38.29	71.32	83.38
Repayment of Loan (10% of Opening Balance)	8.33	8.71	11.66	17.63
Closing Loan Amount	87.06	116.64	176.30	242.05
Average Loan	85.18	101.85	146.47	209.17
<i>Interest Rate on Loan</i>	14.75%	14.75%	14.75%	14.75%
Total Interest Cost on Long-term Loans	12.56	15.02	21.60	30.85

The EDDD requests the Hon'ble Commission to approve the depreciation as given in the table above.

4.11.2 Interest on Working Capital Borrowings

1. EDDD has computed the Interest on Working Capital for FY 15-16 based on normative basis as per the JERC (Terms and Conditions for Determination of Tariff) Regulations, 2009.
2. EDDD has been computed the working capital requirement for FY 15-16 considering the following parameters on normative basis:
 - a. One month Power purchase cost
 - b. One month Employees cost
 - c. One month Administration & general expenses
 - d. One month Repair & Maintenance expenses.
 - e. Sum of two month requirement for meeting Fuel cost.
3. The rate of interest of 14.45% has been considered for FY 15-16 on the working capital requirement as approved by the Hon'ble Commission in its last Tariff Order.
4. The normative interest on working capital for FY 15-16 considering the above methodology is summarized in the Table below:

Table 42: Interest on Working Capital for the FY 2015-16

(Rs. Crore)	
Particulars	FY 15-16
	RE
O&M expense for 1 month	2.49
Power Purchase Cost for 1 month	69.77
Fuel cost for two months	0.00
Total Working Capital requirement	72.26
Security Deposit	49.91
Net Working Capital required after deduction of Security Deposit	22.35
Interest on Working Capital	3.30

5. EDDD 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.

6. 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
7. A rate of interest of 14.75% 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."
8. The normative interest on working capital for the MYT Control period considering the above methodology is summarized in Table 43 below:

Table 43: Interest on Working Capital for the Control Period

(Rs. Crore)

Interest on Working Capital	FY 16-17	FY 17-18	FY 18-19
	Projected	Projected	Projected
Receivables of two months of billing	143.72	153.57	164.12
Less power purchase cost of one month	71.00	77.42	85.01
Less consumer security deposit but excluding Bank Guarantee/Fixed Deposit Receipt	49.91	49.91	49.91
Inventory for two months based on annual requirement for previous year	22.28	23.39	24.56
Total Working Capital requirement	45.09	49.64	53.76
Rate of Interest on Working Capital	14.75%	14.75%	14.75%
Total Interest on Working Capital	6.65	7.32	7.93

9. The EDDD requests the Hon'ble Commission to approve the interest on working capital as given above.

4.12 Return on Capital Employed

1. Since ED- DD is an integrated utility 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.
2. Return on capital employed for EDDD computed for FY 15-16 and the Control Period has been detailed in Table 46 below:

Table 44: Proposed Return on Capital Employed

(Rs. Crore)

Return	FY 15-16	FY 16-17	FY 17-18	FY 18-19
	Revised Estimate	Projected	Projected	Projected
Return on Capital Employed	7.46	7.40	8.40	10.69

4.13 Provision for Bad & Doubtful Debts

1. EDDD has considered provision for Bad and Doubtful Debts as 0.10% of the revenue for FY 15-16 and the Control Period.
2. EDDD requests the Hon'ble Commission to approve the provision for bad & doubtful debts as summarized in the Table below:

Table 45: Provision for Bad & Doubtful debts

(Rs. Crore)

Provision for Bad & Doubtful Debts	FY 15-16	FY 16-17	FY 17-18	FY 18-19
	Revised Estimate	Projected	Projected	Projected
Provision for Bad & Doubtful Debts as % of Receivables	0.10%	0.10%	0.10%	0.10%
Provision for Bad & Doubtful Debts	0.84	0.86	0.92	0.98

4.14 Non-Tariff & Other Income

1. Non-tariff income includes meter rent/service line rentals, recovery for theft of power/malpractices, miscellaneous charges from consumers. Other income includes Interest on Staff loans & advances, Delayed payment charges from consumers, Interest on advances to suppliers/contractors, and Miscellaneous receipts.

2. For estimating the non-tariff income for FY 15-16, an increase of 5% p.a. has been considered over the actual FY 14-15 non-tariff income.
3. For projecting the non-tariff income for the Control Period, an year on year increase of 5% p.a. has been considered over the estimated non-tariff income for FY 15-16. Details of the year wise non-tariff income is provided in table below:

Table 46: Non-tariff Income

(Rs. Crore)

Particulars	FY 15-16	FY 16-17	FY 17-18	FY 18-19
	Revised Estimate	Projected	Projected	Projected
Non-tariff Income	18.96	19.86	20.81	21.80

4.15 Aggregate Revenue Requirement

1. Table 47 summarizes EDDD's Aggregate Revenue Requirement for FY 15-16 and the MYT Control Period FY 2016-17 to FY 2018-19.

Table 47: Aggregate Revenue Requirement

(Rs. Crore)

Annual Revenue Requirement	FY 15-16	FY 16-17	FY 17-18	FY 18-19
	Revised Estimate	Projected	Projected	Projected
Power Purchase Cost	837.22	851.98	929.06	1,020.15
O&M Expense	29.85	31.44	34.30	38.74
Depreciation	19.47	21.37	25.50	31.33
Interest Cost on Long-term Capital Loans	12.56	15.02	21.60	30.85
Interest on Working Capital Loans	3.30	6.65	7.32	7.93
Return on Capital Employed	7.46	7.40	8.40	10.69
Provision for Bad Debt	0.84	0.86	0.92	0.98

Annual Revenue Requirement	FY 15-16	FY 16-17	FY 17-18	FY 18-19
	Revised Estimate	Projected	Projected	Projected
Interest on Security Deposit	3.50	3.50	3.50	3.50
Less: Non-Tariff Income	18.96	19.86	20.81	21.80
Annual Revenue Requirement	895.23	918.36	1,009.80	1,122.38

4.16 Revenue at Existing Tariff

1. Revenue from sale of power for FY 15-16 and the Control Period is determined based on the energy sales estimated in Table 20 and category wise tariff prevalent in the UT of Daman & Diu.
2. Revenue from sale of power at existing tariff is estimated to be Rs. 835.94 Crore for FY 15-16. The estimated revenue for FY 15-16 is based on the first six months actual revenue from sale of power as per the new retail tariff notified by the Commission vide the Tariff Order for FY 15-16 dated 31st March, 2015.
3. The fuel purchase adjustment surcharge approved by the Hon'ble Commission is also being levied to all the consumer categories except the Domestic and Agriculture consumers.
4. Further, EDDD has computed the revenue for the Control Period based on the tariff notified by the Hon'ble Commission in the Tariff Order for FY 15-16 dated 31st March, 2015.
5. The table below summarizes the revenue from sale of power at existing tariff for FY 2015-16 and the Control Period:

Table 48: Revenue from Sale of Power at Existing Tariff

(Rs. Crore.)

Revenue @ Existing Tariff	FY 15-16	FY 16-17	FY 17-18	FY 18-19
(Rs Crore)	Revised Estimate	Projected	Projected	Projected
Domestic	17.366	18.945	20.733	22.693
LIG	0.001	0.001	0.001	0.001

Revenue @ Existing Tariff	FY 15-16	FY 16-17	FY 17-18	FY 18-19
(Rs Crore)	Revised Estimate	Projected	Projected	Projected
Commercial	16.860	17.617	18.870	20.211
Agriculture	0.206	0.207	0.216	0.226
LT Industry	68.182	67.148	69.827	72.611
HT/EHT Industry	726.674	751.599	804.212	860.509
Public Lighting	4.610	5.304	5.962	6.702
Public Water Works	1.409	1.498	1.619	1.748
Temp. Supply	0.636	0.000	0.000	0.000
Total	835.943	862.318	921.441	984.701
Revenue from surplus power	0.71	1.06	1.84	1.63
Total Revenue	836.65	863.38	923.28	986.33

4.17 Coverage of Revenue Gap

1. Revenue from sale of power with-in the UT (category-wise) is determined in Table 48.
2. Table 49 summarizes the ARR for EDDD for FY 2014-15, FY 2015-16 and FY 2016-17 along with the revenue and the resulting revenue (gap)/surplus. The cumulative surplus for the three years is Rs.2.11 Crore as given in the table below.

Table 49: Revenue Gap for FY 2015-16

Sr. No.	Particulars	FY 14-15	FY15-16	FY16-17
		Actual	Revised Estimates	Projected
1	Total ARR	756.25	895.23	918.36
2	Revenue @ Existing Tariff	785.95	835.94	862.32
3	Revenue from Surplus Power Sale	4.60	0.71	1.06
4	Total Revenue(2+3)	790.55	836.65	863.38

(Rs. Crore.)

Sr. No.	Particulars	FY 14-15	FY15-16	FY16-17
		Actual	Revised Estimates	Projected
5	Revenue (Gap) /Surplus(4-1)	34.31	(58.58)	(54.98)
	Covered By			
6	Previous Years' (Gap)/Surplus Carried Over	81.36	115.67	57.09
7	Total (Gap)/Surplus for three years(5+6)	115.67	57.09	2.11

- It is evident from Table 49 that there is a cumulative surplus of Rs. 2.11 Crore for the three years. The estimated surplus has been computed by deducting the ARR from Revenue at Existing Tariff.
- Thus, the EDDD does not propose any tariff hike for the FY 2016-17. It is prayed to the Hon'ble Commission that considering the above submissions the proposal of EDDD for keeping the tariff unchanged for the FY 2016-17 may kindly be approved.

4.18 Average Cost of Supply

- Table 50 summarizes Average Cost of supply and total average realization at the existing tariff approved by the Hon'ble Commission.

Table 50: Average Cost of Supply & Revenue Realization

Average Realization & Cost of Supply	FY 14-15	FY15-16	FY16-17
(Rs/Unit)	Actual	Revised Estimate	Projected
Average Cost of Supply of EDDD	4.66	5.07	5.03
Average Realization	4.87	4.74	4.73
Revenue Gap at Existing Tariff	0.21	(0.33)	(0.30)
Net Revenue (Gap)/Surplus(Includes gap of previous year)	0.66	0.33	0.03
Additional revenue at Proposed Tariff			

4.19 Initiatives

A) Promotion of Solar Energy

With the aim of promoting solar energy in the UT of Daman and Diu and also to meet its RPO obligations as mandated by the Hon'ble Commission the EDDD proposes that all the HT consumers in the UT of Daman and Diu shall also meet the RPO obligation 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.

4.20 Tariff Proposal for FY 16-17

1. As there is a cumulative surplus of Rs. 2.24 Crore for, FY 2014-15, FY 2015-16 and FY 2016-17 the EDDD does not propose any tariff hike for the FY 2016-17. The table below summarizes the existing and proposed tariff structure for various consumer categories for FY 2016-17.

Table 51: Proposed Tariff Structure for FY 16-17

Tariff Structure	Existing		Proposed	
	Energy Charges (Rs/Kwh)	Fixed Charges	Energy Charges (Rs/Kwh)	Fixed Charges
LT-D/Domestic				
1st 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 First 500 watts - Rs. 25/- or part thereof For every additional 500 watts - Rs. 40/- per month or part thereof
Beyond 100 Units	3.65		3.65	Three Phase Rs. 40/HP/kVA/kW per month or part thereof
LT- Ag/ Agriculture				
Upto 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 Public Water Work)				
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

2. EDDD, requests the Hon'ble Commission to approve the fuel purchase adjustment formula including the "k" factor for FY 16-17 as well, which can take care of any variation in the ARR over and above the approved level by the Commission for FY 16-17.

Chapter 4: Determination of Open access charges

4.1 Allocation Matrix

The allocation between wheeling and retail supply business for FY 2016-17 as per the ARR proposed for FY 2016-17 is provided in the table below:

Table 52: Allocation of ARR between Wheeling and Retail Supply

Annual Revenue Requirement Rs. Crs	Allocation (%)		Allocation FY 2016-17	
	Wheeling	Supply	Wheeling	Supply
Fuel Cost	0%	100%	0	0
Power Purchase Cost	0%	100%	-	851.98
Employee	70%	30%	7.86	3.37
R&M	50%	50%	6.49	6.49
A&G	90%	10%	6.51	0.72
Depreciation	90%	10%	19.23	2.14
Interest Cost on Long-term Capital Loans	90%	10%	13.52	1.50
Interest on Working Capital Loans	22%	78%	1.46	5.19
Interest on Security Deposit	0%	100%	-	3.50
Return on Equity	90%	10%	6.66	0.74
Provision for Bad Debt	0%	100%	-	0.86
RPO Provisioning	0%	100%	-	-
Provision for Interest on security deposit	0%	100%	-	-
Annual Revenue Requirement			61.73	876.49
Less: Non-Tariff Income	0%	100%	-	19.86
Less: Revenue from Surplus Power Sale	0%	100%	-	10.26
Less Revenue from OA consumer	0%	100%	-	-
Net Revenue Requirement			61.73	846.37

4.2 Voltage wise Wheeling Charges

The EDDD 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.

The total loss for FY 2016-17 has been considered as 8.50%. The balancing loss has been considered as the loss at the LT level.

To arrive at the network usage, the input energy at each level has been arrived and shown in the table below.

Table 53: Determination of input energy for network usage percentage

Particulars	UoM	S.No.	FY 2016-17
Total Input	MU	A	1,967.72
Input for EHT	MU	$B = G / (1-E)$	46.05
% to total input	%	$C = B / A$	2.34%
Losses for EHT (%age of total input)	%	$D = F / A$	0.02%
Losses for EHT (%age of EHT input)	%	$E = F / B$	1.00%
Losses	MU	$F = B - G$	0.46
Sales at 66 kV and above	MU	G	45.59
Input for HT	MU	$H = L / (1-K)$	1460.14
% to total input	%	$I = H / A$	74.20%
Losses for HT (%age of total input)	%	$J = L / A$	1.84%
Losses for HT (%age of HT input)	%	$K = L / H$	2.48%
Losses	MU	L	36.21
Sales at 11 kV	MU		1,423.93
Input for LT	MU	$M = A - B - H$	461.52
% of total input	%	$N = M / A$	23.45%
Losses at LT level (%age of LT input)	%	$J = K / M$	28.29%
Losses	MU	$K = H - L$	130.58
Sales at 11 kV and below	MU	L	330.94
Balance	MU		-

Accordingly the wheeling cost has been considered in the ratio of 2.34:74.20:23.45 and the wheeling charge so arrived has been shown in the table below.

Table 54: Wheeling charges proposed for FY 2016-17

Particulars	UoM	S.No.	FY 2016-17
Wheeling Cost	Rs. Crore	A	61.73
Wheeling Cost at EHT	Rs. Crore	B=A*2.34%	1.44
Wheeling Cost at HT	Rs. Crore	C=A*74.20%	45.81
Wheeling Cost at LT	Rs. Crore	D=A*23.45%	14.48
Energy Input at Discom Periphery	MU	E	1,967.72
Energy Input for EHT	MU	F=J/(1-H)	46.05
Wheeling Charge at EHT level	Rs. per unit	G=B/E*10	0.31
EHT losses	%	H=I/F	1.00%
EHT losses	MU	I=E-J	0.46
Sales at EHT level	MU	J=F-I	45.59
Energy Input for HT	MU	K=O/(1-M)	1,460.14
Wheeling Charge at HT level	Rs. per unit	L=C/K*10	0.31
HT losses	%	M=N/K	2.48%
HT losses	MU	N=K-O	36.21
Sales at HT level	MU	O=K-N	1,423.93
Energy Input at LT	MU	P=R/(1-S)	461.52
Wheeling Charge at LT level	Rs. per unit	Q=D/P*10	0.31
Sales at LT level	MU	R=P-T	330.94
LT Losses	%	S=T/P	28.29%
LT Losses	MU	T=P-R	130.58
Total Losses	MU	U=I+N+T	167.26
Total Losses	%		8.50%

4.3 Cross Subsidy Surcharge

The cross-subsidy surcharge is based on the following formula as given in the Tariff Policy:

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

Where,

S is the surcharge

T is the Tariff payable by the relevant category of consumers;

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

D is the Wheeling Charges

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

The computation of each item is as below.

Table 55: Calculation of "T"

Particular	Sale (MU)	Revenue from approved tariff (Rs. Crore)	Average Tariff (Rs./kwh)
T	1,469.52	751.60	5.11

Table 56: Calculation of "C"

Station	Energy Procured (MU)	Average Rate (Rs./kwh)	Total Power Purchase Cost (Rs. Crore)
C	646.27	4.22	272.77

The cross subsidy surcharge based on the above formula is worked out in the table below:

Table 57: Proposed Cross Subsidy Surcharge for FY 2016-17

Cross Subsidy Surcharge	UoM	HT & EHT Industry
T	Rs. per kwh	5.11
C	Rs. per kwh	4.22
D	Rs. per kwh	0.31
L	%	3.48%
Surcharge	Rs. per kwh	0.58

4.4 Application and Agreement Fees

The application and agreement fees are proposed as Rs 50,000/- and Rs 1,00,000/- per MW respectively.

Chapter 5: Compliance of Directives

The Hon'ble Commission vide Tariff Order dated 31st March, 2015 had issued a set of directives to be followed by EDDD to comply with the JERC (Terms and Conditions of Determination of Tariff) Regulations, 2009.

In line with the directives, EDDD has been taken several steps to comply with the directives. The purpose of this section is to appraise the Hon'ble Commission on progress made by EDDD on this matter since the issuance of the aforesaid tariff order.

A. Old Directives

1. Management Information System

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

a. Compliance/Action Taken by the Petitioner and Commission's comments as per Tariff Order dated March 22nd 2013

Petitioner's Submission

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 and is expected to be completed in this financial year.

Commission's Comments

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.

b. Compliance/Action Taken by the Petitioner and Commission's comments as per Tariff Order dated 1st May, 2014

Petitioner's Submission

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.

Commission's Comments

The pending submission should be ensured as per the date committed by the Petitioner.

c. Compliance/Action Taken as submitted in the present Petition

Petitioner's Submission

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.

Commission's Comments

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.

Petitioner's Submission

A copy of the latest report prepared the RIMS format with RACE (Revenue Administration through Computerized Energy Billing System) is being enclosed along with this petition as **Annexure**

2. Collection of Arrears

Directive: The Petitioner is directed to furnish details of the pending arrears opening balance, liquidation during the year, additions during the year be given as on 31st March for the years 2007, 2008, 2009, 2010, 2011 and 2012 by end of October 2012.

a. Compliance/Action Taken by the Petitioner and Commission's comments as per Tariff Order dated March 22' 2013

Petitioner's Submission

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 Crore. 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.

Commission's Comments

Action taken is noted and the pending submission should be ensured before the next ARR filing.

b. Compliance/Action Taken by the Petitioner and Commission's comments as per Tariff Order dated 1st May, 2014

Petitioner's Submission

The EDDD has submitted that the arrears for the HT industrial and LT industrial category stood at Rs. 2.59 Crore and Rs. 3.60 Crore at the end of FY 2012-13.

Commission's Comments

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 15th day of the following month.

c. Compliance/Action Taken as submitted in the present petition

Information regarding arrears liquidated during FY 2013-14 and addition during FY 2013-14 is submitted.

Commission's Comments

The action is noted. The quarterly reports on the progress of liquidation of arrears should be submitted regularly. The status report as on 31st March 2015, shall be submitted by 30th June 2015.

Petitioner's Submission

The status report as on 31st March 2015 has been submitted to the Hon'ble Commission on 30.06.2015.

3. Augmentation of Transmission and Distribution System

Directive: 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.

a. Compliance/Action Taken by the Petitioner and Commission's comments as per Tariff Order dated March 22' 2013

Petitioner's Submission

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.

Commission's Comments

Action taken is noted. The capital expenditure required should be put up before the next ARR & tariff filing for FY 2013-14.

b. Compliance/Action Taken by the Petitioner and Commission's comments as per Tariff Order dated 1st May, 2014.

Petitioner's Submission

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 details of the schemes are as given below.

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

S. No.	Name of Scheme	Estimated Amount (Rs. Crs)	Status of work
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

The existing substation at Dalwara was overloaded, therefore a new 66/11 kVA 2x15 MVA was established at Bhimpore, Daman.

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.

The existing substation at Kachigam was overloaded; therefore a new 66/11 kVA 2x15 MVA substation is being established at Zari, Daman.

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.

Commission's Comments

The submission of the Petitioner as regards the 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.

c. Compliance/Action Taken as submitted in the present petition

The progress report of the various schemes is submitted.

Commission's Comments

The compliance of the Petitioner is noted. The latest status report as on 31st March 2015 shall be submitted by 30th June 2015.

Petitioner's Submission

The EDDD would like to submit that the latest status report as on 31st March, 2015 has been submitted to the Hon'ble Commission on 30.06.2015.

4. Demand Side Management and Energy Conservation

Directive: 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. 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.

a. Compliance/Action Taken by the Petitioner and Commission's comments as per Tariff Order dated March 22' 2013

Petitioner's Submission

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.

Commission's Comments

Action taken is noted. The pending submission should be made before the next ARR filing.

b. Compliance/Action Taken by the Petitioner and Commission's comments as per Tariff Order dated 1st May, 2014

Petitioner's Submission

The final study report of the consultant on DSM implementation has been enclosed along with this submission as Annexure I.

Commission's Comments

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 as submitted in the present petition

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.

Commission's Comments

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.

Petitioner's Submission

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.

4. Roadmap for reduction in cross-subsidy

Directive: The Petitioner is directed to propose a road map for an increase in the tariff rate which progressively reduces to bring 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.

a. Compliance/Action Taken by the Petitioner and Commission's comments as per Tariff Order dated March 22' 2013

Petitioner's submission

'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'

Commission's Comments

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.

b. Compliance/Action Taken by the Petitioner and Commission's comments as per Tariff Order dated 1st May, 2014

Petitioner's Submission

Not submitted.

Commission's Comments

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.

c. Compliance/Action Taken as submitted in the Present Petition

It is submitted that road-map for reduction of cross-subsidy is under preparation and the report will be submitted to the Commission shortly.

Commission's Comments

The report on the road map for reduction of cross subsidy should be submitted positively by 31st July, 2015.

Petitioner's Submission

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 Commission shortly.

5. Shifting of existing consumers to higher voltage

Directive: 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

a. Compliance/Action Taken by the Petitioner and Commission's comments as per Tariff Order dated March 22' 2013

Petitioner's submission

'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.

Further the EDDD is carrying out the cost benefit analysis of 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.'

Commission's Comments

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:

"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 level."

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. Commission may take a further view once the compliance is submitted with cost - benefit analysis.

b. Compliance/Action Taken by the Petitioner and Commission's comments as per Tariff Order dated 1st May, 2014

Petitioner's Submission

"The report is being enclosed along with this submission as Annexure V"

Commission's Comments

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.

The Commission, accordingly, approves the following to be included in the tariff schedule.

"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. However, wherever the existing feeders are required to be augmented, the Electricity Department shall carry out such augmentation by 30th September, 2014."

c. Compliance/Action Taken as submitted in the present petition

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 Sub-station, 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 upto 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 carried out soon.

Commission's Comments

The action taken by the Petitioner is noted. The latest status report of the compliance shall be submitted by 30th September, 2015.

Petitioner's Submission

The EDDD 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 checkpoint. 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 will balance the overloaded 11 KV feeder of existing 66 KV Dalwada Sub-station and cater the future load of Bhimpore and Panchal area.

B. New Directives

1. Directive 1: 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 of 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 number 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.

Petitioner's Submission

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.

2. Directive 2: 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 Standard of Performance notified by the Commission strictly and the status report on all new/shifting connection applications pending by more than 45 days, with the reason 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.

Petitioner's Submission

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

3. Directive 3: Unbundling and Corporatization of Electricity Department as per Electricity Act 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.

Petitioner's Submission

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.

4. Directive 4: 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.

Petitioner's Submission

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 accidents:

- 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.

The quarterly reports on departmental/ non departmental, fatal/ non fatal accidents occurred in the U.T shall be submitted to the Hon'ble Commission shortly.

5. Directive 5: 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, alongwith 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.**

Petitioner's Submission

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.

C. Directives issued in the Order of the Business Plan dated 9th December, 2015

1. 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.

Petitioner's Submission

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.

2. 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 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.

Petitioner's Submission

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.

3. 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.

Petitioner's Submission

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.

4. Renewable Purchase Obligation (RPO)

The Commission has taken note of the submission of the Petitioner regarding steps being taken to fulfil the RPO obligation and appreciates efforts being made to fulfil the RPO obligation. 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 obligations 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.

Petitioner's Submission

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.

5. Unbundling and Corporatization

As part of the Power Sector reforms as envisaged by the Electricity Act, 2003, the generation, transmission and distribution activities are to be separated and independent corporations are to be formed. The generation, transmission and distribution companies thus formed under the Companies Act will have a distinct legal identity, apart from providing the management with better financial autonomy and more delegation of powers. Further, the new management structure ensures financial accountability and better consumer satisfaction.

As regards the present status, the Petitioner has submitted that it is under process of bifurcating the transmission and distribution functions.

The steps taken by the department in this regard are noted. However, the Petitioner is directed to speed-up its efforts in this regard and submit quarterly progress report in this regard before the Commission.

Petitioner's Submission

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.

6. 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.

Petitioner's Submission

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 to the website. Thus the consumers can contact the complaint center of their area any time to register their complaint with the department. Further, the department shall also convene monthly public grievance meetings with the consumers to sort out issues related to the supply of power/electricity/connections.

7. MYT Tariff Petition for FY2016-17 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.

Petitioner's Submission

The EDDD has noted the directive of the Hon'ble Commission and shall comply accordingly.

Tariff Schedule

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.
Provided that (a) if a portion of the domestic premises limited to only one room is used for running small household business having connection under domestic category, such connection shall be billed under domestic category provided that the total monthly consumption of the consumer (including consumption for above mentioned small household business) does not exceed 150 kWh.

(b) If either more than one room or only one room having monthly consumption exceeding 150 kWh for consecutive three months is detected in the domestic premises being used for mixed purposes having domestic connection, such connection shall further be billed under commercial category until a separate connection of appropriate tariff is taken for that portion used for non-domestic purpose.
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 80% 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-drawl 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 upto 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	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

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.

16. Schedule of 'Other Charges' would be as approved in this tariff order.

DETAILED TARIFF SCHEDULE**I. (A) Domestic Category**

Applicable to private houses, hostels, hospitals run on Non-commercial lines, Charitable, Educational and Religious Institutions for light, Fans, Radios, domestic heating and other household appliances including water pumps up to 2 HP.

1. Energy Charges

Usage(Units/Month)	Energy Charge (Ps./Unit)
0-50 units	120
51-200 units	180
201-400 units	220
401 and above	255

2. Minimum Charges

First 500 watts or part thereof	Rs 20.00/- per month or part thereof
For every additional 500 watts or part thereof	Rs 15.00/- per month or part thereof

(B) Power Supply to 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 2x40 watts, penal charges at the rate of Rs. 20 per month per point will be levied and the installation will be liable for disconnection.

II. Non-Domestic Category/Commercial

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.

Applicable for Shops, Offices, Restaurants, Bus Stations, Photo Studios, Laundries, Cinema Theatres, Industrial Lighting, clubs and other Commercial installations.

1. Energy Charges

Usage(Units/Month)	Energy Charge (Ps./Unit)
1-100 units	265
101 units and above	365

2. Fixed Charges**(a) Single phase**

First 500 watts or part thereof	Rs 25.00/- per month or part thereof
For every additional 500 watts or part thereof	Rs 40.00/- per month or part thereof

(a) Three phase

First 500 watts or part thereof	Rs 40.00/- per HP/kVA/kW per month or part thereof

III. LT Industrial Category

Applicable to all Low Tension Industrial Motive Power Connections including water works/pumps with sanctioned load upto 99 HP.

1. LTP Motive Power**i. Energy Charges**

Usage(Units/month)	Energy Charge (Ps./Unit)-
For all units	350

ii. Fixed Charges

	Fixed charge (Rs./HP/month) or part thereof
For category as defined above	Rs 25.00/- per HP or part thereof

iii. Power Factor Charges

Any motive power connection above 3 HP running without proper capacitors installed so as to maintain Power Factor 0.95 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. If the average power factor is 0.70 (lagging) or below the consumer shall be billed as per the kVAH billing. In case the monthly average power factor is 0.70 (lagging) or below, the installation is liable for disconnection after due notice.

iv. 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. LT Public Water Works

i. Energy Charges

Usage(Units/month)	Energy Charge (Ps./Unit)-
For all units	370

ii. Fixed Charges

	Fixed charge (Rs./HP/month) or part thereof
For category as defined above	Rs 25.00/- per HP or part thereof

iii. Power Factor Charges

Any connection above 3 HP running without proper capacitors installed so as to maintain Power Factor 0.95 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. If the average power factor is 0.70 (lagging) or below the consumer shall be billed as per the kVAH billing. In case the monthly average power factor is 0.70 (lagging) or below, the installation is liable for disconnection after due notice.

iv. Penalty Charges: Twice the applicable charges.

- c) 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.
- d) If consumers are overdrawing power by more than 20% of the Contract Demand, their electricity connection will be disconnected immediately.

IV. HT/EHT Category

A. High Tension Consumer

Applicable to all Industrial/Motive power consumers drawing through 11 kV and 66 kV systems having contract demand of 100 kVA and above.

1. Fixed Charges(Demand Charges)

For Billing Demand	Charges (Rs./KVA/month) or part thereof
Up to Contract Demand	Rs 105/kVA/month or part thereof

2. Energy Charges

Usage(Units/Month)	Tariff (Ps./Unit)
For all units	470

3. **Penalty Charges:** Twice the applicable charges.
- e) 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.
- f) If Industries are overdrawing power by more than 20% of the Contract Demand, their electricity connection will be disconnected immediately.

4. **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% (0.90 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 upto 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 @ 0.5% 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 is 0.70 (lagging) or below the consumer shall be billed as per the kVAH billing.

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

(e) 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

5. **Billing Demand**

Billing demand will be the highest among the following:

- (a) 100 kVA
 (b) 80% of the Contract demand
 (c) Actual Demand Established

B. HT Industrial (Ferro Metallurgical/ Steel Melting/ Steel Rerolling/Power Intensive)**1. Fixed Charges(Demand Charges)**

For Billing Demand	Tariff (Rs./KVA/month) or part thereof
Up to Contract Demand	Rs 375.00/- per kVA per month

2. Energy Charges

Usage(Units/Month)	Tariff (Ps./Unit)
For all units	455

3. 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.

4. 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% (0.90 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 upto 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 @ 0.5% 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 is 0.70 (lagging) or below the consumer shall be billed as per the kVAH billing.

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

(e) 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

5. Billing Demand

Billing demand will be the highest among the following:

- (a) 100 kVA
- (b) 80% of the Contract demand
- (c) Actual Demand Established

V. Agriculture

Agriculture or poultry loads upto 99 HP sanctioned load will be considered in this category.

1. Energy Charges

Usage	Tariff (Ps./Unit)
For connected load upto 20 HP	70
Beyond 10 HP and upto 99 HP connected load	100

2. 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.

VI. Public Lighting**3. Energy Charges**

Usage	Tariff (Ps./Unit)
For all units	420

VII. Hoardings /Signboards

Electricity for lighting external advertisements, external hoardings 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.

Energy Charges Paise/kWH	Fixed Charge
700	Rs 100 per kVA per Month or part Thereof

VIII. Temporary Supply: 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.

For multi activity pursuit, applicable tariff for temporary connection shall be with reference to that of non-domestic category for permanent 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.

VIII. Schedule of Other Charges**a. Meter Rent**

S.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.

b. Reconnection Charges

S.No.	Connection type	Tariff (in Rs.)/Month or part thereof
1	Single Phase LT	Rs 100
2	Three Phase LT	Rs 500
3	HT	Rs 1500

c. Service Connection Charges

S.No.	Connection type	Tariff (in Rs.)/Month or part thereof
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

d. Extra Length Charge

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

Extra length Chargeable will be beyond permissible 30 meters free length from existing network for new connection for all categories except Agriculture. Free length in respect of New Agriculture consumer is 300 meters.

e. 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.

f. Service connection charges for- Under Ground Lines**(a) Single phase consumers**

(i) Area outside municipal limit - Full cost plus 15% supervision charges

(ii) Area within municipal limit - Rs. 250/- plus Rs. 50/- per meter beyond 30 meters

(b) Three phase consumers

(i) Area outside municipal limit - Full cost plus 15 % supervision charges

(ii) Area within municipal limit - Rs. 1000/- plus Rs. 100 /- per meter beyond 30 meters

(b) 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.

g. Testing Fee for various Metering Equipment

S.No.	Types of Metering Equipment	Fee per unit (in Rs.)
1	Single Phase	200
2	Three Phase	500
3	Three Phase Tri-vector Meter (0.5 Class) Industrial LT Consumer	1000
4	Three Phase Tri-vector Meter (0.5 Class) 11 KV HT Consumer	1000
5	Three Phase Tri-vector Meter (0.2 Class) 66KV EHT Consumers	1500
6	ABT meter 0.2 class-66 kV/11kV Consumer	3000
7	Combined CTPT Unit for 11 KV Consumer	1000
8	66 KV CT / PT Unit	1000
9	Three Phase CT Block	500
10	CT Coil	500

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

S.No.	Types of Connection	Fee per test report (in Rs.)
1	Single Phase Lighting / Domestic	20
2	Three Phase Lighting / Domestic	50
3	Single Phase Lighting / Non Domestic	100
4	Three Phase Lighting / Non Domestic	200
5	Three Phase LT Industries	500
6	Single Phase / Three phase Agriculture / Streetlight / Public Lighting & others	100
7	HT Industries upto 500 KVA	2000
8	HT Industries upto 2500 KVA	8000
9	HT Industries above 2500 KVA	15000

Prayer

1. EDDD requests the Hon'ble Commission to:

- Admit the Aggregate Revenue Requirement for the MYT Control Period FY 16-17 to FY 2018-19 as submitted herewith as well as the revised estimates for FY 15-16.
- Admit and approve the Trued up ARR for FY 2014-15.
- Condone any inadvertent omissions/ errors/ shortcomings and permit the Petitioner to add/ change/ modify/ alter this filing and make further submissions as may be required at a future date.
- Submit necessary additional information required by the Commission during the processing of this petition.
- And pass such other and further orders as are deemed fit and proper in the facts and circumstances of the case.

BY THE APPLICANT THROUGH

PETITIONER

Electricity Department Daman and Diu

Daman

Dated:

FORMATS