

Aggregate Revenue Requirement &
Tariff Petition for FY 2011-12

Main Text & Formats (Volume I)
and
Annexure (Volume II)

Submitted to

Joint Electricity Regulatory Commission
Gurgaon

By

ELECTRICITY DEPARTMENT OF DAMAN & DIU
DAMAN

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TABLE OF CONTENTS

1	ARR & TARIFF PETITION FOR FY 11-12.....	5
2	CONTENTS OF THIS PETITION	7
3	INTRODUCTION	9
4	ENERGY SALES	10
5	T&D LOSS REDUCTION.....	13
6	ENERGY REQUIREMENT OF THE SYSTEM.....	13
7	ENERGY AVAILABILITY	14
7.1	POWER PURCHASE.....	15
7.2	ENERGY REQUIREMENT & AVAILABILITY	17
7.3	POWER PURCHASE COST	18
7.4	TRANSMISSION AND OTHER CHARGES.....	21
8	OPERATION & MAINTENANCE COSTS	23
8.1	EMPLOYEE EXPENSE.....	24
8.2	REPAIRS & MAINTENANCE EXPENSE.....	25
8.3	ADMINISTRATION & GENERAL EXPENSE	26
8.4	TOTAL OPERATION AND MAINTENANCE EXPENSE	26
9	CAPITAL EXPENDITURE PLAN	28
10	GROSS FIXED ASSETS	30
11	DEPRECIATION.....	31
12	INTEREST & FINANCIAL COSTS.....	32
12.1	INTEREST ON LONG-TERM / CAPITAL LOANS	32
12.2	INTEREST ON WORKING CAPITAL BORROWINGS	33
13	RETURN ON EQUITY	34
14	PROVISION FOR BAD & DOUBTFUL DEBTS.....	35
15	NON-TARIFF & OTHER INCOME	36
16	AGGREGATE REVENUE REQUIREMENT.....	36
17	REVENUE AT EXISTING TARIFF.....	37
18	COVERAGE OF REVENUE GAP	38
19	AVERAGE COST OF SUPPLY	40
19.1	TARIFF PROPOSAL FOR FY 11-12	40
19.2	ENERGY REVENUE FROM SALE OF POWER AT PROPOSED TARIFFS	42
20	PRAYER.....	44
21	FORMATS.....	45

LIST OF TABLES

TABLE 1: CATEGORY WISE NUMBER OF CONSUMERS	10
TABLE 2: CATEGORY WISE ENERGY SALES (MU) AND CAGR FOR PREVIOUS YEARS.....	11
TABLE 3: PROJECTED CATEGORY WISE ENERGY SALES (MU) FOR FY 09-10 & FY 10-11	12
TABLE 4: T&D LOSSES.....	13
TABLE 5: ENERGY REQUIREMENT OF THE SYSTEM.....	14
TABLE 6: ENERGY ALLOCATION FROM CENTRAL GENERATING STATIONS	15
TABLE 7: POWER PURCHASE	17
TABLE 8: ENERGY BALANCE.....	18
TABLE 9: POWER PURCHASE COST FOR FY 10-11 (IN RS. CRORE).....	20
TABLE 10: POWER PURCHASE COST FOR FY 11-12 (IN RS. CRORE).....	20
TABLE 11: TOTAL POWER PURCHASE COST FOR FY 10-11 AND FY 11-12 (IN RS. CRORE).....	22
TABLE 12: OPERATION & MAINTENANCE EXPENSE (RS. CRORE).....	23
TABLE 13: EMPLOYEE EXPENSE (RS. CRORE).....	24
TABLE 14: REPAIRS & MAINTENANCE EXPENSE (RS. CRORE)	25
TABLE 15: TOTAL O&M EXPENSE (RS. CRORES)	27
TABLE 16: PROPOSED AND APPROVED CAPITAL EXPENDITURE	28
TABLE 17: ANNUAL PLAN FOR FY 09-10 TO FY 11-12.....	28
TABLE 18: DRAFT ANNUAL PLAN FOR FY 11-12	29
TABLE 19: CAPITAL EXPENDITURE & CAPITALIZATION FOR FY 10-11 AND FY 11-12.....	30
TABLE 20: OPENING AND CLOSING GFA (IN RS. CRORE).....	31
TABLE 21: DEPRECIATION (IN RS. CRORE).....	32
TABLE 22: TOTAL INTEREST ON LONG-TERM LOANS	33
TABLE 23: INTEREST ON WORKING CAPITAL.....	34
TABLE 24: REASONABLE RETURN.....	35
TABLE 25: PROVISION FOR BAD & DOUBTFUL DEBTS	35
TABLE 26: NON-TARIFF INCOME	36
TABLE 27: AGGREGATE REVENUE REQUIREMENT.....	36
TABLE 28: REVENUE FROM SALE OF POWER AT EXISTING TARIFF (RS. CRORE)	38
TABLE 29: REVENUE GAP.....	39
TABLE 30: AVERAGE COST OF SUPPLY & REALIZATION	40
TABLE 31: EXISTING & PROPOSED TARIFF STRUCTURE FOR FY 11-12	41
TABLE 32: REVENUE AT PROPOSED TARIFF	42

Notes:

In this Petition:

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

This petition contains the Main Text of the Petition, Formats and Annexure

1 ARR & Tariff Petition for FY 11-12

**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 11-12 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 Aggregate Revenue Requirement (ARR) of EDDD and Tariff Revision Proposal of EDDD for the FY 11-12 (Financial Year 2011-12).

2 Contents of this Petition

1. This Petition covers in detail the basis, assumptions and projections of individual elements constituting the determination of ARR for FY 11-12. The Joint Electricity Regulatory Commission for the state of Goa and union territories (JERC) has recently issued the first Tariff Order for Electricity Department of DAMAN & DIU (EDDD) on 1st November, 2010. The Commission has approved the ARR for FY 10-11 estimates based on the actual cost for FY 09-10 and has approved revision in retail tariff to meet the revenue deficit for FY 10-11. Also, the Hon'ble Commission has directed the EDDD to provide its submissions against the directives through a separate petition by 31.12.2010. Therefore, compliance to the directives have not been included in the in this ARR & Tariff Petition for FY 11-12
2. EDDD is submitting its ARR and Tariff petition for the determination of tariff for FY 11-12 broadly on the basis of the principles outlined in Tariff Regulations notified by JERC. EDDD has studied the past trends and taken cognizance of other internal and external developments to estimate the likely performance for FY 11-12.
3. The following sections explain in detail the basis and forecasts of the following elements for FY 11-12:
 - 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. Admin & General Cost
 - 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, Additional Revenue through the proposed Tariff Revision and the arrangements to cover the revenue gap

- e. Tariff revision proposal for FY 11-12 to meet the Revenue Gap

3 Introduction

The Electricity Department of Daman & Diu (EDDD) is primarily engaged in the procurement, transmission and distribution of electricity to the various categories of consumers. It does not have its own power generation stations. The bulk power supply is drawn from the Central Sector Generating Stations in Western Region. EDDD also has some allocation from Eastern Region Central generating Stations. Since the Department is mainly engaged in the work of construction, operation and maintenance of power distribution system, it caters to power demand of various categories of consumers. The present transmission and distribution system of EDDD consists of 506 circuit kms of 11kV and above lines and 773 kms of LT lines along with 491 transformers.

The present power allocation of Daman & Diu is approximately 250 MW from Central Generating Stations including 70 MW from NTPC-SAIL joint venture at Bhilai. At present, the UT of Daman & Diu gets power from 220/66KV Vapi Substation through 66KV Double circuit line and 220KV Vapi-Magarwada Central Sector line, and Diu gets power from 66KV Una Substation through 66KV double circuit line emanating from 220 /66 KV Kansari S/S of GETCO.

Earlier in FY 09-10, electricity drawal of EDDD was approximately 210 to 230 MW against the daily scheduled availability of 280 to 290 MW resulting in a surplus of 60 to 70 MW during FY 09-10. However, this allocation was revised downward by the Government of India on 6th May, 2010 leading to a deficit scenario. EDDD was able to tie-up with NTPC-SAIL Bhilai power station for additional 39 MW for a year and meet the energy requirement in the UT of Daman & Diu for FY 10-11.

The current demand is primarily dependent on the HT and LT Industrial consumers contributing approx. 93% of the total sales in FY 09-10. The high demand from 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 region.

Considering the increase in demand from large industries, the demand is likely to reach up to 320 MW by FY 2011-12. Central Electricity Authority has prepared a master plan for FY 2002-12 for UT of Daman and Diu to meet the growing energy demand of the territory and supply uninterrupted power to all the consumers in the region. In view of the suggestions of the CEA, EDDD had proposed a number of schemes to be implemented during FY 09-10 to FY 11-12 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. EDDD has also shown its interest for allocation of power in the upcoming 500MW extension power project at Bhilai by NSPCL. Further, efforts are also being made to tie up for long-term power purchase under case 1 bidding. 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. However, all these efforts may take some time to materialize.

4 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 in various categories is summarized in table below:

Table 1: Category wise number of Consumers

Consumers	FY 09-10	FY 10-11
	Actual	As on 31.09.10
Domestic	43,712.0	44,147.0
Commercial	8,782.0	8,902.0
Agriculture	1,609.0	1,626.0
LT Industry	3,425.0	3,473.0
HT/EHT Industry	783.0	875.0
Public Lighting	181.0	182.0
Public Water Works	77.0	77.0
Total number of consumers	58,569.0	59,282.0

2. Table 1 summarizes category wise actual energy sales from FY 04-05 to FY 08-09 for all categories. As can be seen, EDDD's overall energy sales are significantly dependent upon HT/EHT Industries to the extent of around 84%. Energy sold to various consumer categories over the past 5 years have grown at approximately 10% p.a., mainly contributed by increase in domestic, commercial and Industrial HT/EHT growth.
3. 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 10-11 and FY 11-12 has considered the past growth trends in each of the consumer category including growth trend in number of consumers and connected load.

4. The energy sales for FY 10-11 & FY 11-12 have been determined based on CAGR for past six-year (i.e. FY 04-05 to FY 09-10) actual energy sales in various consumer categories. 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.
5. A five-year CAGR has been considered for estimation of sales in domestic, commercial LT industry and public lighting categories. For FY 10-11, the actual half year energy sales have also been analyzed and the trend in the growth of half yearly FY 10-11 sales is observed to be similar to the annual growth considered. Therefore, for estimating the sales to various LT consumer categories during FY 10-11 & FY 11-12, five-year CAGR has been considered.
6. For the HT/EHT category, large variations have been seen in the growth on a year-to-year basis with variations in sale ranging from 2.92% to 17.51%. A CAGR of 9.3% is observed in the growth in energy consumption of HT/EHT category over past six years. The growth in sales to HT/EHT category has been higher (i.e. 12.50%) during FY 09-10 which is higher than the five-year CAGR. The major reason for the higher growth in the sales during FY 09-10 was on account of issuance of new connections to industrial consumers which has also continued during FY 2010-11. During the first six months of FY 10-11, a growth of approx. 9% is observed in the energy sales to HT/EHT consumer category. Therefore, for the FY 10-11 and FY 11-12, a reasonable growth rate of 9% has been considered for projecting the sales HT/EHT consumers in view of enhancement of load to existing consumers and addition of new consumers. In case of stabilization or minor decline in sales in a few categories like Kutir Jyoti, agriculture, public water works consumers, no growth has been considered while projecting for FY 10-11 & FY 11-12 energy sales.

Table 2: Category wise Energy Sales (MU) and CAGR for Previous Years

Energy Sales (MUs)	FY 04-05	FY 05-06	FY 06-07	FY 07-08	FY 08-09	FY 09-10	CAGR	Adjusted CAGR
	Actual	Actual	Actual	Actual	Actual	Actual	(4 year)	
Domestic	41.6	45.1	34.9	51.3	56.4	57.9	6.9%	6.9%
LIG/ Kutir Jyoti	0.1	0.1	0.0	0.1	0.1	0.1	-12.9%	0.0%

Energy Sales (MUs)	FY 04-05	FY 05-06	FY 06-07	FY 07-08	FY 08-09	FY 09-10	CAGR	Adjusted CAGR
	Actual	Actual	Actual	Actual	Actual	Actual	(4 year)	
Commercial	23.5	23.3	20.7	25.4	26.4	27.7	3.4%	3.4%
Agriculture	2.6	3.0	0.2	0.3	2.5	2.5	-0.8%	0.0%
LT Industry	132.8	139.0	140.1	140.7	134.9	139.1	0.9%	0.9%
HT/EHT Industry	794.4	871.3	1,023.9	1,053.8	1,099.1	1,236.5	9.3%	9.0%
Public Lighting	3.5	4.0	6.9	4.3	4.3	4.4	4.7%	4.7%
Public Water Works	1.1	1.9	0.6	0.8	1.1	0.9	-4.4%	0.0%
Temp. Supply	0.3	0.4	4.3	0.4	0.6			
Total Sales	999.8	1,088.0	1,231.6	1,276.9	1,325.4	1,469.1	8%	

7. Table 3 summarizes category wise revised energy sales for FY 10-11 and projected energy sales for FY 11-12 for EDDD. As can be observed, the overall energy sales in UT of Daman & Diu are significantly dependent upon HT Industrial consumption.

8. Daman & Diu submits to the Hon'ble Commission to approve the energy sales forecasted herein.

Table 3: Projected Category wise Energy Sales (MU) for FY 09-10 & FY 10-11

Sales	FY 09-10	FY 10-11	FY 11-12
	Actual	Revised Estimate	Projected
Domestic	57.9	61.9	66.1
LIG/ Kutir Jyoti	0.1	0.1	0.1
Commercial	27.7	28.7	29.6
Agriculture	2.5	2.5	2.5
LT Industry	139.1	140.4	141.8
HT/EHT Industry	1,236.5	1,347.8	1,469.1
Public Lighting	4.4	4.6	4.8
Public Water Works	0.9	0.9	0.9
Total Sales	1,469.1	1,586.8	1,714.9

5 T&D Loss Reduction

1. The EDDD has achieved a significant reduction in transmission & distribution losses. The EDDD would like to submit that the system improvement works executed every year under the plan schemes as well as increase in energy sales quantum at higher voltages has resulted in the reduction of T & D losses.
2. During FY 09-10, the EDDD had been able to achieve T&D loss level of 11.77%.
3. EDDD has considered the T&D loss of 11.00% for FY 10-11 in line with the T&D loss trajectory submitted to the Hon'ble Commission during the processing of the ARR Petition for FY 10-11. The T&D loss of 11.00% was also approved by the Commission in the Order issued on 1st November, 2010 for FY 10-11. Subsequently, EDDD proposes to reduce the T&D losses to 10.50% for FY 11-12 as summarized in Table 4 below:

Table 4: T&D Losses

T&D Losses	FY 09-10	FY 10-11	FY 11-12	Reduction
	Actual	Estimated	Projected	
T&D Losses (%)	11.77%	11.00%	10.50%	0.50%

4. Considering the proposed capital expenditure in transmission and distribution network during FY 10-11 and FY 11-12, the EDDD expects to reduce the losses by approximately 0.50% in FY 11-12.
5. 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 therefore it would be difficult to reduce the loss levels by more than 0.50% p.a.
6. The EDDD submits to the Commission to approve the T&D losses submitted herein.

6 Energy Requirement of the System

1. Overall energy sales to various categories are estimated to grow at approximately 8.0% each year during FY 10-11 and FY 11-12. Thus, the overall

energy requirement is projected to be 1,586.8 MU and 1,714.9 MU in FY 10-11 and FY 11-12 respectively, an increase of 8% each year, as shown in Table 5.

2. As depicted in Table 5, energy requirement of the Daman & Diu for FY 10-11 & FY 11-12 has increased by approximately 7.3% each year as compared with the increase in energy sales by 8% each year. The increased in energy requirement is on account of higher sales but has been partially offset due to reduction of T&D losses.

Table 5: Energy Requirement of the System

Energy Requirement	FY 09-10	FY 10-11	FY 11-12
(Million Units)	Actual	Revised Estimate	Proj.
Energy Sales within State	1,469	1,587	1,715
T&D Losses %	11.77%	11.00%	10.50%
T&D Losses	196	196	201
Energy Requirement	1,665	1,783	1,916
Energy Availability at the Periphery	1,951	1,950	1,916
Energy Surplus / (Gap)	286	167	0

7 Energy Availability

1. Daman & Diu being a Union Territory with no generating stations of its own, mainly relies on the firm and infirm allocation of power from Central Generating Stations like Korba, Vinashyachal, Kahalgaon, Kawas, Tarapur, etc. to meet its energy requirement.
2. The EDDD for the purpose of estimation of the power availability during FY 10-11 and FY 11-12 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
 - Other market sources

3. The Petitioner has allocation from Western as well as Eastern region NTPC stations including coal, gas and nuclear power stations. However, for meeting the supply-demand gap during the peak hours, the Petitioner has relied on energy exchange and over-drawal from the Grid (UI). In FY 09-10, energy drawn from UI source formed a negligible 3.8% of the total availability.
4. For projection of the energy available for FY 10-11, 6 month actual power purchase and 1 month provisional power purchase has been considered. For projection of FY 11-12 energy availability, firm and infirm allocation from various generating stations has been used. Detailed methodology for projecting the power availability to the Petitioner from various sources is detailed below.

7.1 Power Purchase

1. Daman & Diu has firm and infirm allocated share in Central Sector Generating Stations (CSGS) of NTPC, Nuclear Power Corporation of India Ltd (NPCIL), and NTPC Sail Power Company Ltd (NSPCL).
2. Since seven months of FY 10-11 has already elapsed, the power purchase for seven months is available. Therefore, the power availability for balance five months i.e. November 2010 to March 2011 has been estimated based on revised allocation dated 8.10.2010. The energy allocation from various generating stations is summarized in table below:

Table 6: Energy Allocation from Central Generating Stations

Generating Station	Weighted Avg Firm Share	Weighted Avg Unallocated Share	Total Allocation
KSTPP	-	52.77	52.77
VSTPP-I	5.00	9.52	14.52
VSTPP-II	3.00	7.68	10.68
VSTPP- III	5.00	7.77	12.77
KAWAS (Gas)	2.00	28.99	30.99
JGPP (Gas)	2.00	29.31	31.31
NTPC-SAIL Bhilai	70.00	39.00	109.00
Sipat	4.00	7.77	11.77
KHSTPP-II	2.00	2.00	4.00

Generating Station	Weighted Avg Firm Share	Weighted Avg Unallocated Share	Total Allocation
KAPP &KAPS	2.00	2.30	4.30
TAPP 3&4	5.00	8.40	13.40
Total Allocation	100.00	195.50	295.50

3. Additional power allocation of 39 MW from NTPC-SAIL has also been considered for the purpose of FY 10-11 power availability projections.
4. For projecting the power availability for FY 11-12, Daman & Diu has considered allocation of firm and infirm power from the western region generation stations (NTPC and NPCIL) as per the allocation specified in the notification no. WRPC/Comml-I/6/Alloc/2010/ dated 8.10.2010 of Western Regional Power Committee. For projecting the power purchase from eastern region NTPC generating stations, allocation from KhSTPP has been considered.
5. Additionally, EDDD has 70MW of firm allocation from 2*250 MW NSPCL Bhilai power stations. Both the units have been commissioned during FY 09-10 and energy availability for the full year has been considered for projecting power availability during FY 11-12. However, the additional allocation of 39MW available to EDDD during FY 10-11 has not been considered during FY 11-12 as this additional power is available up to March, 2011.
6. Average PLF of past four years has been considered for coal-based NTPC plants and NPCIL plants have been considered. For NSPCL, an average PLF of 90% has been considered in line with the actual PLF for first seven months of the plant during FY 10-11. For gas based generating stations i.e. Kawas (KGPP) and Gandhar (GGPP) average gross generation of FY 07-08, FY 08-09 & FY 09-10 has been considered.
7. Auxiliary consumption of 9% and 3% has been considered for coal and gas based generating stations, respectively.
8. Actual external transmission losses (PGCIL losses) on power purchase for FY 09-10 was 5.85% and six months of FY 10-11 was 5.81% of gross power purchase. The Petitioner would like to submit to the Commission that the Petitioner has little control over the PGCIL losses. Therefore, for computing the power availability at the periphery, 5.85% external transmission losses have been applied on the gross power purchase for FY 10-11 and FY 11-12.

9. Table 7 below lists down station wise actual power purchase for FY 09-10 and estimated power purchase for FY 10-11 and FY 11-12.

Table 7: Power Purchase

Source	FY 09-10	FY 10-11	FY 11-12
	Actual	Revised Estimate	Proj.
NTPC Stations			
KSTPP	523	398	402
VSTPP-I	179	105	108
VSTPP-II	140	79	80
VSTPP- III	161	95	95
KAWAS	155	203	174
JGPP	109	222	192
NTPC Bhilai Unit-I & II	327	790	502
Sipat	142	88	86
Subtotal	1,736	1,979	1,640
Eastern Region			
FSTPP	21	-	-
TSTPP	15	-	-
KHSTPP-II	16	10	11
Subtotal	53	10	11
NPCIL			
N.P.C.	-	-	-
KAPPS	23	8	11
TAPP 3&4	68	62	65
Subtotal	91	70	76
Power purchase from Other Sources			
Power purchase from Indian E. Exchange	5	-	-
UI	66	12	309
Subtotal	71	12	309
Gross Power Purchase	1951	2072	2035
External Losses	114	121	119
Power Purchase available at the Periphery	1837	1950	1916

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

7.2 Energy Requirement & Availability

1. Based on the data on estimated & projected sales and purchase obtained, an Energy Balance has been prepared to assess the T&D losses in FY 10-11 and FY 10-11.

Table 8: Energy Balance

Energy Balance	FY 08-09	FY 09-10	FY10-11
<i>(in Million Units)</i>	Actual	Revised Estimate	Projected
Energy Sales	1,469	1,587	1,715
Add: Losses	196	196	201
T&D Losses	11.77%	11.00%	10.50%
Energy Required at Periphery	1,665	1,783	1,916
Energy Available	1,951	1,950	1,916
Surplus/ (Deficit) Power	286	167	0

7.3 Power Purchase Cost

1. The cost of purchase from the central generating stations for FY 10-11 and FY 11-12 is estimated based on the following assumptions:
 - The cost of power purchase for FY 10-11 are based on actual power purchase bills, including Fuel Purchase Agreement (FPA), received by the EDDD during the first seven months of FY 09-10. Each element of the power purchase cost i.e. fixed, variable, fuel price adjustment (FPA) and other cost has been estimated for each generating station by considering 7 month (Apr 10 to Oct 10) cost incurred by the EDDD (copies of the power purchase cost is enclosed at Annexure 2) and 5 month estimated power purchase. The projection for remaining five months has been done on pro-rata basis by considering the actual cost for seven months of FY 10-11.
 - Fixed cost for FY 11-12 has been projected considering a 10% escalation over the estimated fixed cost for various stations for FY 10-11. The escalation has been considered based on the anticipated increase in the Employee Cost due to implementation of Sixth Pay Commission and impact of new Tariff Regulations FY 2009-14 issued by CERC for computation of tariff for Central Generating Stations.
 - Variable cost from each NTPC generating stations for FY 11-12 have been projected based on the actual average variable cost and fuel price

adjustment per unit for FY 10-11 (7 months). An escalation of 5% has been assumed for projecting the variable cost for FY 11-12 keeping in view of the escalation of approximately 5 per cent p.a. on the coal prices over the past ten years.

- The EDDD has projected other charges for FY 11-12 at similar level as estimated for full year of FY 10-11.
 - For nuclear plants i.e. KAPPS and TAPP Units 3 & 4, single part tariff with 5% escalation on the actual per unit charges for FY 10-11 has been considered for FY 11-12.
 - For NTPC-SAIL Bhilai unit 1 & 2, fixed, variable and other charges have been projected based on the actual cost for first seven months of FY 10-11. An escalation of 5% for increase in fuel cost, fixed charges, other charges, etc. has been used for projecting the power purchase cost from NTPC-SAIL.
 - EDDD had surplus power during FY 10-11 inspite of a reduction in allocation from the Central Generating Stations. This was primarily on account of additional allocation of 39MW of power from NTPC-SAIL generating station. However, due to non-availability of this additional 39MW during FY 11-12, EDDD would be in an energy deficit position.
 - EDDD is making efforts to restore the EDDD allocation in Western Region Central Generating Stations from the Government of India. Further the EDDD is also in discussion with NSPCL Bhilai plant for allocation of 200 MW from the planned capacity yaddition of 500MW at Bhilai. Copies of the letters are enclosed at Annexure 3.
 - In view of the current scenario, EDDD will be in energy deficit during FY 11-12 and therefore the deficit has been considered to be met through other short-term sources (Indian Energy Exchange, bilateral, UI, traders). An average rate of Rs. 5 has been considered against the power purchased under short-term. EDDD requests the Hon'ble Commission to approve the same in the power purchase cost.
 - During FY 10-11, though EDDD had excess power due to additional allocation of 39 MW of power from NTPC-SAIL, EDDD had to overdraw power from the grid during the peak hours for meeting the peak hour demand-supply mismatch. However, due to the UI cost mechanism EDDD was in net payable position as the cost of drawing power was higher during peak hours as compared to the revenue earned for under-drawal of power during off-peak hours.
2. The Total Power Purchase cost from various sources for FY 10-11 and FY 11-12 is summarized in Table below:

Table 9: Power Purchase Cost for FY 10-11 (in Rs. Crore)

Source	FY 10-11 (Revised Estimate)						
	Units	Fixed Cost	Variable Cost	FPA charges	Other Charges	Total Power Purchase Cost	Per Unit Cost
NTPC Stations							
KSTPP	398	10.24	24.37	7.63	3.94	46.19	1.16
VSTPP-I	105	3.28	11.33	4.46	1.39	20.46	1.95
VSTPP-II	79	4.03	8.11	3.22	1.12	16.47	2.09
VSTPP- III	95	7.39	10.96	2.70	1.56	22.60	2.37
KAWAS	203	11.85	29.89	16.26	0.72	58.73	2.89
JGPP	222	17.48	32.91	17.24	2.02	69.66	3.14
NTPC Bhilai Unit-I & II	790	98.11	116.72	-	7.68	222.51	2.82
Sipat	88	6.82	7.68	1.77	0.86	17.13	1.95
Subtotal	1,979	159.20	241.97	53.29	19.29	473.76	2.39
Eastern Region							
KHSTPP-II	10	1.04	1.59	0.42	0.50	3.55	3.55
Subtotal	10	1.04	1.59	0.42	0.50	3.55	3.55
NPCIL							
N.P.C.	-	-	-	-	-	-	-
KAPPS	8	-	1.82	-	-	1.82	2.17
TAPP 3&4	62	-	16.65	-	-	16.65	2.69
Subtotal	70	-	18.47	-	-	18.47	2.63
Power Purchase Cost from Other Sources							
Power purchase from Indian E. Exchange	-	-	-	-	-	-	#DIV/0!
UI	12	-	23.81	-	-	23.81	20.02
Subtotal	12	-	23.81	-	-	23.81	20.02
Gross Power Purchase Cost	2,072	160.24	285.84	53.71	19.80	519.58	2.66
Transmission Charges	-	-	-	-	-	36.46	
Other Charges	-	-	-	-	-	0.52	
Power Purchase available at the Periphery	2,072	160.24	285.84	53.71	19.80	556.56	2.85

Table 10: Power Purchase Cost for FY 11-12 (in Rs. Crore)

Source	FY 11-12 (Projected)						
	Units	Fixed Cost	Variable Cost	FPA charges	Other Charges	Total Power Purchase Cost	Per Unit Cost
NTPC Stations							
KSTPP	402	11.27	33.96	-	3.94	49.18	1.22
VSTPP-I	108	3.61	17.11	-	1.39	22.10	2.04
VSTPP-II	80	4.43	12.05	-	1.12	17.60	2.21

Source	FY 11-12 (Projected)						
	Units	Fixed Cost	Variable Cost	FPA charges	Other Charges	Total Power Purchase Cost	Per Unit Cost
VSTPP- III	95	8.12	14.36	-	1.56	24.04	2.52
KAWAS	174	13.04	41.49	-	0.72	55.25	3.18
JGPP	192	19.23	45.47	-	2.02	66.71	3.48
NTPC Bhilai Unit-I & II	502	69.30	77.93	-	4.93	152.17	3.03
Sipat	86	7.50	9.76	-	0.86	18.12	2.10
Subtotal	1,640	136.51	252.12	-	16.55	405.17	2.47
Eastern Region							
KHSTPP-II	11	1.14	2.24	-	0.50	3.88	3.66
Subtotal	11	1.14	2.24	-	0.50	3.88	3.66
NPCIL							
N.P.C.	-	-	-	-	-	-	-
KAPPS	11	-	2.55	-	-	2.55	2.28
TAPP 3&4	65	-	18.31	-	-	18.31	2.83
Subtotal	76	-	20.86	-	-	20.86	2.75
Power Purchase Cost from Other Sources							
Power purchase from Indian E. Exchange	-	-	-	-	-	-	-
UI	309	-	154.53	-	-	154.53	5.00
Subtotal	309	-	154.53	-	-	154.53	5.00
Gross Power Purchase Cost	2,035	137.65	429.74	-	17.05	584.44	3.05
Transmission Charges						38.29	
Other Charges						0.52	
Power Purchase available at the Periphery	2,035	137.65	429.74	-	17.05	623.24	3.25

7.4 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 allocation 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 10-11 based on the actual transmission charges for seven months of FY 10-11 and pro-rata allocation of the same for remaining five months.
2. For projecting the PGCIL transmission charges for FY 11-12, an escalation of 10% over the estimated FY 10-11 transmission charges has been considered in view of the increase in transmission charges.

3. Other charges like LC charges to NTPC and PGCIL for FY 11-12 has been considered based on the actual LC charges for FY 10-11.

Table 11: Total Power Purchase Cost for FY 10-11 and FY 11-12 (in Rs. Crore)

Particulars	FY 10-11 (Revised Estimate)			FY 11-12 (Projected)		
	Energy available at DD Periphery (MUs)	Total Cost (Rs. Cr)	Per Unit Cost (Rs/kWh)	Energy available at DD Periphery (MUs)	Total Cost (Rs. Cr)	Per Unit Cost (Rs/kWh)
Gross Power Purchase Cost	1950	519.58	2.66	1916	584.44	3.05
Transmission Charges		36.46			38.29	
Other Charges		0.52			0.52	
Total Power Purchase Cost (including Transmission Cost)	1950	556.56	2.85	1916	623.24	3.25

8 Operation & Maintenance Costs

1. Operation and Maintenance expenses comprise of the following heads:
 - **Employees Expenses** which includes the wages, pension and other remunerations paid to the workforce;
 - **Repair and Maintenance (R&M) Expenses**, which include all expenditure incurred on the maintenance and upkeep of assets; and
 - **Administrative and General Expenses**, which include all expenditure incurred in operating a business such as rent, salaries, telephone charges, etc.
2. In the past, the Petitioner has not maintain segregation between the three cost elements for the purpose of accounting and had booked all cost including salaries, medical expenses, office expenses, traveling expenses, repairs, supply of materials, etc under the operation and maintenance expense. Summary of the past five year operation and maintenance expense is summarized in table below:

Table 12: Operation & Maintenance Expense (Rs. Crore)

Year	O&M Expense
	Actual
FY 05-06	6.43
FY 06-07	7.02
FY 07-08	6.47
FY 08-09	8.47
FY 09-10	9.35

3. The total O&M expense for FY 09-10 is Rs. 9.35 Crore as compared with FY 08-09 total O&M expense of Rs. 8.47 Crore, an increase of over 10%. The increase in operation and maintenance cost in FY 09-10 was primarily due to increase in R&M expenses during FY 09-10.
4. However, the breakup of O&M expense into Employee, R&M and A&G expense is available for FY 09-10 and was also submitted to the Hon'ble Commission during the processing of Tariff Order for FY 10-11.

5. The methodology adopted by Daman & Diu for projecting the values of each component of the O&M expense for FY 10-11 & FY 11-12 has been explained in following section.

8.1 Employee Expense

1. The Employee expense estimated by the Petitioner comprise of all costs related to employees like basic salary, dearness allowances, medical cost, 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 seven months of FY 10-11, EDDD has estimated the total employee cost for full year of FY 10-11 as Rs. 5.43 Crore on pro-rata basis.
3. For projecting the employee cost for FY 11-12, the Petitioner has considered a 10% escalation over the estimated employee cost for FY 10-11. This increase has been provided in view of the rise in salaries and wages of the existing employees and recruitment of additional employees during FY 11-12 for filling the vacant posts. The EDDD has proposed to fill the four vacant posts during FY 11-12 which would be created due to retirement of employee during FY 10-11 and FY 11-12. The detailed breakup of employee cost for FY 09-10, FY 10-11 & FY 11-12 is summarized in table below:

Table 13: Employee Expense (Rs. Crore)

Employee Cost (Rs. Crore)	FY2009-10 (Actual)	FY2010-11 (RE)	FY2011-12 (projections)
Salaries & Allowances			
Basic Pay	2.61	2.66	2.93
Dearness Pay	0.77	0.69	0.76
Dearness Allowance	0.89	1.36	1.49
House Rent Allowance	0.26	0.28	0.31
Medical reimbursement charges	0.01	0.00	0.00
Transport allowance	0.21	0.29	0.32
L.T.C.	0.01	0.00	0.00
Children Education All.	0.02	0.04	0.05

Employee Cost (Rs. Crore)	FY2009-10 (Actual)	FY2010-11 (RE)	FY2011-12 (projections)
Family Planning Allow.	0.01	0.01	0.01
Bonus	0.07	0.09	0.09
Total	4.85	5.42	5.97

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

8.2 Repairs & Maintenance Expense

- Repairs and maintenance expense comprise of expenses incurred by the Petitioner with regard to maintenance and upkeep of the transmission and distribution system. Adequate R&M activities help in reduction of transmission and distribution losses and breakdowns in the system.
- The actual R&M expense for FY 09-10 for EDDD was Rs. 4.31 Crore. Actual R&M expense for seven months of FY 10-11 is Rs. 3.48 Crore. The higher cost can be attributed to breakdown of a transformer during FY 10-11 and maintenance & repair of sub-station, HT/LT lines of power distribution system.
- For projecting the R&M expense for FY 10-11, the actual R&M expense for seven months of FY 10-11 has been considered and the R&M expense for balance five months has been computed on pro-rata basis. A copy of the various expenses undertaken by EDDD during first seven months of FY 10-11 (upto October 2010) is enclosed at Annexure 6.
- The estimated R&M expense of Rs. 5.43 Crore for FY 10-11 is higher than the R&M expense of Rs. 2.20 Crore approved by the Commission. The actual cost of R&M expense during FY 09-10 was higher as compared with the proposed R&M expense. Therefore, the approved R&M expense for FY 10-11 is lower than the revised estimate. EDDD submits to the Commission to consider the revised estimate of R&M expense for FY 10-11.
- For FY 11-12, R&M expense has been computed considering a 5% increase over the estimated R&M expense for FY 10-11. The R&M cost for FY 09-10, FY 10-11 & FY 11-12 is summarized in table below:

Table 14: Repairs & Maintenance Expense (Rs. Crore)

Particular	FY 09-10	FY 10-11	FY 10-11	FY 11-12
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	Actual	Actual (7 month)	Revised Estimate	Projected
R&M Expense	4.31	3.48	5.97	6.26

6. 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.

8.3 Administration & General Expense

- Administrative and General (A&G) expense comprise of various sub-heads including the following:
 - Rent
 - Rates and taxes
 - Travel and conveyance expenses
 - Consultancy and legal fees
 - Insurance and other administration expenses
- The actual A&G expense for FY 09-10 is Rs. 0.19 Crores. The Commission has approved A&G expense of Rs. 2 Crore for FY 10-11. For the first seven months of FY 10-11, the actual A&G expense for EDDD is Rs. 0.62 Crore including consultancy and regulatory expense.
- EDDD has considered the A&G expense of Rs. 2.00 Crore for FY 10-11 as approved by the Commission in the FY 10-11 Tariff Order and has projected a 10% increase in the A&G expense for FY 11-12. For FY 11-12, the A&G expense would include charges on account of fees for approval of Annual determination of tariff for retail sale as per the JERC (Conduct of Business) Regulations, 2009, consultancy charges, other expenses.
- In line with the above, the Hon'ble Commission is requested to approve the A&G costs without any disallowance.

8.4 Total Operation and Maintenance Expense

Based on the employee, R&M and A&G expense projected above, the total O&M expenditure for FY 10-11 and FY 11-12 is summarized in table below. The Hon'ble Commission is requested to approve the total O&M expense as projected by Daman & Diu.

Table 15: Total O&M Expense (Rs. Crores)

O&M Expenditure (Rs. Crs)	FY 09-10	FY10-11	FY11-12
	Estimated	Revised Estimate	Projected
Employee Cost	4.85	5.43	5.97
R&M Cost	4.31	5.97	6.26
A&G Expenditure	0.19	2.00	2.20
Total O&M Expenditure	9.35	13.39	14.43

9 Capital Expenditure Plan

- EDDD's current transmission and distribution infrastructure is insufficient to cater to the present load. The present transmission and distribution infrastructure of EDDD does not have adequate standby source arrangement for restoring the power supply in case of major breakdowns. Further, considering the increasing 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.
- EDDD each year drafts an Annual Plan for the capital investment for new schemes and continuing schemes which it plans to incur in the ensuing year. Due to lower allocation of funds from the Government of India as compared with the requested funds, the actual capital expenditure has been lower than the planned capital expenditure in the previous years. Therefore, the capital expenditure for the subsequent years is higher as it includes the schemes for which the funds were not allocated in the previous capital expenditure proposal. A summary of the proposed and approved capital expenditure for the past three years is summarized below:

Table 16: Proposed and Approved Capital Expenditure

Annual Capital Expenditure Plan	FY 08-09	FY 09-10	FY 10-11
(Rs. Cr)			
Proposed funds for Capex	27.68	61.38	90.65
Approved funds for Capex	13.98	21.41	21.53
Disallowance in Capex	13.70	39.97	69.12

- For FY 11-12, the EDDD has proposed a draft Annual Plan for various schemes to be carried out during the year. A copy of the Draft Annual Plan for FY 11-12 is enclosed at Annexure 4. The details of annual plan for FY 10-11 is summarized below:

Table 17: Annual Plan for FY 09-10 to FY 11-12

Annual Capital Expenditure Plan	FY 11-12
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	(Rs. Cr)	Annual Plan
New Schemes		74.68
Continuing Schemes		37.75
Total Capital Expenditure		112.43

4. The details of the capital expenditure schemes proposed in FY 11-12 are summarized in table below:

Table 18: Draft Annual Plan for FY 11-12

Proposed Scheme	Amount Rs. Crs
System Strengthening Scheme	19.10
Scheme of Strengthening of 66 KV Transmission line network in Daman UT and strengthening of 66/11 KV S/S's	9.00
Augmentation of 66/11 KV existing S/S at Daman / Diu.	4.50
Providing & Strengthening of power supply network & Communication, MRT facilities & Special Tools & Plants / Workshop in Daman & Diu.	5.60
Network Strengthening Scheme	61.18
Scheme for establishment of 1x100 MVA 220/66/11 KV S/S at Ringanwada, Daman along with associated 220 KV D/C line from 220 KV Ambheti S/S of PGCIL to Ringanwada in Daman.	45.00
Scheme for establishment of 66/11 KV 2x15 MVA S/S along with associated line at Bhimpore, Daman	2.99
Scheme for establishment of 66/11 KV 2x10 MVA S/S along with associated line at Zari, Daman.	13.19
Other Schemes	32.15
Normal Development Works and Release of Service Connections.	5.50
Electrification of Tribal area and providing street lighting in village road in Daman.	0.30
Providing Underground power distribution system in Daman & Diu city / rural areas and extension of the scheme to Industrial Estates.	6.00
Providing Underground power distribution system in Daman & Diu city / rural areas and extension of the scheme to Industrial Estates.	11.50
Renovation of existing, old power Distribution and Providing improved metering system & providing Per-Paid Metering System and Indexing & Digitalization in Daman & Diu.	10.00
Direction & Administration	4.85
Total Capital Expenditure	112.43

5. Of the Rs. 112.43 Crore capital expenditure proposed in FY 11-12 by EDDD, Rs. 45 Crore is to be incurred for establishment of 1x100 MVA 220/66/11 KV S/S at Ringanwada, Daman along with associated 220 KV D/C line from 220 KV Ambheti S/S of PGCIL to Ringanwada in Daman. This scheme would provide another 220 KV power source to the UT of Daman and would help in improving the voltage regulation of the electrical system and reduce the line losses by ensuring extra High voltage transmission of lines. It will improve power supply and will ensure stand by feeding arrangement in case major breakdown on 220 KV Magarwada Circuit. Further, the scheme would enable the UT to shift its whole power load from GETCO network to PGCIL.
6. Another scheme for Strengthening of 66 KV Transmission line network in UT of Daman and strengthening of 66/11 KV S/S's amounting to Rs. 9 Crore would help in erection of 66 KV line to interlink various 66 KV S/S in the UT in order to ensure stable and un interrupted power supply to the UT even in case of major 66 KV level break down. Of the above mentioned capital expenditure for FY 10-11, part of the capital expenditure pertains to the schemes which were started in the previous years i.e. FY 08-09 and FY 09-10.
7. 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 10-11 and FY 11-12 is summarized in Table below:

Table 19: Capital Expenditure & Capitalization for FY 10-11 and FY 11-12

Capital Expenditure & Capitalization	FY 10-11	FY 11-12
(Rs. Crore)	Revised Estimate	Projected
Capital Expenditure	21.53	112.43
Asset Capitalization	19.59	57.11
Capital Work in Progress	20.24	75.55

10 Gross Fixed Assets

1. Based on the Asset Register, EDDD had Rs. 277.37 Crore Closing Gross Fixed Assets (GFA) in FY 09-10. EDDD has further proposed capital expenditure of Rs. 21.53 Crore during FY 10-11.
2. Based on the actual capitalization of Rs. 11.98 Crore in the first six months and estimated addition in GFA during the remaining six months of FY 10-11, GFA

amounting to Rs. 19.59 Crore have been estimated to be added during FY 10-11.

3. For FY 11-12, EDDD has proposed a capital expenditure of Rs. 112.43 Crore of which Rs. 57.11 Crore assets have been estimated be capitalized. The details of the system augmentation and capital expenditure scheme proposed by EDDD during FY 11-12 are provided at Annexure 4.
4. A summary of the Opening and Closing GFA and capitalization has been summarized in table below:

Table 20: Opening and Closing GFA (in Rs. Crore)

Particulars	Opening GFA	Additions during the Year	Closing GFA
FY 2009-10 (Actual)	266.42	10.95	277.37
FY 2010-11 (Revised Estimate)	277.37	19.59	296.95
FY 2011-12 (Projected)	296.95	57.11	354.07

11 Depreciation

1. Depreciation is charged on the basis of straight-line method, on the Gross Fixed Assets in use at the beginning of the year and addition in assets during the financial year. The depreciation is based on the original cost of the Gross Fixed Assets.
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%
Computers & Others	6.33%
Land	0.00%

3. Depreciation has been computed by applying the aforesaid category-wise assets depreciation rates on the on the opening GFA and 50% of the asset capitalized during the year. A detail of the asset addition during first half year of FY 10-11 is enclosed at Annexure 5. The Table below summarizes the asset-wise depreciation considered claimed by EDDD:

Table 21: Depreciation (in Rs. Crore)

Particulars	FY 09-10	FY 10-11	FY 11-12
Rs. Crore	Actual	Revised Estimate	Projected
Opening GFA	266.42	277.37	296.95
Additions	10.95	19.59	57.11
Closing GFA	277.37	296.95	354.07
Average GFA	271.89	287.16	325.51
Depreciation Amount	13.51	14.32	16.34
<i>Average Depreciation Rate</i>	4.9%	4.8%	4.6%

12 Interest & Financial Costs

12.1 Interest on Long-term / Capital Loans

1. The entire capital expenditure of EDDD since its inception has been funded by the Central Government through Budgetary support each year upto FY 09-10. 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 from FY 2011-12 onwards.
3. Assets capitalized during FY 11-12 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 12.25% 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 11-12 is summarized in Table below:

Table 22: Total Interest on Long-term Loans

Interest on Long-term Loans	FY 11-12
Rs Crore	Projected
Opening Loan (50% of the Opening GFA)	0.00
Addition in Loan (70% of Asset Capitalization)	39.98
Repayment of Loan (10% of Opening Balance)	2.00
Closing Loan Amount	37.98
Average Loan	38.98
<i>Interest Rate on Loan</i>	12.25%
Total Interest Cost on Long-term Loans	2.33

5. Therefore, EDDD requests the Hon'ble Commission to approve the interest cost on long-term loans as projected above.

12.2 Interest on Working Capital Borrowings

1. EDDD has computed the Interest on Working Capital for FY 09-10 and FY 10-11 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 09-FY 11-12 and FY 10-11 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 11.75% for FY 10-11 and 12.25% for FY 11-12 has been considered on the working capital requirement, being the SBI Prime Lending Rate as on 1st April of the respective 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 10-11 and FY 11-12 considering the above methodology is summarized in Table 23 below:

Table 23: Interest on Working Capital

Interest on Working Capital	FY 10-11	FY 11-12
Rs Crore	Revised Estimate	Projected
One Month Power Purchase Cost	46.38	51.94
One Month Employee Cost	0.45	0.50
One Month R&M Cost	0.50	0.52
One Month A&G Cost	0.17	0.18
Two Month Fuel Cost	-	-
Total Working Capital requirement	47.50	53.14
Rate of Interest on Working Capital	11.75%	12.25%
Total Interest on Working Capital	5.58	6.51

13 Return on Equity

7. 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.
8. 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.
9. 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 10-11 and FY 11-12 in its Petition.

10. Return on equity has been computed based on 30% normative equity for capitalization during FY 11-12 in line with the JERC (Terms and Conditions for Determination of Tariff) Regulations, 2009.
11. Return on equity for EDDD has been computed as Rs 1.05 Crore for FY 11-12 as detailed in Table 24 below:

Table 24: Reasonable Return

Reasonable Return	FY 11-12
Rs Crore	Projected
Opening GFA (net of Consumer contribution)	0.00
Addition in Equity (30% of Asset Capitalization)	17.13
Closing Equity Amount	17.13
Average Equity Amount	8.57
<i>Rate of Return on Equity</i>	16.00%
Return on Equity	1.37

14 Provision for Bad & Doubtful Debts

1. As per the JERC (Terms and Conditions for Determination of Tariff) Regulations, 2009, EDDD has considered provision for Bad and Doubtful Debts as 1% of the receivables in the revenue requirement for FY 10-11 and FY 11-12.
5. EDDD requests the Hon'ble Commission to approve the provision for bad & doubtful debts as summarized in the Table below:

Table 25: Provision for Bad & Doubtful debts

Provision for Bad & Doubtful Debts	FY 10-11	FY 11-12
Rs Crores	Revised Estimate	Projected
Annual Revenue Requirement	586.75	661.42
Provision for Bad & Doubtful Debts as % of Receivables	1.00%	1.00%
Provision for Bad & Doubtful Debts	5.87	6.61

15 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. Actual non-tariff income for FY 09-10 was Rs. 10.69 Crore. The non-tariff income of Rs. 8.96 Crore for FY 10-11 has been computed by considering 6 month actual non-tariff income of Rs. 4.48 Crore and estimating the non-tariff income for the balance six months on pro-rata basis.
3. For projecting the non-tariff income for FY 11-12 an increase at 5% p.a. has been considered over the estimated FY 10-11 non-tariff income. Details of the year wise non-tariff income is provided in table below:

Table 26: Non-tariff Income

Particulars	FY 09-10	FY 10-11	FY 11-12
Rs Crores	Actual	Revised Estimate	Projected
Non-tariff Income	10.69	8.96	9.41

16 Aggregate Revenue Requirement

1. Table 27 summarizes EDDD's Aggregate Revenue Requirement for FY 10-11 and FY 11-12
2. Aggregate Revenue Requirement for FY 11-12 is estimated to be Rs 661.42 Crore.

Table 27: Aggregate Revenue Requirement

Annual Revenue Requirement	FY 10-11	FY11-12
(Rs. Cr)	Revised Estimate	Projected
Power Purchase Cost	556.56	623.24
Employee Cost	5.43	5.97

Annual Revenue Requirement	FY 10-11	FY11-12
(Rs. Cr)	Revised Estimate	Projected
R&M Cost	5.97	6.26
A&G Expenditure	2.00	2.20
Depreciation	14.32	16.34
Interest Cost on Long-term Capital Loans	-	2.33
Interest on Working Capital Loans	5.58	6.51
Return on Equity	-	1.37
Provision for Bad Debt	5.87	6.61
Less:		
Non-Tariff Income	8.96	9.41
Annual Revenue Requirement	586.75	661.42

17 Revenue at Existing Tariff

1. Revenue from sale of power for FY 10-11 & FY 11-12 is determined based on the energy sales estimated in Table 2 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. 523.43 Crores and Rs. 559.58 Crores in FY 10-11 and FY 11-12 respectively, as shown in Table 28. The estimated revenue for FY 10-11 is based on the six month actual revenue and one month revenue at earlier tariff structure. the revenue for balance five months of FY 10-11 has been computed based on the retail tariff notified by the Commission in the Tariff Order for FY 10-11 dated 1st November, 2010. The Surcharge levied to HT consumers during the first seven months has been included in the seven month revenue estimation for FY 10-11.
3. Further, EDDD has computed the revenue for the full year of FY 11-12 based on the tariff notified by the Hon'ble Commission in the Tariff Order for FY 10-11 dated 1st November, 2010.
4. During FY 10-11, EDDD has estimated a surplus of 167 MUs based on the energy available and sale to various consumer categories. This surplus power is primarily available to EDDD due to additional allocation of 39 MW from

NTPC-SAIL Bhilai power station for one year i.e. FY 10-11. EDDD has sold approximately 72 MUs during the first 7 months of FY 10-11 at an average rate of Rs. 3 per unit. Revenue from sale of balance surplus units during the remaining five months has been computed at the same rate.

5. However, as also mentioned in the power purchase section above, EDDD has projected an energy deficit of 309 MUs for FY 11-12 and therefore EDDD would have no surplus power available for sale during FY 11-12. The table below summarizes the revenue from sale of power at existing tariff for FY 10-11 & FY 11-12:

Table 28: Revenue from Sale of Power at Existing Tariff (Rs. Crore)

Revenue @ Existing Tariff (Rs Crore)	FY 10-11 Revised Estimate	FY 11-12 Projected
Domestic	9.48	11.65
LIG/ Kutir Jyoti	0.01	0.01
Commercial	6.91	7.12
Agriculture	0.15	0.04
LT Industry	40.67	40.37
HT/EHT Industry	465.11	499.60
Public Lighting	0.56	0.57
Public Water Works	0.35	0.23
Temp. Supply	0.18	
Total Revenue from Consumers	523.42	559.58
Revenue from surplus Power	51.07	0.00
Total Revenue	574.49	559.58

18 Coverage of Revenue Gap

1. Revenue from sale of power within state (category-wise) is determined in Table 22 and no revenue has been projected from sale of surplus power from outside state as the allocation of EDDD from Central Generating Stations has reduced during FY 11-12.

2. Table 29 summarizes the Revenue Gap at existing tariff at Rs. 101.84 Crs for FY 11-12. EDDD would like to submit that the revised gap estimated for the FY 10-11 has been carried forward to FY 11-12.
3. Therefore, the net revenue gap of Rs. 101.84 Crs for the FY 11-12 & carried forward revenue gap of Rs. 12.26 Crs for FY 10-11 (based on revised ARR and revenue realization) is proposed to be covered through Additional Revenue from proposed tariff revision of Rs. 114.10 Crs.

Table 29: Revenue Gap

Annual Revenue Requirement	FY 10-11	FY 11-12
Rs Crore	Estimated	Projected
Total ARR	586.75	661.42
Revenue @ Existing Tariff	523.43	559.58
Revenue from Surplus Power Sale	51.07	-
Total Revenue	574.49	559.58
Revenue (Gap)/Surplus	(12.26)	(101.84)
Covered by		
Previous Years' Surplus/(Gap) Carried Over		(12.26)
Additional Revenue @ Proposed Tariff		114.66
Total		102.40
Net (Gap)/Surplus	(12.26)	0.56

19 Average Cost of Supply

1. Table 30 summarizes Average Cost of supply and category wise average realization at the existing tariff.

Table 30: Average Cost of Supply & Realization

Average Realization & Cost of Supply (Rs/Unit)	FY 10-11 Existing Tariff ¹	FY 11-12 Existing Tariff
Average Cost of Supply of EDDD	3.70	3.86
Average Realisation from Consumers	3.30	3.26
Average Realisation from Surplus Power	3.05	-
Average Realization	3.62	3.26
Revenue Gap	(0.08)	(0.59)
Category wise Average Realization		
Domestic	1.53	1.76
Commercial	2.41	2.40
Agriculture	0.61	0.61
LT Industry	2.90	2.85
HT/EHT Industry	3.45	3.40
Public Lighting	1.22	1.20

19.1 Tariff Proposal for FY 11-12

1. EDDD submits to the Commission that the sales to HT/EHT category form approximately 84% 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. The EDDD has come under the Regulatory Regime and the tariff for the various consumer categories is approved by the Hon'ble Commission. EDDD intends to move towards the average cost to supply as per the principles laid

¹ Including Surcharge recovered from the HT consumers during the first seven months of FY 10-11

down in the National Tariff Policy. Currently, the industrial consumers are being charged higher tariff as compared to other consumer categories like domestic, agriculture, etc. The industrial consumers contribute more than 84% of the total sales and the tariffs of the other categories of consumers are lower than the average cost of supply. Though, the EDDD has proposed increase in tariff of other categories of consumers as well, the same are not aligned as per the average cost of supply as this may result in a tariff shock. Therefore, in the current petition, the industrial consumers would continue to cross-subsidize other categories for the time being as also witnessed in the other states of India. However, as a first step towards tariff rationalization, EDDD has proposed to abolish the differential tariff for HT General and HT Ferro consumers within the HT category.

3. EDDD proposes to merge the HTC Ferro into the HTC General with a view to rationalize the tariff categories within the HT category. Therefore, the consumers presently falling under the HTC Ferro category would be categorized under the HTC General category. This has been done to avoid any differentiation in terms of nature of the industry.
4. Table 31 summarizes the existing and proposed tariff structure for various consumer categories.

Table 31: Existing & Proposed Tariff Structure for FY 11-12

Tariff Structure	Existing		Proposed	
	Energy Charges (Rs/Kwh)	Fixed Charges	Energy Charges (Rs/Kwh)	Fixed Charges
LT-D/Domestic				
1st 50 Units	1.00		1.00	
51 to 200 Units	1.60		1.60	
201 to 400 Units	2.00		2.00	
401 to 600 Units	2.25		2.40	
Beyond 600 Units	2.25		2.55	
LT-C/Commercial				
1st 100 Units	2.05		2.25	
Beyond 100 Units	2.70		2.90	
LT- Ag/ Agriculture				
Upto 10 HP per unit	0.55		0.55	
Beyond 10 HP per unit	0.85		0.85	
LTP Motive Power				
Upto 20 HP of Connected Load	2.50		2.75	
Above 20 HP Connected Load	2.60	Rs. 25/HP	2.85	Rs. 40/HP
LT-PL/Public Lighting				
Public Lighting	1.20	Rs.4/Lamp	1.20	Rs.10/Lamp

Tariff Structure	Existing		Proposed	
	Energy Charges (Rs/Kwh)	Fixed Charges	Energy Charges (Rs/Kwh)	Fixed Charges
HT				
HTC General				
50000 units	2.95	Rs. 60/KVA	3.81	Rs. 100/KVA
50000 to 5 lakh units	3.05	Rs. 60/KVA	3.91	Rs. 100/KVA
Beyond 5 lakh units	3.10	Rs. 60/KVA	3.96	Rs. 100/KVA
HTC Ferro				
First 300 Units per KVA	2.05	Rs. 450/KVA	<i>Merged with HTC General category [tariff of HTC General category will apply]</i>	
Next 200 units per KVA	3.05	Rs. 450/KVA		
Above 500 units per KVA	3.55	Rs. 450/KVA		
Temporary Supply				
Single Phase Supply	6.00		6.00	
Three Phase Supply	6.00		6.00	

- Further, EDDD proposes to increase the contracted load from the present 1500 kVA to 2500 kVA for supply at 11kV. Therefore, the consumers with contracted load greater than 2500 kVA would be required to take supply at 66 kV. EDDD submits the Hon'ble Commission to approve the same.
- EDDD submits to the Hon'ble Commission to approve the tariff structure proposed for FY 11-12.

19.2 Energy Revenue from Sale of Power at Proposed Tariffs

- Revenue from sale of power at proposed tariff for FY 11-12 is determined based on the Energy sales estimated in Section 4 and category wise tariff proposed by the EDDD in this petition.

Table 32: Revenue at Proposed Tariff

Category-wise Revenue (Rs Crores)	FY 11-12	FY 11-12
	Existing Tariff	Proposed Tariff
Domestic	11.65	12.02
Commercial	7.12	7.71
Agriculture	0.04	0.04
LT Industry	40.37	46.05
HT/EHT Industry	499.60	607.61
Public Lighting	0.57	0.57

Public Water Works	0.23	0.23
Total Revenue	559.58	674.24

2. Based on the revenue from proposed tariff, EDDD would have a surplus of Rs. 0.56 Crore during FY 11-12 which can be utilized towards any variation in projected expenses as against actual expenses during the period.

20 Prayer

1. EDDD requests the Honourable Commission to:
 - Admit the Aggregate Revenue Requirement of FY 11-12 and the Tariff Revision Proposal for FY 11-12 as submitted herewith.
 - Approve the Aggregate Revenue Requirement of FY 11-12 as well as the Tariff Revision Proposal for FY 11-12.
 - Make the proposed Retail Supply Tariffs applicable from April 1, 2011.
 - 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

21 FORMATS