

True up for FY 2011-12

and

**Aggregate Revenue Requirement &
Tariff Petition for FY 2013-14**

Main Text & Formats (Volume I)

Submitted to

**Joint Electricity Regulatory Commission
Gurgaon**

By:

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

November 2012

**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 13-14 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 11-12 and the Aggregate Revenue Requirement (ARR) of EDDD and Tariff Revision Proposal of EDDD for the FY 13-14 (Financial Year 2013-14).

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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 341 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 11-12, electricity drawal 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 11-12. The current demand is primarily dependent on the HT and LT Industrial consumers contributing approx. 94% of the total sales in FY 11-12. 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 340 MW by FY 2013-14. 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 trueing up for FY 11-12, revised estimates for FY 12-13 and the basis, assumptions and projections of individual elements constituting the determination of ARR for FY 13-14. 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 and third Tariff order for FY 11-12 and FY 2012-13 for EDDD were issued on 3rd October, 2011 and 25th August, 2012 respectively. The Commission in its Tariff Order for FY 12-13 has approved the ARR for FY 12-13 based on the actual cost for FY 10-11 and estimated expenses for FY 11-12. Further, Commission has approved revision in retail tariff to meet the revenue deficit for FY 12-13.

Chapter 2: True Up for FY 2011-12

1 Principles for True Up for FY 2011-12

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 2011-12 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 2011-12. Information provided in the True Up for FY 2011-12 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 3rd October, 2011 and the revised parameters in the Tariff Order dated 25th August 2012 for the FY 11-12.

Accordingly, revised Aggregate Revenue Requirement, revenue and gap for FY 2011-12 are given in the following paragraphs of this chapter.

2 Energy Sales for FY 2011-12

The actual energy sale for FY 2011-12 has been shown below along with approved sales by Hon'ble Commission vide Tariff Order dated 3rd October, 2011 and the revised sales approved in the Tariff Order dated 25th August 2012. The actual energy sales for FY 2011-12 are as under:

Table 1: Consumer category wise energy sales for FY 2011-12

Particulars	(MU)		
	FY 11-12 Approved (3 rd October, 2011)	FY 11-12 Approved (25 th August, 2012)	FY 11-12 Actual
Domestic	66.10	64.53	73.85
LIG/ Kutir Jyoti	0.10	0.10	0.10
Commercial	29.60	30.22	33.83
Agriculture	2.50	2.64	2.70
LT Industry	141.80	150.47	156.84
HT/EHT Industry	1469.10	1456.14	1496.83
Public Lighting	4.80	5.02	5.59
Public Water Works	0.90	0.90	0.92
Temp. Supply	0.00	0.50	0.51

Particulars	FY 11-12	FY 11-12	FY 11-12
Total Sales	1,714.90	1,710.52	1,771.16

It can be observed from the above that variation in the actual energy sold as compared to the energy sales approved by the Commission is due to the following reasons:

- Sales to the HT/EHT category has increased by more than 40 MU in comparison to the figure approved by the Hon'ble Commission vide its Tariff Order dated 25th August 2012.
- Similarly, energy sales to domestic category has increased by around 9 MU.
- Sales to other consumer categories such as commercial, agriculture, public lighting, public water works and temporary supply had increase marginally.

The EDDD requests the Hon'ble Commission to approve the actual sales for FY 11-12.

3 Distribution Loss for FY 2011-12

EDDD is making all efforts to reduce the distribution losses in the UT of Daman & Diu. In FY 2011-12, the actual distribution losses were 9.56% as against the approved level of 9.75%.

In the Tariff Order dated 25th August 2012, the Hon'ble Commission had computed the distribution losses at 13%. However, now EDDD has computed the distribution loss based on the actual sales data for FY 11-12. There is a variation in the sales submitted to JERC during the processing of the petition for FY 12-13. Based on that the distribution loss for FY 11-12 has been worked out at 9.56%, which is less than the target set by the Hon'ble Commission. The variation in the sales is due to in the higher consumption in the HT and LT industrial categories as compared to projected during the processing of the previous tariff order. 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 date 3rd October, 2011 and 25th August, 2012.

Table 2: Distribution Loss

(%)

Particulars	FY 11-12	FY 11-12	FY 11-12
	Approved (3 rd October, 2011)	Approved (25 th August, 2012)	Actual
Distribution Loss	9.75%	9.75%	9.56%

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 11-12 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 2011-12

(MU)

Particulars	FY 11-12	FY 11-12	FY11-12
	Approved (3 rd October, 2011)	Approved (25 th August, 2012)	Actual
Sales	1,715.00	1,711	1,771
Add: Losses	185	185	193
T&D Losses	9.75%	9.75%	9.56%
Energy Required at Periphery	1,900.28	1,895	1,958
Transmission loss	82.49	75.11	79.71
Transmission loss (%)	4.16%	3.61%	3.61%
Power purchase	1,983.00	2,080.58	2,208.00
Surplus/ (Deficit) Power	0.00	110.16	170.00

The net energy requirement for sale to retail consumers in FY 2011-12 was 2208 MU as compared 2080.58 MU approved by the Hon'ble Commission vide its Tariff Order dated 25th August 2012.

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 11-12 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 2011-12

Source (Rs. Crs)	FY 2011-12(Approved vide. Order dated 3 rd October 2011))			FY 2011-12(Actual)		
	Units Purchased	All Charges Total	Per Unit Cost	Units Purchased	All Charges Total	Per Unit Cost
NTPC Stations						
KSTPP	377.00	56.97	1.51	340.99	44.91	1.32
KSTPP-III	29.00	4.67	1.61	39.07	9.02	2.31
VSIPP-I	102.00	21.80	2.14	105.08	31.60	3.01
VSIPP-II	76.00	16.65	2.19	76.92	18.17	2.36
VSIPP- III	91.00	23.27	2.56	100.22	27.34	2.73
KAWAS	186.00	46.17	2.48	212.79	105.67	4.97
JGPP	188.00	60.10	3.20	213.63	100.05	4.68
Bhilai Unit-I &II(NTPC)	666.00	166.20	2.50	694.90	269.88	3.88
Sipat-I	84.00	17.22	2.05	119.07	32.46	2.73
Subtotal	1799.00	413.05	2.30	1902.67	639.10	3.36
Eastern Region						
KHSTPP-II	14.00	3.31	2.36	10.62	5.46	5.14
Subtotal	14.00	3.31	2.36	10.62	5.46	5.14
NPCIL						
KAPPS	38.00	8.25	2.17	58.40	12.83	2.20
TAPP 3&4	61.00	16.65		78.26	23.43	
Subtotal	99.00	24.90	2.52	136.66	36.26	2.65
Others						
Ratnagiri	71.00	25.56	3.60	102.17	46.15	4.52
Subtotal	71.00	25.56	3.60	102.17	46.15	4.52
Power purchase from Other Sources						
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	56.02	24.43	4.36
RP Obligation	0.00	20.12	0.00	0.00	0.00	0.00
Subtotal	0.00	20.12	0.00	56.02	24.43	4.36
Misc. Arrears		15.64	0.00		7.50	0.00
Gross Power Purchase	1983.00	502.58		2208.14	758.90	
External Losses	82.48			79.71		

Source (Rs. Crs)	FY 2011-12(Approved vide. Order dated 3 rd October 2011))			FY 2011-12(Actual)		
	Units Purchased	All Charges Total	Per Unit Cost	Units Purchased	All Charges Total	Per Unit Cost
Total Power Purchase	1900.52	502.58	2.64	2128.43	758.90	3.57
PGCIL CHARGES		53.64			54.27	
WRLDC		0.66			3.41	
Other		0.00			0.51	
Grand Total of Charges - Net	1900.52	556.88	2.93	2128.43	817.09	3.84

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.

Further, the EDDD had submitted the power purchase cost at Rs. 809.32 Crore to the Hon'ble Commission at the time of processing the Tariff Order for FY 12-13, against which the Hon'ble Commission had approved the power purchase at Rs. 782.67 Crore. Now the EDDD has claimed a power purchase cost of Rs. 817.09 Crore based on the Annual accounts for FY 11-12 and found that there is minor increase in the power purchase cost as compared to the power purchase cost approved by the Hon'ble Commission vide its order dated 25th August 2012.

The EDDD also requests the JERC to allow the UI purchase during FY 11-12 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 11-12.

The EDDD purchased 56.02 MU during FY11-12 through UI at the cost of Rs. 24.43 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 11-12 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. 13.61 Crore and Rs. 9.45 Crore vide Tariff Orders dated 3rd October 2011 and 25th August 2012 respectively. During FY 11-12, EDDD incurred actual O&M expense of Rs. 14.62 Crore which was inclusive of employee cost of Rs. 6.67 Crore, Repair & Maintenance Charges of Rs. 5.12 Crore and Administration & General Expenses of Rs. 2.83 Crore as shown in the table below:

Table 5: Operation & Maintenance Expenses for FY 2011-12

(Rs. Cr.)

Particulars	FY 11-12	FY 11-12	FY11-12
	Approved (3 rd October, 2011)	Approved (25 th August, 2012)	Actual
Employee Cost	5.18	4.89	6.67
R&M	6.26	2.39	5.12
A&G	2.17	2.17	2.83
O&M Expenses	13.61	9.45	14.62

7 Capital Expenditure & Capitalization

The actual capital expenditure incurred by EDDD during the FY 11-12 was Rs. 18.31 Crore, which is lower than that of approved by the Hon'ble Commission in its Tariff Orders dated 3rd October 2011 and 25th August 2012. The capital

expenditure incurred and actual capitalization made by the department for FY 11-12 against that approved by the Hon'ble Commission is as shown below:

Table 6: Capital expenditure and capitalization for FY 11-12

(Rs. Cr.)

Particulars	FY 11-12	FY 11-12	FY11-12
	Approved (3 rd October, 2011)	Approved (25 th August, 2012)	Actual
Capital Expenditure	112.43	31.00	18.31
Capitalization	51.96	28.15	11.49

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 FY011-12 is shown in the table below:

Table 7: Depreciation for FY 2011-12

(Rs. Cr.)

Particulars	FY 11-12	FY 11-12	FY11-12
	Approved (3 rd October, 2011)	Approved (25 th August, 2012)	Actual
Opening GFA	11.15	9.22	260.76
Addition during the year	51.56	28.15	11.48
Closing GFA	62.71	37.37	272.24
Average GFA	36.93	23.30	266.50
Depreciation during the year	1.95	1.23	12.41

The EDDD, requests the Hon'ble Commission to approve the actual depreciation for FY 11-12 without any deduction.

9 Interest and Finance Charges

For assessing interest on Loans in FY 11-12, EDDD has considered the opening balance of loans for FY 11-12 as approved by the Hon'ble Commission vide its Tariff Order

dated 25th August 2012 for the Review of the ARR for FY 11-12. The normative loan addition in FY 11-12 has been computed as 70% of the capitalization for FY 211-12 which works out to Rs. 8.03 Crore. The capitalization for FY 11-12 was Rs. 11.49 Crore as per the audited annual accounts for FY 11-12.

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 11-12 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 11-12

(Rs. Cr.)

Particulars	FY 11-12	FY 11-12	FY11-12
	Approved (3 rd October, 2011)	Approved (25 th August, 2012)	Actual
Opening Loan	0.00	6.45	6.45
Loan for additional Capex (70:30 debt-equity)	0.00	19.71	8.03
Loan Repayment (10% of Opening Balance)	0.00	0.65	0.72
Closing Loan	0.00	25.51	13.76
Interest Cost on Avg. Loans	0.00	2.08	1.49

The EDDD, requests the Hon'ble Commission to approve the interested on loan computed for FY 11-12.

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 2011-12

incurred by EDDD against the approved amount for the consideration of the Hon'ble Commission:

Table 9: Interest on Working Capital for FY 2011-12

(Rs. Cr.)

Particulars	FY 11-12	FY 11-12	FY 11-12
	Approved (3 rd October, 2011)	Approved (25 th August, 2012)	Actual
O&M expense for 1 month	1.20	0.79	1.23
Power Purchase Cost for 1 month	51.94	61.00	68.09
Fuel cost for two months	0.00	0.00	0.00
Total Working Capital requirement	53.14	55.51	69.31
Interest on Working Capital	6.51	7.22	10.22

The EDDD, requests the Hon'ble Commission to approve the interested on working capital computed for FY 11-12.

11 Return on Equity

As per the Tariff Regulations issued by the Hon'ble Commission, a return at 16% on the equity base is considered as reasonable and hence allowed by Hon'ble Commission. Accordingly, EDDD has computed the Return on Equity considering a rate of return at 16%.

The return on equity has been computed at 16% on average equity based upon the opening balance of equity for FY 11-12 and additions during the year as equal to 30% of the capitalization during FY 11-12. The return on equity for FY 11-12 is as shown below:

Table 10: Return on Equity for FY 11-12

(Rs. Cr.)

Particulars	FY 11-12	FY 11-12	FY11-12
	Approved (3 rd October 2011)	Approved (25 th August 2012)	Actual
Return on Equity	0.00	0.27	0.28

The EDDD, requests the Hon'ble Commission to approve the return on equity computed for FY 11-12.

12 Non Tariff Income

The actual Non-Tariff Income of EDDD for FY 11-12 was Rs. 8.33 Crore as against Rs. 9.42 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 11-12

(Rs. Cr.)

Particulars	FY 11-12	FY 11-12	FY11-12
	Approved (3 rd October 2011)	Approved (25 th August 2012)	Actual
Meter Rent	0.16	0.16	0.41
Delay payment charges (DPC)	9.26	9.26	6.74
Misc. Income	0.00	0.00	1.19
Non tariff Income	9.42	9.42	8.33

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 11-12.

13 Aggregate Revenue Requirement for FY 11-12

Based on above expenses, table below summarizes actual Aggregate Revenue Requirement for FY 11-12 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 11-12

(Rs. Cr.)

Particulars	FY11-12	FY11-12	FY11-12
	Approved (3rd October, 2011)	Approved (25 th August, 2012)	Actual
Power Purchase Cost	556.89	782.67	817.09
O&M Expense	13.61	9.45	14.62
Depreciation	1.95	1.23	12.41
Interest Cost on Long-term Capital Loans	0.00	2.08	1.49
Interest on Working Capital Loans	6.51	7.22	10.22
Return on Equity	0.00	0.27	0.28
Provision for Bad Debt	0.40	1.40	0.00
Less:			
Non-Tariff Income	9.42	9.42	8.33
Annual Revenue Requirement (ARR)	569.94	795.99	847.78

The EDDD, requests the Hon'ble Commission to approve the ARR computed for FY 11-12.

14 Revenue for FY 11-12

During the FY 11-12, EDDD's actual revenue amounted to Rs. 704.53 Crore (including the amount received on account of PPCA charges) as against Rs. 554.61 Crore and Rs. 724.08 Crore as approved vide its Tariff Order dated 3rd October 2011 and 25th August 2012 respectively by the Hon'ble Commission.

Table 13: Revenue for FY 11-12

(Rs. Cr.)

Particulars	FY 11-12	FY 11-12	FY 11-12
	Approved (3rd October 2011)	Approved (25th August 2012)	Actual
Revenue from sale of power	554.61	674.28	704.53
Revenue from surplus sale of power	0.00	49.80	49.80

Total Revenue	554.61	724.08	754.33
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15 Revenue (Gap) / Surplus for FY 11-12

The Hon'ble Commission in Order dated 3rd October 2011 has approved a total Aggregate Revenue Requirement (ARR) of Rs. 569.94 Crore for FY 11-12. Further, the Commission has computed the revised ARR for FY 11-12 in the Order dated 25th August 2012 of Rs. 795.99 Crore. Based on the annual accounts for FY 11-12 and the actual expenses incurred by the EDDD, the revised ARR for FY 2011-12 has been arrived at Rs. 847.78 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. 704.53 Crore and revenue from sale of surplus energy of Rs. 49.80 Crore is summing up to Rs. 754.33 Crore. Accordingly, total revenue gap of EDDD for FY 11-12 is computed at Rs. 93.45 Crore as depicted in the Table below:

Table 14: Revenue Gap for FY 11-12

Particulars	(Rs. Cr.)	
	FY11-12 Approved (25th August, 2012)	FY11-12 Actual
Annual Revenue Requirement	795.99	847.78
Revenue from sale of power	674.28	704.53
Revenue from Surplus Power Sale	49.80	49.80
Revenue Gap	71.91	93.45

EDDD requests the Hon'ble Commission to approve afore-mentioned revenue gap for FY 11-12.

16 Truing up for FY 2010-11

The Hon'ble Commission in its Tariff Order for FY 12-13 has provisionally Trued-up the ARR for FY 10-11 as the assets of the EDDD were not verified by the auditor. Now, EDDD requests the Hon'ble Commission to True up the ARR for FY 10-11 as the assets of EDDD have been audited by the auditor and the verified asset register is being submitted before the Hon'ble Commission along with this ARR petition.

Chapter 3: ARR & Tariff Petition for FY 2013-14

EDDD is submitting its ARR and Tariff petition for the determination of tariff for FY 13-14 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 13-14.

The following sections explain in detail the basis and forecasts of the following elements for FY 13-14:

- 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 2012 under various categories is summarized in table below:

Table 15: Category wise number of Consumers

Particulars	FY 11-12
	Actual
Domestic	45512
Commercial	8962
Agriculture	1639
LT Industry	1635
HT/EHT Industry	768
Public Lighting	204
Public Water Works	77
Total Sales	58,797

2. Table 16 summarizes category wise actual energy sold to all the consumer categories from FY 07-08 to FY 11-12. 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 07-08 to FY 11-12

Particulars (MU)	FY 07-08	FY 08-09	FY 09-10	FY 10-11	FY 11-12
	Actual	Actual	Actual	Actual	Actual
Domestic	51.26	56.43	57.92	62.20	73.85
LIGH (BPL)	0.06	0.06	0.05	0.10	0.10
Commercial	25.42	26.43	27.73	29.30	33.83
Agriculture	0.25	2.47	2.53	2.60	2.70
LT Industry	140.68	134.92	139.12	151.00	156.84
HT/EHT Industry	1,053.80	1,099.11	1,236.51	1,381.80	1,496.83
Public Lighting	4.25	4.33	4.36	4.40	5.59
Public Water Works	0.82	1.05	0.88	0.90	0.92
Temp. Supply	0.36	0.55	0.00	0.65	0.51
Total Sales	1,276.90	1,325.35	1,469.10	1,632.95	1,771.16

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 12-13 and FY 13-14 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 12-13 & FY 13-14 have been determined based on past years CAGR and actual energy sales in various consumer categories for the first five months of FY 12-13. 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 12-13, the actual five months energy sales has been analyzed and the energy sales for the remaining seven months has been arrived at by considering the five 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 12-13 & FY 13-14, 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 12-13 and FY 13-14.
7. For the domestic consumers, the EDDD has projected the energy sales for FY 13-14 by applying four years' (FY 07-08 to FY 11-12) Compounded Annual Growth Rate (CAGR) on the estimated sales for FY 12-13. Whereas, a five-year (FY 07-08 to FY 11-12) CAGR 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 13-14 by applying three years' (FY 08-09 to FY 11-12) CAGR on the estimated sales for FY 12-13.
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 9.17% is observed in the growth in energy consumption of HT/EHT category over the past four years. Therefore, for FY 13-14, a growth rate of 9.17% 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 12-13 and projected energy sales for FY 13-14 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 12-13 & FY 13-14

Energy Sales	FY 12-13	Adjusted	FY 13-14
	Estimated	CAGR	Projected
Domestic	75.39	9.56%	82.59
LIGH	0.06	18.95%	0.07
Commercial	34.64	10.28%	38.21
Agriculture	3.59	3.05%	3.70
LT Industry	164.92	5.15%	173.40
HT/EHT Industry	1,583.03	9.17%	1,728.19
Public Lighting	4.10	8.90%	4.46
Public Water Works	0.88	8.11%	0.96
Temp. Supply	0.40	5.39%	0.42
Total Sales	1,867.00		2,032.00

17 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.
2. EDDD has achieved a T&D loss level of 9.56% during the FY 2011-12 and considered the T&D loss of 9.50% for FY 12-13 as against the target of 9.25% approved by the 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 9.25% for FY 13-14:

Table 16: T&D Losses

	FY12-13	FY13-14
	Estimated	Projected
T&D Losses	9.50%	9.25%

3. Considering the proposed capital expenditure in transmission and distribution network during FY 13-14, the EDDD expects to reduce the losses by approximately 0.25% in FY 13-14.
4. The EDDD would like to bring in the notice of the Honorable Commission that the T&D losses of the Daman & Diu is one of the lowest in the country and it's quite difficult to reduce losses by more than 0.25% p.a., due to low base loss level of 9.25% estimated for FY 12-13. Moreover, the quantum of energy handled by the system has increased over a period of time and this also marginally affects the T & D Losses in the System.
5. The EDDD submits to the Commission to approve the T&D losses submitted herein.

18 Energy Requirement of the System

1. Overall energy sales to various consumer categories are estimated to grow at approximately 5.40% and 8.80% during FY 12-13 and FY 13-14 respectively. Thus, the overall energy requirement at EDDD's periphery is projected to be 2063 MU and 2239 MU in FY 12-13 and FY 13-14 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	FY12-13	FY13-14
	Revised Estimates	Projected
Sales (MU)	1,867	2,032
Add: Losses (MU)	196	207
T&D Losses	9.50%	9.25%

Energy Requirement	FY12-13	FY13-14
Energy Required at Periphery (MU)	2,063	2,239
Energy Available (MU)	2,140	2,239
Surplus Power Available/Sold (MU)	77	0

19 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, Vindhyachal, 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 12-13 and FY 13-14 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 12-13, actual power purchase for the first six months of FY 12-13 has been considered. For projection of FY 13-14 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 six months of FY 12-13 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 2012 to March 2013 has been estimated based on the revised allocation issued by the Western Region Power Committee (WRPC) dated 24 May 2012. The energy allocation from various generating stations is summarized in table below:

Table 18: Energy Allocation from Central Generating Stations

Particulars	FY 2012-13	
	DD Allocation (MW)	Avg. EDDD Allocation (%)
NTPC Stations		
KSTPP	53	2.50%
KSTPP-III	6	1.25%
VSTPP-I	14	1.13%
VSTPP-II	11	1.06%
VSTPP- III	13	1.27%
KAWAS	31	4.72%
JGPP	31	4.76%
Bhilai Unit-I &II(NTPC)	91.50	18.30%
Sipat-I	18	1.33%
Sipat-II	12	1.17%
Subtotal	279	
Eastern Region		
KHSTPP-II	1.30	0.13%
Subtotal	2	
NPCIL		
KAPPS	8.30	1.89%
TAPP 3&4	13.40	1.24%
Subtotal	22	
Others		
Ratnagiri	38	1.93%
Subtotal	38	
Grand Total	341	-

3. Actual power purchase in first six months of FY 12-13 and revised power allocation of 92 MW from NTPC-SAIL Bhilai power plant has been considered while estimating the power availability from this plant during FY 12-13.
4. Actual power purchase in first six months of FY 12-13 from Ratnagiri Gas Power Plant and revised power allocation of 38 MW has been considered while estimating the power purchase during FY 2012-13 from this plant.
5. For projecting the power availability for FY 13-14, 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/2012/684 dated 24 May 2012 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 13-14.
7. Power purchase quantum from the NTPC stations for the second half of the current year and FY 13-14 has been calculated based on the installed capacity of each plant and by applying the average of previous three and half years (FY 10 to FY 12, FY 13 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 12-13.
8. For gas based generating stations i.e. Kawas (KGPP) and Gandhar (GGPP) weighted average PLF of FY 10-11, FY 11-12 and FY 12-13 (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 12-13, 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 12-13. Further, EDDD has made the

provision of power purchase from the renewable sources (solar and non solar) in FY 13-14 as well.

11. Though the availability of power shall increase due to additions in allocation of power from various resources, EDDD will have to procure power from market and other sources to meet its energy requirement during the deficit period in a year. For the FY 13-14, short-term procurement of power of 40 MU has been considered to meet the demand of the consumers through out the year.
12. The recent 52 week moving average of regional losses was found to be 3.56%. Transmission losses for the FY 11-12 were recorded as 3.61%. For computing the power availability at the periphery, 3.56% weighted average external transmission losses have been applied on the gross power purchase for FY 12-13 and FY 2013-14.
13. Table 19 below depicts the station wise power purchase for FY 12-13 and FY 13-14.

Table 19: Power Purchase Quantum

Particulars	FY12-13	FY13-14
	Revised Estimates	Projected
NTPC Stations		
KSTPP	367.36	368.00
KSTPP-III	39.46	30.00
VSTPP-I	97.67	367.82
VSTPP-II	73.96	29.60
VSTPP- III	93.14	99.69
KAWAS	162.10	76.54
JGPP	185.67	94.19
Bhilai Unit-I &II(NTPC)	663.83	159.40
Sipat-I	117.77	177.36
Sipat-II	81.56	656.46
Subtotal	1882.52	1864.67
Eastern Region		
KHSTPP-II	9.31	7.07

Particulars	FY12-13	FY13-14
	Revised Estimates	Projected
Subtotal	9.31	7.07
NPCIL		
KAPPS	45.47	31.33
TAPP 3&4	81.92	71.38
Subtotal	127.40	102.71
Others		
Ratnagiri	172.66	242.34
Subtotal	172.66	242.34
<u>Power purchase from Other Sources</u>		
Power purchase from Indian E. Exchange	0.00	0.00
Short term arrangement	2.63	50.00
Solar	4.00	8.00
Non Solar	20.00	48.00
Subtotal	26.63	106.18
Gross Power Purchase	2218.51	2322.97
External Losses	78.98	84.00
Total Power Purchase	2139.53	2239.11

14. 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 12-13 and FY 13-14.

Table 20: Energy Balance

Energy Balance	FY12-13	FY13-14
	Revised Estimates	Projected
Sales (MU)	1,867	2,032

Add: Losses (MU)	196	207
T&D Losses	9.50%	9.25%
Energy Required at Periphery (MU)	2,063	2,239
Energy Available (MU)	2,140	2,239
Surplus Power Available/Sold (MU)	77	0

c. Power Purchase Cost

1. The cost of purchase from the central generating stations for FY 12-13 and FY 13-14 is estimated based on the following assumptions:

- The cost of power purchase for FY 12-13 are based on actual power purchase bills, received by the EDDD during the first six months of FY 12-13. Each element of the power purchase cost i.e. fixed, variable and other cost have been estimated for each generating station by considering 6 months (April 12 to September 12) actual cost incurred by the EDDD (copies of the power purchase cost is enclosed at Annexure 2). The projection for remaining six months has been done on pro-rata basis by considering the actual power purchase cost of the first six months of FY 12-13.
- Fixed cost for FY 13-14 has been projected considering an 8% escalation over the estimated fixed cost for various stations for FY 12-13. 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 13-14 has been projected based on the increase in the actual average variable cost per unit for the first six months of FY 12-13. For some of the plants like Kawas, JGPP, VSTPP-I, VSTPP-II and VSTPP-III the per unit variable cost for FY 2013-14 has been kept at the same level as that of FY 2012-13 as there was no increase in the variable cost during FY 2012-13 in these plants. For other 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 six months of FY 12-13. **The actual average variable cost (NTPC, NPCIL & KHSTPP II) for FY 11-12 was Rs. 2.09 per unit as against Rs. 2.07 per unit for the first six months of FY 12-13.**

- The EDDD has projected other charges (tax, incentives, etc) for FY 13-14 at similar level as estimated for full year of FY 12-13.
 - For nuclear plants i.e. KAPP single part tariff with 4% escalation on the actual per unit charges for FY 12-13 have been considered for FY 13-14 and for TAPP Units 3 & 4, no escalation has been considered for FY 13-14.
 - For NTPC-SAIL Bhilai unit 1 & 2, fixed, variable and other charges have been projected for the entire FY 12-13 based on the actual cost for first six months of FY 12-13. An escalation of 15% for increase in fuel cost has been taken into consideration for projecting the power purchase cost from the said plant for FY 2013-14.
 - 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 six months of FY 12-13 and for the entire period of FY 13-14.
 - During FY 12-13, though EDDD had excess power, EDDD had to overdraw power from the grid during the peak hours for meeting the demand of the consumers. EDDD has purchased energy under UI in the first six months at the rate of Rs. 4.52 per unit.
 - EDDD had surplus power during FY 12-13 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 12-13 and FY 13-14 is summarized in Table below:

Table 21: Power Purchase Cost for FY 12-13 (in Rs. Crore)

Source	Units Purchased (MU)	Fixed Charges	Variable Charges	Other Charges	All Charges Total	Per Unit Cost
NTPC Stations						
KSTPP	367.36	21.41	35.04	4.73	61.18	1.67
KSTPP-III	39.46	7.15	3.71	0.76	11.62	2.95
VSTPP-I	97.67	5.97	14.59	5.28	25.84	2.65
VSTPP-II	73.96	5.51	10.38	2.32	18.21	2.46
VSTPP- III	93.14	10.30	13.08	4.81	28.18	3.03
KAWAS	162.10	22.58	39.08	(1.80)	59.87	3.69
JGPP	185.67	27.27	43.13	(0.49)	69.91	3.77

Source	Units Purchased (MU)	Fixed Charges	Variable Charges	Other Charges	All Charges Total	Per Unit Cost
Bhilai Unit-I &II(NTPC)	663.83	111.78	171.97	4.06	287.82	4.34
Sipat-I	117.77	15.44	16.55	1.55	33.54	2.85
Sipat-II	81.56	10.27	9.61	(0.02)	19.86	2.44
Subtotal	1882.52	237.68	357.15	21.20	616.03	3.27
Eastern Region						
KHSTPP-II	9.31	1.50	2.15	(0.07)	3.57	3.84
Subtotal	9.31	1.50	2.15	(0.07)	3.57	3.84
NPCIL						
KAPPS	45.47	0.00	10.42	0.31	10.72	2.36
TAPP 3&4	81.92	0.00	22.81	0.00	22.81	2.78
Subtotal	127.40	0.00	33.23	0.31	33.53	2.63
Others						
Ratnagiri	172.66	31.34	53.75	0.00	85.09	4.93
Subtotal	172.66	31.34	53.75	0.00	85.09	4.93
<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	2.63	0.00	1.19	0.00	1.19	4.52
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	26.63	0.00	12.79	0.00	12.79	4.80
Misc. Arrears					5.00	
Gross Power Purchase	2218.51	270.52	459.06	21.44	756.02	3.41
External Losses	78.98					
Total Power Purchase	2139.53	270.52	459.06	21.44	756.02	3.53

Table 22: Power Purchase Cost for FY 13-14 (in Rs. Crore)

Source	Units Purchased (MU)	Fixed Charges	Variable Charges	Other Charges	All Charges Total	Per Unit Cost
NTPC Stations						
KSTPP	367.82	22.70	37.62	4.73	65.04	1.77
KSTPP-III	29.60	7.58	4.08	0.76	12.42	4.20
VSTPP-I	99.69	6.33	14.59	5.28	26.20	2.63

Source	Units Purchased (MU)	Fixed Charges	Variable Charges	Other Charges	All Charges Total	Per Unit Cost
VSTPP-II	76.54	5.84	10.38	2.32	18.54	2.42
VSTPP- III	94.19	10.92	13.08	4.81	28.80	3.06
KAWAS	159.40	23.94	39.08	0.00	63.02	3.95
JGPP	177.36	28.91	43.13	0.00	72.03	4.06
Bhilai Unit-I &II(NTPC)	656.46	118.49	198.62	4.06	321.18	4.89
Sipat-I	124.15	16.36	19.86	1.55	37.77	3.04
Sipat-II	79.44	10.89	9.61	0.00	20.49	2.58
Subtotal	1864.67	251.95	390.05	23.50	665.50	3.57
Eastern Region						
KHSTPP-II	7.07	1.59	2.15	0.00	3.73	5.28
Subtotal	7.07	1.59	2.15	0.00	3.73	5.28
NPCIL						
KAPPS	31.33	0.00	10.87	0.31	11.17	3.57
TAPP 3&4	71.38	0.00	22.81	0.00	22.81	3.19
Subtotal	102.71	0.00	33.67	0.31	33.98	3.31
Others						
Ratnagiri	242.34	46.63	65.13	0.00	111.76	4.61
Subtotal	242.34	46.63	65.13	0.00	111.76	4.61
Power purchase from Other Sources						
Power purchase from Indian E. Exchange	0.00	0.00	0.00	0.00	0.00	0.00
Short-term arrangement	50.00	0.00	15.05	0.00	15.05	3.00
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	106.18	0.00	41.45	0.00	41.45	3.90
Misc. Arrears						
Gross Power Purchase	2322.97	300.16	532.46	23.81	856.43	3.69
External Losses	84					
Total Power Purchase	2239.11	300.16	532.46	23.81	856.43	3.82

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 12-13 based on the actual transmission charges for six months of FY 12-13 and pro-rata allocation of the same for remaining six months.

2. For projecting the PGCIL transmission charges for FY 13-14, an escalation of 7% over the estimated FY 12-13 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 12-13 & FY 13-14

Particulars	FY 12-13 (Revised Estimate)			FY 13-14 (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	2139.53	756.02	3.53	2239.11	856.43	3.82
PGCIL charges		57.95			62.00	
WRLDC		0.54			0.58	
MSTCL		3.48			3.72	
Total Power Purchase Cost (including Transmission Cost)	2139.53	817.98	3.82	2239.11	922.73	4.12

20 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. 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

3. The total O&M expense for FY 11-12 is Rs. 14.62 Crore as compared to Rs. 9.46 Crore in FY 2010-11, an increase of over Rs. 5.16 Crore. The increase in operation and maintenance cost in FY 11-12 primarily on account of increase in R&M expenses during FY 11-12.
4. The methodology adopted by EDDD for projecting the values of each component of the O&M expense for FY 12-13 & FY 13-14 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 12-13, EDDD has estimated the total employee cost for full year

of FY 12-13 as Rs. 7.34 Crore. Salary expenses for FY 13-14 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 13-14, the Petitioner has considered an 8.94% escalation over the estimated employee cost for FY 12-13. Total employee cost of EDDD for FY 13-14 is estimated at Rs. 7.89 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 2011-12 is Rs. 5.12 Crore.
3. For FY 12-13, EDDD has considered the R&M expense of Rs. 5.58 Crore and has projected an 8.94% increase in the R&M expense for FY 13-14. The R&M cost for FY 11-12, FY 12-13 and FY 13-14 is summarized in table below:

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

R&M Expenditure (Rs. Crs)	FY12-13	FY13-14
	Revised Estimate	Projected
R&M Cost	5.58	6.08

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 11-12 is Rs. 2.83 Crore. For FY 12-13, EDDD has considered the R&M expense of Rs. 3.08 Crore and has projected a 8.94% increase in the R&M expense for FY 13-14 which includes regulatory, consultancy, energy auditing and consumer indexing fees.
3. The Regulatory & Consultancy expenses for the FY 13-14 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 13-14 total A&G expenses has been projected at Rs. 3.36 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 12-13 and FY 13-14 is summarized in table below. The projected O&M expenses are computed at 15.93 Crore and 17.35 Crore respectively for FY 12-13 and FY 13-14.

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

O&M Expenditure	FY12-13	FY13-14
	Revised Estimate	Projected
Employee Cost	7.27	7.92
R&M Cost	5.58	6.08
A&G Expenditure	3.08	3.36
Total O&M Expenditure	15.93	17.35

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

21 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 13-14, the EDDD has proposed a capital expenditure of Rs. 60 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 13-14 is given in the table below:

Table 27: Capital Scheme wise Capital Expenditure for FY 13-14

Sr.No.	Name of Scheme	FY 13-14
		(Rs. Crore)
A	New Schemes	
2	Scheme for replacing 2x50 MVA Transformer to 2x160 MVA 220/66 KV Transformer at Magarwada, Moti Daman	4.00
3	Scheme to establish new 66/11 KV, 2x15 MVA S/S at Bhimpore, Nani Daman	0.98
4	Scheme to establish new 66/11 KV, 2x15 MVA S/S at Zari, Moti Daman	3.78
5	Scheme for replacement of existing panther conductor to HI TASCOR - 160 Sq.mm conductor and Providing 12 Nos. Multi Ckt. Tower (Small Bases Type)	6.10
6	Providing improved metering system, Communication, MRT facilities & Special Tools & Plants / Workshop in Daman & Diu	7.10

Sr.No.	Name of Scheme	FY 13-14
		(Rs. Crore)
7	Scheme for establishment of 220/66 KV, 1x100 MVA S/S at Ringanwada	13.00
8	Normal Development & Release of service connection	3.00
9	Scheme for Improvement and Renovation of 220 KV S/S	5.00
10	Scheme for Providing & Strengthening of Power Supply Network and communication of MRT facilities, Special Tools and Plants / Workshop	6.00
11	Scheme for Providing Under Ground Power Distribution system in Daman & Diu city / rural areas and extension of the scheme to Industrial Estates	7.00
12	Scheme for Augmentation of 66/11 KV existing S/S at Daman / Diu	3.00
13	Electrification of Tribal area and Providing street lighting in village road in Daman	0.14
14	Scheme for Construction of control room and office building at Daman & Diu.	0.90
	TOTAL	60.00

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 12-13 and FY 13-14 is summarized in Table below:

Table 28: Capital Expenditure & Capitalization for FY 12-13 and FY 13-14

Capital Expenditure & Capitalization (Rs. Crore)	FY 12-13 Revised Estimate	FY 13-14 Projected
Capital Expenditure	58.00	60.00
Asset Capitalization	27.30	46.52
Capital Work in Progress	37.53	51.01

22 Gross Fixed Assets

1. EDDD had Rs. 272.24 Crore of Opening Gross Fixed Assets (GFA) in FY 12-13. EDDD has further proposed capital expenditure of Rs. 58 Crore during FY 12-13.
2. Based on the actual capitalization of the first six months and estimated addition in GFA during the remaining six months of FY 12-13, assets amounting to Rs. 27.30 Crore have been estimated to be added in the GFA during FY 12-13.
3. For FY 13-14, EDDD has proposed a capital expenditure of Rs. 60 Crore of which Rs. 46.52 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 2011-12 (Actual)	260.76	11.48	272.24
FY 2012-13 (Revised Estimate)	272.24	27.30	299.53
FY 2013-14 (Projected)	299.53	46.52	346.05

23 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%
Furniture & Fixtures	6.33%

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

3. Depreciation for the current year and FY 13-14 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 12-13 and FY 13-14. 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 2011-12 as given in the fixed asset register and the estimated capitalization for FY 2012-13 and FY 2013-14.
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 12-13	FY 13-14
	Revised Estimate	Projected
Opening GFA	272.24	299.53
Additions	27.30	46.52
Closing GFA	299.53	346.05
Average GFA	285.88	322.79
Depreciation Amount	14.51	16.46
<i>Average Depreciation Rate</i>	4.80%	4.80%

24 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 12-13 and FY 13-14 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 12-13 and FY 13-14 is summarized in Table below:

Table 31: Total Interest on Long-term Loans

Interest on Long-term Loans	FY 12-13	FY 13-14
Rs Crore	Estimated	Projected
Opening Loan	13.76	31.22
Addition in Loan (70% of Asset Capitalization)	19.11	32.56
Repayment of Loan (10% of Opening Balance)	1.64	3.19
Closing Loan Amount	31.22	60.60
Average Loan	22.49	45.91
<i>Interest Rate on Loan</i>	14.75%	14.75%
Total Interest Cost on Long-term Loans	3.32	6.77

b. Interest on Working Capital Borrowings

1. EDDD has computed the Interest on Working Capital for FY 12-13 and FY 13-14 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 12-13 and FY 13-14 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 12-13 and FY 13-14 considering the above methodology is summarized in Table 32 below:

Table 32: Interest on Working Capital

Interest on Working Capital	FY 12-13	FY13-14
Rs Crore	Revised Estimate	Projected
One Month Power Purchase Cost	68.17	76.89
One Month Employee Cost	0.61	0.66
One Month R&M Cost	0.46	0.51
One Month A&G Cost	0.26	0.28
Two Month Fuel Cost	0.00	0.00
Total Working Capital requirement	69.49	78.34
Rate of Interest on Working Capital	14.75%	14.75%
Total Interest on Working Capital	10.25	11.56

25 Return on Equity

1. As per the JERC (Terms and Conditions for Determination of Tariff) Regulations, 2009, EDDD is entitled for a Return on Equity (RoE). However, the Rate of return has not been specified in the Regulations issued by JERC.
2. As per the CERC revised Tariff Regulations FY 2009-14, Generation and Transmission utilities are entitled for a pre-tax Return on Equity of 15.50% with

an additional return of 0.50% for projects completing before a specified timeline. EDDD would like to submit that Distribution Business is perceived to be a higher risk business as compared with Generation and Transmission Business. Therefore, a higher RoE should be provided for the Distribution Business given that EDDD is primarily a transmission and distribution utility with no generating assets.

3. However, considering that the other State Electricity Regulatory Commissions in India are allowing a RoE of 16% for distribution business, EDDD has claimed RoE of 16% for FY 12-13 and FY 13-14 in its ARR Petition.
4. Return on equity has been computed based on 30% normative equity for capitalization during FY 12-13 and FY 13-14 in line with the JERC (Terms and Conditions for Determination of Tariff) Regulations, 2009.
5. Return on equity for EDDD computed for FY 12-13 and FY 13-14 has been detailed in Table 33 below:

Table 33: Proposed Return on Equity

Return	FY 12-13	FY13-14
Rs Crore	Estimated	Projected
Opening Equity	3.44	11.63
Addition in Equity (30% of Asset Capitalization)	8.19	13.96
Closing Equity Amount	11.63	25.59
Average Equity Amount	7.54	18.61
<i>Rate of Return on Equity</i>	16.00%	16.00%
Return on Equity	1.21	2.98

26 Provision for Bad & Doubtful Debts

1. EDDD has considered provision for Bad and Doubtful Debts as 0.50% of the revenue for FY 12-13 and FY 13-14.
2. 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 12-13	FY13-14
Rs Crore	Revised Estimate	Projected
Provision for Bad & Doubtful Debts as % of Receivables	0.50%	0.50%
Provision for Bad & Doubtful Debts	4.08	4.41*

* Revenue from proposed tariff has not been included in this.

27 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 12-13, an increase of 10% p.a. has been considered over the actual FY 11-12 non-tariff income.
3. For projecting the non-tariff income for FY 13-14, an increase of 10% p.a. has been considered over the estimated non-tariff income for FY 12-13. Details of the year wise non-tariff income is provided in table below:

Table 35: Non-tariff Income

Particulars (Rs Crore)	FY 12-13	FY13-14
	Revised Estimate	Projected
Non-tariff Income	9.17	10.08

28 Aggregate Revenue Requirement

1. Table 36 summarizes EDDD's Aggregate Revenue Requirement for FY 13-14.
2. Aggregate Revenue Requirement for FY 13-14 is estimated to be Rs 972.17 Crore.

Table 36: Aggregate Revenue Requirement

Annual Revenue Requirement	FY 12-13	FY13-14
Rs. Crs.	Revised Estimates	Projected
Power Purchase Cost	817.98	922.73
O&M Expense	15.93	17.35
Depreciation	14.51	16.46
Interest Cost on Long-term Capital Loans	3.32	6.77
Interest on Working Capital Loans	10.25	11.56
Return on Equity	1.21	2.98
Provision for Bad Debt	4.08	4.41
Less: Non-Tariff Income	9.17	10.08
Annual Revenue Requirement	858.11	972.17

29 Revenue at Existing Tariff

1. Revenue from sale of power for FY 12-13 & FY 13-14 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. 815.83 Crore (inclusive of Fuel price surcharge) and Rs. 909.19 Crore in FY 12-13 and FY 13-14 respectively, as shown in Table 37. The estimated revenue for FY 12-13 is based on the first four months actual revenue from sale of power at the earlier tariff structure and one month actual revenue in the month of August 2012 raised through the sale of power on account of the new tariff as per the retail tariff notified by the Commission vide the Tariff Order for FY 12-13 dated 25th August, 2012.
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 during the period April 2012 to August 2012 and has

also been estimated for the remaining seven months of revenue estimation for FY 12-13.

4. Further, EDDD has computed the revenue for the full year of FY 13-14 based on the tariff notified by the Hon'ble Commission in the Tariff Order for FY 12-13 dated 25th August, 2012.
5. During FY 12-13, EDDD has estimated a surplus of 77 MU based on the energy available and sale to various consumer categories. EDDD has sold surplus power during the first 6 months of FY 12-13 at an average rate of Rs. 3.11 per unit. Revenue from surplus power available for sale during the remaining six months of FY 12-13 has been computed at the same rate.
6. The table below summarizes the revenue from sale of power at existing tariff for FY 12-13 & FY 13-14:

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

Revenue @ Existing Tariff	FY 12-13	FY 13-14
(Rs Crore)	Revised Estimated	Proposed
Domestic	14.68	16.59
LIG	0.01	0.01
Commercial	15.48	16.63
Agriculture	0.48	0.51
LT Industry	70.10	71.93
HT/EHT Industry	712.35	800.54
Public Lighting	2.06	2.26
Public Water Works	0.33	0.36
Temp. Supply	0.34	0.36
Total Sales	815.83	909.19
Revenue from surplus power	23.81	0.00
Total Revenue	839.63	909.19

30 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 revenue gap at existing tariff at Rs. 93.45 Crore for FY 2011-12, Rs. 18.48 Crore for FY 2012-13 and Rs. 62.99 Crore for FY 2013-14. The cumulative gap for the three years is Rs.174.92 Crore as given in the table below.

Table 38: Revenue Gap for FY 2013-14

(Rs. Cr.)

Sr. No.	Particulars	FY 11-12	FY 12-13	FY13-14
		Actual	Revised Estimates	Projected
1	Total ARR	847.78	858.11	972.17
2	Revenue @ Existing Tariff	704.53	815.83	909.19
3	Revenue from Surplus Power Sale	49.80	23.81	0.00
4	Total Revenue(2+3)	754.33	839.63	909.19
5	Revenue (Gap) /Surplus(4-1)	(93.45)	(18.48)	(62.99)
10	Total (Gap) for three years			(174.92)

The Hon'ble Commission in its Tariff order for FY 2012-13 has created a regulatory asset of Rs. 113.19 Crore out of the total gap of Rs. 269.38 Crore for FY 10-11 to FY 12-13, to be amortised over a period of three years starting from FY 13-14. EDDD would like to submit to the Hon'ble Commission that being a government department all its expenses are met through the budgetary support from the Central Government. In such a scenario it would be not be possible for the department to liquidate the regulatory asset created by the Hon'ble Commission. Therefore this gap is required to be realised from the tariff only.

Hence the EDDD requests the Hon'ble Commission to carry forward 40% of the cumulative gap for FY 11-12 and FY 12-13 to FY 13-14 and 60% to FY 14-15 as a pass through in the ARR of the respective years, so that it does not result into a tariff shock for the consumers of the UT of Daman & Diu.

Carrying over 40% of the cumulative gap for FY 11-12 and FY 12-13 to FY 13-14, the total gap to be addressed for FY 13-14 becomes Rs. 106.87 Crore. The proposed recovery of this revenue gap has been given in the table below:

Table 39: Recovery of Revenue Gap for FY 13-14

	Particulars (Rs. Crore)	FY13-14
Sr. No.		Projected
1	Revenue Gap for FY 2013-14	(62.99)
2	Previous year's gap carried over (40% of the projected gap of FY 11-12 & FY 12-13)	(43.87)
3	Total gap (1+2)	(106.87)
4	Additional Revenue @ proposed tariff	106.87
5	Net (gap)/surplus to be addressed	0.00

31 Average Cost of Supply

1. Table 40 summarizes Average Cost of supply and total average realization at the existing tariff approved by the Hon'ble Commission.

Table 40: Average Cost of Supply & Revenue Realization

Average Realization & Cost of Supply	FY 12-13	FY13-14
(Rs/Unit)	Existing Tariff	Existing Tariff
Average Cost of Supply of EDDD	4.42	4.78
Average Realization *	4.32	4.47
Revenue Gap at Existing Tariff	(0.10)	(0.31)
Net Revenue (Gap)/Surplus(Includes gap of previous year)	(0.58)	(0.54)**
Additional revenue at Proposed Tariff depicted in Table 39		0.54

* Includes Revenue Realization from Surplus Power Sale available to EDDD

** Includes 40% of the cumulative gap of FY 11-12 and FY 12-13

32 Initiatives

A) Introduction of Time of Day (ToD) tariff

For certain hours in a day, the electricity demand is at the peak due to the simultaneous requirement of electricity from industrial, commercial and domestic consumers. The peak hours usually vary from around 9 a.m. to 11 a.m. in the morning and 6 p.m. to 10 p.m. in the evening. To meet this peak demand, the Electricity Department of Daman and Diu has to procure power from the market at a high price which creates an additional burden on the Utility and ultimately leads to overall tariff hike for consumers. To reduce the demand during the peak hours, Utilities often offer incentives to customers who are willing to shift or move a portion of their consumption to off-peak hours. Also the proposed off peak hours shall be from 0.00 AM to 6:00 AM.

In this context, EDDD will like to add that Time of Day (TOD) tariff, is recognized globally across electricity industries, as an important Demand Side Management (DSM) measure which is used as a means of incentivizing consumers to shift a portion of their loads from peak times to off-peak times, thereby improving the system load factor by reducing the demand on the system during peak period. The TOD tariffs send price signals to consumers that reflect the underlying cost of generating, transmitting and supplying electricity, and enables resources to be allocated more judiciously and efficiently. Further price based demand response can reduce or shape consumer demand particularly to reduce load at peak hours on the electricity system. Hence, TOD tariff assumes importance in the context of propagating and implementing DSM and achieving energy efficiency in the country

In most of the states TOD tariff has been introduced as a means of DSM measures and load factor improvement. The SERCs in India have followed diverse mechanisms in designing the TOD tariff, with different tiers, different number of periods within a day, and different rates applicable to these periods.

As a first step towards better demand side management, EDDD has proposed the time of day tariff in this petition for HT consumers having sanctioned demand of 900 KVA and above. The EDDD has proposed energy charges of Rs 7.50 per unit for the all consumers having sanctioned demand of 900 kVA and above. Also, during the off peak hours, the EDDD has proposed a rebate of Rs.

0.80 per unit in the energy charges approved by the Commission in the respective category of the consumers having sanctioned demand of 900 kVA and above

Further, EDDD would like to submit that due to TOD tariff, consumers who reduce their consumption during peak hours will shift 50% (average) of this consumption to other time of the day. It will also help the EDDD in reduction in energy supplied during peak hours through short term sources (costly power).

33 Tariff Proposal for FY 13-14

1. EDDD submits to the Commission that the sales to LT industrial and HT/EHT category form approximately 94% of the total sales within the UT of Daman & Diu. However, the per unit revenue realization from this category is below the average cost of supply leading to revenue losses for EDDD. Further, the average cost of supply has also increased over the past years due to increase in power purchase cost. Therefore, the current two-part Tariff structure is inadequate to compensate for the loss of revenue.
2. Table below summarizes the existing and proposed tariff structure for various consumer categories.

Table 41: Proposed Tariff Structure for FY 13-14

Tariff Structure	Existing		K Factor for FPPCA formula for FY 2012-13	Proposed	
	Energy Charges (Rs/kWh)	Fixed Charges		Energy Charges (Rs/kWh)	Fixed Charges
LT-D/Domestic					
1st 50 Units	1.10			1.10	
51 to 200 Units	1.70			1.70	
201 to 400 Units	2.10			2.10	
Beyond 401 Units	2.45			2.45	
Low Income Group		Rs. 10/connection /month			Rs. 10/connection /month
LT-C/Commercial					
1st 100 Units	2.50		0.55	2.65	
Beyond 100 Units	3.50		0.77	3.65	
LT- Ag/ Agriculture					
Upto 10 HP per unit	0.60			0.60	
Beyond 10 HP per unit	0.90			0.90	
LTP Motive Power					
Upto 20 HP of Connected Load	3.55		0.78	3.70	
Above 20 HP Connected Load	3.65	Rs. 25/HP	0.90	3.80	Rs. 25/HP

Tariff Structure	Existing		K Factor for FPPCA formula for FY 2012-13	Proposed	
	Energy Charges (Rs/kWh)	Fixed Charges		Energy Charges (Rs/kWh)	Fixed Charges
LTP Public Water Work					
Upto 20 HP of Connected Load	3.55		0.78	3.55	
Above 20 HP Connected Load	3.65	Rs. 25/HP	0.86	3.65	Rs. 25/HP
LT-PL/Public Lighting					
Public Lighting	4.00		0.88	4.00	
HT					
HTC General Industrial / Motive Power 11kV or 66kV having CMD above 100 kVA					
50000 units	4.20	Rs. 100 /kVA	0.99	4.77	Rs. 100 /kVA
50000 to 5 lakh units	4.35	Rs. 100 /kVA	1.03	4.92	Rs. 100 /kVA
Beyond 5 lakh units	4.55	Rs. 100 /kVA	1.07	5.12	Rs. 100 /kVA
HT Industrial((Ferro Metallurgical/ Steel Melting/ Steel Rerolling Power Intensive)					
First 300 Units per kVA	3.30	Rs. 550/kVA	1.12	3.87	Rs. 550/kVA
Next 200 units per kVA	4.00	Rs. 550/kVA	1.27	4.57	Rs. 550/kVA
Above 500 units per kVA	4.25	Rs. 550/kVA	1.33	4.82	Rs. 550/kVA

3. EDDD, requests the Hon'ble Commission to approve the fuel purchase adjustment formula including the "k" factor for FY 13-14 as well, which can take care of any variation in the ARR over and above the approved level by the Commission for FY 13-14.

Chapter 4: Compliance on Directives

The Hon'ble Commission vide Tariff Order dated 31st July, 2012 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.

1. Directive 1: Segregation of T&D losses and loss reduction trajectory:

The Petitioner is directed to furnish segregation of losses into transmission and distribution losses in the first instant and further segregated distribution losses into technical and commercial losses separately in their next ARR and tariff petition, along with the status report on energy accounting and T&D losses.

Compliance:

The EDDD has evaluated T&D losses for the financial year 2011-12 on the basis of total power purchase at Daman & Diu periphery and total units billed to the various categories of consumers. Moreover the status report on energy accounting and T&D losses is under preparation and will be submitted to the Hon'ble Commission shortly.

2. Directive 2: Load Forecasting study:

The Petitioner is directed to conduct a detailed load forecasting study for short term (2-5 years), medium term (7-10 years) and long term (15-25 years) in order to understand the load requirements in their area at various periods and submit to Commission along with next ARR and tariff petition. The load forecasting study should be conducted in two scenarios: one with open access for 1 MW and above consumers and second with the existing consumer base.

Compliance:

EDDD is in the process to carry out detailed load forecasting study for short term (2-5 years), medium term (7-10 years) and long term (15-25 years) in order to understand its future load requirements.

3. Directive 3: Long Term PPA, over-draw/ under-drawl under UI mechanism and Banking of Power

The Petitioner is directed to enforce already signed long term PPA in line with their base load requirements to avoid short term power purchases from bilateral sources, power exchanges and U.I beyond the prudent level so as to minimize the impact on ARR. Further , the commission also directs the licensee to separately show in the review/true-up petition the date wise/time wise details of all short term Power purchases including quantum, rate & amount and grid frequency in case of U.I. over draws/under draws and should furnish the sources & cost of Power for purchase of energy from each of Renewable Energy sources at the true-up stage and should make necessary arrangements for long term PPA for purchase of Power from Renewable Sources of Energy. Further, the Commission also directs the petitioner to explore the possibility of banking of surplus power which will ensure optimal utilization of the available power.

Compliance:

EDDD would like to submit to the Hon'ble Commission that the present allocation of power from the central generation stations and other power plants to EDDD is sufficient enough to cater to the demand of the various consumer categories of the UT. The EDDD has to resort to short term procurement of power through UI at peak hours which is again being monitored by the department.

The department would further like to submit to the Hon'ble Commission that it has no generation of its own and the load pattern in the UT is uniform throughout the year so it cannot resort to banking of power as a possible source of short term power procurement. Moreover the department has proposed to implement the ToD tariff in the UT in the present petition to address the issue of load balancing.

4. Directive 4: Online Bill Payment:

The facility of online payments may be made more visible in a consumer friendly manner and extra charge (if any) on online payment should be discontinued forthwith. The Petitioner is directed to introduce multiple payment gateways for online collection and status of 'online bill payment facility' be submitted by October 31' 2012.

Compliance:

EDDD would like to submit that facility of payment through debit/credit cards is being implemented with effect from 1st Jan'2013. Further there is no provision of extra charges to be paid to the department for online payment.

5. Directive 5: Renewable Purchase obligation:

The Petitioner is directed to stagger the purchase over the year to avoid purchase at high cost towards the end of the year to meet RPO targets as specified by the Commission. In case, the Petitioner is buying Renewable Energy certificates to meet their RPO targets, the Commission directs the Petitioner to avoid bulk purchase of RE certificates at high cost towards the end of the year. RE certificates should be procured in such a manner that average cost of RE certificates is close to the floor price of the ensuing year.

Compliance:

EDDD would like to submit that the Ministry of Power is in a process to formulate the guidelines for the procurement of Renewable Energy through competitive bidding process. EDDD will explore the possibility of purchase the power from Solar Energy after the guidelines are finalized by MOP.

Further, the tendering process for purchase of solar energy is underway for the procurement of solar power.

6. Directive 6: Rural Electrification:

The petitioner is directed to submit the status of rural electrification in their area along with the detailed plan for rural electrification with the timeline proposed to achieve the complete electrification of rural area.

Compliance:

It is submitted that, 100% electrification of all the villages of UT Daman and Diu has already been completed.

7. Directive 7: Capital expenditure:

The petitioner is directed to submit the detailed statement of capital expenditure incurred and capitalization for every quarter, within 15 days in the subsequent quarter.

Compliance:

The status of capital expenditure incurred during the first 2 quarters for the current financial year i.e. April, May, June - 2012 and July, August, September - 2012 is as given in the table below:

Table 42: Capital Expenditure incurred during the 1st and 2nd Quarter of FY 12-13

Sr. No.	Name of Scheme(Rs Crore)	1st Quarter	2nd Quarter
		Expenditure	Expenditure
		Daman & Diu	Daman & Diu
A	New Schemes		
1	Establishment of 66/11KV Sub-Station at Bhimpore with capacity of 30MVA	260.01	0.00
2	Scheme for establishment of 66/11KV 2 x 10MVA S/S along with associated line at Zari, Daman.	0.00	0.11
3	Scheme for establishment of 66/11KV 1 x 10MVA Transformer S/S along with associated line at Varkund S/S, Daman.	0.00	0.56
4	Scheme for Augmentation of capacity of capacity of 220/66KV S/S at Magarwada by relacing 2 x 50MVA Transformer to 2x160MVA.at Daman	0.00	154.90
B	CONTINUING SCHEMES		
1	Normal Development works & release of all type of connection in Daman & Diu	112.96	33.88
2	Providing & Strengthening of power supply network in Daman & Diu and comm. MRT Facilities and special Tools and Plants/ work shop.	450.79	281.12
3	Under Ground Cable Power Distribution system in Daman & Diu Urban Area, Rural Area & Industrial Area.	445.65	258.52
4	Renovation of existing old power distribution system and providing improved metering system.	113.90	42.48
	TOTAL	1383.31	771.57

8. Directive 8: Enforcement Cell:

The petitioner is directed to submit the status of the functioning of enforcement cell and quarterly progress report detailing number of cases, amount involved, amount of revenue fines recovered, (to be shown separately in ARR), sub-judice cases, and reduction in losses as a consequence. The 1st status report for FY 2011-12, first half of FY 2012-13 i.e. April to September 2012 is to be submitted in the ARR filing for FY 2013-14.

Compliance:

It is submitted that the Electricity Department Daman & Diu has a separate section headed by Assistant Engineer for Vigilance to conduct vigilance check on all category of consumers. The 1st status report for first half of FY 2012-13 i.e. April to September 2012 will be submitted to the Hon'ble Commission shortly.

9. Directive 9: Data on the consumption and load profile of Advertisement Hoardings, Sign boards, Signage's etc.

The Petitioner is directed to separately capture the data regarding consumption and the load profile of the users of advertisement hoardings, signboards, signage's etc. and propose tariff for this category separately in the next tariff petition, so that the differential tariff for this category could be set as they draw power during the peak hours.

Compliance:

It is submitted that in the UT of Daman & Diu there is no separate category for the users of advertisement, hoardings, signboards, signage's etc.

10. Directive 10: Assessment of the open access consumers

The Petitioner is directed to provide an assessment of the number of open access consumers greater than 1 MW to the Commission by September 30' 2012. The Petitioner to provide the detailed scheme to operationalize open access scheme including setting up of the STU and SLDC (nodal agency) by the power department of the appropriate government.

Compliance:

It is submitted that the department has notified the procedure for according open access on short and long term basis. The list of consumers 1 MW and above has

been evaluated and submitted to the Hon'ble Commission and is being enclosed along with this petition as **Annexure IV** along with the procedure for according open access for the long term and short term open access. The matter for evaluation of wheeling charges, loss charges and cross subsidy charges for Open Access Customer is under progress in consultation with M/s Panacean Energy Solutions Pvt. Ltd, Mumbai. The U.T Daman & Diu already has notified State Transmission Utility (STU) and has established SLDC and a Deputy Engineer has given the responsibility to operate and maintain the SLDC.

11. Directive 11: Short-term procurement of power by the licensee

As per the Ministry of Power resolution dated May 15' 2012, the licensee is directed to comply with the guidelines for short term procurement of power by distribution licensees through tariff based bidding process.

Compliance:

The EDDD would like to submit that it is complying with the guidelines for short term procurement of power by distribution licensees.

12. Directive 12: Standard of Performance:

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

Compliance:

The SOP data upto September, 2012 has been submitted to the Hon'ble Commission and from now onwards the quarterly data as per the requirement will be submitted to the Hon'ble Commission. The EDDD is in the process to develop software for availing the data of each complaint centre and office details on month to month basis.

13. Directive 13: Security Deposit

The Commission in its previous order had directed to follow the provisions of Clause 6.10 of JERC (Electricity Supply Code) Regulations 2010. Wherever existing mode of deposit i.e. bank guarantee, fixed deposit etc. is different from that provided in the Regulation, the same be replaced by those as specified therein. The petitioner is directed to submit the present status the requirement of the regulations and the reasons for non-compliance.

Compliance:

The EDDD would like to submit that it has issued a notice that all the concerned consumers who have submitted bank guarantee shall replace their bank guarantees with either banker's cheque or demand draft. Further all the consumer categories other than the HT and LT industrial category have deposited the security deposit either in cash or through demand draft.

14. Directive 14 :Forecasting Power requirements

The licensee is directed to improve the forecasting of the requirement of energy basically for the Industry to help plan for Power Purchase at a reasonable cost; especially purchase of expensive power during peak hours by conducting a better demand survey from major consumers.

Compliance:

EDDD would like to submit that it is under the process of appointing a consultant to carry out the study for load forecasting for short term (2-5 years), medium term (7-10 years) and long term (15-25 years) to improve the forecasting of the requirement of energy so that it procures energy at a reasonable rate.

15. Directive 15: Asset verification

The third party physical verification is required to be done by the competent firm of Chartered Accountant. The assets not employable for delivery of service to the consumer as useful assets should be kept out of the cost for tariff determination.

Compliance:

The third party physical verification of the assets of EDDD has been done by of Chartered Accountancy firm and the fixed asset register of EDDD has been prepared. The same has been enclosed along with this petition. The assets not

employable for delivery of service to the consumer as useful assets have been kept out of the cost for tariff determination.

16. Directive 16 : Roadmap for reduction in cross-subsidy

The petitioner is directed to propose a road map for an increase in the tariff rate which progressively reduces 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.

Compliance:

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**.

17. Directive 17 : Overdrawls/Underdrawls beyond the frequency band specified by CERC

As per the CERC (Unscheduled Interchange charges and related matters) Principle Regulations and its amendments thereof applicable for FY 2011-12 and Press Notification issued by Ministry of Power on 23rd July 2009 and after verification of the data submitted by the Petitioner, Commission is mandated to disallow the additional UI charges of Rs. 5.21 Crore against the UI over-drawl/underdrawl beyond 49.5 Hz frequency from April 2011 to March 2012, imposed on the utility under the UI regulations of CERC(as amended from time to time) for overdrawl during the period when the frequency was below 49.5 Hz (amended to 49.7 Hz vide CERC order dated 5th March 2012) and it will not be a pass through in the aggregate revenue requirement of the Petitioner for FY 2011-12. As such penal rate which have been imposed as Unscheduled Interchange charges should be stated separately and very clearly and those payments which are in the nature of damages should not be shown as purchase of Power because it is on account of poor management of Load by EDDD. The EDDD is directed to forecast their demand more precisely and plan the Power purchase in advance. The burden of additional UI charges would have to be borne by the petitioner from their own finances and will not be allowed to pass this on to the consumers. Therefore, the Commission directs the licensee to separately show the date wise/time wise details of all short term Power purchases including quantum, rate & amount and grid frequency in case of U.I. over drawls/under drawls.

Compliance:

The date wise/time wise details of all short term Power purchases including quantum, rate & amount and grid frequency in case of U.I. over draws/under draws is being enclosed along with this petition as **Annexure VI(soft copy)**.

18. Directive 18 : Interest on Security Deposit

As per Clause 47(4) of the Electricity Act, 2003 and as specified in regulation 25 of JERC Tariff Regulations 2009, *the distribution licenses shall pay interest on security deposit collected from the consumers, equivalent to the bank rate or more as may be specified by the Commission.* On account of provisions mentioned in the Act and regulation, Commission directs the petitioner, that the petitioner must pay the interest on consumer security deposit for FY 2012-13 (at the Bank Rate i.e. 9.5026% per annum applicable as on 1st April 2012) with effect from 1st April 2012 to the consumers on their security deposit irrespective of petitioner's constraints and should explicitly mention the same as the 'Interest on security deposit for FY 2012-13' on the bills of the consumers. **Any non-compliance in this regard shall be viewed seriously by the Commission.**

Compliance:

The EDDD would like to submit to the Hon'ble Commission that the present billing system of the department is not having the provision of giving the interest on security deposit to its consumers. The department is presently upgrading its billing software and also updating the security deposit records and as soon as these two processes are complete it will start paying interest on security deposit to its consumers and also appraise the Hon'ble Commission on the same.

19. Directive 19 : Shifting of existing consumers to higher voltage:

In compliance of the Hon'ble APTEL judgement 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

Compliance:

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.

20. Directive 20 : Filing of the ARR:

The Petitioner is directed to improve the quality of data required for analysis by the Commission in its submission for the ARR & tariff filing before the Commission. The Petitioner should furnish adequate data in the first instance alongwith the ARR & tariff petition so as to avoid undue delays. The Petitioner has now had sufficient learning as to the data requirements required for regulatory processes before the Commission and should furnish a self contained petition alongwith the supporting documentary evidences in the next ARR filing.

Compliance:

The EDDD is enclosing all the relevant data along with this petition for the analysis of the Hon'ble Commission.

21. Directive 21 :

It is noted from the submission of the petitioner that the Tariff stipulated by the Commission in the order dated October 3, 2011, has not been implemented for certain consumer categories. ED-Daman and Diu shall show cause - within 30 days from the issue of this order failing which the Commission shall be constrained to initiate proceedings under section 142 of the Electricity Act 2003.

Compliance:

EDDD will submit the show cause for not implementing the tariff stipulated by the

Hon'ble Commission in the Order dated October 3, 2011 for certain consumer categories in a separate filing shortly.

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 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.
- 4) If energy supplied for a specific purpose under a particular tariff is used for a different purpose, not contemplated in the contract for supply and / or for which higher tariff is applicable, it will be deemed as unauthorized use of electricity and shall be dealt with for assessment under the provisions of section 126 of the Electricity Act, 2003 & Supply Code Regulation notified by JERC.
- 5) If connected load of a domestic category is found to be at variance from the sanctioned/contracted load as a result of replacement of lamps, fans, fuses, switches, low voltage domestic appliances and fittings, it shall not fall under theft of electricity.
- 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. Notice to this effect shall be printed on the bill of the consumer.
- 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 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) 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.
- 12) 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 2013-14.
- 13) Schedule of other charges approved in this Tariff Order will remain in force until it is amended by the Commission.

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	110
51-200 units	170
201-400 units	210
401 and above	245

2. Minimum Charges

	Tariff (Rs./month) or part thereof
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. Minimum Charges

	Tariff (Rs./month) or part thereof
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

III. LT Industrial Category 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

	Energy Charge (Ps./Unit)- LT Public Water Works	Energy Charge (Ps./Unit)- LT Industrial category
Upto 20 HP	355	370

For loads above20 HP	365	380
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2. Fixed Charges

	Tariff (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 0.95 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. 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	Tariff (Rs./KVA/month) or part thereof
Up to Contract Demand	Rs. 100.00/kVA/month or part thereof
In Excess of Contract	Rs 200.00/kVA/month or

For Billing Demand	Tariff (Rs./KVA/month) or part thereof
Demand	part thereof

2. Energy Charges

Usage(Units/Month)	Tariff (Ps./Unit)
1-50,000 units	477
50,001-500000 units	492
500001 and above	512

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

The power factor of the consumer if, less than 0.95; for every 0.01 of the power factor decrease, 0.5% of the total units consumed will be charged extra as surcharge at the rate of 500. ps/unit. 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. In case the monthly average power factor is less than 0.70 lagging, the installation is liable for disconnection after due notice.

All High tension and Extra High Tension installations where the monthly average power factor is maintained above 0.95 lagging shall be eligible for an incentive in the form of rebate at the rate of 1% of the energy charge for every 0.01 improvement in power factor above 0.95 lagging in the energy charges

billed in the month. The Power factor value will be rounded to two decimal places. For example 0.944 shall be treated as 0.94 and 0.946 shall be treated as 0.95. In case, any dispute arises about the applicability of any tariff for any particular class or service or as to the interpretation of any clause of these tariffs, the decision of the Commission shall be final and binding.

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/kVA/month or part thereof
In Excess of Contract Demand	Rs 1100.00/kVA/month or part thereof

2. Energy Charges

Usage(Units/Month)	Tariff (Ps./Unit)
First 300 units / kVA	387
Next 200 units / kVA	457
Above 500 units / kVA and above	482

3. 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 Industries are overdrawing power by more than 20% of the Contract demand, their electricity connection will be disconnected immediately.

4. Power Factor Charges

The power factor of the consumer if, less than 0.95; for every 0.01 of the power factor decrease, 0.5% of the total units consumed will be charged extra as surcharge at the rate of 500 ps/unit. 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. In case the monthly average power factor is less than 0.70 lagging, the installation is liable for disconnection after due notice.

All High tension and Extra High Tension installations where the monthly average power factor is maintained above 0.95 lagging shall be eligible for an incentive in the form of rebate at the rate of 1% of the energy charge for every 0.01 improvement in power factor above 0.95 lagging in the energy charges billed in the month. The Power factor value will be rounded to two decimal places. For example 0.944 shall be treated as 0.94 and 0.946 shall be treated as 0.95. In case, any dispute arises about the applicability of any tariff for any particular class or service or as to the interpretation of any clause of these tariffs, the decision of the Commission shall be final and binding.

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
6. In case a consumer gives one month advance notice for shut down, fixed charge at Rs.100/kVA will be charged.

V. Agriculture

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

1. Energy Charges

	Tariff (Ps./Unit)
For sanctioned load upto 20 HP	60
Beyond 10 HP and upto 99 HP sanctioned load	90

2. 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. 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

1. Energy Charges

Usage	Tariff (Ps./Unit)
For all units	400

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 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.	Meter 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.	Meter 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.	Meter type	Tariff (in Rs.)/Month or part thereof
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. 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
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 13-14 and the Tariff Revision Proposal for FY 13-14 as submitted herewith.
 - Approve the Aggregate Revenue Requirement of FY 13-14 as well as the revised estimates for FY 12-13.
 - Make the proposed Retail Supply Tariffs applicable from April 1, 2013.
 - Admit and approve the Trued up ARR for FY 2011-12.
 - 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