

True up for FY 2012-13

and

**Aggregate Revenue Requirement &
Tariff Petition for FY 2014-15**

Main Text & Formats (Volume I)

Submitted to

**Joint Electricity Regulatory Commission
Gurgaon**

By:

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

November 2013

**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 the
FY 14-15 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 12-13 and the Aggregate Revenue Requirement (ARR) of EDDD and Tariff Revision Proposal of EDDD for the FY 14-15 (Financial Year 2014-15).

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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 EDDD Profile

The Electricity Department of Daman & Diu (EDDD) is engaged in the procurement, transmission and distribution of electricity to the various consumer categories in the Union Territory of Daman and Diu. 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. EDDD also has some allocation from Eastern Region Central Generating Stations.

The present transmission and distribution system of EDDD consists of 25.71 circuit kms of 220 kV Double Circuit (D/C) lines, 80.7 kms of 66kV lines, 342 circuit kms of 11kV and above lines and 890.89 kms of LT lines along with 491 transformers. Presently, there are 78 11 kV feeders in the network of Daman & Diu.

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, EDDD gets power from 220/66 kV Vapi substation through 66 kV D/C line and 220 kV Vapi-Magarwada Central Sector line, 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 12-13. 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 360 MW by FY 2014-15. In view of the huge power demand in future, EDDD had proposed a number of schemes to be implemented during FY 12-13 and FY 13-14 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.

2 Contents of this Petition

This Petition covers the truing up for FY 12-13, revised estimates for FY 13-14 and the basis, assumptions and projections of individual elements constituting the determination of ARR for FY 14-15. 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 and fourth Tariff order for FY 11-12, FY 2012-13 and FY 2013-14 for EDDD were issued on 3rd October, 2011, 25th August, 2012 and 22nd March, 2013 respectively. The Commission in its Tariff Order for FY 13-14 has approved the ARR for FY 13-14 based on the actual cost for FY 11-12 and estimated expenses for FY 12-13. Further, Commission has approved revision in retail tariff to meet the revenue deficit for FY 13-14.

Chapter 2: True Up for FY 2012-13

1 Principles for True Up for FY 2012-13

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 2012-13 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 2012-13. Information provided in the True Up for FY 2012-13 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 25th August, 2012 and the revised parameters in the Tariff Order dated 22nd March 2013 for the FY 12-13.

Accordingly, revised Aggregate Revenue Requirement, revenue and gap for FY 2012-13 are given in the following paragraphs of this chapter.

2 Energy Sales for FY 2012-13

The actual energy sale for FY 2012-13 has been shown below along with approved sales by Hon'ble Commission vide Tariff Order dated 25th August 2012 and the revised sales approved in the Tariff Order dated 22nd March 2013. The actual energy sales for FY 2012-13 are as under:

Table 1: Consumer category wise energy sales for FY 2012-13

Particulars	(MU)		
	FY 12-13 Approved (25th August, 2012)	FY 12-13 Approved (22nd March, 2013)	FY 12-13 Actual
Domestic	72.96	75.39	77.79
LIG/ Kutir Jyoti	0.10	0.06	0.10
Commercial	32.58	34.64	38.74
Agriculture	2.82	3.59	4.22
LT Industry	152.64	164.92	161.21
HT/EHT Industry	1562.41	1583.03	1,572.81

Particulars	FY 12-13	FY 12-13	FY 12-13
Public Lighting	5.00	4.10	6.51
Public Water Works	0.97	0.88	1.12
Temp. Supply	0.78	0.40	0.51
Total Sales	1,830.26	1,867.01	1,863.00

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. The reasons attributable for the same are:

- Increase in sales to domestic and commercial categories by 2-3 MUs and marginal increase in sales to agriculture, LIG, public lighting, public water works and temporary category. Also, the sales to the LT and HT industrial category has shown a marginal decrease.
- Overall the actual sales has decreased by around 4 MUs in comparison to the sales approved by the Hon'ble Commission vide its Tariff Order dated 22nd March, 2013.

The EDDD requests the Hon'ble Commission to approve the actual sales for FY 12-13.

3 Distribution Loss for FY 2012-13

EDDD is making all efforts to reduce the distribution losses in the UT of Daman & Diu. In FY 2012-13, the actual distribution losses were 8.87% as against the approved level of 9.25%.

In the Tariff Order dated 25th August 2012 and 22nd March, 2013 the Hon'ble Commission had approved the distribution losses at 9.25% for the FY 2012-13. However, now EDDD has computed the distribution loss based on the actual sales data for FY 12-13. Based on that the distribution loss for FY 12-13 has been worked out at 8.87%, which is less than the target set by the Hon'ble Commission. 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 25th August, 2012 and 22nd March, 2013.

Table 2: Distribution Loss

(%)

Particulars	FY 12-13	FY 12-13	FY 12-13
	Approved (25th August, 2012)	Approved (22nd March, 2013)	Actual
Distribution Loss	9.25%	9.25%	8.87%

The EDDD requests the Hon'ble Commission to approve the actual T&D losses for FY 11-12.

4 Energy Requirement and Energy Balance

Based on the actual energy sales and the transmission & distribution loss units, the actual energy requirement for FY 12-13 has been furnished below. The energy requirement had been met through various sources as described in the subsequent sections.

Table 3: Consumer category wise energy sales for FY 2012-13

(MU)

Particulars	FY 12-13	FY 12-13	FY 12-13
	Approved (25th August, 2012)	Approved (22nd March, 2013)	Actual
Sales	1,830.28	1,867.00	1,863.00
Add: Losses	187	190.30	181.37
T&D Losses	9.25%	9.25%	8.87%
Energy Required at Periphery	2,016.84	2,057.30	2,044.37
Transmission loss	74.45	76.76	89.30
Transmission loss (%)	3.56%	3.56%	4.09%
Power purchase	2,091.29	2,082.61	2,183.27
Surplus/ (Deficit) Power	0.00	25.31	49.61

The net energy requirement for sale to retail consumers in FY 2012-13 was 2044.37 MU as compared 2057.30 MU approved by the Hon'ble Commission vide its Tariff Order dated 22nd March, 2013.

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 12-13 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 2012-13

Source (Rs. Crs)	FY 2012-13(Approved vide. Order dated 22 nd March, 2013)			FY 2012-13(Actual)		
	Units Purchased	All Charges Total	Per Unit Cost	Units Purchased	All Charges Total	Per Unit Cost
NTPC Stations						
KSTPP	367.44	60.15	1.64	385.91	69.23	1.79
KSTPP-III	46.96	11.85	2.52	48.27	11.87	2.46
VSTPP-I	101.91	24.76	2.43	104.86	23.40	2.23
VSTPP-II	75.44	17.68	2.34	78.44	17.81	2.27
VSTPP- III	93.66	26.33	2.81	99.25	25.53	2.57
VSTPP- IV	0.00	0.00	0.00	1.12	0.32	2.82
KAWAS	133.42	53.91	4.04	150.12	56.78	3.78
JGPP	190.78	71.83	3.77	189.62	71.54	3.77
Bhilai Unit-I &II(NTPC)	669.43	274.32	4.10	643.78	277.56	4.31
Sipat-I	145.53	40.39	2.78	134.55	37.42	2.78
Sipat-II	84.17	21.43	2.55	75.54	19.63	2.60
MSTPS-I	0.00	0.00	0.00	0.10	0.05	5.45
Subtotal	1908.74	602.65	3.16	1911.56	611.14	3.20
Eastern Region						
KHSTPP-II	11.22	4.04	3.60	11.95	3.91	3.27
Subtotal	11.22	4.04	3.60	11.95	3.91	3.27
NPCIL						
KAPPS	58.66	13.61	2.32	58.68	13.79	2.35
TAPP 3&4	88.73	25.19		92.20	25.83	2.80
Subtotal	147.39	38.80	2.63	150.88	39.62	2.63
Others						
Ratnagiri	60.03	51.29	8.54	84.58	48.62	5.75
Subtotal	60.03	51.29	8.54	84.58	48.62	5.75
Power purchase from Other Sources						
Power purchase from Indian E. Exchange	0.00	0.00	0.00	0.00	0.00	0.00
UI	3.27	1.61	4.92	24.31	6.10	2.67
Solar	3.83	3.44	8.98	0.00	0.00	0.00
Non Solar	24.88	9.95	4.00	0.00	0.71	0.00

Source (Rs. Crs)	FY 2012-13(Approved vide. Order dated 22 nd March, 2013)			FY 2012-13(Actual)		
	Units Purchased	All Charges Total	Per Unit Cost	Units Purchased	All Charges Total	Per Unit Cost
Subtotal	31.98	15.00	4.69	24.31	6.10	2.67
Misc. Arrears		5.00	0.00		2.96	
NTPC Rebate					3.50	
Gross Power Purchase	2159.36	716.78		2183.27	708.86	
External Losses	76.76			89.30		
Total Power Purchase	2082.60	716.78	3.44	2093.98	708.86	3.38
PGCIL CHARGES		67.51			62.18	
WRLDC		0.54			0.51	
Other		3.48			4.08	
Grand Total of Charges - Net	2082.60	788.31	3.79	2093.98	775.63	3.70

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. 788.31 Crore in the Tariff Order dated 22nd March, 2013. Now, the EDDD has claimed a power purchase cost of Rs. 775.63 Crore based on the Annual accounts for FY 12-13 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 12-13 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 12-13.

The EDDD purchased 24.31 MU during FY12-13 through UI at the cost of Rs. 6.10 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 12-13 without any deduction.

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. 10.28 Crore and Rs. 16.13 Crore vide Tariff Orders dated 25th August 2012 and 22nd March, 2013 respectively. During FY 12-13, EDDD incurred actual O&M expense of Rs. 19.11 Crore which was inclusive of employee cost of Rs. 8.24 Crore, Repair & Maintenance Charges of Rs. 7.56 Crore and Administration & General Expenses of Rs. 3.31 Crore as shown in the table below:

Table 5: Operation & Maintenance Expenses for FY 2012-13

Particulars	(Rs. Cr.)		
	FY 12-13	FY 12-13	FY 12-13
	Approved (25th August, 2012)	Approved (22nd March, 2013)	Actual
Employee Cost	5.32	7.27	8.24
R&M	2.60	5.58	7.56
A&G	2.36	3.28	3.31
O&M Expenses	10.28	16.13	19.11

7 Capital Expenditure & Capitalization

The actual capital expenditure incurred by EDDD during the FY 12-13 was Rs. 41.12 Crore, which is lower than that of approved by the Hon'ble Commission in

its Tariff Orders dated 22nd March, 2013. The capital expenditure incurred and actual capitalization made by the department for FY 12-13 against that approved by the Hon'ble Commission is as shown below:

Table 6: Capital expenditure and capitalization for FY 12-13

(Rs. Cr.)

Particulars	FY 12-13	FY 12-13	FY 12-13
	Approved (25th August, 2012)	Approved (22nd March, 2013)	Actual
Capital Expenditure	40.55	58.00	41.12
Capitalization	33.46	27.30	37.18

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 2012-13 is shown in the table below:

Table 7: Depreciation for FY 2012-13

(Rs. Cr.)

Particulars	FY 12-13	FY 12-13	FY 12-13
	Approved (25th August, 2012)	Approved (22nd March, 2013)	Actual
Opening GFA	37.37	274.33	274.27
Addition during the year	33.46	27.30	37.18
Closing GFA	70.83	301.62	311.45
Average GFA	54.10	287.97	292.86
Depreciation during the year	2.86	13.82	13.26

The EDDD, requests the Hon'ble Commission to approve the actual depreciation for FY 12-13 without any deduction.

9 Interest and Finance Charges

For assessing interest on Loans in FY 12-13, EDDD has considered the opening balance of loans for FY 12-13 as approved by the Hon'ble Commission vide its Tariff Order

dated 22nd March, 2013 for the Review of the ARR for FY 12-13. The normative loan addition in FY 12-13 has been computed as 70% of the capitalization for FY 2012-13 which works out to Rs. 26.03 Crore. The capitalization for FY 12-13 was Rs. 37.18 Crore as per the audited annual accounts for FY 12-13.

In line with the approach adopted by the Hon'ble Commission in its Tariff Order dated 25th August 2012, 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 12-13 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 12-13

(Rs. Cr.)

Particulars	FY 12-13	FY 12-13	FY 12-13
	Approved (25th August, 2012)	Approved (22nd March, 2013)	Actual
Opening Loan	25.51	15.30	15.30
Loan for additional Capex (70:30 debt-equity)	23.42	19.11	26.03
Loan Repayment (10% of Opening Balance)	2.62	1.59	2.07
Closing Loan	46.32	32.82	39.26
Interest Cost on Avg. Loans	5.3	3.55	4.02

The EDDD, requests the Hon'ble Commission to approve the interested on loan computed for FY 12-13.

10 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 2012-13 incurred by EDDD against the approved amount for the consideration of the Hon'ble Commission:

Table 9: Interest on Working Capital for FY 2012-13

(Rs. Cr.)

Particulars	FY 12-13	FY 12-13	FY 12-13
	Approved (25th August, 2012)	Approved (22nd March, 2013)	Actual
O&M expense for 1 month	0.86	1.34	1.59
Power Purchase Cost for 1 month	64.17	65.11	64.64
Fuel cost for two months	0.00	0.00	0.00
Total Working Capital requirement	65.03	66.45	66.23
Security Deposit	4.36	8.03	-
Net Working Capital required after deduction of Security Deposit	60.67	58.42	-
Interest on Working Capital	8.95	8.62	9.77

The EDDD, requests the Hon'ble Commission to approve the interested on working capital computed for FY 12-13.

11 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 2012-13.

The return on capital base as computed for FY 2012-13 is as shown below:

Table 10: Return on Equity for FY 12-13

(Rs. Cr.)

Particulars	FY 12-13	FY 12-13	FY 12-13
	Approved (25th August, 2012)	Approved (22nd March, 2013)	Actual

Particulars	FY 12-13	FY 12-13	FY 12-13
Return on Equity	1.08	5.43	5.06

The EDDD, requests the Hon'ble Commission to approve the return on capital base computed for FY 12-13.

12 Non Tariff Income

The actual Non-Tariff Income of EDDD for FY 12-13 was Rs. 5.26 Crore as against Rs. 8.75 Crore approved by the Hon'ble Commission. 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 12-13

(Rs. Cr.)

Particulars	FY 12-13	FY 12-13	FY 12-13
	Approved (3 rd October 2011)	Approved (25 th August 2012)	Actual
Non tariff Income	9.88	8.75	5.26

As shown in the table above, the difference between the actual and approved Non Tariff Income is mainly because of less realization of DPC from the consumers.

The EDDD, requests the Hon'ble Commission to approve the actual Non Tariff Income for FY 12-13.

13 Aggregate Revenue Requirement for FY 12-13

Based on above expenses, table below summarizes actual Aggregate Revenue Requirement for FY 12-13 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 12-13

(Rs. Cr.)

Particulars	FY 12-13	FY 12-13	FY 12-13
	Approved (25 th August, 2012)	Approved (22 nd March, 2013)	Actual

Particulars	FY 12-13	FY 12-13	FY 12-13
	Approved (25th August, 2012)	Approved (22nd March, 2013)	Actual
Power Purchase Cost	770.09	788.31	775.63
O&M Expense	10.28	16.13	19.11
Depreciation	2.86	13.82	13.26
Interest Cost on Long-term Capital Loans	5.30	3.55	4.02
Interest on Working Capital Loans	8.95	8.62	9.77
Return on Capital Employed	1.08	5.43	5.06
Provision for Bad Debt	3.00	4.21	0.00
Interest on security deposit	0.41	0.76	0.00
Less:			
Non-Tariff Income	9.88	8.75	5.26
Annual Revenue Requirement (ARR)	792.09	832.08	821.59

The EDDD, requests the Hon'ble Commission to approve the ARR computed for FY 12-13.

14 Revenue for FY 12-13

During the FY 12-13, EDDD's actual revenue amounted to Rs. 814.60 Crore (including the amount received on account of PPCA charges) as against Rs. 600.54 Crore and Rs. 849.72 Crore as approved vide its Tariff Order dated 25th August 2012 and 22nd March, 2013 respectively by the Hon'ble Commission.

Table 13: Revenue for FY 12-13

Particulars	(Rs. Cr.)		
	FY 12-13	FY 12-13	FY 12-13
	Approved (25th August, 2012)	Approved (22nd March, 2013)	Actual
Revenue from sale of power	600.54	842.70	802.17
Revenue from surplus sale of power	0.00	7.02	12.43

Total Revenue	600.54	849.72	814.60
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15 Revenue (Gap) / Surplus for FY 12-13

The Hon'ble Commission in Order dated 25th August 2012 has approved a total Aggregate Revenue Requirement (ARR) of Rs. 792.09 Crore for FY 12-13. Further, the Commission has computed the revised ARR for FY 12-13 in the Order dated and 22nd March, 2013 of Rs. 832.08 Crore. Based on the annual accounts for FY 12-13 and the actual expenses incurred by the EDDD, the revised ARR for FY 2012-13 has been arrived at Rs. 821.59 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. 802.17 Crore and revenue from sale of surplus energy of Rs. 12.43 Crore is summing up to Rs. 814.60 Crore. Accordingly, total revenue gap of EDDD for FY 12-13 is computed at Rs. 6.99 Crore as depicted in the Table below:

Table 14: Revenue Gap for FY 12-13

(Rs. Cr.)

Particulars	FY12-13	FY12-13
	Approved (22nd March, 2013)	Actual
Annual Revenue Requirement	832.08	821.59
Revenue from sale of power	842.7	802.17
Revenue from Surplus Power Sale	7.02	12.43
Revenue (Gap)/surplus	17.64	(6.99)

EDDD requests the Hon'ble Commission to approve afore-mentioned revenue gap for FY 12-13.

Chapter 3: ARR & Tariff Petition for FY 2014-15

EDDD is submitting its ARR and Tariff petition for the determination of tariff for FY 14-15 broadly on the basis of the principles outlined in 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 FY 14-15.

The following sections explain in detail the basis and forecasts of the following elements for FY 14-15:

- 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

1 Energy Sales

1. Electricity Department of Daman & Diu caters to a diverse consumer mix constituting of domestic, commercial, HT Industry, LT Industry and agriculture consumers. The number of consumers as on 1st April 2013 under various categories is summarized in table below:

Table 15: Category wise number of Consumers

Particulars	FY 12-13
	Actual
Domestic	42507
Commercial	8158
Agriculture	1173
LT Industry	1926
HT/EHT Industry	801
Public Lighting	369
Public Water Works	77
Total Sales	55,011

2. Table 16 summarizes category wise actual energy sold to all the consumer categories from FY 08-09 to FY 12-13. As can be seen, HT/EHT Industries have the largest share in the EDDD's energy sales i.e. about 84% of the total energy sold in the EDDD periphery.

Table 16: Consumer category wise energy sales from FY 08-09 to FY 12-13

Particulars (MU)	FY 08-09	FY 09-10	FY 10-11	FY 11-12	FY 12-13
	Actual	Actual	Actual	Actual	Actual
Domestic	56.43	57.92	62.20	73.85	77.79
LIGH (BPL)	0.06	0.05	0.10	0.10	0.10
Commercial	26.43	27.73	29.30	33.83	38.74
Agriculture	2.47	2.53	2.60	2.70	4.22
LT Industry	134.92	139.12	151.00	156.84	161.21
HT/EHT Industry	1,099.11	1,236.51	1,381.80	1,496.83	1,572.81
Public Lighting	4.33	4.36	4.40	5.59	6.51
Public Water Works	1.05	0.88	0.90	0.92	1.12
Temp. Supply	0.55	0.00	0.65	0.51	0.51
Total Sales	1,325.35	1,469.10	1,632.95	1,771.16	1,863.00

3. Energy sold to various consumer categories over the past 5 years has grown at approximately 9% per annum. This is mainly because of increase in energy demand from the HT/EHT industries. .

4. 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 FY 13-14 and FY 14-15 has considered the past growth trends in each of the consumer category including growth trend in number of consumers and connected load.
5. The energy sales for FY 13-14 and FY 14-15 have been determined based on past years CAGR and actual energy sales in various consumer categories for the first six months of FY 13-14. Since the energy sales in each category depends upon a number of factors like growth in economy, climate, Government policies, etc, normalization in sales has been undertaken in order to remove any wide fluctuations.
6. For FY 13-14, the actual six months energy sales has been analyzed and the energy sales for the remaining six months has been arrived at by considering the six months actual sale as well as the past years growth trend in each consumer category. EDDD would like to highlight that for estimating energy sales to various consumer categories for FY 13-14 and FY 14-15, 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 13-14 and FY 14-15.
7. For the domestic consumers, the EDDD has projected the energy sales for FY 14-15 by applying a Compounded Annual Growth Rate (CAGR) of 7% on the estimated sales for FY 13-14. Whereas, a CAGR of 8% has been considered for estimation of sales in commercial category.
8. For the agriculture and LT industry, the EDDD has projected the energy sales for FY 14-15 by applying a CAGR of 5% and 2.5% on the estimated sales for FY 13-14.
9. For the HT/EHT category, variations have been seen in the growth on a year-to-year basis with variations in sale ranging from 2.90% to 12.50%. A CAGR of 4% has been considered for projecting the sales HT/EHT consumers in view of load enhancement of existing consumers as well as addition of new HT consumers.

10. Table 15 summarizes category wise revised energy sales for FY 13-14 and projected energy sales for FY 14-15 for EDDD. As can be observed, the overall energy sales in UT of Daman & Diu are significantly dependent upon HT industrial consumption.
11. EDDD submits to the Hon'ble Commission to approve the energy sales forecasted herein.

Table 15: Projected Category wise Energy Sales (MU) for FY 13-14 & FY 14-15

Energy Sales	FY 13-14	Adjusted	FY 14-15
	Estimated	CAGR	Projected
Domestic	82.40	7.00%	88.17
LIGH	0.19	7.00%	0.20
Commercial	43.91	8.00%	47.42
Agriculture	2.95	5.00%	3.09
LT Industry	160.50	2.50%	164.51
HT/EHT Industry	1,573.06	4.00%	1,635.98
Public Lighting	6.60	7.00%	7.07
Public Water Works	1.04	1.00%	1.05
Temp. Supply	0.50	0.00%	0.50
Total Sales	1,871.15		1,948.00

16 T&D Loss Reduction

- 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 considered the T&D loss of 8.80% for FY 13-14 in comparison to the 9.25% as approved by the Hon'ble Commission. 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. Subsequently, EDDD proposes to reduce the T&D losses to 8.70% for FY 14-15:

Table 16: T&D Losses

	FY13-14	FY14-15
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	Estimated	Projected
T&D Losses	8.80%	8.70%

3. Considering the proposed capital expenditure in transmission and distribution network during FY 14-15, the EDDD expects to reduce the losses by approximately 0.10% in FY 14-15.
4. The EDDD submits to the Commission to approve the T&D losses submitted herein.

17 Energy Requirement of the System

1. Overall energy sales to various consumer categories are estimated to grow at approximately 4.10% during FY 14-15. Thus, the overall energy requirement at EDDD's periphery is projected to be 2052 MU and 2133.62 MU in FY 13-14 and FY 14-15 respectively.
2. The increase in energy requirement is on account of higher sales but has been partially offset due to reduction of proposed T&D losses.

Table 17: Energy Requirement of the System

Energy Requirement	FY13-14	FY14-15
	Revised Estimates	Projected
Sales (MU)	1,871.15	1,948.00
Add: Losses (MU)	181	186
T&D Losses	8.80%	8.70%
Energy Required at Periphery (MU)	2,052	2,133.62
Energy Available (MU)	2,097	2,274.66
Surplus Power Available/Sold (MU)	45.33	141.03

18 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 13-14, actual power purchase for the first five months of FY 13-14 has been considered. For projection of FY 14-15 energy availability, 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.

a. 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 five months of FY 13-14 have already elapsed, the actual power purchase data for the same is available with the department. Therefore, the power availability for remaining seven months i.e. September 2013 to March 2014 has been estimated based on the revised allocation issued by the Western

Region Power Committee (WRPC) dated 5th October, 2013. The energy allocation from various generating stations is summarized in table below:

Table 18: Energy Allocation from Central Generating Stations

Particulars	FY 2013-14	
	DD Allocation (MW)	Avg. EDDD Allocation (%)
NTPC Stations		
KSTPP	51	2.42%
KSTPP-III	6	1.24%
VSTPP-I	14	1.10%
VSTPP-II	10	0.99%
VSTPP- III	12	1.20%
VSTPP- IV	7	1.31%
KAWAS	31	4.72%
JGPP	31	4.76%
Bhilai Unit-I &II(NTPC)	91.5	18.30%
Sipat-I	26	1.33%
Sipat-II	11	1.08%
MSTPS-I	7	1.31%
Subtotal	297	
Eastern Region		
KHSTPP-II	1.30	0.13%
Subtotal	2	
NPCIL		
KAPPS	8.30	1.89%
TAPP 3&4	13.40	1.24%

Particulars	FY 2013-14	
	DD Allocation (MW)	Avg. EDDD Allocation (%)
Subtotal	22	
Others		
Ratnagiri	38	1.93%
Subtotal	38	
Grand Total	358	-

3. Actual power purchase in first five months of FY 13-14 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 13-14.
4. Actual power purchase in first five months of FY 13-14 from Ratnagiri Gas Power Plant and revised power allocation of 38 MW has been considered while estimating the power purchase during FY 2013-14 from this plant.
5. For projecting the power availability for FY 14-15, EDDD has considered average allocation of firm and infirm power from the western region generation stations (NTPC and NPCIL) as per the allocation specified in the notification no's. WRPC/Comml-I/6/Alloc/2013/1654 dated 01.10.2013 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.
6. Additionally, EDDD has 92 MW allocations from NSPCL Bhilai power stations. Energy availability from NSPCL Bhilai power stations for full year has been considered for projecting power purchase during FY 14-15.
7. Power purchase quantum from the NTPC stations for the second half of the current year and FY 14-15 has been calculated based on the installed capacity of each plant and by applying the average of previous three and half years (FY 11 to FY 13, FY 14 first six months) PLF to calculate the plant-wise gross generation. For NSPCL, an average PLF of 90% has been considered in line with the actual PLF for the first six months of FY 13-14.

8. For gas based generating stations i.e. Kawas (KGPP) and Gandhar (GGPP) weighted average PLF of FY 11-12, FY 12-13 and FY 2013-14(for the first six months) have been taken into account.
9. Auxiliary consumption of 9% and 3% has been considered for estimating the gross generation from coal and gas based generating stations respectively.
10. For FY 13-14, EDDD has considered power purchase of 4 MU and 20 MU from solar and non-solar renewable energy sources respectively as per the JERC's Procurement of Renewable Energy Regulations, 2010 as well as approved by the Commission in the Tariff order for FY 13-14. Further, EDDD has made the provision of power purchase from the renewable sources (solar and non solar) in FY 14-15 as well.
11. For computing the power availability at the periphery, 3.90% weighted average external transmission losses have been applied on the gross power purchase for FY 13-14 and FY 2014-15.
12. Table 19 below depicts the station wise power purchase for FY 13-14 and FY 14-15.

Table 19: Power Purchase Quantum

Particulars	FY13-14	FY14-15
	Revised Estimates	Projected
NTPC Stations		
KSTPP	366.33	354.09
KSTPP-III	42.60	43.36
VSTPP-I	99.95	97.30
VSTPP-II	73.53	69.17
VSTPP- III	89.91	83.79
VSTPP- IV	44.34	45.90
KAWAS	134.79	159.40
JGPP	146.21	177.36
Bhilai Unit-I &II(NTPC)	592.36	646.27
Sipat-I	162.48	153.60

Particulars	FY13-14	FY14-15
	Revised Estimates	Projected
Sipat-II	70.57	62.96
MSTPS-I	15.85	26.16
Subtotal	1838.91	1919.36
Eastern Region		
KHSTPP-II	9.59	7.24
Subtotal	9.59	7.24
NPCIL		
KAPPS	61.13	60.12
TAPP 3&4	80.18	81.91
Subtotal	141.30	142.03
Others		
Ratnagiri	168.33	242.34
Subtotal	168.33	242.34
<u>Power purchase from Other Sources</u>		
Power purchase from Indian E. Exchange	0.00	0.00
Short term arrangement	0.00	0.00
Solar	4.00	8.00
Non Solar	20.00	48.00
Subtotal	24.00	56.00
Gross Power Purchase	2182.13	2366.97
External Losses	85.10	92.31
Total Power Purchase	2097.03	2274.66

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

b. 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 13-14 and FY 14-15.

Table 20: Energy Balance

Energy Balance	FY13-14	FY14-15
	Revised Estimates	Projected
Sales (MU)	1,871.15	1,948.00
Add: Losses (MU)	181	186
T&D Losses	8.80%	8.70%
Energy Required at Periphery (MU)	2,052	2,133.62
Energy Available (MU)	2,097	2,274.66
Surplus Power Available/Sold (MU)	45.33	141.03

c. Power Purchase Cost

1. The cost of purchase from the central generating stations for FY 13-14 and FY 14-15 is estimated based on the following assumptions:
 - The cost of power purchase for FY 13-14 are based on actual power purchase bills, received by the EDDD during the first five months of FY 13-14. Each element of the power purchase cost i.e. fixed, variable and other cost have been estimated for each generating station by considering 5 months (April 13 to August 13) actual cost incurred by the EDDD (copies of the power purchase cost is enclosed at Annexure 2). The projection for remaining seven months has been done on pro-rata basis by considering the actual power purchase cost of the first five months of FY 13-14.
 - Fixed cost for FY 14-15 has been projected considering a 10% escalation over the estimated fixed cost for various stations for FY 13-14. The escalation has been considered based on the impact of new Tariff Regulations for FY 2009-14 issued by CERC for computation of tariff for Central Generating Stations.
 - Variable cost for each NTPC generating stations for FY 14-15 has been projected based on the increase in the actual average variable cost per unit for the first five months of FY 13-14. For NTPC stations the variable cost has been escalated keeping in view the actual escalation on the actual variable cost of power purchase over the first five months of FY 13-14.

- The EDDD has projected other charges (tax, incentives, etc) for FY 13-14 at similar level as estimated for full year of FY 14-15.
 - For nuclear plants i.e. KAPP and TAPP single part tariff with 10% escalation on the actual per unit charges for FY 13-14 have been considered for FY 14-15.
 - For NTPC-SAIL Bhilai unit 1 & 2, fixed, variable and other charges have been projected for the entire FY 13-14 based on the actual cost for first five months of FY 13-14. An escalation of 10% for increase in fuel cost has been taken into consideration for projecting the power purchase cost from the said plant for FY 2014-15.
 - 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 the remaining seven months of FY 13-14 and for the entire period of FY 14-15.
 - EDDD had surplus power during FY 13-14 on account of additional allocation of 38MW of power from RGPPL and revised allocation of 92 MW from NTPC-SAIL generating station.
2. The Total Power Purchase cost from various sources for FY 13-14 and FY 14-15 is summarized in Table below:

Table 21: Power Purchase Cost for FY 13-14 (in Rs. Crore)

Source (Rs. Crs)	Units Purchased	Fixed Charges	Variable Charges	Other Charges	All Charges Total	Per Unit Cost
NTPC Stations						
KSTPP	366.33	21.41	36.23	6.65	64.29	1.75
KSTPP-III	42.60	6.89	4.35	1.44	12.68	2.98
VSTPP-I	99.95	6.82	12.45	4.22	23.48	2.35
VSTPP-II	73.53	5.16	8.62	3.16	16.94	2.30
VSTPP- III	89.91	10.63	10.55	2.60	23.78	2.65
VSTPP- IV	44.34	6.70	5.24	0.31	12.25	2.76
KAWAS	134.79	20.52	32.77	(8.88)	44.41	3.29
JGPP	146.21	26.11	35.07	1.90	63.08	4.31
Bhilai Unit-I &II(NTPC)	592.36	109.03	168.90	2.67	280.60	4.74

Source (Rs. Crs)	Units Purchased	Fixed Charges	Variable Charges	Other Charges	All Charges Total	Per Unit Cost
Sipat-I	162.48	22.87	26.10	12.27	61.24	3.77
Sipat-II	70.57	10.15	11.81	1.66	23.62	3.35
MSTPS-I	15.85	4.94	4.39	0.00	9.34	5.89
Subtotal	1838.91	251.23	356.48	27.99	635.71	3.46
Eastern Region						
KHSTPP-II	9.59	1.61	2.30	0.14	4.05	4.23
Subtotal	9.59	1.61	2.30	0.14	4.05	4.23
NPCIL						
KAPPS	61.13	0.00	13.88	0.08	13.96	2.28
TAPP 3&4	80.18	0.00	22.23	0.00	22.23	2.77
Subtotal	141.30	0.00	36.11	0.08	36.19	2.56
Ratnagiri	168.33	28.80	47.86	0.00	76.66	4.55
Subtotal	168.33	28.80	47.86	0.00	76.66	4.55
<u>Power purchase from Other Sources</u>						
Power purchase from Indian E. Exchange	0.00	0.00	0.00	0.00	0.00	0.00
UI	0.00	0.00	0.00	0.00	0.00	0.00
Solar	4.00	0.00	3.60	0.00	3.60	9.00
Non Solar	20.00	0.00	8.00	0.00	8.00	4.00
Subtotal	24.00	0.00	11.60	0.00	11.60	4.83
Misc. Arrears					1.40	
NTPC Rebate					1.04	
Gross Power Purchase	2182.13	281.64	454.36	28.22	764.57	3.50
External Losses	85.10					
Total Power Purchase	2097.03	281.64	454.36	28.22	764.57	3.65

Table 22: Power Purchase Cost for FY 14-15 (in Rs. Crore)

Source	Units Purchased (MU)	Fixed Charges	Variable Charges	Other Charges	All Charges Total	Per Unit Cost
NTPC Stations						
KSTPP	354.09	23.55	39.85	6.65	70.05	1.98
KSTPP-III	43.36	7.58	4.79	1.44	13.80	3.18
VSTPP-I	97.30	7.50	13.69	4.22	25.41	2.61
VSTPP-II	69.17	5.68	9.48	3.16	18.32	2.65
VSTPP- III	83.79	11.70	11.61	2.60	25.90	3.09
VSTPP- IV	45.90	7.37	5.77	0.31	13.45	2.93
KAWAS	159.40	22.57	36.05	0.00	58.62	3.68
JGPP	177.36	28.72	38.58	1.90	69.20	3.90
Bhilai Unit-I &II(NTPC)	646.27	119.94	185.79	2.67	308.39	4.77
Sipat-I	153.60	25.16	28.71	12.27	66.14	4.31
Sipat-II	62.96	11.17	12.99	1.66	25.82	4.10
MSTPS-I	26.16	5.44	4.83	0.00	10.27	3.93
Subtotal	1919.36	276.36	392.13	36.87	705.36	3.67
Eastern Region						
KHSTPP-II	7.24	1.77	2.30	0.14	4.21	5.82
Subtotal	7.24	1.77	2.30	0.14	4.21	5.82
NPCIL						
KAPPS	60.12	0.00	15.26	0.08	15.34	2.55
TAPP 3&4	81.91	0.00	22.23	0.00	22.23	2.71
Subtotal	142.03	0.00	37.50	0.08	37.58	2.65
Others						
Ratnagiri	242.34	45.61	52.65	0.00	98.26	4.05
Subtotal	242.34	45.61	52.65	0.00	98.26	4.05
<u>Power purchase from Other Sources</u>						
Power purchase from Indian E. Exchange	0.00	0.00	0.00	0.00	0.00	0.00
Short-term arrangement	0.00	0.00	0.00	0.00	0.00	0.00
Solar	8.00	0.00	7.20	0.00	7.20	9.00
Non Solar	48.00	0.00	19.20	0.00	19.20	4.00
Subtotal	56.00	0.00	26.40	0.00	26.40	4.71
Misc. Arrears						

Source	Units Purchased (MU)	Fixed Charges	Variable Charges	Other Charges	All Charges Total	Per Unit Cost
NTPC Rebate						
Gross Power Purchase	2366.97	323.73	510.98	37.10	871.81	3.68
External Losses	92.31					
Total Power Purchase	2274.66	323.73	510.98	37.10	871.81	3.83

d. Transmission and Other Charges

1. 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 13-14 based on the actual transmission charges for five months of FY 13-14 and pro-rata allocation of the same for remaining seven months.
2. For projecting the PGCIL transmission charges for FY 14-15, an escalation of 7% over the estimated FY 13-14 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 23: Total Power Purchase Cost for FY 13-14 & FY 14-15

Particulars	FY 13-14 (Revised Estimate)			FY 14-15 (Projected)		
	Energy available at DD Periphery (MU)	Total Cost (Rs. Cr)	Per Unit Cost (Rs/kWh)	Energy available at DD Periphery (MU)	Total Cost (Rs. Cr)	Per Unit Cost (Rs/kWh)
Gross Power Purchase Cost	2097.03	764.57	3.65	2274.66	871.81	3.83
PGCIL charges		66.54			71.19	
WRLDC		0.55			0.58	
MSTCL		4.37			4.67	

Particulars	FY 13-14 (Revised Estimate)			FY 14-15 (Projected)		
	Energy available at DD Periphery (MU)	Total Cost (Rs. Cr)	Per Unit Cost (Rs/kWh)	Energy available at DD Periphery (MU)	Total Cost (Rs. Cr)	Per Unit Cost (Rs/kWh)
Total Power Purchase Cost (including Transmission Cost)	2097.03	836.02	3.99	2274.66	948.26	4.17

19 Operation & Maintenance Costs

- 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.
- Summary of the past five year operation and maintenance expense is summarized in table below:

Table 24: Operation & Maintenance Expense (Rs. Crore)

Year	O&M Expense
	Actual
FY 07-08	6.47
FY 08-09	8.47
FY 09-10	9.35
FY 10-11	9.46
FY 11-12	14.62
FY 12-13	19.11

- The total O&M expense for FY 12-13 is Rs. 19.11 Crore as compared to Rs. 14.62 Crore in FY 2011-12, an increase of over Rs. 4.51 Crore. The increase in

operation and maintenance cost in FY 12-13 is primarily on account of increase in R&M expenses during FY 12-13.

4. The methodology adopted by EDDD for projecting the values of each component of the O&M expense for FY 13-14 & FY 14-15 has been explained in the following section.

a. 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.
2. Based on the various expense head related to employee booked during six months of FY 13-14, EDDD has estimated the total employee cost for full year of FY 13-14 as Rs. 8.98 Crore. Salary expenses for FY 14-15 is estimated based on the variation in the rate of WPI Index per annum published by the Office of Economic Adviser, Government of India.
3. For projecting the employee cost for FY 14-15, the Petitioner has considered an 8.94% escalation over the estimated employee cost for FY 13-14. Total employee cost of EDDD for FY 14-15 is estimated at Rs. 9.78 Crore.
4. EDDD submits to the Hon'ble Commission to approve the employee costs as projected by the Petitioner.

b. Repairs & Maintenance Expense

1. 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.
2. The actual R&M expense for FY 2012-13 is Rs. 7.56 Crore.

3. For FY 13-14, EDDD has considered the R&M expense of Rs. 8.24 Crore and has projected an 8.94% increase in the R&M expense for FY 14-15. The R&M cost for FY 13-14 and FY 14-15 is summarized in table below:

Table 25: Repairs & Maintenance Expense (Rs. Crore)

R&M Expenditure (Rs. Crs)	FY13-14	FY14-15
	Revised Estimate	Projected
R&M Cost	8.24	8.97

4. 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.

c. 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 12-13 is Rs. 3.31 Crore. For FY 13-14, EDDD has considered the R&M expense of Rs. 3.61 Crore and has projected an 8.94% increase in the R&M expense for FY 14-15 which includes regulatory, consultancy, energy auditing and consumer indexing fees.
3. The Regulatory & Consultancy expenses for the FY 14-15 has been projected as per the existing agreements, contracts with the consultants and the best estimates for the future regulatory and consultancy works. For FY 14-15 total A&G expenses has been projected at Rs. 3.93 Crore.

4. In line with the above, the Hon'ble Commission is requested to approve the A&G costs without any disallowance.

d. 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 13-14 and FY 14-15 is summarized in table below. The projected O&M expenses are computed at 20.82 Crore and 22.68 Crore respectively for FY 13-14 and FY 14-15.

Table 26: Total O&M Expense (Rs. Crore)

O&M Expenditure	FY13-14	FY14-15
	Revised Estimate	Projected
Employee Cost	8.98	9.78
R&M Cost	8.24	8.97
A&G Expenditure	3.61	3.93
Total O&M Expenditure	20.82	22.68

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

20 Capital Expenditure Plan

1. Considering the increase in demand from HT & LT consumers, EDDD would be required to undertake significant capital expenditure for system augmentation and strengthening. System augmentation would not only help EDDD in handling increased load but would also ensure better quality of supply and network reliability to the consumers. Though, EDDD T&D loss levels are very low, the capital expenditure would help in maintaining the low T&D loss levels and further reduction in the same.
2. EDDD's each year prepares an Annual Plan for the capital investment for new schemes and continuing schemes which it plans to incur in the ensuing year. For FY 14-15, the EDDD has proposed a capital expenditure of Rs. 96.61 Crore under various existing and new schemes. The draft Annual Plan is being prepared and will be submitted to the Hon'ble Commission shortly. The scheme wise capital expenditure plan for FY 14-15 is given in the table below:

Table 27: Capital Scheme wise Capital Expenditure for FY 14-15

Sr.No.	Name of Scheme	FY 14-15
		(Rs. Crore)
A	New Schemes	
1	Scheme for Establishment of 3 MW Grid interactive solar Power Plant at Diu	28 Cr.
2	Normal development and providing Under ground power distribution system in Daman & Diu City	15 Cr.
3	Scheme for replacement of existing ACSR Panther Conductor of 66 KV Dalwada- Dabhel & Kachigam-Dabhel by TASCRC Conductor	5 Cr.
4	Scheme for Establishment of GIS 2x20 MVA SS along with associated line at Dabhel	22 Cr.
5	Scheme for replacement of energy meter in Daman & Diu	8 Cr.
6	Scheme for inter connection of 66 KV line from Zari SS to Eurocaustic and replacement of Panther conductor from Kachigam S/S to EPL	8 Cr.
7	Scheme for 220 KV Transmission line between Magarwada (PGCIL) to Ringanwada	8.61 Cr
8	Scheme for procuring of Capacitor Bank in Existing Substation in UT of Daman & Diu	2 Cr.
	TOTAL	96.61

3. The capitalization of new schemes has been considered at 40% of the planned capital expenditure in the same year while the balance 60% has been capitalized in subsequent year. A summary of the capital expenditure and capitalization for FY 13-14 and FY 14-15 is summarized in Table below:

Table 28: Capital Expenditure & Capitalization for FY 13-14 and FY 14-15

Capital Expenditure & Capitalization	FY 13-14	FY 14-15
(Rs. Crore)	Revised Estimate	Projected
Capital Expenditure	50.00	96.61
Asset Capitalization	22.36	57.59
Capital Work in Progress	31.58	70.60

21 Gross Fixed Assets

1. EDDD had Rs. 311.45 Crore of Opening Gross Fixed Assets (GFA) in FY 13-14. EDDD has further proposed capital expenditure of Rs. 50 Crore during FY 13-14.
2. Based on the actual capitalization of the first six months and estimated addition in GFA during the remaining six months of FY 13-14, assets amounting to Rs. 22.36 Crore have been estimated to be added in the GFA during FY 13-14.
3. For FY 14-15, EDDD has proposed a capital expenditure of Rs. 96.61 Crore of which Rs. 57.59 Crore assets (including CWIP) have been estimated to be capitalized.
4. A summary of the Opening and Closing GFA and capitalization has been summarized in table below:

Table 29: Opening and Closing GFA (in Rs. Crore)

Particulars	Opening GFA	Additions during the Year	Closing GFA
FY 2012-13 (Actual)	274.27	37.18	311.45
FY 2013-14 (Revised Estimate)	311.45	22.36	333.82
FY 2014-15 (Projected)	333.82	57.59	391.41

22 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 by CERC in the Tariff Regulations for FY 2009-14.

Asset Category	Depreciation Rate %
Plant & Machinery	5.28%
Buildings	3.34%
Vehicles	9.50%

Asset Category	Depreciation Rate %
Furniture & Fixtures	6.33%
Computers & Others	6.33%
Land	0.00%

3. Depreciation for the current year and FY 14-15 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 13-14 and FY 14-15. 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 2012-13 as given in the fixed asset register and the estimated capitalization for FY 13-14 and FY 14-15.
4. Therefore the EDDD requests the Hon'ble Commission to approve the depreciation as given in the table below:

Table 30: Depreciation (in Rs. Crore)

Particulars	FY 13-14	FY 14-15
	Revised Estimate	Projected
Opening GFA	311.45	333.82
Additions	22.36	57.59
Closing GFA	333.82	391.41
Average GFA	322.63	362.61
Depreciation Amount	15.61	17.72
<i>Average Depreciation Rate</i>	4.70%	4.50%

23 Interest & Finance Costs

a. 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 FY 13-14 and FY 14-15 have been considered based on normative debt-equity ratio of 70:30 as per the JERC (Terms and Conditions for Determination of Tariff) Regulations, 2009.
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 13-14 and FY 14-15 is summarized in Table below:

Table 31: Total Interest on Long-term Loans

Interest on Long-term Loans	FY 13-14	FY 14-15
Rs Crore	Estimated	Projected
Opening Loan	39.26	52.17
Addition in Loan (70% of Asset Capitalization)	15.65	40.31
Repayment of Loan (10% of Opening Balance)	2.75	4.62
Closing Loan Amount	52.17	87.86
Average Loan	54.71	70.01
<i>Interest Rate on Loan</i>	14.75%	14.75%
Total Interest Cost on Long-term Loans	6.74	10.33

b. Interest on Working Capital Borrowings

1. EDDD has computed the Interest on Working Capital for FY 13-14 and FY 14-15 based on normative basis as per the JERC (Terms and Conditions for Determination of Tariff) Regulations, 2009.
2. Since EDDD is an integrated utility, the working capital requirement for FY 13-14 and FY 14-15 has been computed considering the following parameters:

- 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. 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 (Terms and Conditions for Determination of Tariff) Regulations, 2009 which states that *“The rate of interest on working capital shall be equal to the short term Prime Lending Rate of State Bank of India on the 1st April of the relevant financial year.”*
4. The normative interest on working capital for FY 13-14 and FY 14-15 considering the above methodology is summarized in Table 32 below:

Table 32: Interest on Working Capital

Interest on Working Capital	FY 13-14	FY14-15
Rs Crore	Revised Estimate	Projected
One Month Power Purchase Cost	69.67	79.02
One Month Employee Cost	0.75	0.82
One Month R&M Cost	0.69	0.75
One Month A&G Cost	0.30	0.33
Two Month Fuel Cost	0.00	0.00
Total Working Capital requirement	71.40	80.91
Rate of Interest on Working Capital	14.75%	14.75%
Total Interest on Working Capital	10.53	11.93

24 Return on Capital Employed

1. ED- DD is an integrated utility in its present form as defined in Regulation 2(9) of the JERC (Terms and Conditions for Determination of Tariff) Regulations, 2009 and it is entitlement to return on capital base under the provisions of Schedule VI of the repealed Electricity (Supply) Act, 1948 vide Regulation 23 of JERC (Terms and Conditions for Determination of Tariff) Regulations, 2009.

- The ED-DD has considered return on capital base as per the Regulation 23 of JERC (Terms and Conditions for Determination of Tariff) Regulations, 2009 and has considered Rs. 6.16 Crores and Rs. 6.36 Crores as a 3% return on net block of approved assets/capitalization at the beginning of the FY 2013-14 and FY 2014-15 of Rs 205.26 Crores and Rs. 212.01 Crores respectively.
- Return on capital employed for EDDD computed for FY 13-14 and FY 14-15 has been detailed in Table 33 below:

Table 33: Proposed Return on Capital Employed

Return	FY 13-14	FY14-15
Rs Crore	Estimated	Projected
Return on Capital Employed	6.16	6.36

25 Provision for Bad & Doubtful Debts

- EDDD has considered provision for Bad and Doubtful Debts as 0.50% of the revenue for FY 13-14 and FY 14-15.
- EDDD requests the Hon'ble Commission to approve the provision for bad & doubtful debts as summarized in the Table below:

Table 34: Provision for Bad & Doubtful debts

Provision for Bad & Doubtful Debts	FY 13-14	FY14-15
Rs Crore	Revised Estimate	Projected
Provision for Bad & Doubtful Debts as % of Receivables	0.50%	0.50%
Provision for Bad & Doubtful Debts	4.67	4.77

26 Non-Tariff & Other Income

- 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 13-14, an increase of 10% p.a. has been considered over the actual FY 12-13 non-tariff income.
3. For projecting the non-tariff income for FY 14-15, an increase of 10% p.a. has been considered over the estimated non-tariff income for FY 13-14. Details of the year wise non-tariff income is provided in table below:

Table 35: Non-tariff Income

Particulars (Rs Crore)	FY 13-14	FY14-15
	Revised Estimate	Projected
Non-tariff Income	6.08	6.57

27 Aggregate Revenue Requirement

1. Table 36 summarizes EDDD's Aggregate Revenue Requirement for FY 14-15.
2. Aggregate Revenue Requirement for FY 14-15 is estimated to be Rs 1015.47 Crore.

Table 36: Aggregate Revenue Requirement

Annual Revenue Requirement	FY 13-14	FY14-15
Rs. Crs.	Revised Estimates	Projected
Power Purchase Cost	836.02	948.26
O&M Expense	20.82	22.68
Depreciation	15.61	17.72
Interest Cost on Long-term Capital Loans	6.74	10.33
Interest on Working Capital Loans	10.53	11.93
Return on Capital Employed	6.16	6.36
Provision for Bad Debt	4.67	4.77
Less: Non-Tariff Income	6.08	6.57

Annual Revenue Requirement	FY 13-14	FY14-15
Rs. Crs.	Revised Estimates	Projected
Annual Revenue Requirement	894.47	1,015.47

28 Revenue at Existing Tariff

1. Revenue from sale of power for FY 13-14 & FY 14-15 is determined based on the energy sales estimated in Table 15 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. 936.93 Crore (inclusive of Fuel price surcharge of Rs. 9.92 Crore) and Rs. 982.37 Crore in FY 13-14 & FY 14-15 respectively, as shown in Table 37. The estimated revenue for FY 13-14 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 13-14 dated 22nd March, 2013.
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 full year of FY 14-15 based on the tariff notified by the Hon'ble Commission in the Tariff Order for FY 13-14 dated 22nd March, 2013.
5. During FY 13-14, EDDD has estimated a surplus of 45.33 MU based on the energy available and sale to various consumer categories. EDDD has sold surplus power during FY 12-13 at an average rate of Rs. 2.00 per unit. Revenue from surplus power available for sale during FY 13-14 and FY 2014-15 has been computed at the same rate.
6. The table below summarizes the revenue from sale of power at existing tariff for FY 13-14 and FY 2014-15:

Table 37: Revenue from Sale of Power at Existing Tariff (Rs. Crore)

Revenue @ Existing Tariff	FY 13-14	FY 14-15
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(Rs Crore)	Revised Estimated	Proposed
Domestic	19.10	20.43
LIG	0.02	0.02
Commercial	9.82	10.43
Agriculture	0.31	0.33
LT Industry	65.52	66.43
HT/EHT Industry	829.16	852.40
Public Lighting	2.88	3.06
Public Water Works	0.72	0.73
Temp. Supply	0.34	0.34
Total Sales	927.87	954.17
Revenue from surplus power	9.07	28.21
Total Revenue	936.93	982.37

29 Coverage of Revenue Gap

1. Revenue from sale of power with-in the UT (category-wise) is determined in Table 37.
2. Table 38 summarizes the ARR for EDDD for FY 2012-13, FY 2013-14 and FY 2014-15 along with the revenue and the resulting revenue (gap)/surplus. The cumulative surplus for the three years is Rs.1.34 Crore as given in the table below.

Table 38: Revenue Gap for FY 2014-15

Sr. No.	Particulars	FY 12-13	FY 13-14	FY14-15
		Actual	Revised Estimates	Projected
1	Total ARR	821.59	894.47	1,015.47
2	Revenue @ Existing Tariff	802.17	927.87	954.17
3	Revenue from Surplus Power Sale	12.43	9.07	28.21
4	Total Revenue(2+3)	814.60	936.93	982.37
5	Revenue (Gap) /Surplus(4-1)	(6.99)	42.46	(33.10)

(Rs. Cr.)

Sr. No.	Particulars	FY 12-13	FY 13-14	FY14-15
		Actual	Revised Estimates	Projected
	Covered By			
6	Previous Years' (Gap)/Surplus Carried Over	0.00	(6.99)	34.44
7	Carrying cost	0.00	(1.03)	0.00
8	Addl Revenue @ Proposed Tariff	0.00	0.00	0.00
9	Total	0.00	(8.02)	34.44
10	Total (Gap)/Surplus for three years(5+9)	(6.99)	34.44	1.34

- It is evident from Table 38 that there is a cumulative surplus of Rs. 1.34 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 2014-15. 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 2014-15 may kindly be approved.

30 Average Cost of Supply

- Table 39 summarizes Average Cost of supply and total average realization at the existing tariff approved by the Hon'ble Commission.

Table 39: Average Cost of Supply & Revenue Realization

Average Realization & Cost of Supply	FY 13-14	FY14-15
(Rs/Unit)	Existing Tariff	Existing Tariff
Average Cost of Supply of EDDD	4.67	4.86
Average Realization	4.89	4.70
Revenue Gap at Existing Tariff	0.22	(0.16)
Net Revenue (Gap)/Surplus(Includes gap of previous year)	0.18	0.02
Additional revenue at Proposed Tariff		0.00

31 Initiatives

A) Introduction of Pre-paid metering

The EEDD proposes to introduce pre-paid metering in the domestic and commercial categories. Pre-paid metering will help the department in terms of revenue collection, saving of energy and saving of man power. The pre-paid metering will be optional for the domestic and commercial consumers.

1. **Meter Rent for Pre-Paid Meters:** Monthly charges for hiring of the meter and indicator where they are the property of Electricity Department, payable by the consumers shall be as follows:

- (i) Pre-Paid energy meter for AC single phase LT supply:
Rs. 20 per meter per month
- (ii) Pre-Paid energy meter for AC three phase LT supply:
Rs. 40 per meter per month

2. **Tariff for Pre-Paid Meters:** The department proposes to charge the following tariff for the domestic and commercial consumer category, using the pre-paid energy meters:

Domestic Supply:

Description	Slabs (KWh per month)	Energy Charge (Rs./kWh)
Prepaid meter consumers	Entire consumption	1.73

Commercial Supply:

Description	Slabs (KWh per month)	Energy Charge (Rs./kWh)
Prepaid meter consumers	Entire consumption	2.95

B) Promotion of Solar energy

1. The department has installed grid interactive roof top solar panels on the government buildings in Daman & Diu. Till now the department has installed 153 kW capacity solar panels all across Daman & Diu and it is proposed to further augment this capacity by 200 kW by the end of FY 2013-14. At present,

the effective generation from these roof top panels is around 12,000 kWh per month.

2. The department has also floated tender for the installation of grid interactive Solar Photovoltaic (SPV) power plants in Daman & Diu. The department proposes to install a 3MW capacity solar plant in Diu and 1MW capacity solar plant in Daman.
3. In order to encourage the use of solar power, the department proposes to purchase excess power from all the consumers having grid interactive roof top solar panels at the rate of Rs. 3.50 per unit.

C) TOD Metering

In the Tariff Order dated 22nd March, 2013, the Hon'ble Commission had introduced TOD tariff for the HT consumers having sanctioned demand of 900 kVA and above. As the TOD metering is an effective means of Demand Side Management measures, the EDDD proposes to extend the TOD tariff to all the HT consumers in the UT of Daman & Diu. The EDDD proposes to extend the TOD tariff to the HT consumers at the same tariff and keeping the same peak/off peak/normal hours as approved by the Hon'ble Commission in the Tariff Order dated 22nd March, 2013.

32 Tariff Proposal for FY 14-15

1. As there is a cumulative surplus of Rs. 1.34 Crore for FY 2012-13, F 2013-14 and FY 2014-15 the EDDD does not propose any tariff hike for the FY 2014-15. The EDDD requests the Hon'ble Commission to approve the same retail tariff for FY 2014-15 as approved by the Hon'ble Commission for the FY 2013-14. The table below summarizes the tariff structure for various consumer categories for FY 2014-15.

Table 40: Proposed Tariff Structure for FY 14-15

Tariff Structure	Energy Charges (Rs/kWh)	Fixed Charges
LT-D/Domestic		
1st 50 Units	1.20	
51 to 200 Units	1.80	
201 to 400 Units	2.20	
Beyond 401 Units	2.55	
Low Income Group		Rs. 10/connection /month
LT-C/Commercial		
1st 100 Units	2.65	
Beyond 100 Units	3.65	
LT- Ag/ Agriculture		
Upto 10 HP per unit	0.70	
Beyond 10 HP per unit	1.00	
LTP Motive Power		
Upto 20 HP of Connected Load	3.70	
Above 20 HP Connected Load	3.80	Rs. 25/HP
LTP Public Water Work		
Upto 20 HP of Connected Load	3.70	
Above 20 HP Connected Load	3.80	Rs. 25/HP
LT-PL/Public Lighting		
Public Lighting	4.20	
HT		
HTC General		

Tariff Structure	Energy Charges (Rs/kWh)	Fixed Charges
Industrial / Motive Power 11kV or 66kV having CMD above 100 kVA		
50000 units	4.70	Rs. 100 /kVA
50000 to 5 lakh units	4.85	Rs. 100 /kVA
Beyond 5 lakh units	5.05	Rs. 100 /kVA
HT Industrial((Ferro Metallurgical/ Steel Melting/ Steel Rerolling Power Intensive)		
First 300 Units per kVA	3.85	Rs. 550/kVA
Next 200 units per kVA	4.55	Rs. 550/kVA
Above 500 units per kVA	4.80	Rs. 550/kVA

2. EDDD, requests the Hon'ble Commission to approve the fuel purchase adjustment formula including the "k" factor for FY 14-15 as well, which can take care of any variation in the ARR over and above the approved level by the Commission for FY 14-15.

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 1500 kVA will be generally at 11 kV and for more than 1500 kVA at 66 kV. The consumer who requires load more than 25000 kVA, the voltage of supply 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 increase of load or due to replacement of lamps, fans, fuses, switches, low voltage domestic appliances, fittings, etc it shall not fall under Section 126 and Section 135 of the EA 2003.

6. If the consumer fails to pay the energy bill presented to him by the due date, the Department shall have the right to disconnect the supply after giving 15 days' notice as per provision of the Act & Supply Code Regulation.
7. Fixed charges, wherever applicable, will be charged on pro-rata basis from the date of release of connection. Fixed charges, wherever applicable, will be double as and when bi-monthly billing is carried out. Similarly slabs of energy consumption will also be considered accordingly in case of bi-monthly billing.
8. The billing in case of HT/EHT shall be on the maximum demand recorded during the month or 75% of contracted demand, whichever is higher. If in any month, the recorded maximum demand of the consumer exceeds its contracted demand, that portion of the demand in excess of the contracted demand shall be billed at double the normal rate. Similarly, energy consumption corresponding to excess demand shall also be billed at double the normal rate. The definition of the maximum demand would be in accordance with the provisions of the Supply Code Regulation. If such over-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 paise per unit (kWh) charge for energy consumed during the month.
10. Delayed payment surcharge shall be applicable to all category 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 paise shall be ignored and amount of 50 paise 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	120% of normal rate of energy charges
Off-peak load period (10:00 p.m to 6:00 a.m)	Normal Rate	90% of normal rate of energy charges

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

The detailed tariff Schedule is outlined as under:

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

(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, Power Supply to 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

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

III. Industrial-LT including Public Water Works

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

1. Energy Charges

Usage(Units/month)	Energy Charge (Ps./Unit)-
Upto 20 HP	370
For loads above20 HP	380

2. Fixed Charges

	Fixed charge (Rs./HP/month) or part thereof
Upto 20 HP	Nil
For loads above20 HP	Rs 25.00/- per HP or part thereof

3. 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.

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 100/kVA/month or part thereof

2. Energy Charges

Usage(Units/Month)	Tariff (Ps./Unit)
1-50,000 units	470
50,001-500000 units	485
500001 and above	505

3. Penalty Charges: Twice the applicable Charges.

- a) Penalty charges will be levied on those units which are drawn beyond the contact 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% (0.9 lagging), such consumer shall pay a surcharge in addition to his normal tariff @ 1% on billed demand and energy charges for each fall of 0.01 in power factor 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 falls below 0.70 (lagging) consecutively for 3 months, the licensee reserves the right to disconnect the consumer's service connection without prejudice for the levy of the surcharge.

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

5. Billing Demand

Billing demand will be the highest among the following:

- (a) 100 kVA
- (b) 75% 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 550.00/- per kVA per month

2. Energy Charges

Usage(Units/Month)	Tariff (Ps./Unit)
First 300 units / kVA	385
Next 200 units / kVA	455
Above 500 units / kVA and above	480

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.

c) Power Factor Charges

(a) The monthly average power factor of the supply shall be maintained by the consumer not less than 0.90 (lagging). If the monthly average power factor of a consumer falls below 90% (0.9 lagging), such consumer shall pay a surcharge in addition to his normal tariff @ 1% on billed demand and energy charges for each fall of 0.01 in power factor 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 falls below 0.70 (lagging) consecutively for 3 months, the licensee reserves the right to disconnect the consumer's service connection without prejudice for the levy of the surcharge.

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

d) Billing Demand

Billing demand will be the highest among the following:

- (a) 100 kVA
- (b) 75% 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. 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 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
2	Three Phase	Rs 25
3	LT Meter with MD indicator	Rs 200
4	Tri- vector Meter	Rs 500

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 50
2	Three Phase LT	Rs 100
3	HT	Rs 1000

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
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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. 150/- plus Rs. 40/- 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. 550/- plus Rs.60 /- per meter beyond 30 meters.

(c) 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	100
2	Three Phase	300
3	Three Phase Tri-vector Meter (0.5 Class) Industrial LT Consumer	500
4	Three Phase Tri-vector Meter (0.5 Class) 11 KV HT Consumer	500

S.No.	Types of Metering Equipment	Fee per unit (in Rs.)
5	Three Phase Tri-vector Meter (0.2 Class) 66KV EHT Consumers	1000
6	Combined CTPT Unit for 11 KV Consumer	500
7	66 KV CT / PT Unit	500
8	Three Phase CT Block	300
9	CT Coil	100

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	10
2	Three Phase Lighting / Domestic	25
3	Single Phase Lighting / Non Domestic	50
4	Three Phase Lighting / Non Domestic	100
5	Three Phase LT Industries	250
6	Single Phase / Three phase Agriculture / Streetlight / Public Lighting & others	50
7	HT Industries upto 500 KVA	1000
8	HT Industries upto 2500 KVA	5000
9	HT Industries above 2500 KVA	10000

Prayer

1. EDDD requests the Hon'ble Commission to:
 - Admit the Aggregate Revenue Requirement of FY 14-15 as submitted herewith as well as the revised estimates for FY 13-14.
 - Admit and approve the Trued up ARR for FY 2012-13.
 - 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.

FORMATS