F.No. 67/2/2/2011-Ele/

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लक्षद्वीप संघ शासित क्षेत्र प्रशासन
ADMINISTRATION OF THE
UNION TERRITORY OF LAKSHADWEEP
(बिजली विभाग)
(DEPARTMENT OF ELECTRICITY)
कवरत्ति - ६८२ ५५५
KAVARATTI – 682 555

Date 01/08/2012

To,

The Secretary
Joint Electricity Regulatory Commission
(for the state of Goa and Union Territories)
Vanijya Nikunj Complex, 2nd Floor, Udyog Vihar
Phase – V, Gurgaon, Haryana – 122016
Telephone: 0124-2342851-53
Telefax: 0124-2342853

Subject: Filing of petition for the approval of Annual Revenue Requirement (ARR) and Tariff Proposal for FY 2012-13 for the UT of Lakshadweep under Section 61, 62 and 64 of the Electricity Act, 2003.

Respected Sir,

This is with reference to the captioned subject. Please find enclosed 6 copies of the Annual Revenue Requirement (ARR) and Tariff Proposal for FY 2012-13 along with the filled up formats and annexure after incorporating the defect pointed out.

The application fee (as per the JECR Regulations) amounting to Rs. 5,04,000 (Rs. Five Lakh and Four Thousand Only) is enclosed vide demand draft no. 157615 dated 11/07/2012 along with the Petition.

Yours faithfully,

(R. RAVICHANDAR)
EXECUTIVE ENGINEER (ELE)

Encl: As above.

AFFIDAVIT

BEFORE HON'BLE JOINT ELECTRICITY REGULATORY COMMISSION FOR THE STATE OF GOA & UNION TERRITORIES

File No. _____

Case No._____

IN THE MATTER OF: Filing of Aggregate Revenue Requirement (ARR) for the FY 12-13 for Union Territory of Lakshadweep under Section 61, 62 and 64 of the Electricity Act, 2003

AND

IN THE MATTER OF Department of Electricity Lakshadweep (hereinafter referred to as "LED" or "The Petitioner" or "The Department")

..... Petitioner

I, Shri. RAVEENDRAN RAVICHANDAR, son of Shri Sh. RAMASWAMY RAVEENDRAN (aged 47 years), (occupation) Government Service residing at Govt. Quarters, Kavaratti the deponent named above do hereby solemnly affirm and state on oath as under:

1. That the deponent is the Executive Engineer, Department of Electricity UT of Lakshadweep, submits the ARR and Tariff petition for the year 2012-13 as approved by Administrator, UT of Lakshadweep vide Diary No. 1843 dated 2/7/2012 and is acquainted with the facts deposed as below.

2. I, the deponent named above do hereby verify that the contents of the accompanying petition are based on the records of the Department of Electricity, Lakshadweep maintained in the ordinary course of business and believed them to be true and I believe that no part of it is false and no material facts have been concealed therefrom.

Details of enclosures:

Proposal for Aggregate Revenue Requirement ("ARR") for the Financial Year 2012-13 for determination of tariff.

Petition fee – Rs. 5,04,000/- vide demand draft no. 157615 dated 11-07-2012.

(The power demand of the territory is 8 MVA and accordingly fees payable is Rs. 5,00,000 + (8 X Rs. 500 = 4,000) = 5,04,000/-)

For the Department of Electricity Lakshadweep

Petitioner

Place: Lakshadweep, Kavaratti

Solemnly affirmed before me on this 2nd day of August, 2012 at 4 a.m/p.m by the deponent who is personally known to me.

U.T OF LAKSHADWEEP * EXECUTIVE MAGISTRATE * KAVARATTI ISLAND 682555

EXECUTIVE MAGISTRATE
U.T OF LAKSHADWEEP
KAVARATTI ISLAND - 682555

Aggregate Revenue Requirement & Tariff Petition for FY 2012-13

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

Submitted to:

Joint Electricity Regulatory Commission
Gurgaon

By

DEPARTMENT OF ELECTRICITY, LAKSHADWEEP

June 2012

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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, Formats and Annexure (Volume II)

1 ARR & Tariff Petition for FY 2012-13

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

Filing No……

Case No……

IN THE MATTER OF: Filing of Aggregate Revenue Requirement (ARR) for the FY 2012-13 for Union Territory of Lakshadweep under Section 61, 62 and 64 of the Electricity Act, 2003

AND

IN THE MATTER OF Department of Electricity Lakshadweep (hereinafter referred to as "LED" or "The Petitioner" or "The Department")

..... Petitioner

The Applicant respectfully submits as under: -

1. The Electricity Department of Union Territory of Lakshadweep ("LED") is a statutory body engaged in the electricity generation, transmission and distribution in the Union Territory of Lakshadweep. 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 61, 62 and 64 of the Act, LED is filing the current petition, in order to meet its financial requirements.

2. This is a Petition indicating the Aggregate Revenue Requirement (ARR) of LED and Tariff Revision Proposal of LED for the FY 2012-13 (Financial Year 2012-13).

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 2012-13.

2. LED is submitting its ARR and Tariff petition for the determination of tariff for FY 2012-13 broadly on the basis of the principles outlined in Tariff Regulations notified by JERC. LED has considered the past trends and taken cognizance of other internal and external developments to estimate the likely performance for FY 12-13.

3. The following sections explain in detail the basis and forecasts of the following elements for FY 2012-13:

   a. Category wise Energy Sales & Revenues at existing tariffs;

   b. T&D Losses;

   c. Energy Requirement;

   d. Determination of Aggregate Revenue Requirement (ARR) by forecasting the following costs, other income & returns:
      i. Fuel 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

   e. Determination of Gap between Revenue & Costs, Additional Revenue through the proposed Tariff Revision and the arrangements to cover the revenue gap; and

   f. Tariff revision proposal for FY 2012-13 to meet the Revenue Gap.

3 Introduction

The Union Territory (UT) of Lakshadweep is an archipelago consisting of 12 atolls, three reefs and five submerged banks. It is a uni-district Union Territory with an area of 32 Sq. Kms and is comprised of eleven inhabited islands, 17 uninhabited islands attached islets, four newly formed islets and 5 submerged reefs. The inhabited islands are Kavaratti, Agatti, Amini, Kadmat, Kiltan, Chetlat, Bitra, Andrott, Kalpeni, Bangaram and Minicoy.

The Electricity Department of Lakshadweep (LED) is engaged in generation, transmission and distribution of electricity to the various consumer categories in the UT of Lakshadweep. As the UT is an archipelago consisting of 11 inhabited islands and located far from the mainland of India, Lakshadweep is entirely dependent on its own generation for supply of power. The power in the UT of Lakshadweep is generated mainly from its Diesel Generating (DG) sets. The island wise installed capacity of the UT of Lakshadweep is presented in the table below:

Table 1: Island wise installed capacity of Lakshadweep (DG sets)

Sl. No.	Name of Island	Installed capacity (kW)
1.	Minicoy	2800
2.	Kavaratti	3200
3.	Amini	1900
4.	Andrott	2750
5.	Kalpeni	1250
6.	Agatti	1700
7.	Kadmat	1650
8.	Kiltan	1000
9.	Chetlat	700
10.	Bitra	80
11.	Bangaram	180
12.	**Total**	**17210**

The LED is in process to put in additional capacity of 4150 kW across the island during the 12th Plan i.e. from FY 2012-13 to FY 2016-17. However, the existing plant capacity of 4900 kW would be phased out during the 12th Plan due to

vintage profile of the DG sets. Hence, the effective generation capacity by the end of the 12th Plan would be 16,460 kW.

In addition to DG sets mentioned above, the LED has grid interactive Solar Photovoltaic (SPV) power plants in each of the island. To improve its power mix and reduce its dependency on the diesel based generation, the department of electricity, Lakshadweep is planning to add further solar capacity. The following table presents the island wise installed capacity SPV plants and future solar capacity addition plan.

Table 2: Island wise installed capacity of SPV Plants and future capacity addition plan

Sl. No.	Name of Island	Installed capacity (old) (kWp)	New Plants (kWp)
1.	Minicoy	100	110
2.	Kavaratti	100	660
3.	Amini	100	--
4.	Andrott	100	220
5.	Kalpeni	100	---
6.	Agatti	100	---
7.	Kadmat	150	110
8.	Kiltan	100	---
9.	Chetlat	100	---
10.	Bitra	50	---
11.	Bangaram	50	---
12.	**Total**	**1050**	**1100**

The contract for Operation and Maintenance (O&M) of the new plants has been given to Bharat Heavy Electricals Limited (BHEL). As per the terms and conditions of the O&M contract with BHEL, 100,000 units/year will be generated from 100 kWp of equivalent capacity.

The trail run for the Minicoy, Kavaratti, Andrott and Kadmat solar plants has already been initiated.

All the new solar plants are expected to start their commercial operation from December 2012.

At present, the department maintains 77.19 kms HT lines and 236.74 kms across the 11 islands. Details of the island wise LT and HT lines in the UT of Lakshadweep are presented in the table below.

Table 3: Island wise HT and LT lines

Sl. No.	Name of Island	HT lines (km)	LT lines (km)	HT/LT ratio
1.	Minicoy	10.33	31.07	0.30
2.	Kavaratti	16.46	28.82	0.60
3.	Amini	7.00	28.00	0.30
4.	Andrott	12.56	45.29	0.30
5.	Kalpeni	6.00	19.00	0.30
6.	Agatti	10.55	29.46	0.40
7.	Kadmat	9.72	31.68	0.30
8.	Kiltan	3.54	12.30	0.30
9.	Chetlat	1.22	8.14	0.20
10.	Bitra	0.00	1.76	0.00
11.	Bangaram	0.00	1.23	0.00
12.	**Total**	**77.19**	**236.74**	**0.33**

At present, the LED has HT/LT ratio of 0.33, which the department is planning to increase in future to reduce the T&D losses.

The LED has a maximum demand of around 8.16 MW. LED's demand is primarily composed of domestic and commercial consumers. The maximum demand observed in each island during the last five years is tabulated below:

Table 4: Island wise connected load

(kW)

Sl. No.	Name of Island	FY 2007-08	FY 2008-09	FY 2009-10	FY 2010-11	FY 2011-12
1.	Minicoy	955	1037	1107	1175	1255
2.	Kavaratti	1320	1452	1548	1649	1760
3.	Amini	665	710	748	788	845
4.	Andrott	925	994	1082	1144	1215
5.	Kalpeni	498	538	563	591	628
6.	Agatti	650	695	740	788	838
7.	Kadmat	598	632	670	710	756

Sl. No.	Name of Island	FY 2007-08	FY 2008-09	FY 2009-10	FY 2010-11	FY 2011-12
8.	Kiltan	329	360	375	390	410
9.	Chetlat	255	265	280	295	315
10.	Bitra	42	44	50	54	59
11.	Bangaram	45	45	70	72	76
12.	**Total**	**6282**	**6772**	**7233**	**7656**	**8157**

4 Energy Sales

1. Department of Electricity has a consumer mix constituting of domestic, commercial, Industrial and Public Lighting. The number of consumers in various categories as on May 2012 is summarized in table below:

Table 5: No of consumers as on May 2012

Sl. No	Consumer Category	No. of consumers
1	Domestic	15998
2	Commercial	2933
3	Industrial	301
4	Public Lighting	59
5	**Total Consumers**	**19291**

2. Table 6 summarizes category wise actual energy sales from FY 07-08 to FY 11-12 for all the consumer segments. As can be seen, LED's overall energy sales are significantly dependent on the domestic consumers to the extent of around 70%. Energy sold to various consumer categories over the past 5 years has grown at approximately 8.54% p.a., mainly contributed by increase in the sales to the domestic categories.

Table 6: Category wise sales from FY 2007-08 to FY 2011-12

Sl. No	Consumer category	FY 07-08	FY 08-09	FY 09-10	FY 10-11	FY 11-12
		Actual	Actual	Actual	Actual	Revised estimate
1	Domestic	16.25	15.85	17.78	20.35	23.75
2	Commercial	6.14	5.96	6.16	6.98	7.28
3	Industrial	0.30	0.27	0.33	0.41	0.42
4	Public (Street Light)	1.27	1.29	1.28	1.34	1.52
5	Temporary connections	0.04	0.02	0.02	0.01	0.02
6	**Total Sales (MUs)**	**24.00**	**23.38**	**25.56**	**29.09**	**32.99**

3. The LED 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. LED, therefore for projecting the category-wise consumption for FY 2012-13 has considered the past growth trends in each of the consumer category including growth trend in number of consumers and connected load.

4. Actual energy sales in the LED periphery in FY 2011-12 was 32.99 MUs and total energy billed was Rs 7.91 Crore.

5. The energy sales for FY 2012-13 have been determined based on CAGR for past four to five-year 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.

Table 7: Category wise CAGR in Energy Sales in the past years

Sales	CAGR (Four years)	CAGR (Five years)	Adjusted CAGR
Domestic	7.79%	9.94%	9.00%
Commercial	4.34%	4.34%	8.00%
Industrial	11.21%	9.15%	8.00%
Public (Street Light)	1.77%	4.55%	5.00%
Temporary connections	-31.57%	-15.16%	0.00%
Total Sales	**6.62%**	**8.28%**	**7.90%**

6. The LED has considered the adjusted CAGR of various consumer categories mentioned in table 7 for projection of energy sales for FY 2012-13.

7. Table 8 summarizes category wise energy sales projection for FY 2012-13 for the LED. As can be observed, the overall energy sales in UT of Lakshadweep are significantly dependent upon domestic and commercial consumption.

Table 8: Projected Category wise Energy Sales for FY 2012-13

Sales (MUs)	FY 2010-11	FY 2011-12	FY 2012-13
	Actual	Revised estimate	Projected
Domestic	20.35	23.75	25.89
Commercial	6.98	7.28	7.86
Industrial	0.41	0.42	0.45
Public (Street Light)	1.34	1.52	1.60
Temporary connections	0.01	0.02	0.02
Total Sales	**29.09**	**32.99**	**35.82**

5 T&D Loss Reduction

1. T&D losses at the LED periphery is comparatively high due to high level of transformation losses at Kadmat, Kiltan and Chetlat islands, where the outputs from the power generating plants are step down at 3.3 kV level. To reduce this high level of transformation losses, the LED has undertaken several CAPEX schemes to increase the transformers capacity in these three islands.

2. The LED has achieved a significant reduction in transmission & distribution losses in the recent years. The LED would like to submit that the system improvement works executed every year under the plan schemes has resulted in the reduction of T&D losses. However, it may also be noted that reduction of distribution losses may not be possible beyond a certain level due to geographical conditions of the UT of Lakshadweep and technical limitations in the distribution system.

3. The actual T&D losses level of the LED during FY 10-11 was 26.92%. The estimated T&D losses for FY 2011-12 were around 26.50%. LED proposes to reduce the T&D losses to 26.00% for FY 2012-13 as summarized in Table 9 below:

Table 9: T&D Losses

T&D Losses	FY 2010-11 Actual	FY 2011-12 Revised estimate	FY 2012-13 Projected
T&D Losses (%)	26.92%	26.50%	26.00%

4. Considering the proposed capital expenditure in transmission and distribution network during FY 2012-13, the LED has proposed to reduce the losses by approximately 0.50% in FY 2012-13.

5. The LED submits to the Commission to approve the T&D losses submitted herein.

6 Power generation

1. The LED sources power entirely from its own power generating stations. It is submitted that out of the total capacity of 17210 kW, the department utilized around half of its total installed capacity. The remaining installed capacity is utilized as back-up.
2. Since, all the generating stations of the LED are located near the sea, the salinity of the sea water severally affect the performance of the power generating stations. Due to salinity of water, break-down in the power generating units occurred more frequently and back-up plants are used for supply of power in the islands. Further, the UT of Lakshadweep has strategic importance in terms of maintaining internal security in this region. Military bases of the Indian Navy and Indian Coast Guard are being maintained in most of the Islands in the UT of Lakshadweep. The LED has to supply power on continuous basis/without any interruption to keep the critical equipments and facilities running at these military bases. Due to these aforementioned reasons, the LED has to maintain additional/back-up capacity for generation of power.

3. The source-wise gross generation, auxiliary consumption and net generation of power in UT of Lakshadweep from FY 2007-08 and FY 2011-12 is provided in the table below.

Table 10: Gross generation, auxiliary consumption and net generation

Year	Gross generation (MU)	Auxiliary consumption (MU)	Auxiliary consumption (%)	Net generation (MU)
FY 2007-08 (Actual)	28.82	0.40	1.39%	28.42
FY 2008-09 (Actual)	31.14	0.42	1.36%	30.72
FY 2009-10 (Actual)	35.14	0.44	1.27%	34.70
FY 2010-11 (Actual)	40.33	0.56	1.39%	39.77
FY 2011-12 (Revised Estimate)	45.51	0.69	1.39%	44.87

6.1 Power Generation for FY 2012-13

1. Out of the total installed capacity of 17210 kW, around 4760 kW of the existing installed capacity becomes old and proposed to be phased out by the LED during the 12th Plan.

2. Around 4150 kW of capacity would likely to add during FY 2012-13 to replace the old plants as well as increase the generation capacity in Minicoy, Amini, Agatti, Kadmat and Chetlat islands. The existing status of DG sets (i.e. new and old plants) and proposed capacity addition of the LED is shown in the table below:

Table 11: Existing installed capacity and capacity addition for FY 2012-13

Sl. No.	Name of Island	Existing installed capacity				DG Plants under procurement
		New		Old	Total	
1.	Minicoy	2X1000	2000	800	2800	1500
2.	Kavaratti	2X1000	2000	0	3200	0
		2X600	1200	0		
3.	Amini	2x750	1500	400	1900	750
4.	Androtт	2X750*	2500	250	2750	0
		1X250				
		1X1000				
5.	Kalpeni	2X250	500	750	1250	0
6.	Agatti	2X400	800	900	1700	750
7.	Kadmat	1X400	650	1000	1650	750
		1X250				
8.	Kiltan	2X400	800	200	1000	0
9.	Chetlat	2X250	500	200	700	400
10.	Bitra	0	0	80	80	0
11.	Bangaram	0	0	180	180	0
12.	**Total**		**12450**	**4760**	**17210**	**4150**

* One 750 kW DG set has been transported to the mainland for repairs

3. For projection of the generation quantum for FY 2012-13, the LED has considered 350 days of operation for all the DG sets. The remaining 15 days would be required for repair and maintenance for the DG sets.

4. The LED has considered that the new plants under procurement for Minicoy, Amini, Agatti, Kadmat and Chetlat islands would be installed and operational for 180 days during FY 2012-13. Further, it is considered the old plants in the aforesaid five islands would be replaced after installation of the new DG sets.

5. Further, it is considered that 50% of the new DG sets would be utilized as back-up to provide continuous power supply to the important military installations located in the islands and to meet the other consumer demand during break down of the DG sets.

6. The exiting level of auxiliary consumption i.e. 1.39% has been considered for projecting the quantum of auxiliary consumption for FY 2012-13.

7. For solar generation, LED has considered the generation from the existing 100 kWp Chetlat SPV and 100 kWp Agatti SPV plants for FY 2012-13. A total of 0.2 MU of power generation has been considered from these two SPV plants for FY 2012-13. Other old plants (shown in table 3) have not been considered for projecting power generation from the Solar Plants, as these plants are currently not in operation.

8. The LED has considered the commercial date of operation from December 2012 for the new solar plants located at Minicoy, Kavaratti, Andrott and Kadmat islands.

9. Table 12 below showing the projected island wise gross power generation quantum, auxiliary consumption and new power generation quantum of the LED for FY 12-13.

Table 12: Power generation quantum for FY 2012-13

(MU)

Island	Gross generation	Auxiliary Consumption	Net generation
DG sets			
Minicoy	7.89	0.11	7.78
Kavaratti	10.36	0.14	10.22
Amini	4.66	0.06	4.60
Andrott	6.93	0.10	6.83
Kalpeni	3.41	0.05	3.37
Agatti	5.47	0.07	5.40
Kadmat	4.62	0.06	4.55

Island	Gross generation	Auxiliary Consumption	Net generation
Kiltan	3.07	0.04	3.02
Chetlat	1.66	0.02	1.63
Bitra	0.25	0.003	0.24
Bangaram	0.30	0.004	0.29
Subtotal 1	**48.61**	**0.68**	**47.94**
Solar generation			
760 kWp Kavaratti SPV			0.11
100 kWp Chetlath SPV			0.10
220 kWp Andrott SPV			0.07
110 kWp Minicoy SPV			0.03
100 kWp Agatti SPV			0.10
110 kWp Kadmat SPV			0.03
Subtotal 2			**0.44**
Total Net Generation			**48.38**

10. The Petitioner requests the Hon'ble Commission to approve the generation quantum estimated in table above.

6.2 Energy Requirement & Availability

1. Overall energy sales to various categories are estimated to grow at approximately by 9% during FY 2012-13. Thus, the overall energy requirement is projected to be 48.38 MU in FY 2012-13, an increase of around 7%. The following table shows the overall energy requirement and energy availability of the Petitioner.

Table 13: Energy Requirement of the System

(MU)

Energy Balance	FY 2010-11	FY 2011-12	FY 2012-13
	Actual	Actual	Projected
Sales	29.09	32.99	35.82
Add: T&D Losses	10.72	11.89	12.58
T&D Losses (%)	**26.92%**	**26.50%**	**26.00%**
Energy Required at Periphery	39.81	44.88	48.38
Energy Available	39.81	44.88	48.38
Surplus/ (Deficit) Power	0.00	0.00	0.00

6.3 Fuel Purchase Cost

1. The LED procures its fuel (HSD oil) from the Indian Oil Corporation's (IOC) Beypore depot (Kerala). The fuel procured from the Beypore depot is then transported to various islands by ships.

2. During FY 2011-12, the LED has paid Rs. 34.18 per liter of HSD to IOC.

3. As per the latest agreement entered with IOC June, 2012, the Petitioner is paying Rs. 37.09 (exclusive of taxes) per liter of HSD to IOC i.e. an increase of Rs. 2.91 over the average price of FY 2011-12. The aforesaid supply order is enclosed as Annexure along with this petition.

4. In addition to the above cost, the Petitioner has to pay additional charges towards transportation of fuel from the Beypore depot to the islands such as filing and sealing charges of the barrels, transportation charges for Beypore depot to the port, freight charge, port duties and crane charges at port, local transportation charges at the island etc. The average fuel cost, inclusive of all charges incurred by the LED for FY 2011-12 is presented in the table below.

Table 14: Average Fuel Purchase Cost for FY 2011-12

Sl. No.	Particulars	Amount (in Rs.)
1	Cost of HSD oil/per barrel including local transportation, Service Tax @ 4% and SSC @1%	7392.00
2	Cost of filling and sealing of the barrels	6.10
3	Transportation charge/per barrel from KSCC yard to wharf including loading to the ships	44.90
4	Freight charge/barrel	160.00
5	Port duties and crane charges/barrel	17.71
6	Average cost of empty barrel	499.33
7	Transportation charge/per barrel from wharf to KSCC yard at Beypore	18.95
8	Restaking of empty barrel	3.50
9	Cost of cap seal (big and small)	4.15
10	Leak testing charge/barrel	4.00
11	Welding and reconditioning charge/barrel	1.50
12	Scrapping, cleaning, painting and marking charge/ barrel	31.00
13	Cost of Bunk washer (big and small)/barrel	2.50
14	**Total cost/barrel**	**8185.64**
15	Average cost of Oil (14/200)	40.93

Sl. No.	Particulars	Amount (in Rs.)
16	Add: Local transportation cost at the islands @2% of HSD price	0.68
17	**Average cost of HSD (15+16)**	**41.61**

* 1 barrel – 200 litres

5. In FY 2011-12, the petitioner has incurred Rs. 59.66 Crore for procurement of 14.34 thousand KL of HSD. The LED would like to submit that it is necessary for the department to maintain 2 months stock of HSD in order to continue its generation on the event of delay in supply of oil from IOC.

6. Cost of fuel for FY 2012-13 is estimated based on the latest supply order entered with the IOC on June 2012. Other costs such as bottling and transportation costs have been assumed to be increased by 5%.The escalation is to absorb the normal inflationary increases in the cost of purchase. It is to be noted that the cost of HSD has increased by more than 20% since March 2008. The estimated average fuel cost, inclusive of all charges incurred by the LED for FY 2012-13 is presented in the table below.

Table 15: Average Fuel Purchase Cost for FY 2012-13

Sl. No.	Particulars	Amount (in Rs.)
1	Cost of HSD oil/per barrel including local transportation, Service Tax @ 4% and SSC @1%	8388.90
2	Cost of filing and sealing of the barrels	6.41
3	Transportation charge/per barrel from KSCC yard to wharf including loading to the ships	47.15
4	Freight charge/barrel	168.00
5	Port duties and crane charges/barrel	18.60
6	Average cost of empty barrel	524.30
7	Transportation charge/per barrel from wharf to KSCC yard at Beypore	19.90
8	Restaking of empty barrel	3.68
9	Cost of cap seal (big and small)	4.36
10	Leak testing charge/barrel	4.20
11	Welding and reconditioning charge/barrel	1.58
12	Scrapping, cleaning, painting and marking charge/ barrel	32.55
13	Cost of Bunk washer (big and small)/barrel	2.63
14	**Total cost/barrel**	**9222.22**
15	Average cost of Oil (14/200)	42.97
16	Add: Local transportation cost at the islands @2% of HSD price	0.71
17	**Average cost of HSD (15+16)**	**43.69**

7. The actual fuel purchase cost for FY 2011-12 and fuel expenses projected for FY 2012-13 is summarized in the table below.

Table 16: Fuel Purchase Cost for FY 2011-12 and FY 2012-13

(Crore)

Particulars	FY 2011-12 (Actual)			FY 2012-13 (Projected)		
	Quantity of HSD procured (KL)	Total Cost (Rs. Cr)	Per Unit Cost (Rs/Lit)	Quantity of HSD procured (KL)	Total Cost (Rs. Cr)	Per Unit Cost (Rs/Lit)
Total HSD Purchase Cost	14,337	59.66	41.61*	15,294	70.00	45.77 *

* Inclusive of other charges

Note

The quantity and cost of Oil shown in the above table for FY 2011-12 and FY 2012-13 are exclusive of the quantity and cost of the HSD maintained in the stock by the LED.

8. Per unit generation cost for FY 2011-12 and FY 2012-13 is presented in the table below.

Table 17: Per unit generation cost

Particulars	Unit	FY 2011-12	FY 2012-13
		Revised Estimate	Projected
Gross generation	MU	45.51	48.61
Net Generation	MU	44.87	47.94
Fuel cost/Gross unit	Rs./kWh	13.11	14.40
Fuel cost/Net unit	Rs./kWh	13.29	14.60

7 Operation & Maintenance Costs

1. Operation and Maintenance expenses comprise of the following heads:

   - **Employees Expenses** which includes the salaries, dearness allowances, dearness pay, other allowances and retirement benefits paid to the staff;
   - **Repair and Maintenance (R&M) Expenses**, which include all expenditure incurred on the maintenance and upkeep of generation, transmission and distribution assets; and
   - **Administrative and General Expenses**, which include all expenditure incurred in operating a business such as telephone charges, office expenses, regulatory expenses, consultancy fees, conveyance and travel expenses 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, domestic traveling expenses, and other charges towards repairs and supply of materials under the operation and maintenance expense head. However, efforts have been made by LED to segregate the O&M expenses under different accounting heads.

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

Table 18: Operation & Maintenance Expense (Rs. Crore)

Year	O&M Expense
FY 10-11	10.01
FY 11-12	12.27

4. The total O&M expense for FY 2011-12 was Rs. 12.27 Crore as compared with FY 2010-11 O&M expense of Rs. 10.01 Crore for FY 2010-11, an increase of over 23%. The increase in operation and maintenance cost in FY 2011-12 was primarily due to increase in employee cost and R&M expenses.

5. The methodology adopted by LED for projecting the values of each component of the O&M expense for FY 2012-13 has been explained in following section.

7.1 Employee Expense

1. The Employee expense estimated by the Petitioner comprise of all costs related to employees like basic salary, dearness allowances, medical cost, leave travel allowances, honorarium, etc.

2. Employee cost for FY 2012-13 is estimated based on the five year moving average of the WPI Index published by the Office of Economic Adviser, Government of India. The five year moving average growth rate from FY 2004-05 as per the WPI index is presented in the table below:

Table 19: Wholesale Price Index

Financial Year	FY 12-13	FY 11-12	FY 10-11	FY 09-10	FY 08-09	FY 07-08	FY 06-07	FY 05-06	FY 04-05
Index	163.28	152.65	143.32	130.81	126.02	116.63	111.35	104.47	100.00
Growth in 5 year moving average	6.69%	6.96%	6.51%	5.78%	5.95%				

It can be seen from foregoing table that the WPI index for FY 2012-13 would be 163.28 as per the existing trend of WIP index. Accordingly five year moving average rate for FY 2012-13 would be 6.69%.

To estimate the employee cost hike for FY 2012-13, 6.69% escalation rate over FY 2011-12 has been applied.

3. For projecting the employee cost for FY 2012-13, the Petitioner has considered a 6.69% escalation over the estimated employee cost for FY 2011-12. The detail breakup of employee cost for FY 2010-11, FY 2011-12 and FY 2012-13 is summarized in table below:

Table 20: Employee Expense (Rs. Crore)

Particulars	FY2010-11 (Actual)	FY2011-12 (Actual)	FY2012-13 (Projected)
Basic Pay	3.27	4.04	4.31
Dearness Allowance	1.72	2.12	2.27
Medical reimbursement charges	0.12	0.15	0.16
Transportation allowance	0.28	0.35	0.38

Particulars	FY2010-11 (Actual)	FY2011-12 (Actual)	FY2012-13 (Projected)
Other allowance	1.46	1.80	1.92
Bonus	0.07	0.09	0.10
Grand total	**6.92**	**8.55**	**9.12**

4. LED would like to pray to the Hon'ble Commission that salaries/employee cost increase should be considered as uncontrollable factor specially factors like DA/Basic hike through Government etc. Therefore, LED requests the Hon'ble Commission to approve the employee costs as projected in the foregoing table by the Petitioner.

7.2 Repairs & Maintenance Expense

1. Repairs and maintenance expense comprise of expenses incurred by the Petitioner with regard to maintenance and upkeep of the generation, transmission and distribution system. Adequate R&M activities help in reduction of transmission and distribution losses and reduce the occurrence of breakdowns of the DG sets.

2. The R&M expense for FY 2011-12 for LED was Rs. 2.89 Crore. The R&M expense for FY 2012-13 is computed at 2.5%[1] of the gross fixed assets of FY 2012-13, which is calculated at Rs. 3.22 Crore.

3. The R&M cost for FY 2010-11, FY 2011-12 & FY 2012-13 is summarized in table below:

Table 21: Repairs & Maintenance Expense (Rs. Crore)

Particular	FY 2009-10	FY 2010-11	FY 2012-13
	Actual	Actual	Projected
R&M Expense	2.25	2.89	3.22

4. LED requests the Commission to approve the R&M expense without any disallowances as the same is necessary for proper maintenance and

[1] As per the CERC norms

strengthening the generation, transmission and distribution system and improve the quality of supply in the region to ensure consumer satisfaction.

7.3 Administration & General Expense

1. Administrative and General (A&G) expense comprise of various sub-heads including the following:

   - Telephone, postage & telegrams charges;
   - Travel and conveyance expenses;
   - Office expenses; and
   - Consultancy and regulatory fees

2. The actual A&G expense for FY 2011-12 was Rs. 0.83 Crore.

3. LED has projected the A&G expense for FY 2012-13 at Rs. 1.54 Crore. The escalation of A&G expenses is on account of inflation and regulatory and consultancy fees payable during FY 2012-13.

The LED requests the Hon'ble Commission to approve the net A&G expenses projected for FY 2012-13.

7.4 Total Operation and Maintenance Expense

Based on the employee, R&M and A&G expense projected above, the total O&M expenditure for FY 2010-11, FY 2011-12 and FY 2012-13 is summarized in table below. The Hon'ble Commission is requested to approve the total O&M expense as projected by the LED.

Table 22: Total O&M Expense (Rs. Crore)

O&M Expenditure	FY 2009-10	FY 2010-11	FY 2012-13
	Actual	Actual	Projected
Employee Cost	6.92	8.55	9.12
R&M Cost	2.25	2.89	3.22
A&G Expenditure	0.83	0.83	1.54
Total O&M Expenditure	**10.01**	**12.27**	**13.88**

8 Capital Expenditure Plan

1. The present transmission and distribution infrastructure of LED does not have adequate standby source arrangement for restoring the power supply in case of major breakdowns. Further, considering the increase in demand from the consumers, LED would be required to undertake significant capital expenditure for system augmentation and strengthening. System augmentation would not only help LED in handling increased load but would also ensure better quality of supply and network reliability to the consumers. The capital expenditure would help in further reduction of T&D losses.

2. Every year the LED drafts an Annual Plan for the capital investment for new schemes and continuing schemes which it plans to incur in the ensuing year. For FY 2012-13, the LED has proposed a draft Annual Plan for various schemes to be carried out during the year. The details of annual plan for FY 2012-13 is summarized below:

Table 23: Capital Expenditure Plan for FY 2012-13

Sl. No.	Proposed Scheme	Amount Rs. Crore
1.	**Transformers**	
	Step down transformers 160/250 for Minicoy, Kavaratti, Amini, Androth, Kalpeni, Agatti, Kadmath, Kiltan and Chetlat islands	1.46
	Fencing of transformers for Minicoy, Kavaratti, Amini, Androth, Kalpeni, Agatti, Kadmath, Kiltan and Chetlat islands	0.17
2.	**Construction of HT lines**	
	Construction of 4.5 km of HT lines at Minicoy, Kavaratti, Amini, Androth, Kalpeni, Agatti, Kadmath, Kiltan and Chetlat islands	0.71
3.	**Construction of LT lines**	
	Construction of 13 km of HT lines at Minicoy, Kavaratti, Amini, Androth, Kalpeni, Agatti, Kadmath, Kiltan and Chetlat islands	0.38
4.	**Service connections**	
	Service connections for domestic and commercial consumers at Minicoy, Kavaratti, Amini, Androth, Kalpeni, Agatti, Kadmath, Kiltan, Chetlat and Bitra islands	0.23
	Service connections for industrial consumers at Minicoy, Kavaratti, Amini, Androth, Kalpeni, Agatti, Kadmath, Kiltan,	0.023

Sl. No.	Proposed Scheme	Amount Rs. Crore
	Chetlat and Bitra islands	
5.	**Street lights**	
	Installation of 885 new street lights at Minicoy, Kavaratti, Amini, Androth, Kalpeni, Agatti, Kadmath, Kiltan, Chetlat and Bitra islands	1.42
6.	**Distribution box**	
7.	Installation of 72 street light boxes at Minicoy, Kavaratti, Amini, Androth, Kalpeni, Agatti, Kadmath, Kiltan, Chetlat and Bitra islands	0.12
	Installation of 675 pole mounted DB boxes at Minicoy, Kavaratti, Amini, Androth, Kalpeni, Agatti, Kadmath, Kiltan and Chetlat islands	1.03
8.	**Underground cabling**	
	Underground cabling for 1710 consumers at Minicoy, Kavaratti, Amini, Androth, Kalpeni, Agatti, Kadmath, Kiltan, Chetlat and Bitra islands	0.51
9.	**Installation of 650 no. of prepaid energy meters across all the islands**	0.63
10.	**Energy conservation**	
	Implementation of energy conservation measures at all the islands	0.24
11.	**E-governance**	
	Implementation of e-governance at all the islands	1.03
12.	**Special tools and plants**	
	1 no of Bouser/oil truck for Minicoy Island	0.40
	9 nos of Battery operated two wheelers for Minicoy, Kavaratti, Amini, Androth, Kalpeni, Agatti, Kadmath, Kiltan and Chetlat islands	0.03
	Installation of flow meters	0.19
	8 nos. of pick-up truck for transport materials for Minicoy, Kavaratti, Amini, Androth, Kalpeni, Agatti, Kadmath, Kiltan and Chetlat islands	0.32
13.	**Skill up-gradation programme**	0.09
14.	**Major Civil works at Minicoy, Kavaratti, Amini, Androth, Kalpeni, Agatti, Kadmath, Kiltan and Chetlat islands**	4.00
15.	**Total Capital Expenditure**	**13.00**

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 2011-12 and FY 2012-13 is summarized in the table below:

Table 24: Capital Expenditure & Capitalization for FY 2011-12 and FY 2012-13

Capital Expenditure & Capitalization	FY 2011-12	FY 2012-13
(Rs. Crore)	Revised Estimate	Projected
Capital Expenditure	20.00	13.00
Asset Capitalization	22.39	19.26
Capital Work in Progress	23.43	17.17

9 Gross Fixed Assets

1. The Opening Gross Fixed Assets (GFA) of LED for FY 2011-12 was Rs. 90.14 Crore. LED has further added Rs. 20.00 Crore during FY 2011-12.

2. The closing Work-in-Progress by the end of FY 2011-12 was Rs. 23.43 Crore.

3. For FY 2012-13, LED has proposed incur Rs. 13.00 Crore capital expenditure and Rs. 19.26 Crore estimated to be capitalized.

4. A summary of the Opening and Closing GFA and capitalization has been summarized in table below:

Table 25: Opening and Closing GFA (in Rs. Crore)

Particulars	Opening GFA	Additions during the Year	Closing GFA
FY 2010-11 (Actual)	75.52	14.62	90.14
FY 2011-12 (Actual)	90.14	20.00	110.14
FY 2012-13 (Projected)	115.64	13.00	128.64

10 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, LED has applied the following depreciation rates as specified by CERC in the Tariff Regulations for FY 2009-14.

Table 26: Depreciation rate specified by CERC

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

3. Depreciation for the current year and FY 2012-13 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 2011-12 and FY 2012-13.The table below summarizes the asset-wise depreciation considered by LED:

Table 27: Depreciation (in Rs. Crore)

Particulars	FY 2010-11	FY 2011-12	FY 2012-13
Rs. Crore	**Actual**	**Actual**	**Projected**
Opening GFA	75.52	90.14	115.64
Additions	14.62	25.50	13.00
Closing GFA	**90.14**	**115.64**	**128.64**
Average GFA	82.83	102.89	122.14
Depreciation Amount	**3.87**	**4.98**	**6.09**
Average Depreciation Rate	4.29%	4.31%	4.74%

11 Interest & Financial Costs

11.1 Interest on Long-term / Capital Loans

1. The entire capital expenditure of LED since its inception has been funded by the Central Government through Budgetary supports each year upto FY 2011-12. Therefore, the department does not have any loan liabilities.

2. However, LED is now migrating from a Government owned utility to a commercial utility under the Electricity Act, 2003, as it has come under the jurisdiction of the Joint Electricity Regulatory Commission. It has been assumed that LED would work as a separate commercial utility and therefore would be utilizing the debt facilities from FY 2012-13 onwards.

3. Assets capitalized during FY 2020 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 2012-13 is summarized in Table below:

Table 28: Total Interest on Long-term Loans

Interest on Long-term Loans	**FY 2012-13**
Rs Crore	**Projected**
Opening Loan (50% of the Opening GFA)	0.00
Addition in Loan (70% of Asset Capitalization)	13.48
Repayment of Loan (10% of Opening Balance)	0.67
Closing Loan Amount	**12.80**
Average Loan	6.40
Interest Rate on Loan	*14.75%*
Total Interest Cost on Long-term Loans	**0.94**

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

11.2 Interest on Working Capital Borrowings

1. LED has computed the Interest on Working Capital for FY 2012-13 based on normative basis as per the JERC (Terms and Conditions for Determination of Tariff) Regulations, 2009. Since LED is an integrated utility, the working capital requirement for FY 2012-13 has been computed considering the following parameters:

    a. One month Employees cost
    b. One month Administration & general expenses
    c. One month Repair & Maintenance expenses.
    d. Sum of two month requirement for meeting Fuel cost.

2. A rate of interest of 14.75% has been considered for FY 2012-13 on the working capital requirement, being the SBI Prime Lending Rate as on 13 August 2011. 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."*

3. The normative interest on working capital for FY 2012-13 considering the above methodology is summarized in Table 29 below:

Table 29: Interest on Working Capital

Interest on Working Capital	FY 2012-13
Rs Crore	Projected
One Month Employee Cost	0.76
One Month R&M Cost	0.27
One Month A&G Cost	0.13
Two Month Fuel Cost	11.67
Total Working Capital requirement	**12.82**
Rate of Interest on Working Capital	14.75%
Total Interest on Working Capital	**1.89**

12 Return on Equity

1. As per the JERC (Terms and Conditions for Determination of Tariff) Regulations, 2009, LED 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. LED would like to submit that Distribution Business is perceived to be a higher risk business as compared with Generation and Transmission Business.

3. However, considering that the other State Electricity Regulatory Commissions in India are allowing a RoE of 16% for distribution business, LED has claimed RoE of 16% for FY 2012-13 in its Petition.

4. Return on equity has been computed based on 30% normative equity for capitalization during FY 2012-13 in line with the JERC (Terms and Conditions for Determination of Tariff) Regulations, 2009.

5. Return on equity for LED has been computed at Rs 0.46 Crore for FY 2012-13 as detailed in Table 30 below:

Table 30: Return on Equity

Return on Equity	**FY 2012-13**
Rs Crore	**Projected**
Opening GFA (net of Consumer contribution)	0.00
Addition in Equity (30% of Asset Capitalization)	5.78
Closing Equity Amount	**5.78**
Average Equity Amount	2.89
Rate of Return on Equity	*16.00%*
Return on Equity	**0.46**

13 Provision for Bad & Doubtful Debts

1. LED has considered provision for Bad and Doubtful Debts at 1% of the receivables for FY 2011-12 and FY 2012-13.

4. LED requests the Hon'ble Commission to approve the provision for bad & doubtful debts as summarized in the Table below:

Table 31: Provision for Bad & Doubtful debts

Provision for Bad & Doubtful Debts	FY 2011-12	FY 2012-13
Rs Crore		**Projected**
Receivables	7.91	8.55
Provision for Bad &Doubtful Debts as 1% of Receivables	1%	1%
Provision for Bad & Doubtful Debts	**0.08**	**0.09**

14 Non-Tariff & Other Income

1. Non-tariff income includes meter rent/service line rentals, delay payment surcharge from the consumers.

2. The actual non-tariff income for FY 2011-12 was Rs. 0.18 Crore.
3. For FY 2012-13, an increase at 5% p.a. has been considered over the actual non-tariff income of FY 2011-12. Details of the non-tariff income is provided in table below:

Table 32: Non-tariff Income

Particulars	FY 2011-12	FY 2012-13
Rs Crore	Actual	Projected
Non-tariff Income	0.18	0.19

15 Aggregate Revenue Requirement

1. Table 33 summarizes the LED's Aggregate Revenue Requirement for FY 2011-12 and FY 2012-13.

2. Aggregate Revenue Requirement for FY 2012-13 is estimated by the LED at Rs 93.17 Crore.

Table 33: Aggregate Revenue Requirement

Annual Revenue Requirement	FY2011-12	FY2012-13
Rs. Crore	**Actual**	**Projected**
Fuel Purchase Cost	59.66	70.00
O&M Expense	12.27	13.88
Depreciation	4.98	6.09
Interest Cost on Long-term Capital Loans	-	0.94
Interest on Working Capital Loans	1.62	1.89
Return on Equity	-	0.46
Provision for Bad Debt	0.08	0.09
Less: Non-Tariff Income	0.18	0.19
Annual Revenue Requirement	**78.42**	**93.17**

16 Revenue at Existing Tariff

1. The LED has computed the revenue for FY 2012-13 based on the tariff rate notified by the Administration of the UT of Lakshadweep vide Notification dated 20th August, 2004. Since then the electricity tariff in the UT of Lakshadweep has not been revised. A copy of the said Notification and existing tariff rate is enclosed as Annexure I.

2. Revenue from sale of power for FY 2012-13 is determined based on the energy sales estimated in Table 7 and category wise tariff prevalent in the UT of Lakshadweep.

3. Revenue from sale of power at existing tariff is estimated to be at Rs. 8.57 Crore for FY 2012-13, as shown in Table 32.

4. The table below summarizes the revenue from sale of power at existing tariff for FY 2011-12 & FY 2012-13:

Table 34: Revenue from Sale of Power at Existing Tariff (Rs. Crore)

Revenue @ Existing Tariff	FY 2011-12	FY 2012-13
(Rs Crore)	Actual	Projected
Domestic	3.75	4.09
Commercial	3.60	3.88
Industrial	0.18	0.20
Public (Street Light)	0.37	0.39
Temporary connections	0.01	0.01
Total revenue from existing tariff	**7.91**	**8.57**

17 Coverage of Revenue Gap

1. It is evident from Table 33 and Table 34 that there is a wide gap between the expenditure and revenue of the LED. The LED by a large extent is dependent on the budgetary support of the Government of India.

2. Table 35 summarizes the Revenue Gap at existing tariff at Rs. 84.60 Crore for FY 2012-13. However, LED has not computed the ARR and Revenue Gap for periods prior to FY 2012-13. It also does not propose to recover the past gaps (i.e. prior to FY 2012-13) as they relate to the period prior to the exercise of regulatory control by the Hon'ble Commission and further these may result in huge burden on the consumers.

3. As depicted in Table 35, out of the total Revenue Gap of Rs. 84.60 Crore, Rs. 4.12 Crore is proposed to be covered through additional revenue from proposed tariff revision. The category-wise increase in the revenue due to proposed tariff revision is shown in Table no 37.

Table 35: Revenue Gap

Annual Revenue Requirement	**FY 2011-12**	**FY 2012-13**
Rs Crore	**Actual**	**Projected**
Total ARR	**78.42**	**93.17**
Revenue @ Existing Tariff	7.91	8.57
Total Revenue	**7.91**	**8.57**
Revenue (Gap)/Surplus	**(70.52)**	**(84.60)**
Covered by		
Additional Revenue @ Proposed Tariff		3.76
Total		**3.76**
Net (Gap)/Surplus	**------**	**(80.84)**

18 Average Cost of Supply

1. Table 36 summarizes Average Cost of supply and total average realization at the existing tariff.

Table 36: Average Cost of Supply & Revenue Realization

Average Realization & Cost of Supply	FY 2011-12	FY 2012-13
(Rs/Unit)	Existing Tariff	Existing Tariff
Average Cost of Supply of the LED	23.77	26.03
Average Realization	2.19	2.40
Revenue Gap at Existing Tariff	-21.58	-23.63
Additional revenue at Proposed Tariff depicted in Table 33		**1.05**

2. The LED submits that the average cost supply of the department is much higher in comparison to other utilities in India. The reasons for such high average cost of supply are high generation cost due to usage of HSD and high O&M cost of the generation, transmission and distribution assets. Since, the departments operates in the islands, which are located far from the mainland, it is not possible for the department to opt for cheaper sources of power. Further, the department has to maintain its O&M resources within the islands due to constraints in transportation of materials and equipments between the islands. As a result of that the average O&M expenses of the department is comparatively higher than other utilities in India.

19 New initiatives

A) New Consumer Category – BPL/Kutir Jyoti

The LED requests the Hon'ble Commission to accept its proposal to create a new consumer category, namely "BPL/Kutir Jyoti".

All the domestic consumers who are consuming less than 30 units/connection/ month will be shifted to this category. The proposed fixed charges applicable for this category will be Rs. 25.00/connection/month.

The fishermen, labourers and other poor consumers will fall under this category. At present these consumers are charged as per on the tariff rate notified by the Administration of the UT of Lakshadweep vide Notification dated 20th August, 2004 for slab 0-50 units for domestic consumers.

Note: Production of relevant BPL certificate issued by the authority concerned in the Island is a must for considering into this category and their consumption does not exceed 30 kWH per month at any instant.

B) New Consumer Category – HT Consumers

The LED requests the Hon'ble Commission to accept its proposal to create a new consumer category, namely "HT Consumers".

At present few consumers such as All India Radio, Defence establishments are connected directly with the 11kV line. However, they are charged as per the LT category rate i.e. as per on the tariff rate notified by the Administration of the UT of Lakshadweep vide Notification dated 20th August, 2004 under commercial category.

The proposed energy charges applicable for this category will be Rs. 6.00/unit. The proposed energy charges applicable for this category are being detailed in the proposed tariff structure for 2012-13. The proposed fixed charges applicable for this category will be Rs. 150.00/KVA.

C) Introduction of prepaid metering

The LED is proposed to introduce prepaid metering for the commercial consumers including Govt. LT consumers, Govt. residential accommodations, Temporary connections and new domestic consumers in the initial stage. It is also propose to allow the existing domestic consumers to migrate to pre-paid metering system who are interested to do so.

The proposed prepaid meter system will be based on a prepayment meter that can be recharged by refilling a chip card/cash at a resale point i.e. the division/sub-division offices of the LED.

The benefits and savings accrued on account of doing away with meter reading, data punching, data processing, bill printing, bill distribution and bill collection, to the consumers as incentive for using the prepaid facility. It is proposed that around 4000 nos. of prepaid meters will be installed across all the islands of Lakshadweep during FY 2012-13.

A rebate of 2% on the unit charges will be given to the prepaid-consumers under Govt. residential, new domestic and existing domestic consumers who opt to migrate to pre-paid category.

Tariff Proposal for FY 2012-13

1. Table below summarizes the existing and proposed tariff structure for various consumer categories.

Table 37: Proposed Tariff Structure for FY 2012-13

Tariff Structure	Existing FY 2011-12		Proposed FY 2012-13	
	Energy Charges (Rs/kWh)	Fixed Charges	Energy Charges ((Rs/kWh)	Fixed Charges
BPL/Kutir Jyoti				Rs. 25.00/ connection/month
Domestic				
0- 50 units	0.75	Rs. 10 / connection/per month, Rs. 50/connection/ per month for 3 phase connections	1.00	Rs. 30 / connection/per month, Rs. 100/connection/per month for 3 phase connections
51 to 100 units	1.00		2.00	
101 to 200 units	2.00		3.00	
201 units and above	3.00		4.00	
Commercial				
0 - 200 kWh	3.70	Rs. 25 / connection/per month, Rs. 100/connection/ per month for 3 phase connections	5.00	Rs. 50 / connection/per month, Rs. 150/connection/per month for 3 phase connections
201 and above	4.80		6.00	
HT Consumers			6.00	Rs. 150/KVA
Industrial	3.30	Rs. 15/KVA	4.00	Rs. 30/KVA
Public (Street Light)	2.80		4.00	
Temporary Connections	4.80		6.00	

20 Prayer

1. LED requests the Honorable Commission to:

    - Admit and approve the Aggregate Revenue Requirement of FY 2012-13 as submitted herewith.

    - Make the proposed Retail Supply Tariffs applicable from August 1, 2012.

    - Approve the proposal for Aggregate Revenue Requirement and Tariff hike for FY 2012-13.

    - Condone any inadvertent omissions/ errors/ shortcomings and permit the Petitioner to add/ change/ modify/ alter this filing and make further submissions as may be required at a future date.

    - Submit necessary additional information required by the Commission during the processing of this petition.

    - And pass such other and further orders as are deemed fit and proper in the facts and circumstances of the case

BY THE APPLICANT THROUGH

PETITIONER
Electricity Department of Lakshadweep.

Kavaratti
Dated:

Format 27

Department of Electricity Lakshadweep
ANNUAL REVENUE REQUIREMENT FOR THE YEAR FY 2012-13

(Rs. in crores)

Sr.No.	Particular	FY 2010-11 Actual	FY 2011-12 Proposed by the Licensee	FY 2011-12 Approved by commission	FY 12-13 (Proj)
1	Cost of Fuel purchase		59.66		70.00
2	Employee costs	6.92	8.55		9.12
3	R&M expenses	2.25	2.89		3.22
4	Administration and General expenses	0.83	0.83		1.24
5	Depreciation	3.87	4.98		6.09
6	Interest charges	0.00	0.00		0.94
8	Interest on Working Capital Loans	0.00	1.62		1.89
9	Return on NFA / Equity	0.00	0.00		0.46
10	Provision for Bad Debt	0.00	0.08		0.09
11	**Total revenue requirement**	**13.87**	**78.60**		**93.06**
12	Less: non tariff income	0.17	0.18		0.19
13	**Net revenue requirement (10-11)**	**13.70**	**78.42**		**92.87**
14	Revenue from tariff	6.38	7.91		8.57
14A	Revenue from UI				0.00
15	**Gap**	**-7.33**	**-70.52**		**-84.30**
16	Gap for previous year				
17	**Total gap (14+15)**	**-7.33**	**-70.52**		**-84.30**
18	Revenue surplus carried over	0	0.00		
19	Additional revenue from proposed tariff	0	0.00		3.76
20	Regulatory asset	0			
21	Energy sales (MU)	#REF!	#REF!		#REF!

Note
The LED is submitting the ARR Petition for the first time, so, column 4 left blank

Proposed Tariff Schedule

TARIFF SCHEDULE

General Terms and Condition:

1. These tariffs shall be applicable with effect from the date 1st August 2012.
2. 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.
3. Unless otherwise agreed to these tariffs for the power supply are applicable for supply at one point only.
4. In case any dispute arises about the applicability of any tariff for any particular class of service or as to the interpretation of any clause of these tariffs, the decision of the Commission shall be final and binding.
5. The department shall not permit installation of contracted load of 3 HP and above unless they are provided with the capacitors of adequate rating to comply with power factor conditions. The consumer has to provide appropriate capacitors for these installations presently running on without capacitors.
6. Supply to consumers connected at 11kV will be charged as per the HT Consumer category rate.
7. The department proposes to introduce monthly spot billing system for consumers do not have pre-paid metering system by replacing the existing practice of "Self Meter Reading System". Required SPOT Billing Machines will be procured.
8. 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 misuse of energy and energy consumption bills already rendered for the services shall be revised by applying the appropriate higher tariffs from the date of connection unless convincing reason are adduced thereof for adopting a different period. The imposition of this higher tariff shall not relive the consumer from any penalties as per the law.
9. If the consumer fails to pay the energy bill presented to him within the stipulated period, the department shall have the rights to disconnect the supply as per provision of the Supply code.

10. Fixed charges and demand charges, wherever applicable, will be charged on prorata basis from the date of release of connection.

11. Demand charges and 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.

12. In case of exceeding the contract demand for other than technical reasons, or adding additional load by the high-tension consumers and sanctioned load by the low-tension consumers by adding additional load, the penalty charges shall be charged in the regular bills itself.

13. If the entire energy consumption has been recorded in the meter, the quantum of energy bearing the same ratio of the total energy recorded in the meter as excess load or the unauthorized additional/extension of load bears to the total connected load as detected at the time of checking shall be charged at penal rate as per the provisions of Electricity Supply Code Regulations, 2010 issued by the Commission. Payment of penal charges for usage in excess of contract demand / load for any billing period does not entitle the consumer to draw in excess of contract demand / load as a matter of right.

14. Unless specifically stated to the contrary, the figures of energy charges related to paise per unit (kWh) charge for energy consumed during the month.

15. Delayed payment charges shall be applicable to all categories of consumers. Delayed payment charges of 2% per month (2% of the delayed Payment charges shall be charged on all arrears of the bill). In case of permanent disconnection, delayed payment charges will be charged only up to the month of permanent disconnection.

16. Fuel & Power Purchase Cost Adjustment (FPPCA) Formula shall be applicable to all categories of consumers except domestic "0-50 slab". FPPCA shall be applicable on monthly basis.

The category wise proposed tariff schedule for approval is given in the next page:

Low Tension Supply:

A. Tariff BPL/Kutir Jyoti:

Applicable to consumers of low income group with monthly consumption of 30 units and below.

Fixed Charge – Rs 25/- per service connection per Month.

Note: Production of relevant BPL certificate issued by the authority concerned in the Island is a must for considering into this category and their consumption does not exceed 30 kWH per month at any instant.

B. (a) Domestic:

Application to private houses, bungalows, hostels and hospitals run on noncommercial lines, charitable educational and religious institutions etc. for lights, fans, radios, domestic hating and other household appliances.

(i) Energy Charges:

0- 50 units	-100 ps. per unit.
51 – 100 units	- 200 ps. per unit.
101 – 200 units	- 300 ps. per unit.
201 units and above	- 400 ps. per unit.

(ii) Fixed Charges

Rs. 30 / connection/per month, Rs. 100/connection/per month for 3 phase connections.

C. Commercial:

This includes all categories which are not covered by other tariff categories.

Domestic Category, Power Supply to low Income Group, Industrial LT, HT/EHT Category (A&B), Agriculture and Poultry, Public Lighting.

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

(i) Energy Charges:

0 - 200 kWh	-	500 ps. per unit.
201 and above	-	600 ps. per unit.

D. INDUSTRIAL

Applicable to all low tension industrial connections.

(i) Energy Charges:

Usage (Units/Month)	**Tariff(Ps./Unit)**
For all units	400 ps. Per unit

(ii) Fixed Charges

Rs. 30/KVA

E. HT Consumers

(i) Energy Charges – 600 ps. per unit

This tariff schedule shall apply for the consumers connected with 11 KV.

(ii) Fixed Charges

Rs. 150/KVA

F. PUBLIC (STREET LIGHT)

Energy Charges – 400 ps. per unit

This tariff schedule shall apply for lighting on public roads, footpaths, streets and through fares in parks & markets etc.

G. TEMPORARY CONNECTIONS

Energy Charges – 600 ps. per unit

The supply shall be given for a period of not more than three months. For any extension a fresh connection has to be obtained on proper fresh application. The temporary connection can only be for maximum period of six months. Rate shall be the three times the rate applicable to the relevant category of consumers.

G. Other charges

1. Meter Rental Charges:

(**a) For Permanent supply:**

1. Single phase meter	- Rs. 10/- per month or part thereof
2. Three phase meters	- Rs. 25/- per month or part thereof
3. LT meter with M.D. Indicators	- 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 the consumers premises will be decided by the department. Generally, the consumers having connected load above 50 HP will be provided with L.T.M.D.I. meter. Considering the constrains prevailing in Lakshadweep Islands, the energy meters will be provided by the department only.

2. Reconnection charges after temporary disconnection:

(i) Single phase LT	- Rs. 50/-
(ii) Three phase LT	- Rs. 100/-

3. (A) Service connection charges :

(i) Single phase LT	- Rs. 250/-
(ii) Three phase LT	- Rs. 500/-

4. Extra Length Charge

(i) Single phase	- Rs. 50/- per meter
(ii) Three phase	- Rs. 100/-per meter

Extra length Chargeable will be beyond permissible 30 Meters free length from existing network for new connection for all categories.

5. Testing Fee for various Metering Equipments

S.No.	Types of Metering Equipment	Fee Per Unit (in Rs.)
1	1 – Ø Single Phase	100
2	3 – Ø Single Phase	300
3	3 – Ø Single Phase Tri-vector Meter (0.5 Class) Industrial LT Consumer	500
4	3 – Ø Three Phase Tri-vector Meter (0.5 Class) 11 KV HT Consumer	500
5	Combined CTPT Unit for 11 kV Consumer	500
6	Three Phase CT Block	300
7	CT Coil	100

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

S.No.	Types of Metering Equipment	Fee Per Unit (in Rs.)
1	1 – Ø Single Phase Lighting / Domestic	10
2	3 – Ø Lighting / Domestic	25
3	1 – Ø Single Phase Lighting / Non Domestic	50
4	3 – Ø Three Phase Lighting /Non Domestic	100
5	Three Phase LT Industries	250
6	Single phase / Street light / Public Lighting & others.	50

7. Other charges:-

a). Meter shifting charges (within the premises on consumer request) - Rs. 1000/-

b). Shifting of poles on consumer request - Rs. 1500/-

c). Diversion of HT/LT line on consumer request - Rs. 100/- per mtr.

d). Penalty for tampering/damaging of supplier equipments – 150% of actual cost of equipment.