TARIFF ORDER

Determination of
Aggregate Revenue Requirement & Retail Tariff
for
FY 2012-13

For
Electricity Department Lakshadweep

(Petition no. 85/2012)

JOINT ELECTRICITY REGULATORY COMMISSION

For the State of Goa and Union Territories

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31st October 2012

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List of Abbreviations

Abbreviation		Full Form
A&G	:	Administration & General Expenses
Act	:	The Electricity Act, 2003
ARR	:	Aggregate Revenue Requirement
CAGR	:	Compound Annualized Growth rate
Capex	:	Capital Expenditure
CEA	:	Central Electricity Authority
CERC	:	Central Electricity Regulatory Commission
COD	:	Commercial Operation Date
Commission/JERC	:	Joint Electricity Regulatory Commission for the state of Goa and union territories
CKt. Km	:	Circuit Kilometer
D/C	:	Double Circuit
DS	:	Domestic Supply
EA 2003	:	The Electricity Act, 2003
FC	:	Fixed Charges
FY	:	Financial Year
GFA	:	Gross Fixed Assets
HP	:	Horse Power
HSD	:	High Speed Diesel Engines
HT	:	High Tension
LED	:	Electricity Department, Lakshadweep
JERC	:	Joint Electricity Regulatory Commission for the state of Goa and union territories
KVA	:	Kilo Volt Ampere
KWh	:	Kilo Watt Hour
LPS	:	Late Payment Surcharge
LT	:	Low Tension
MU	:	Million Unit
MW	:	Mega Watt
MYT	:	Multi Year Tariff
NDS	:	Non Domestic Supply
O/H	:	Over head

Abbreviation		Full Form
O&M	:	Operation & Maintenance
PLF	:	Plant Load Factor
RoE	:	Return on Equity
RPO	:	Renewable Purchase Obligation
R&M	:	Repair & Maintenance
S/C	:	Single Circuit
SBI PLR	:	SBI Prime Lending Rate
T&D	:	Transmission & Distribution
UoM	:	Unit of Measurement
VAR	:	Volt Ampere Reactive
VC	:	Variable Charges

Before the

Joint Electricity Regulatory Commission for the State of Goa and Union Territories

Gurgaon

CORAM[1]
Dr. V K Garg (Chairperson)
S. K. Chaturvedi (Member)
Petition No. 85/2012

In the matter of

Aggregate Revenue Requirement (ARR) and Retail Tariff for the Financial Year 2012-13 for Electricity Department, Union Territory of Lakshadweep

And in the matter of

Electricity Department, Union Territory of Lakshadweep...Petitioner

ORDER

Date: 31st October 2012

[1] Admitted the petition but the Coram for Public Hearing at Lakshadweep dated 15th October 2012 was constituted by Mr. S.K. Chaturvedi only. Hon'ble Chairperson was prevented from attending the Public Hearing due to ill health. According to Regulation 9 of JERC (Conduct of Business) Regulations, 2009 Coram for Conduct of Transaction and Business of the Commission shall be "Two". But as per the proviso of Regulation 9 of JERC (Conduct of Business) Regulations, 2009 if the Chairperson is prevented from attending the hearing and meeting for which he has been given due notice, the Member shall constitute a valid Coram. The Hon'ble Chairperson had due notice of the public hearing. Hence the Hon'ble Member only constituted a 'Valid Coram'.

1. INTRODUCTION

1.1 JERC Formation

In exercise of the powers conferred by Section 83 of the Electricity Act, 2003 the Central Government constituted a two member (including Chairperson) Joint Electricity Regulatory Commission for all Union Territories except Delhi to be known as "Joint Electricity Regulatory Commission for Union Territories'' with headquarters at Delhi as notified vide notification no. 23/52/2003 – R&R dated May 2' 2005. Later on with the joining of the state of Goa, the Commission came to be known as "Joint Electricity Regulatory Commission for the State of Goa and Union Territories" as notified on May 30' 2008. The Joint Electricity Regulatory Commission for the State of Goa and Union Territories (Andaman & Nicobar Islands, Chandigarh, Dadra and Nagar Haveli, Daman & Diu, Lakshadweep and Puducherry) started functioning with effect from August 2008. Office of the Commission is presently located in the district town of Gurgaon, Haryana.

1.2 Electricity Department, UT of Lakshadweep

The Electricity Department, UT of Lakshadweep herein called LED, is responsible for power supply in the Union Territory of Lakshadweep.

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 submitted by the Petitioner –

Quote

"*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. 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. Out of the total capacity of 17210 kW, the department utilizes around half of its total installed capacity. The remaining installed capacity is utilized as back-up. 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 islands. 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. All new solar plants located at Minicoy, Kavaratti, Andrott and Kadmat islands are expected to start their commercial operation from December 2012.*

At present, the department maintains 77.19 kms HT lines and 236.74 kms LT lines across the 11 islands. The LED has a 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."

Unquote

1.3 JERC Tariff Regulations

The Commission, in exercise of the powers conferred upon by the Electricity Act, 2003 has notified JERC (Terms and Conditions for determination of Tariff) Regulations, 2009 for determination of tariff (herein referred to as JERC Tariff Regulations).

1.4 Filing of Petition

Earlier the licensee had applied for exemption from filling the Aggregate Revenue Requirement. The Commission gave an opportunity & heard at length the petition and observed that exemption cannot be given under the provisions of the Act & ED- Lakshadweep is also not covered under the Rural Electricity Policy & franchisee schemes.

The petitioner referred the matter to the Government of India. The Commission pending decision of the GOI on the petition, directed the petitioner to file the ARR petition. The decision on the referred petition, as and when received, will be applicable prospectively.

Electricity Department, UT of Lakshadweep has filed its petition for determination of Aggregate Revenue Requirement (ARR) & Retail Tariff for distribution for FY 2012-13 as per the procedures outlined in section 61, 62 & 64 of the Electricity Act, 2003. ED LED submitted its ARR and Tariff petition for FY 2012-13 vide affidavit dated July 12' 2012 to the Commission. However, there was a defect in the affidavit and the Petitioner was directed to rectify the defect. Accordingly, the Petitioner re-submitted the petition vide affidavit dated August 1'2012 and this has been taken as the filing of the petition.

1.5 Admission of Petition

On submission of ARR & Tariff Petition filed by ED LED on August 1' 2012, the Commission's office preliminarily examined the petition and observed that there were data gaps and requirement of additional information in the petition.

The Commission conducted the motion hearing on August 28' 2012. After initial scrutiny/analysis of the submissions furnished by the petitioner during the hearing, the Commission observed that further additional information was required to be submitted to carry out analysis of the ARR & tariff petition by the Commission.

The petitioner explained the strategic location of the island, difficult topography and logistics constraints to fulfill the data requirements of the Commission. In terms of the JERC (Terms and Conditions of determination of tariff) Regulations, 2009, the Commission may not entertain the tariff petition, if the same is not in conformity with the various JERC Regulations. The petition, suffered from a lot of infirmities, however, looking at the fact that the petitioner is a deemed licensee Government (Govt.) Department acting as an integrated utility, having Govt. system of accounting, the Commission had to take a view on the matter of admissibility. The Commission had two options:-

(i) To reject the petition as it was strictly not as per JERC (Terms and Conditions of determination of tariff) Regulations, 2009; alternately

(ii) To entertain the petition and get the infirmities removed to the extent possible and issue directions to align the petition to the requirement of various Regulations in subsequent filings.

Considering the objective of evolving the regulatory process to maturity level in the Union Territories, Power Department acting as integrated deemed licensees in general and the Island Territories like Lakshadweep and Andaman & Nicobar in particular, the Commission considered all pros and cons of both the alternatives and decided to admit the petition. Accordingly, the Commission admitted the petition vide its Order dated August 28' 2012 and directed the Petitioner to issue public notice in accordance with the Electricity Act 2003 and JERC (Terms and Conditions for Determination of Tariff) Regulations 2009 as per the format given by the Commission to the Petitioner. The admission order issued on August 28'2012 is enclosed as **Annexure 1** to this Order. As per the order dated August 28' 2012, the petitioner was directed to furnish additional information on or before September 12'2012. A reminder was issued to the utility on September 7' 2012 regarding data gaps in the ARR petition and further time was given to the utility to submit the information latest by September 21' 2012 (the data gaps were the same as pointed out in the order dated August 28' 2012).

The Petitioner submitted the response on some of the data gaps vide letter dated October 8’ 2012 to the Commission and has accordingly been considered by the Commission in its analysis of this tariff order.

1.6 Interaction with the petitioner

The Commission’s staff interacted regularly with the Petitioner to seek clarifications and justification on various issues essential for the analysis of the tariff petition. The Commission’s staff and the Petitioner also discussed key issues related to the petition, which included cost of generation, fuel cost, estimated sales and revenue as submitted by the petitioner to the Commission etc.

The Petitioner submitted its replies, as shown below, in response to the queries raised by the Commission’s office, which have been considered in the computation of the ARR and the resultant tariff thereof, of the Petitioner.

Table 1.6.1: List of Submissions made by the Petitioner

S.No.	Date of Receipt	Subject
1.	08.10.2012	Additional information and response on the data gaps as sought by the Commission in the admission order dated August 28’ 2012 and reminder issued on September 7’ 2012

1.7 Public hearing process

The Commission specified to the petitioner to publish the summary of the ARR and Tariff proposal in the abridged form and manner as approved in accordance with section 64 of the Electricity Act, 2003 to ensure public participation.

The public notice was published by the Petitioner for inviting objections/ suggestions from its stakeholders on the tariff petition in the leading newspapers as detailed below:-

Table 1.7.1 : Details of public notice published by the Petitioner

S.No.	Date	Language	Name of Newspaper
1.	18.09.2012	English	Mathrubhumi, Kerala edition
2.	22.09.2012	English	Lakshadweep Times

The petitioner uploaded the petition on the Lakshadweep website (http://www.lakshadweep.gov.in) and on the Electricity Department, Lakshadweep website – http://powerlak.gov.in for inviting objections and suggestions on their petition.

Interested parties / stakeholders were requested to file their objections / suggestions on the petition by October 12’ 2012. The copies of paper cutting of public notice are attached as **Annexure 2** to this order.

1.8 Notice for public hearing

The Commission also published public notices in the leading newspapers giving due intimation to stake holders, consumers, objectors and the public at large about the public hearing to be conducted by the Commission on October 15’ 2012 as under:

Table 1.8.1 : Schedule of public hearing at Lakshadweep

S.No.	Date	Venue of Hearing	Time & Category of Consumers
1.	15.10.2012	Lakshadweep Harbour Works Auditorium (near Port Jetty) Kavaratti	2:30 PM onwards for all consumers

Table 1.8.2 : Details of public notice published by Commission

S.No.	Date	Language	Name of Newspaper
1.	04.10.2012	Malayalam	Mathrubhumi, Kochi edition
2.	04.10.2012	Malayalam	Malayala Manorama

The Commission published the notice for the public hearing in the above newspapers on October 4’ 2012 for better participation of the public in the public hearing. The repeat notice was also published in the same newspaper as mentioned in Table 1.8.2 on October 10’ 2012.

The copies of public notice published by the Commission for intimation of public hearing are attached as **Annexure 3** to this order. The public notice was also published on the website of the Commission (www.jercuts.gov.in).

During the public hearing, each objector was provided an opportunity to present his views on the petition filed by the Petitioner. All those present in the hearing, irrespective of whether they had given a written objection or not, were given opportunity to express their views. The list of objectors is attached as **Annexure 4** to this order. The issues and concerns expressed by stakeholders have been examined by the Commission. The major issues discussed during the public hearing(s), the comments/replies of the utility and the views of the Commission thereon, have been summarized in Chapter 4 of this order.

The list includes the stakeholders:

1. Those who gave their written objections & did not intend to present orally during the public hearing

2. Those who gave their written objections & expressed to present orally also during the public hearing

3. Those who gave their written objections but had not desired to express orally, but later chose to present orally also. They were also given an opportunity to present orally before the Commission during the public hearing;

4. Stakeholders who did not give their written objection or prior intimation, but participated in the hearing on the spot

5. Stakeholders who did not give their written objection or prior intimation, but participated in the hearing on the spot and also gave written submissions after expressing their views

All these objections / suggestions were responded to by the Licensee in addition to prior written replies, during the hearing itself. Licensee submitted written reply to all written objections / suggestions of the stakeholders.

2. SUMMARY OF ARR & TARIFF PETITION FOR FY 2012-13

2.1 Introduction

In exercise of powers conferred on Joint Electricity Regulatory Commission for the Goa and Union Territories under Section 61 read with Section 181 of the Electricity Act, 2003 (36 of 2003) and all other powers enabling it in this behalf, the Joint State Electricity Regulatory Commission for the State of Goa and Union Territories notified the (Terms and Conditions for Determination of Tariff) Regulations, 2009. These regulations came into force from the date of their publication in the official Gazette i.e. February 9' 2010. These Regulations were applicable to the State of Goa and the Union Territories of Andaman and Nicobar Islands, Chandigarh, Dadra and Nagar Haveli, Daman and Diu, Lakshadweep and Puducherry.

The Commission conducted the Public hearing of the Electricity Departments of the State of Goa and Union Territories on February 09'2011 in the matter of compliance of JERC for the State of Goa and UTs (Terms and Conditions for Determination of Tariff) Regulations 2009 on suo-motto basis and issued the order on the same date. The order is attached as **Annexure 5** to this order. The excerpts of the order dated February 09'2011 are mentioned below:

"On the onset the Commission emphasized the importance of regularly submitting the ARR and tariff petition in accordance with the JERC regulations by the due date. This will not only give the licensee their rightful returns regularly, the increase in tariff rates for consumers shall also be modest and gradual, avoiding tariff shocks. They were also explained that for the Commission to analyze their tariff petitions quickly and smoothly, they should provide full data as required in the formats attached with the JERC regulations. The licensee should therefore take advance action to ensure above.''

In compliance with the directions given by the Commission in the order dated February 09' 2011, Electricity Department, UT of Lakshadweep has filed its **first** petition for the determination of Aggregate Revenue Requirement and Tariff for FY 2012-13 to the Commission vide affidavit dated August 1' 2012 in accordance with section 61, 62 & 64 of the Electricity Act, 2003 and relevant provisions mentioned in JERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2009.

After initial scrutiny & analysis of the information as stated during the admission hearing; the petition was admitted on August 28' 2012 subject to removal of infirmities to the extent possible. The Commission took the petition bearing no. 85/2012 on record on August 28'2012.

2.2 Summary of the Petition for Aggregate Revenue Requirement for FY 2012-13

The Petitioner has submitted the ARR & tariff petition for FY 2012-13 based on the actual of FY 2010-11 and revised estimates / actual of FY 2011-12 for determination of the income and expenditure of FY 2012-13. The petitioner has submitted that it has considered the past trends and taken cognizance of other internal and external developments to estimate the likely performance for FY 12-13. Based on the estimates and projections for FY 2012-13, the ARR for ED LED for FY 2012-13 has been proposed at Rs. 93.17 Crores. The summary of the proposal is presented below.

Table 2.2.1 : Aggregate Revenue Requirement submitted by the petitioner for FY 2012-13 (Rs Crores)

S. No.	Particulars	Petitioner Submission FY 2012-13
1	Cost of fuel	70.00
2	Cost of power purchase for full year	-
3	Employee costs	9.12
4	Repair & Maintenance Expenses	3.22
5	Administration and general expenses	1.54
6	Depreciation	6.09
7	Interest and finance charges	0.94
8	Interest on working capital	1.89
9	Interest on Security Deposit	-
10	Return on NFA /Equity	0.46
11	Provision for Bad Debt	0.09
12	Advance Against Depreciation	-
13	Total Revenue Requirement	93.36
14	Less: Non-Tariff Income	0.19
15	**Net Revenue Requirement (13-14)**	**93.17**
16	Less: Revenue from Retail Sales at Existing Tariff	8.57
17	**Net Gap at existing tariff for FY 2012-13 (15-16)**	**84.60**
18	Gap of the previous year	-
19	**Total Gap at existing tariff for FY 2012-13 (17+18)**	**84.60**
20	Additional revenue from proposed tariffs	3.76
21	**Total Gap after proposed tariffs (19-20)**	**80.84**

Further, the petitioner has submitted the Average Cost of Supply (ACOS) and the average revenue realization per unit as below.

Table 2.2.2 : Average Cost of Supply and Average Revenue Realization submitted by the petitioner (Rs/kWh)

Average Realization & Cost of Supply (Rs/Unit)	FY 2011-12	FY 2012-13
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		**1.05**

The petitioner has submitted that –

Quote

''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.''

Unquote

2.3 Summary of the Tariff Proposal for FY 2012-13

The Petitioner has submitted the proposal for approximately 40% increase in the existing tariff. The Petitioner 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.

Further, the petitioner has also proposed the introduction of two new consumer categories – BPL / Kutir Jyoti and HT Consumers.

For BPL / Kutir Jyoti - All the domestic consumers consuming less than 30 units/connection/ month are proposed to be shifted to this category. The proposed fixed charges applicable for this category are Rs. 25.00/connection/month. The fishermen, labourers and other poor consumers are proposed to come under this category. At present these consumers are charged as per 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.

For HT Consumers, the petitioner has submitted that 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 and fixed charges applicable for this category will be Rs. 150.00 / KVA.

Table 2.3.1 : Existing and Proposed Tariff for FY 2012-13 submitted by the Petitioner

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/pe r 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/p er 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	

2.4 Prayer to the Commission

The petitioner has respectfully prayed to the Commission as follows:

Quote

"

- 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

”

Unquote

3. APPROACH OF THE ORDER FOR DETERMINATION OF ARR & TARIFF FOR FY 2012-13

3.1 Introduction

As discussed in an earlier section of this order, Electricity Department of UT Lakshadweep has filed its **first** petition for determination of Aggregate Revenue Requirement and Tariff for FY 2012-13 to the Commission vide affidavit dated August 1' 2012 in accordance with section 61, 62 & 64 of the Electricity Act, 2003 and relevant provisions mentioned in JERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2009.

After initial scrutiny & analysis of the information as stated during the admission hearing on August 28'2012 in respect of ARR and Tariff Petition filed by Electricity Department, Lakshadweep for FY 2012-13; the petition was admitted subject to removal of infirmities to the extent possible and the Commission has taken the aforesaid petition on record as 'Petition no. 85/2012' on August 28'2012.

3.2 Approach for Determination of ARR & Retail Tariff for FY 2012-13

In this regard various provisions of the JERC's Tariff Regulations 2009 pertaining to the integrated utility are relevant and Commission is guided by the principles contained in Section 61 of the Act among other things to examine the Sales forecast, Power purchase quantum, Self-generation and other income & expenditure.

The Commission, while determining the tariff is guided by the principles contained in Section 61 of the Act, namely

a) The generation, transmission, distribution and supply of electricity are conducted on commercial principles;

b) The factors which would encourage competition, efficiency, economical use of the resources, good performance and optimum investments;

c) Safeguarding of consumers' interest and at the same time, recovery of the cost of electricity in a reasonable manner;

d) The principles rewarding efficiency in performance;

e) Multi-year tariff principles;

f) That the tariff progressively reflects the cost of supply of electricity and also, reduces and eliminates cross-subsidies within the period to be specified by the Appropriate Commission;

g) The promotion of co-generation and generation of electricity from renewable sources of energy;

h) The National Electricity Policy and tariff policy;

i) Obligations for the Procurement of Renewable Energy

The Commission has considered the actual unaudited figures of income & expenditure submitted by the Petitioner for FY 2010-11 and revised estimates/actual for FY 2011-12 to form the basis of projection of income and expenditure for FY 2012-13. The detailed analysis & treatment of each component is provided in Chapter 5 (Aggregate Revenue Requirement of FY 2012-13) of this order.

4. SUMMARY OF OBJECTIONS RAISED, RESPONSE FROM THE PETITIONER AND COMMISSION'S VIEWS

4.1 Objections/Suggestions and response of Electricity Department, Lakshadweep

PART 1: General Issues and Comments

4.1.1 Outside the purview of the Commission

Stakeholders Objections/Comments:

1. Achada Ahmed Haji (Vice President, Lakshadweep Territorial Congress Committee) submitted that Lakshadweep is a rural area and people here belong to Scheduled Tribe category. Considering the backwardness, isolation and the classification as rural area and no other source of energy being available, the present proposal to bring LED under the regulatory regime of JERC is only to harass the people. He submitted that as per Section 14 of the EA Act 2003, a person generating and distributing electricity in a rural area to be notified by the Government shall not require any license for such generation and distribution of electricity.

The rural areas shall be as defined pursuant to the Seventy Third Amendment to the Constitution of India. As per Article 243 of the Constitution of India 1949, Panchayat means an institution (by whatever named called) of self-government constituted under Article 243B, for the rural areas. The Lakshadweep Panchayat Regulation 1994 was promulgated by the President of India in the forty fifth year of the Republic of India. The stakeholder has submitted that consequent on the introduction of the Panchayat Raj System in Lakshadweep, the entire Union Territory has been classified as rural area.

As per the Rural Electricity Policy, Section 8 deals with the policy for permitting stand alone systems for rural areas and Section 8.5, prescribe that persons exempted under eight proviso to Section 14 from licensing would be free from the licensing obligation and purview of the appropriate Commissions in matters pertaining to determination of tariffs and universal supply obligations applicable to licensees.

In view of the above, the regulatory Commission has no role in fixing the tariff charges in the UT of Lakshadweep, and Lakshadweep Administration should be the authority to fix tariff in the Lakshadweep Islands.

2. Shri E P Thangal Koya, President, Nationalist Congress Party, Kavaratti unit has submitted that due to the geographical position of the islands in the Arabian Sea around 400 km off the coast of

mainland and being scattered and separated by 10 to 100 km afar in the deep sea, the production cost is much more than any other part of the country. Eleven independent islands have to be provided with separate generating sets and systems with the requirement of separate infrastructure and manpower.

The inhabitants are classified as Scheduled Tribes; not because the people belong to any tribe, but because of the backwardness in education, financial status and lack and scope for any type of industrialization of the territory. In the absence of industries and big business establishments, the chances of people getting gainful employment is also scarce. The investment of the people and earning in liquid cash is the least here and any increase in the electricity tariff cannot be borne by the common man.

The other point raised by the President, Nationalist Congress Party is that Central Electricity Authority and other UTs act as consultant to the Electricity Department, Lakshadweep and with the guidance and supervision of these bodies the unwarranted expenditures can be curtailed and efficiency maximized. So, the stakeholder humbly prays that the islands should be kept outside the purview of the Commission.

Petitioner's submission:

The Petitioner has submitted that the power generation in this territory will not be profitable for the next few years due to costly power generation through diesel fuel, high cost of transportation of fuel and high cost of living in these islands. It is not possible to achieve the same level of performance as in utilities in the other parts of the country. It is not possible to sustain the power sector in these islands without the financial assistance of the Government of India. Therefore, the Petitioner requests for exemption from the obligations of the Licensee in view of the relaxations mentioned in the Electricity Act, 2003.

Commission's views:

The Section 14 of the Electricity Act, 2003 deals with the grant of license. Further the eighth proviso of the said act reads as follows:

Quote

> *"……Provided also that where a person intends to generate and distribute electricity in a rural area to be notified by the State Government, such person shall not require any licence for such generation and distribution of electricity, but he shall comply with the measures which may be specified by the Authority under section 53……."* ***Unquote***

The above proviso of the Electricity Act, 2003 is intended to exempt the utilities which generate and distribute electricity in a rural area from filing an application for grant of license. However the said proviso does not exempt the utility to be a regulated entity under the provisions of the Electricity Act, 2003. The Commission observed that the petitioner while acting under 8th proviso of Section 14 of the Act has to ensure that, in the process, they do not violate other provisions of the Act and Rural Electrification Policy of the Government of India. Notification of rural area only, is not enough for exemption under the Act.

4.1.2 Alternative sources of supply of power

Stakeholders Objections/Comments:

1. Shri T.P Aboobacker, President, Block Congress Committee and Shri K.P. Ahamedkoya (General Secretary, Lakshadweep Territorial Congress Committee, Kavaratti) have submitted that electricity is a universal and essential requirement and it should be made available at affordable cost.

They have submitted that renewable sources of generation i.e. solar power and wind energy should be tapped progressively to bring down the cost of power generation from diesel. Further, they have submitted that unlike in other states, there are no public under takings generation power. They have requested the Commission to direct the Department to establish atleast 50 number of wind energy units on each island in addition to the augmentation of SPV power plants. The possibilities of ocean thermal energy should be explored. Such steps would contribute to lower diesel consumption and thereby reduce the generation cost.

The island people are dependent on Agriculture and Fishing. The coconut farming is on limited land available and fishing is limited to six months of fair season. The price of coconut has remained low and static since the last 15 years as submitted by the stakeholder. Due to poor fish yield in the last 5 years, there is demand for free ration to the fishing community which is under the consideration of the Administration.

Further, the stakeholders have submitted that being in the middle of the sea, there are natural calamities of cyclone and the fishermen and coconut farmers are badly affected. They have submitted that in the mainland, at times of drought laborers can migrate to other areas. In the islands, they cannot migrate to other places and seek livelihood. Hence, support to such community should be considered by all government authorities as a special case.

The islanders import all requirements for life except fish and coconut to survive on these islands; thus, the consumer goods are sold at very high rates in the islands. Vegetables and fruits are sold for almost double the price in Kerala, petrol and diesel are sold by private dealers at three fold price and construction cost is almost three times higher when compared to the rates in the neighboring state of Kerala. The stakeholders have submitted that the Commission should consider the above facts and realities and genuine difficulties faced by the islanders while finalizing the tariff of electricity. If the electricity tariff is increased, taking cover under it other items may also increase their prices.

Further, they have submitted that the islanders are poor scheduled tribes and may not be able to shoulder the burden of higher rates of tariff.

2. Mr Kangapura submitted that the transportation cost of HSD should come down.

Mr P P Hamza submitted that an alternative to the Beypore filling station should be found out, as the transportation cost from this station is very high. He suggested that Mangalore should be developed as an alternative station for the supply of fuel. He also submitted that there is no increase in the income of the families to bear the additional burden of the cost.

Shri Mohammad Ali and Shri Thangakaya P also submitted that the transportation cost should not be added in the cost of fuel as this distorts the cost of the fuel in Lakshadweep and transportation expenses should be borne by the Govt.

3. Shri Abdul Vaheb submitted that neighboring states have LNG gas production and thermal power plants available which bring down the cost of power. He submitted that coconut husk etc. based power plants should be developed to bring down the cost of power.

4. Mr Thomas submitted before the Commission that solar plants should be maximized for usage to bring down the cost of generation of diesel. Further, the stakeholders submitted that solar system should be provided to each and every household and the consumers should be charged at subsidized rate.

Petitioner's submission:

It is difficult to replace the costly power generation through diesel in these tiny islands. The power generation in these islands may not be profitable in the next few years considering the geographical location of the islands. Thus, the Department is not able to achieve the same level of performance as of utilities in the other parts of the country.

Commission's views:

Commission appreciates the suggestions of stakeholders. It is a fact that huge dependency on diesel not only increases the average cost of supply for the consumers but also impacts the utility's financial health. The Commission has noticed that the Petitioner has taken some initiatives in this regard but firm execution is required so as to speed up the process of the construction and achievement of commercial operation of renewable generation plants. It is inevitable for the distribution licensee to explore alternative sources of power like installation of roof top solar, wind or hybrid equipments etc. to reduce the load on the existing power stations of the utility.

The petitioner is directed to submit a quarterly progress report for the initiatives taken in this regard and submit the first report by 30th January 2013.

The petitioner should explore possibilities of sourcing the fuel from a station other than Beypore, if that is logistically and physically possible keeping the overall cost of transportation lower than the present cost.

The Commission understands the difficulties faced by the islanders in the consumption of basic goods and amenities, considering the geographical location of the islands. The Commission has endeavored to fix tariff in such a way so as to balance the interests of all the stakeholders.

PART 2: Tariff related

4.1.3 General Comments

Stakeholders Objections/Comments:

The main points raised by Shri T.P Aboobacker, President, Block Congress Committee, Shri K.P. Ahamedkoya (General Secretary, Lakshadweep Territorial Congress Committee, Kavaratti), Achada Ahmed Haji (Vice President, Lakshadweep Territorial Congress Committee, Kavaratti), President (Nationalist Congress Party), Shri Kangapura, Shri E-Thangal Koya, Shri Ameer P, Shri I Moosa, Shri K P Cheniya Kaya, Shri Lukmanul Hakeem in brief are as under:

1. The stakeholders have submitted that the tariff rate proposed by the LED is very high. Present increase in tariff proposed of 40% is too high and the poor scheduled tribe of Lakshadweep cannot afford such a high increase. In some consumer slabs, the percentage increase is very high i.e. 50%, 100% and some slabs as 33%. This will affect the poor people badly.

2. Increase in connection charges proposed for various consumers needs to be fixed at Rs 10 for single phase and Rs 30 for 3 phases. The domestic consumers should be spared from the increase and government establishments should be targeted for the proposed increase.

3. The high rate of consumption charges that existed prior to 2004 was reduced to the present level in 2004 by the Government of India, Ministry of Power taking into account all the aspects related to power production cost. The Govt. of India has also considered the fact that there is no alternate power generation plants/projects in the island.

4. The entire people in the territory are classified as Scheduled Tribe; any hike in the cost of power will be painful to them. Further, the locals do not have much consumption and use basic equipments like tubes, fans only. So they should not be charged higher rates of tariff.

5. Lakshadweep is deprived of any natural resources, except coconut and fish. In the present circumstances of the UT of Lakshadweep, electricity, ship service etc. cannot be considered on commercial footing as it can never reach to the level where it is commercially sustainable and the local people cannot afford a tariff increase in such a case.

6. Shri Mohammad Ali submitted that most of the consumption is by the Government Departments and UT Administration and therefore the common man should not be made to bear the burden of the increase. The Electricity Department of Lakshadweep has high consumption of electricity through the use of ACs and they should be charged higher for such consumption.

Petitioner's Submission:

The Petitioner has submitted that the requests of the stakeholders are genuine to some extent as the cost of living in Lakshadweep is much higher than in other parts of the country. It is difficult to replace the costly power generation through diesel in these islands besides high cost of transportation of fuel. The power generation in the territory may not be profitable for the next few years and it is difficult for the Department to achieve the same level of performance as of utilities in other parts of the country. It is not possible to survive power sector in these islands without the financial assistance of the Government of India.

Commission's views:

The Commission has noted the concern of the stakeholders. The Commission has taken a prudent view to assess the reasonableness of cost projected for ARR of FY 2012-13 as per the tariff regulations and thereafter decided the tariff which has been discussed in detail in the relevant section of this order. The hike has been approved to enable additional recovery to the department, at the same time balancing the interests of all the stakeholders.

5. AGGREGATE REVENUE REQUIREMENT (ARR) OF FY 2012-13

5.1 Background

The Petitioner has submitted the ARR & Tariff Petition for FY 2012-13 broadly on the basis of the principles outlined in the Tariff Regulations notified by JERC. The Petitioner in its petition has considered the past trends and taken cognizance of other internal and external developments to estimate the likely performance for FY 2012-13. In this chapter, the Commission has analyzed the petition of LED based on the provisions mentioned in the regulations, actual of FY 2010-11 and revised estimates/actual of FY 2011-12 submitted by the petitioner.

The Commission has taken into consideration the following for ARR and tariff determination for FY 2012-13:

i. Actual Performance in FY 2010-11 (Actual Un-audited Figures)

ii. Revised estimates/Actual of FY 2011-12 submitted by the petitioner along with the petition for FY 2012-13 (Actual Un-audited Figures)

5.2 Analysis of Aggregate Revenue Requirement of FY 2012-13

The determination of Aggregate Revenue Requirement requires assessment of quantum of energy sales, loss as well as various cost elements like power purchase cost, O&M expenses, interest cost and depreciation etc. Revised estimates/actual submitted by the petitioner as regards to various components of ARR of previous year, the Commission's analysis thereon and decision in respect of items given below is as discussed in the following paras:

- Assessment of Energy Requirement
  - i. Sales Projections
  - ii. Loss Trajectory
  - iii. Energy Balance
  - iv. Power Purchase Sources
- Assessment of the Aggregate Revenue Requirement
  - i. Power Purchase Costs & Transmission Charges;
  - ii. Operation and Maintenance Expenses;

- Employee Expenses
- Administration & General expenses
- Repairs & Maintenance Expenses

iii. Capital Expenditure and Asset Capitalization

iv. Gross Fixed Assets;

v. Depreciation;

vi. Interest on Long Term Loans;

vii. Interest on Working Capital & Security Deposits;

viii. Return on Capital Base/ Net Fixed Assets;

ix. Provision for Bad and Doubtful Debts

x. Other expenses.

xi. Non-Tariff Income

As per the regulation no. 13 of JERC Tariff regulations 2009,
"

1) *The Aggregate Revenue Requirement of the generating company or the licensee shall comprise of the following:*

i. Fuel Cost for own generation, if applicable.

ii. Cost of Power Purchase, if any

iii. Operation and Maintenance Expenses,

iv. Depreciation, including Advance Against Depreciation,

v. Interest and Cost of Finance,

vi. Return on Equity,

vii. Income Tax

viii. Provision for Bad & Doubtful Debts

ix. Other Expenses.

2) The data should be provided for three years

i. Audited figures for the previous year; Information for the previous year shall be based on the audited accounts; in the absence thereof, the audited accounts for the immediately preceding year shall be filed along with the un-audited accounts for the previous year.

ii. Estimated figures for the current financial year should be based on actual figures for the first six months and the estimated figures for the second six-months of the year. The estimated figures for the second half year of the current financial year should be based on the actual audited figures for the second half of the previous year with adjustments that reflect known and measurable changes expected to occur between them. These adjustments must be specifically documented and justified.

iii. Forecasted figures for the ensuing year should be based on the current year figures with adjustments that reflect known and measurable changes expected to occur between them. These adjustments must be specifically documented and justified."

"

4) The Aggregate Revenue Requirement of the generating company or the licensee shall be worked out by adjusting the following in the revenue requirement computed under Clause (1) above:

i. Necessary adjustments under Regulation 9 'Review and Truing Up'.

ii. Income from surcharge and additional surcharge from Open Access Consumers, if any ;

iii. Transmission and/or Wheeling Charges recovered from the Open Access Customers, if any ;

iv. Authorized portion of Income/revenue from Other Business engaged in by the licensee for optimum utilization of assets, if any, in accordance. "

5.3 Consumers, Connected load and Energy Sales

Petitioner's Submission

Energy Sales

The petitioner has submitted that Electricity Department - Lakshadweep has a consumer mix constituting of domestic, commercial, Industrial and Public Lighting.

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.

The petitioner has submitted 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.

The petitioner has considered the past trend for projecting the Energy Sales (MUs) as mentioned in the following table:

Table 5.3.1 : Details of Energy Sales during past years (Sales in Million Units)

S. No.	Category	FY 2007-08	FY 2008-09	FY 2009-10	FY 2010-11	FY 2011-12
		Actual	Actual	Actual	Actual	Petitioner's Submission
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**	**24.00**	**23.38**	**25.56**	**29.09**	**32.99**

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 depend 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.

The petitioner has considered the adjusted CAGR of various consumer categories for growth rate (%) for projecting the Energy Sales (MUs) as mentioned in the following table:

Table 5.3.2 : Growth rate considered for FY 2012-13 (in %age) by the Petitioner

S. No.	Category	Assumed growth rate for FY 2012-13
1	Domestic	9.00%
2	Commercial	8.00%
3	Industrial	8.00%
4	Public (Street Light)	5.00%
5	Temporary Connections	0.00%
	Total	**7.90%**

The petitioner has submitted that actual energy sales in the LED periphery in FY 2011-12 were 32.99 MU. The table below 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 the domestic and commercial consumption.

Table 5.3.3 : Projected category wise sales by the Petitioner for FY 2012-13 (Sales in Million Units)

S. No.	Category	FY 2010-11	FY 2011-12	FY 2012-13
		Actual	Petitioner's Submission	Petitioner's Submission
1	Domestic	20.35	23.75	25.89
2	Commercial	6.98	7.28	7.86
3	Industrial	0.41	0.42	0.45
4	Public (Street Light)	1.34	1.52	1.60
5	Temporary Connections	0.01	0.02	0.02
6	**Total**	**29.09**	**32.99**	**35.82**

Number of Consumers

The petitioner has submitted that the department has a consumer mix of domestic, commercial, industrial and public lighting. The number of consumers as on May 2012 submitted by the Petitioner is summarized below.

Table 5.3.4 : Number of consumers as on May 2012

S. No.	Category	No. of consumers
1	Domestic	15998
2	Commercial	2933
3	Industrial	301

S. No.	Category	No. of consumers
4	Public (Street Light)	59
5	Temporary Connections	25
6	**TOTAL**	**19316**

The Petitioner as per the regulatory formats submitted along with the petition for FY 2012-13 has submitted the number of consumers for FY 2012-13 as 20,276. The past trend of the number of consumers has however not been provided by the Petitioner.

Connected Load

The Petitioner has not submitted the past trends of the connected load of the various consumer categories. However, as per the regulatory formats submitted along with the petition for FY 2012-13, the Petitioner has considered the following connected load values for FY 2011-12 and FY 2012-13.

Table 5.3.5 : Connected Load as submitted by the Petitioner (in kVA)

S. No.	Category	Petitioner's Submission FY 2011-12	Petitioner's Submission FY 2012-13
1	Domestic	44892	49381
2	Commercial	7665	8431
3	Industrial	3078	3386
4	Public (Street Light)	148	162
5	Temporary Connections	-	-
6	**TOTAL**	**55782**	**61360**

Commission's analysis

Energy Sales

The Commission has considered the actual figures of past 4 years and the actual for FY 2011-12 (submitted by the petitioner) for estimating the category wise energy sales for FY 2012-13. The modified CAGR (%) for a period of four years (FY 2011-12 over FY 2007-08) for different consumer categories has been considered and the growth rate so determined has been applied on the actual of FY 2011-12 (submitted by the Petitioner in its petition) to assess the Energy Sales for FY 2012-13. In case the four year CAGR was negative, the Commission has assumed zero growth rate in that case (modified CAGR). The details are given in the table below.

Table 5.3.6 : CAGR (%) considered by the Commission for estimation of Sales for FY 2012-13 (in percentage)

S. No.	Category	Assumed growth rate for FY 2012-13
1	Domestic	9.95%
2	Commercial	4.35%
3	Industrial	8.78%
4	Public (Street Light)	4.59%
5	Temporary Connections	0.00%

Table 5.3.7 : Energy Sales approved by the Commission for FY 2012-13 (in Million Units)

S.No.	Category	FY 2011-12	FY 2011-12	FY 2012-13	FY 2012-13
		Petitioner's Submission	Commission's estimate	Petitioner's Submission	Approved
1	Domestic	23.75	23.75	25.89	26.11
2	Commercial	7.28	7.28	7.86	7.60
3	Industrial	0.42	0.42	0.45	0.46
4	Public (Street Light)	1.52	1.52	1.60	1.59
5	Temporary Connections	0.02	0.02	0.02	0.02
6	**Total**	**32.99**	**32.99**	**35.82**	**35.78**

Number of Consumers

The Commission has observed that the petitioner did not furnish the past trend of the number of consumers besides figures for FY 2011-12, in the absence of which the Commission has considered the estimates of FY 2011-12 submitted by the petitioner for consideration for FY 2011-12. The Petitioner has submitted the total number of consumers as on May 2012 as 19316. It is further observed that the Petitioner has assumed approximately 5% growth in the number of consumers for each of the consumer categories estimated for FY 2012-13 over FY 2011-12. Considering the reasonableness of the growth assumed by the Petitioner, the Commission approves the number of consumers for FY 2012-13 as submitted by the Petitioner.

The Commission directs the Petitioner to submit complete information as per the regulatory formats of the ARR & tariff approval process of the Commission along with slab-wise details of the number of consumers, load and sales in each category in the next ARR filing. Further, the

past trends of atleast the last 3 years based on actual should be submitted to enable the Commission to analyze the data and arrive at realistic projections.

Table 5.3.8 : Number of Consumers approved by the Commission for FY 2012-13

S. No.	Category	FY 2011-12 Petitioner's Submission	FY 2011-12 Commission's estimates	FY 2012-13 Petitioner's Submission	FY 2012-13 Approved
1	Domestic	15998	15998	16798	16798
2	Commercial	2933	2933	3080	3080
3	Industrial	301	301	316	316
4	Public (Street Light)	59	59	62	62
5	Temporary Connections	25	25	20	20
6	**Total**	**19316**	**19316**	**20276**	**20276**

Connected Load

The Commission has observed that the petitioner did not furnish the past trend of the connected load of the various consumer categories, in the absence of which the Commission has considered the estimates of FY 2011-12 submitted by the Petitioner for consideration for FY 2011-12. It is further observed that the Petitioner has assumed approximately 10% growth in the connected load for each of the consumer categories for FY 2012-13 over FY 2011-12. Considering the reasonableness of the growth assumed by the Petitioner, the Commission approves the connected load for the various consumer categories for FY 2012-13 as submitted by the Petitioner.

The Commission directs the Petitioner to submit complete information as per the regulatory formats of the ARR & tariff approval process of the Commission alongwith slab-wise details of the connected load in each category in the next ARR filing. Further, the past trends of atleast the last 3 years based on actual should be submitted to enable the Commission to analyze the data and arrive at realistic projections.

Table 5.3.9 : Connected Load approved by the Commission for FY 2012-13 (in kVA)

S. No.	Category	Petitioner's Submission FY 2011-12	Commission's Estimates FY 2011-12	Petitioner's Submission FY 2012-13	Approved FY 2012-13
1	Domestic	44892	44892	49381	49381
2	Commercial	7665	7665	8431	8431
3	Industrial	3078	3078	3386	3386
4	Public (Street Light)	148	148	162	162
5	Temporary Connections	-	-	-	-
6	**TOTAL**	**55782**	**55782**	**61360**	**61360**

5.4 Transmission & Distribution Loss

Petitioner's Submission

The petitioner has submitted that T&D losses at the LED periphery are comparatively high due to the high level of transformation losses at Kadmat, Kiltan and Chetlat islands, where the output from the power generating plants 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.

The petitioner has submitted that it has achieved significant reduction in transmission & distribution losses in the recent years. The LED has further submitted that the system improvement works executed every year under the plan schemes have 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.

The actual T&D loss 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 has proposed to reduce the T&D losses to 26.00% for FY 2012-13. The Petitioner has submitted that considering the proposed capital expenditure in transmission and distribution network during FY 2012-13, it has proposed to reduce the losses by 0.50% in FY 2012-13, as summarized in the table below:

Table 5.4.1 : T&D losses submitted by the Petitioner for FY 2012-13

S. No.	T&D Losses	FY 2010-11	FY 2011-12	FY 2012-13
		Actual	Revised Estimate	Petitioner Submission
1	T&D losses (%age)	26.92%	26.50%	26.00%

Commission's Analysis

As per the regulation 15 of JERC Tariff regulations, 2009

"15. AT& C Losses

1. *The licensee shall give information of total AT&C losses in Previous Year and Current Year and the basis on which such losses have been worked out.*

2. *The licensee shall also propose a loss reduction programme for the Ensuing Year as well as for the next three years giving details of the measures proposed to be taken for achieving the same.*

3. *Based on the information furnished and field studies carried out and the loss reduction program proposed by the licensee, the Commission shall fix separate targets for reduction of Transmission and Distribution losses and for commercial efficiency for the period specified by the Commission:*

   Provided further that in the event of unbundling of the integrated utility, the Commission may fix separate transmission and distribution loss targets and commercial efficiency targets, as the case may be, for each successor licensee taking into account its area of operation, its consumer mix, state of the network, level of metering, metering initiatives planned, etc.

4. *The licensee shall conduct regular energy audit to substantiate its estimation of T&D losses. The licensee shall also furnish six monthly energy audit reports to the Commission.*

   The energy audit report for the first six months of the year shall be provided by November end of the same year. Similarly energy audit report for the last six months of the year shall be provided by May end of the next year.

5. *In the absence of energy audit, the Commission may not accept the claim of the licensee and may proceed to fix the loss levels on the basis of any other information available and its own judgment.''*

The petitioner has not provided the energy audit report and neither any basis for reduction of T&D loss level from 26.92% in FY 2010-11 to 26.00% in FY 2012-13 except that it has submitted *'that the system improvement works executed every year under the plan schemes has resulted in the reduction of T&D losses'*.

However for the purpose of this order, the Commission considering the geographical conditions of the UT of Lakshadweep and technical limitations in the distribution system, **considers the proposed loss level of 26.00% as reasonable and approves the same for FY 2012-13.**

5.5 Energy Balance

Petitioner's Submission

The petitioner has submitted that considering the T&D losses of 26.00%, the energy requirement for the sale within the islands is 48.38 Million Units for FY 2012-13. The Petitioner has submitted that overall energy sales to various consumer categories are estimated to grow at approximately

9% during FY 2012-13 and the overall energy requirement has been projected at 48.38 MU in FY 2012-13, an increase of around 7%.

Commission's Analysis

Based on the approved energy sales of 35.78 million units and T&D losses of 26.00%, the energy requirement for sale within the islands is approved at 48.35 million units.

The LED sources power entirely from its own power generating stations. The detailed analysis of own generation has been discussed in Para 5.6.

Based on the data available, the Commission has projected the net energy availability of 48.36 million units for FY 2012-13. This is inclusive of the units generated from solar plants.

The table below captures the values as submitted by the petitioner and that approved for FY 2012-13.

Table 5.5.1 : Energy Balance approved by the Commission for FY 2012-13

S. No.	Category	Actual FY 2010-11	Petitioner's Submission FY 2011-12	Commission's Estimates FY 2011-12	Petitioner's Submission FY 2012-13	Approved FY 2012-13
A)	**ENERGY REQUIREMENT** (MU)					
1	**Total sales within the UT**	29.09	32.99	32.99	35.82	35.78
2	**Transmission & Distribution losses**					
i	%	26.92%	26.50%	26.50%	26.00%	26.00%
ii	MU	10.72	11.89	11.89	12.58	12.57
3	**Energy required for Sale to Retail Consumers (MU)**	**39.81**	**44.88**	**44.88**	**48.38**	**48.35**
4	**Total Energy Requirement for UT (MU)**	**39.81**	**44.88**	**44.88**	**48.38**	**48.35**
B)	**ENERGY AVAILABILITY / PURCHASED**					
1	**Net Generation after auxiliary consumption (MUs)**					
i	Own Generation	39.81	44.88	44.88	48.38	48.36
2	**Energy Surplus/(Gap) (MU)**	**0.00**	**0.00**	**0.00**	**0.00**	**0.01**

5.6 Power Quantum and Cost

Petitioner's Submission

Sources of Power and Power Generation Quantum

The petitioner has submitted that it sources its power entirely from its own power generating stations. It is submitted that out of the total capacity of 17210 kW, the department utilizes around half of its total installed capacity. The remaining installed capacity is utilized as back-up.

The petitioner has submitted that 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 as shown in the table below:

Table 5.6.1 : Generation Quantum from FY 2007-08 to FY 2011-12 as submitted by the Petitioner

Year	Gross generation	Auxiliary consumption	Auxiliary consumption	Net generation
	MU	MU	%age	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

Further, the Petitioner has submitted that out of the total installed capacity of 17210 kW, around 4760 kW of the existing installed capacity has become old and is proposed to be phased out by the LED during the 12th Plan. Around 4150 kW of capacity is likely to be added 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 5.6.2 : Existing installed capacity and capacity addition for FY 2012-13

S. 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

S. No.	Name of Island	Existing installed capacity				DG Plants under procurement
		New		Old	Total	
		2X600	1200	0		
3.	Amini	2x750	1500	400	1900	750
4.	Andrott	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

Error in summation of the total capacity.

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.

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. Further, the Petitioner has 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.

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

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 have not been considered for projecting power generation from the Solar Plants, as these plants are currently not in operation. 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.

The table below shows the projected island wise gross power generation quantum, auxiliary consumption and net power generation quantum of the LED for FY 12-13 as submitted by the Petitioner.

Table 5.6.3 : Power generation quantum as submitted by the Petitioner for FY 2012-13

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
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**

The Petitioner requests the Commission to approve the generation quantum of 48.38 MU as estimated by the Petitioner.

<u>Fuel Purchase Cost</u>

The Petitioner has submitted that it procures its fuel (HSD oil) from the the Indian Oil Corporation's (IOC) Beypore depot (Kerala). The fuel procured from the Beypore depot is then transported to various islands by ships. During FY 2011-12, the LED has paid Rs. 34.18 per liter of HSD to IOC.

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.

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 as presented in the table below.

Table 5.6.4 : Average Fuel Purchase Cost for FY 2011-12

S. 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) per litre	40.93
16	Add: Local transportation cost at the islands @2% of HSD price	0.68
17	**Average cost of HSD (15+16) per litre**	**41.61**

* 1 barrel = 200 litres

In FY 2011-12, the petitioner has incurred Rs. 59.66 Crores for procurement of 14.34 thousand kL of HSD. The LED has submitted 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.

Cost of fuel for FY 2012-13 has been 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 5.6.5 : Average Fuel Purchase Cost for FY 2012-13

Sl. No.	Particulars	Amount (in Rs.)
1	Cost of HSD oil/per barrel including 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) per litre	42.97
16	Add: Local transportation cost at the islands @2% of HSD price	0.71
17	**Average cost of HSD (15+16) per litre**	**43.69**

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

Table 5.6.6 : Fuel Purchase Cost for FY 2011-12 and FY 2012-13

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.

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

Table 5.6.7 : Per unit generation cost submitted by the Petitioner

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

Commission's Analysis

<u>Power Generation Quantum and Cost</u>

Own Generation

The Commission has analyzed the past trend of auxiliary consumption and plant load factor (%) submitted by the petitioner in this regard. The Commission has also noted the growth rate considered by the petitioner in the petition for own generating power plants for estimating the energy availability for FY 2012-13.

While estimating the energy availability and cost for FY 2012-13, the following has been considered:

- Auxiliary Consumption of the previous year (FY 2011-12) has been considered for FY 2012-13 for each power station i.e. 1.39%

- The Commission has considered the following parameters of the HSD fuel oil for estimating the consumption on the basis of units generated by each of the generating unit:

    - For consumption & cost of HSD

        - Commission has analyzed the specific fuel consumption i.e. the quantity of fuel required to generate one unit of electricity for FY 2011-12 based on the actual and has accordingly considered the specific fuel consumption based on actual for FY 2011-12 for FY 2012-13 i.e. 0.32 litres per unit of electricity

- Cost of HSD as per the latest agreement entered by the Petitioner with IOC on June 2012 of Rs 37.09 (exclusive of taxes) per litre
- 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. have been considered assuming a 5% escalation over the actual cost incurred towards these expenses for FY 2011-12 as submitted by the Petitioner
- The average cost of HSD as submitted by the Petitioner for FY 2012-13 at Rs 43.69/litre has been found to be reasonable considering the actual of FY 2011-12 (including transportation of fuel and other charges)

The estimated generation, fuel consumption, auxiliary consumption and cost thereof for FY 2012-13 on the basis of above is attached as **Appendix A** to this Order.

Renewable Purchase Obligations

As per JERC (Procurement of Renewable Energy) Regulations 2010 clause 1 sub clause (1)

Each distribution licensee shall purchase electricity (in kWh) from renewable energy sources, at a defined minimum percentage of the total consumption of all the consumers in its area during a year.

The petitioner has to purchase 3% of total consumption of all the consumers in its area as power purchase from renewable sources for FY 2012-13 including 0.40% for Solar and 2.60% for Non-Solar.

Commission has assumed that on the basis of initiatives taken by the petitioner to install new solar plants, expected to come into commercial operation from December 2012, the petitioner would be able to meet its RPO targets of Solar Power for FY 2012-13. However, it is observed that the Petitioner is not meeting its RPO target of 2.60% to be met from non-solar sources of renewable power generation. The Petitioner is also not meeting its overall target of 3% to be met from renewable sources of generation. **In view of this, the Commission directs the Petitioner to encourage and incentivize generation from renewable sources to meet its overall and individual RPO targets.**

For solar generation, the generation from the existing 100 kWp Chetlat SPV and 100 kWp Agatti SPV has been considered for FY 2012-13. Other old solar plants have not been considered for projecting power generation, as the plants are not currently in operation.

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

As per the O&M contract with BHEL,100,000 kWh/year will be generated from 100 kWp of equivalent capacity and the same has been considered for projecting the solar generation.

Further, it is observed that the cost of installation of new SPV power plants (1100 kWp aggregate SPV capacity), renovation of old SPV power plants (800 kWp aggregate SPV capacity) and operation and maintenance for a period of five years in various islands of Lakshadweep is covered through grant in the form of Central Financial Assistance (CFA) to the Lakshadweep Administration by the Ministry of New and Renewable Energy (MNRE). The letter dated August 9' 2010 to this effect is attached as **Annexure 6** to this tariff order.

The Commission directs the petitioner to submit the details of solar power plants and their running cost in the next ARR and tariff petition.

Summary of Total Approved Power Purchase Cost for FY 2012-13

While estimating the total cost of generation, station wise energy availability and fuel cost as discussed in earlier Para has been considered. **The Commission considers the total cost of generation including fuel cost of Rs. 65.87 Crores for procuring 48.36 million units of energy as reasonable and approves the same for FY 2012-13**. The summary of total cost of generation is as mentioned below.

Table 5.6.8 : Summary of own generation cost for FY 2012-13

S.No.	Source	Gross Generation (MUs)	Auxiliary Consumption (% age)	Net Energy available/sent out (MU)	Fuel Consumption (kL)	Total Cost (Rs. Crores)
Diesel Power Plants						
1	Minicoy	7.22	1.39%	7.12	2243	9.80
2	Kavaratti	6.72	1.39%	6.63	2088	9.12
		3.93	1.39%	3.88	1221	5.34
3	Amini	4.39	1.39%	4.33	1364	5.96
4	Andrott	2.92	1.39%	2.87	906	3.96
		0.86	1.39%	0.85	267	1.17
		2.52	1.39%	2.48	783	3.42
5	Kalpeni	2.98	1.39%	2.93	924	4.04
6	Agatti	6.79	1.39%	6.69	2108	9.21
7	Kadmat	4.37	1.39%	4.31	1357	5.93

		0.63	1.39%	0.62	196	0.86
8	Kiltan	3.03	1.39%	2.99	942	4.12
9	Chetlat	1.70	1.39%	1.67	527	2.30
10	Bitra	0.17	1.39%	0.17	54	0.23
11	Bangaram	0.31	1.39%	0.31	97	0.42
	Subtotal	**48.53**		**47.86**	**15077**	**65.87**
Solar Power Plants						
1	760 kWp Kavaratti SPV			0.19		
2	100 kWp Chetlath SPV			0.10		
3	220 kWp Andrott SPV			0.06		
4	110 kWp Minicoy SPV			0.03		
5	100 kWp Agatti SPV			0.10		
6	110 kWp Kadmat SPV			0.03		
	Subtotal			**0.50**		-
	TOTAL			**48.36**	**15077**	**65.87**

FPPCA formula has been separately notified under the Regulation. It is seen that in the case of LED, majority of the generation is diesel based, making per unit cost of generation very high compared to other utilities. In view of this, the approved tariff is not covering the full cost of supply. Historically, there has been substantial gap between the actual cost of supply and revenue realized. This gap so far has been borne by the administration of LED, with budgetary support from the Government of India.

Keeping the above fact in view, the Commission opines that any variation in cost of their own generation (including variation in cost of power purchase, if any) should, for the time being, be borne by the utility. Further, the utility is directed to propose a scheme for sharing of the increase in cost of power with the consumers for Commission's consideration and approval.

5.7 Operation and Maintenance Expenses

Petitioner's Submission

The petitioner has submitted that the Operation and Maintenance (O&M) expenses comprise of three components namely:

a) Employee cost
b) Repairs & Maintenance expenses and
c) Administrative and General Expenses

The petitioner has submitted the operation and maintenance cost of previous two years for consideration by the Commission as mentioned below:

Table 5.7.1 : O&M expenses of previous years

Year	O&M Expenses (Rs. Crores)
FY 10-11	10.01
FY 11-12	12.27

The total O&M expense for FY 2011-12 was Rs. 12.27 Crores as compared with O&M expense of Rs. 10.01 Crores 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.

The Petitioner has submitted that in the past, it has not maintained 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 are being made by LED to segregate the O&M expenses under different accounting heads.

Commission's Analysis

The Commission has considered the submission made by the petitioner in this regard and has accordingly approved the O&M expenses.

5.7.1 Employee Expenses

Petitioner's submission

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

Employee cost for FY 2012-13 has been 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 5.7.1.1 : Wholesale Price Index movement submitted by the Petitioner

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%				

The Petitioner has submitted the WPI index for FY 2012-13 would be 163.28 as per the existing trend of WPI index. Accordingly five year moving average rate for FY 2012-13 would be 6.69% as considered by the Petitioner.

The petitioner has projected the employee cost as Rs. 9.12 Crores considering the escalation rate of 6.69% over the employee cost for FY 2011-12 of Rs 8.55 Crores. LED has prayed to the Commission that salaries/employee cost increase should be considered as uncontrollable factor specially factors like DA/Basic hike through Government etc. Therefore, LED has requested the Commission to approve the employee costs as projected by it.

Commission's Analysis

As per the regulation 27 of JERC tariff regulations 2009 -

"

27. Operation and Maintenance Expenses

1) *'Operation & Maintenance expenses' or 'O&M expenses' shall mean repair and maintenance (R&M) expenses, employee expenses and administrative & general (A&G) expenses including insurance.*

   While determining the O&M expenses for generation functions within the State, the Commission shall be guided, as far as feasible, by the principles and methodologies of CERC on the manner, as amended from time to time.

2) *While determining the O&M expenses for transmission functions within the State, the Commission shall be guided, as far as feasible by the principles and methodologies specified by CERC on the matter, as amended from time to time:*

   Provided further that the Commission may, if it considers it just, practical and proper considering the size of the total transmission system of, and the quantum of electricity handled by, an integrated utility, treat its transmission system as an integral part of its distribution system itself.

3) O&M expenses for distribution functions shall be determined by the Commission as follows:

- *O&M expenses as approved by the Commission for the first time for a year shall be considered as base O&M expenses for determination of O&M expenses for subsequent years;*
- *Base O&M expenses as above shall be adjusted according to variation in the rate of WPI per annum to determine the O&M expenses for subsequent year, where WPI is the Wholesale Price Index on April 1 of the relevant year;*
- *In case of unbundling of the Electricity Department and formation of separate distribution companies, the Commission will make suitable assessment of base O&M expenses of individual distribution companies separately and allow O&M expenses for subsequent years for individual companies on the basis of such estimation and above principle.*

4) O&M expenses of assets taken on lease/hire-purchase and those created out of the consumers' contribution shall be considered in case the generating company or the licensee has the responsibility for its operation and maintenance and bear O&M expenses.

5) O&M expenses for gross fixed assets added during the year shall be considered from the date of commissioning on pro-rata basis.

6) O&M expenses for integrated utility shall be determined by the Commission on the norms and principles indicated above''

The Commission has considered the actual employee expenses of Rs 8.55 Crores for FY 2011-12 as a base for estimating the employee expenses for FY 2012-13 after applying escalation of 8.76% being the actual WPI increase for FY 2011-12 over FY 2010-11.The latest WPI index till March 2012 has been used as available on the website of Economic Advisor, Ministry of Commerce and Industry for estimation of the increase in the average of WPI index from FY 2010-11 to FY 2011-12. The calculation for WPI index is given below:

Table 5.7.1.2 : Calculation for WPI index considered by the Commission

Year	Average WPI index	%increase
FY 09-10	130.82	
FY 10-11	143.33	9.56%
FY 11-12	155.88	8.76%
Actual WPI increase for FY 2011-12 over FY 2010-11		**8.76%**

The number of employees and employee expenses as submitted by the petitioner and approved is given below.

Table 5.7.1.3 : Number of employees approved by the Commission for FY 2012-13

Sr. No.	Particulars	Actual FY 2010-11	Petitioner Submission FY 2011-12	Commission's estimates FY 2011-12	Petitioner Submission FY 2012-13	Approved FY 2012-13
1	Number of employees as on 1st April	415	415	415	415	415
2	Employees on deputation/ foreign service as on 1st April	-	-	-	-	-
3	Total number of employees (1+2)	415	415	415	415	415
4	Number of employees retired/retiring during the year	-	-	-	-	-
5	Number of employees added	-	-	-	-	-
6	**Number of employees at the end of the year (3-4+5)**	**415**	**415**	**415**	**415**	**415**

Table 5.7.1.4 : Employee expenses approved by the Commission for FY 2012-13 (in Rs. Crores)

Sr. No.	Particulars	Actual FY 2010-11	Petitioner Submission (Actual) FY 2011-12	Commission's estimates FY 2011-12	Petitioner Submission FY 2012-13	Approved FY 2012-13
	Salaries& Allowances					
1	Basic Pay	3.27	4.04	4.04	4.31	4.39
2	Dearness Pay	-	-	-	-	-
3	Dearness Allowance	1.72	2.12	2.12	2.27	2.31
4	House Rent Allowance	-	-	-	-	-
5	Fixed medical allowance	-	-	-	-	-
6	Medical reimbursement charges	0.12	0.15	0.15	0.16	0.16
7	Over time payment	-	-	-	-	-
8	Other allowances	-	-	-	-	-
A	Washing allowance	-	-	-	-	-
B	Transport allowance	0.28	0.35	0.35	0.38	0.39
C	L.T.C.	-	-	-	-	-
D	Children Education All.	-	-	-	-	-
E	Family Planning Allow.	-	-	-	-	-
F	Other allowance	1.46	1.80	1.80	1.92	1.96
9	Generation incentive	-	-	-	-	-
10	Bonus	0.07	0.09	0.09	0.10	0.10
11	**Total**	**6.92**	**8.55**	**8.55**	**9.12**	**9.30**
	Terminal Benefits					
12	Leave encashment	-	-	-	-	-
13	Gratuity	-	-	-	-	-
14	Commutation of Pension	-	-	-	-	-

Sr. No.	Particulars	Actual FY 2010-11	Petitioner Submission (Actual) FY 2011-12	Commission's estimates FY 2011-12	Petitioner Submission FY 2012-13	Approved FY 2012-13
	Salaries& Allowances					
15	Workmen compensation	-	-	-	-	-
16	Ex-gratia	-	-	-	-	-
17	**Total**	-	-	**-**	-	**-**
	Pension Payments					
18	Basic Pension	-	-	-	-	-
19	Dearness Pension	-	-	-	-	-
20	Dearness Allowance	-	-	-	-	-
21	Any other expenses	-	-	-	-	-
22	**Total**	-	-	**-**	-	**-**
23	**Total (11+17+22)**	**6.92**	**8.55**	**8.55**	**9.12**	**9.30**
24	Amount capitalized	-	-	-	-	-
25	Net amount	6.92	8.55	8.55	9.12	9.30
26	Add prior period expeses	-	-	-	-	-
27	**Grand total**	**6.92**	**8.55**	**8.55**	**9.12**	**9.30**

The Commission considers the employee cost of Rs 9.30 Crores as reasonable and approves the same for FY 2012-13.

5.7.2 Administration and General Expenses

Petitioner's submission

The petitioner has submitted that the A&G expenses comprise of the following broad sub-heads of expenditure, viz.

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

The Petitioner has submitted that the actual A&G expenses for FY 2011-12 were Rs 0.83 Crores. LED has projected the A&G expense for FY 2012-13 at Rs. 1.54 Crores. The escalation of A&G expenses is on account of inflation and regulatory and consultancy fees payable during FY 2012-13.

The LED has requested the Commission to approve the net A&G expenses projected for FY 2012-13.

Commission's Analysis

The Commission has considered the actual administration & general expenses of Rs 0.83 Crores for FY 2011-12 as a base for estimating the administration & general expenses for FY 2012-13 after applying escalation equivalent to the increase in the WPI for FY 2011-12 over FY 2010-11 which works out to 8.76%. The latest WPI index till March 2012 has been used as available on the website of Economic Advisor, Ministry of Commerce and Industry for estimation of the increase in the average of WPI index from FY 2010-11 to FY 2011-12.

The detailed breakup of the A&G expenses as per the regulatory formats has not been provided by the Petitioner. **The Commission directs the Petitioner to maintain segregation of the O&M expenses under different accounting heads and maintain the information as desired as per the regulatory formats and submit the same alongwith the next ARR/tariff filing.**

Table 5.7.2.1 : A&G expenses approved by the Commission for FY 2012-13 (in Rs. Crores)

Sr. No.	Particulars	Actual FY 2010-11	Petitioner Submission (Actual) FY 2011-12	Commission's estimates FY 2011-12	Petitioner Submission FY 2012-13	Approved FY 2012-13
1	A&G Expenses	0.83	0.83	0.83	1.54	0.90

Commission considers the Administration & General expense of Rs. 0.90 Crores as reasonable and approves the same for FY 2012-13.

5.7.3 Repair and Maintenance Expenses

Petitioner's submission

The petitioner has submitted that the Repairs and Maintenance expense comprise of expenses 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.

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

[2] As per the CERC norms

The petitioner has therefore requested the Commission to approve R&M expenses of Rs. 3.22 Crores for FY 2012-13 as the same is necessary for proper maintenance and strengthening the generation, transmission and distribution system and improve the quality of supply in the region to ensure consumer satisfaction.

Commission's Analysis

The Commission is of the view that adequate R&M expenses are necessary for maintenance of infrastructure and for ensuring proper Standard of Performance of the integrated utility.

Commission has considered the actual repair & maintenance expenses of Rs 2.89 Crores for FY 2011-12 as a base for estimating the repair & maintenance expenses for FY 2012-13 after applying escalation equivalent to the increase in the WPI for FY 2011-12 over FY 2010-11 which works out to 8.76%. The latest WPI index till March 2012 has been used as available on the website of Economic Advisor, Ministry of Commerce and Industry for estimation of the increase in the average of WPI index from FY 2010-11 to FY 2011-12.

The detailed breakup of the R&M expenses as per the regulatory formats has not been provided by the Petitioner. **The Commission directs the Petitioner to maintain segregation of the O&M expenses under different accounting heads and maintain the information as desired as per the regulatory formats and submit the same alongwith the next ARR/tariff filing.**

Table 5.7.3.1 : R&M expenses approved by the Commission for FY 2012-13 (in Rs. Crores)

Sr. No.	Particulars	Actual FY 2010-11	Petitioner Submission (Actual) FY 2011-12	Commission's estimates FY 2011-12	Petitioner Submission FY 2012-13	Approved FY 2012-13
1	R&M Expenses	2.25	2.89	2.89	3.22	3.14

The Commission considers the repair & maintenance expense of Rs. 3.14 Crores as reasonable and approves the same for FY 2012-13.

5.7.4 Summary of O&M Expenses

The overall summary of Operation & Maintenance expenditure as estimated by the petitioner vis-à-vis approved by the Commission for FY 2012-13 is given below:

Table 5.7.4.1 : Summary of O&M expenses approved by the Commission for FY 2012-13 (in Rs. Crores)

Sr. No.	Particulars	Actual FY 2010-11	Petitioner Submission (Actual) FY 2011-12	Commission's estimates FY 2011-12	Petitioner Submission FY 2012-13	Approved FY 2012-13
1	Employee Expenses	6.92	8.55	8.55	9.12	9.30
2	A&G Expenses	0.83	0.83	0.83	1.54	0.90
3	R&M Expenses	2.25	2.89	2.89	3.22	3.14
4	**Total O&M Expenses**	**10.01**	**12.27**	**12.27**	**13.88**	**13.34**

5.8 Capital Expenditure and Capitalization

Petitioner's Submission

The petitioner has submitted that the present transmission and distribution infrastructure 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.

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 as submitted by the Petitioner.

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. The addition in GFA for FY 2012-13 has been taken as Rs 13.00 Crores.

The capital expenditure and capitalization for FY 2011-12 and FY 2012-13 as submitted by the Petitioner is as in the table below:

Table 5.8.1 : Capital Expenditure and Capitalization submitted by the Petitioner for FY 2011-12 and FY 2012-13 (in Rs. Crores)

S. No.	Particulars	Petitioner Submission (FY 2011-12)	Projected (FY 2012-13)
1	Capital Expenditure	25.50[3]	13.00
2	Asset Capitalization	22.39	19.26
3	Capital Work in Progress	23.43	17.17

Commission's analysis

Commission observes that the capital expenditure and the capitalization submitted by the petitioner for FY 2012-13 is required to maintain reliable supply for the consumers of UT of Lakshadweep.

As per the Regulation 21 of JERC for the State of Goa and UTs (Terms and conditions for determination of Tariff), Regulation 2009 specifies that the licensee shall propose in their filings, a detailed capital investment plan, showing ongoing projects separately that will spill into the ensuing year and new projects (along with their justification) that will commence in the ensuing year. The petitioner has not submitted the capital investment plan as per the regulations. The petitioner has not submitted the capital investment plan as per the regulations and has not given the present status of the capital expenditure incurred /capitalised. However, for the purpose of this ARR computation, the Commission provisionally considers the capitalization of Rs. 25.50 Crores for FY 2011-12 and **provisionally approves the capitalization of Rs. 13.00 Crores for FY 2012-13.** Further, the Petitioner is directed to submit a detailed statement of the capital expenditure incurred quarterly, the asset capitalized and added in the gross fixed assets upto 31.03.2013 on different dates during the year for review and true-up.

This expenditure is being permitted as a special case to ensure the creation of infrastructure for adherence to Standard of Performance and Supply Code Regulations.

5.9 GFA and Depreciation

Petitioner's Submission

The petitioner has submitted that the value of opening gross fixed assets (GFA) for 2011-12 was Rs 90.14 Crores and addition of Rs 25.50[4] Crores took place during FY 2011-12. Thereafter, planned

[3] The petitioner has inadvertently mentioned Rs 20.00 Crores as the capital expenditure for FY 2011-12 in table 24 of the petition; this value has been appropriately considered by the Commission as Rs 25.50 Crores from Table 27 of the petition and as per the regulatory formats submitted to the Commission. The closing GFA of FY 2011-12 with Rs 25.50 Crores as the addition in GFA for FY 2011-12 matches with the opening GFA considered by the Petitioner for FY 2012-13.

additions during FY 2012-13 have been added and accordingly GFA has been computed for FY 2012-13. The closing Work-in-Progress by the end of FY 2011-12 was Rs. 23.43 Crores. For FY 2012-13, LED has proposed to incur Rs. 13.00 Crores capital expenditure and Rs. 19.26 Crores estimated to be capitalized.

A summary of the opening and closing GFA and capitalization has been summarized in the table below.

Table 5.9.1 : Opening and closing GFA submitted by the Petitioner (in Rs. Crores)

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	25.50[5]	115.64
FY 2012-13 (Projected)	115.64	13.00	128.64

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

Table 5.9.2 : Depreciation Rate considered by the Petitioner (in %age)

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%

Depreciation for the current year and FY 2012-13 has been 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 depreciation considered by LED.

[4] The petitioner has inadvertently specified the addition in GFA as Rs 20.00 Crores for FY 2011-12 (Table 25), as the closing GFA with this value does not match with the opening GFA considered in Table 25 of the petition. Hence, the Commission has appropriately considered Rs 25.50 Crores as being the addition in GFA for FY 2011-12 shown in Table 27 of the petition

[5] Same as footnote 4 above

Table 5.9.3 : Depreciation submitted by the Petitioner (in Rs. Crores)

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%

Commission's analysis

The Petitioner has not produced any fixed asset register to support the claim of the Gross Fixed Assets. The Commission is of the view that fixed asset register records the asset wise details and various types of information can be extracted from the same including the aging schedule of the asset, present value and capital works in progress etc. As such in the absence of updated fixed asset registers, the opening value of fixed assets is on an assumption basis. As a standard practice, and as per the Regulation 26 of the JERC (Terms and conditions for determination of Tariff), Regulation 2009, depreciation shall be computed on the average value of assets at the end of the year which is reasonable and appropriate method.

In absence of updated fixed asset registers, the Commission is unable to allow the depreciation as proposed by the petitioner based on the assumed value of assets. **The Commission therefore directs the petitioner to maintain the fixed asset register to arrive at the actual historical value of assets and file the same along with the next ARR and tariff petition.** In the absence of updated fixed asset registers to arrive at the historical value of assets, the Commission has considered the addition in GFA proposed by the petitioner for FY 2011-12 as the opening value of assets for FY 2012-13. As discussed in earlier Para, Commission has provisionally considered addition in GFA of Rs. 25.50 Crores and Rs. 13.00 Crores during FY 11-12 and FY 2012-13 respectively.

Regulation 26 of JERC (Terms and Conditions for Determination of Tariff) Regulations, 2009 specifies that depreciation for the assets shall be calculated annually at the rates specified by CERC from time to time. The effective rate of depreciation for assets linked to Plant & Machinery & Vehicles is 5.28%, Buildings is 3.34% and Furniture is 6.33% vide Appendix-III (Depreciation schedule of CERC Terms and Conditions of Tariff Regulations, 2009). The depreciation for FY 2012-13 has been worked out as Rs. 1.83 Crores.

As discussed in earlier para, Rs. 13.00 Crores has been considered as addition in GFA for FY 2012-13. In view of above, Commission considers the depreciation of Rs. 1.83 Crores as reasonable

considering Rs. 25.50 Crores as the opening value of assets at the beginning of the year as being the addition in GFA submitted by the Petitioner for FY 2011-12.

The depreciation approved by the Commission is as below.

Table 5.9.4 : GFA and Depreciation approved by the Commission for FY 2012-13 (in Rs. Crores)

S. No.	Particulars	Opening GFA	Additions	Closing GFA	Average Assets	Rate of depreciation	Depreciation
1	Plant & Machinery	22.80	11.62	34.42	28.61	5.28%	1.51
2	Buildings	-	-	-	-	3.34%	-
3	Vehicles	2.70	1.38	4.08	3.39	9.50%	0.32
4	Furniture and Fixtures	-	-	-	-	6.33%	-
5	Computers & others	-	-			6.33%	
6	Land	-	-	-	0.00	0.00%	-
7	**Total**	**25.50**	**13.00**	**38.50**	**32.00**		**1.83**

The Commission therefore considers the depreciation of Rs. 1.83 Crores as reasonable and approves the same for FY 2012-13.

5.10 Interest and Finance Charges

5.10.1 Interest on Loan

Petitioner's Submission

The petitioner has submitted that the entire capital employed till date has been funded by the Central Government through Budgetary support without any external borrowings. LED is now migrating to regulatory regime under the aegis of the Commission and would begin to function as a commercial utility under the Electricity Act, 2003 and would therefore be utilizing the debt facilities from FY 2012-13 onwards.

Assets capitalized during FY 2012-13 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. 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. The petitioner has claimed an amount of Rs 0.94 Crores as interest cost on long term loans and requests the Commission to approve the same.

Commission's analysis

As per the JERC tariff regulations 2009:

"25. Interest and Finance Charges on Loan

(1) For existing loan capital, interest and finance charges on loan capital shall be computed on the outstanding loans, duly taking into account the rate of interest and schedule of repayment as per the terms and conditions of relevant agreements.

(2) Interest and finance charges on loan capital for new investments shall be computed on the loans, duly taking into account the rate of interest and the schedule of repayment as per the terms and conditions of relevant agreements. The rate of interest shall, however, be restricted to the prevailing Prime Lending Rate of the State Bank of India.

(3) The interest rate on the amount of equity above 30% treated as loan shall be the weighted average rate of interest on loan capital of the generating company / licensee:

Provided that interest and finance charges of renegotiated loan agreements shall not be considered, if they result in higher charges:

Provided further that interest and finance charges on works in progress shall be excluded and shall be considered as part of the capital cost.

(4) Interest charges on security deposits, if any, made by the consumers with a generating company/licensee, shall be equivalent to the bank rate or at the rate, if any, specified by the Commission whichever is higher.

(5) In case any moratorium period is availed of, depreciation provided for in the tariff during the years of moratorium shall be treated as repayment during those years and interest on loan capital shall be calculated accordingly.

(6) The Commission shall allow obligatory taxes on interest, commitment charges, finance charges and any exchange rate difference arising from foreign currency borrowings, as finance cost.

(7) Any saving in costs on account of subsequent restructuring of debt shall be passed on to the consumers."

Further, the Commission would like to place reliance on Section 23 of the JERC Tariff regulations which is reproduced below:

"23. Debt-Equity Ratio

For the purpose of determination of tariff, debt-equity ratio in case of existing, ongoing as well as new projects commencing after the date of notification of these Regulations shall be 70:30. Where equity employed is more than 30%, the amount of equity for the purpose of tariff shall be limited to 30% and the balance amount shall be considered as loan. Where actual equity

employed is less than 30%, the actual debt and equity shall be considered for determination of tariff:
Provided that the Commission may, in appropriate cases, consider equity higher than 30% for the purpose of determination of tariff, where the generating company or the licensee is able to establish to the satisfaction of the Commission that deployment of equity more than 30% is in the interest of the general public: .
(2) The debt and equity amounts arrived at in accordance with sub-regulation (1) above shall be used for all purposes including for determining interest on loan, return on equity, Advance against Depreciation and Foreign Exchange Rate Variation.
Provided that in the case of an Integrated Utility, till the time it remains Integrated Utility, it shall be entitled to return on its capital base as per Schedule VI to the repealed Electricity (Supply) Act, 1948."

The Petitioner has not borrowed any loans in the past upto FY 2011-12 and has proposed to utilize the debt facilities from FY 2012-13 onwards.

The basic requirement for consideration of interest on loans is adequate information of the value of fixed assets of the utility in service (net fixed assets) at the beginning of such year and funding pattern as well as terms & conditions of funding of capital assets.

In the instant case, the licensee has not provided the actual value of fixed assets, hence the servicing of assets in the form of interest on loan and return on assets is indeterminate at this stage on the opening GFA submitted by the Petitioner, hence has not been considered on the assumed value of assets. The same shall be considered at true-up stage if full details are made available.

However, As discussed in para 5.8 and 5.9, the Commission has considered an opening normative loan of Rs. 17.85 Crores for FY 2012-13 (being 70% of Rs. 25.50 Crores provisionally considered to be addition in GFA during FY 2011-12) and added normative loan for FY 2012-13 of Rs. 9.10 Crores being 70% of addition in GFA considered for FY 2012-13 (70% of Rs 13.00 Crores considered to be added in the GFA for FY 2012-13) to calculate the interest on normative loan amount. The Commission has considered the SBI PLR rate which is now substituted as SBI advance rate, at 14.75%[6] as on 1st April 2012 for FY 2012-13. The Commission approves the total interest charges for the year at Rs. 3.17 Crores as given below.

[6] SBI advance rate notified on 14.02.2011; Thereafter four revisions in the SBI advance rate was notified in FY 2011-12 and are as under: 25.04.2011-13.25%; 12.05.2011-14% ; 11.07.2011-14.25%; 13.08.2011 – 14.75%. No revision has been notified

Table 5.10.1.1 : Interest on Loans approved by the Commission for FY 2012-13 (in Rs. Crores)

S. No.	Particulars	Petitioner Submission (FY 2012-13)	Approved (FY 2012-13)
1	Opening Normative Loan/WIP	-	17.85
2	Add: Normative Loan during the year/GFA during the year	13.48	9.10
3	Less: Normative Repayment	0.67	1.79
4	**Closing Normative Loan/GFA**	**12.80**	**25.17**
5	Average Normative Loan	6.40	21.51
6	Rate of Interest (@SBI SBAR rate)	14.75%	14.75%
7	**Interest on Normative Loan**	**0.94**	**3.17**

The Commission considers the interest on normative loan of Rs. 3.17 Crores as reasonable and approves the same for FY 2012-13.

5.10.2 Interest on Working Capital

Petitioner's Submission

The petitioner has submitted the Interest on Working Capital for FY 2012-13 computed on normative basis. As per the JERC Tariff Regulations, for the purpose of computation of normative working capital and interest on working capital, the components of working capital are as follows:

- Sum of two month requirement for meeting the fuel cost
- One month employee costs
- One month Administration & General expenses
- One month R&M Cost

The rate of interest on working capital has been considered as per SBI Prime lending rate as on 1st April of the respective year, which is 14.75% as on 13th August 2011. The interest on normative working capital for FY 2012-13 has been claimed at Rs. 1.89 Crores.

Commission's analysis

As per the regulation 29 of JERC tariff regulations

"

29. WORKING CAPITAL AND INTEREST RATE ON WORKING CAPITAL

1) *For generation and transmission business, the working capital shall be as per CERC norms.*

2) *Subject to prudence check, the working capital for distribution business shall be the sum of one month requirement for meeting:*

    a. *Power purchase cost.*

    b. *Employees cost.*

    c. *Administration & general expenses and*

    d. *Repair & Maintenance expenses.*

3) *Subject to prudence check, the working capital for integrated utility shall be the sum of one month requirement for meeting :*

    a. *Power purchase cost*

    b. *Employees cost*

    c. *Administration & general expenses*

    d. *Repair & Maintenance expenses.*

    e. *Sum of two month requirement for meeting Fuel cost.*

4) *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. The interest on working capital shall be payable on normative basis notwithstanding that the generating company / licensee has not taken working capital loan from any outside agency or has exceeded the working capital loan amount worked out on the normative figures."*

The Commission has considered the approved fuel cost expenses of FY 2012-13 and approved O&M expenses to work out the normative working capital required for FY 2012-13.

The Commission has considered the SBI PLR rate which is now substituted as SBI advance rate, at 14.75% as on 1st April 2012 for FY 2012-13 as per the regulations. The Commission has computed the requirement of working capital based on the provisions of the regulations.

In accordance with Section 47(4) of the Electricity Act 2003, the distribution licensee is required to pay interest on security deposit collected from the consumers. If this security deposit is invested in the form of interest earning fixed deposits or other similar instruments, the interest earned from such investment could be utilized to pay the interest to the consumers under section 47(4) of the Electricity Act 2003, alternatively, the funds could be retained by the Licensee to meet its working capital needs. It is noted that the petitioner has not invested any of the security deposit held and the said amount is available to the petitioner. Accordingly, the Commission has allowed the interest payable to the consumer as an expense in this order. The Commission has considered the security deposit available with the Petitioner as a source to meet working capital requirements and has deducted this amount from the working capital requirement considered for interest on working capital for FY 2012-13. Further, Commission clarifies that SBI PLR rate has now been substituted as SBI Advance Rate. The Commission has considered the SBI advance rate of 14.75%[7] as on 1st April 2012 for ARR of FY 2012-13. The detailed calculation of the interest on working capital is as mentioned below.

Table 5.10.2.1 : Interest on Working Capital approved by the Commission for FY 2012-13 (in Rs. Crores)

S. No.	Particulars	Petitioner Submission (FY 2012-13)	Approved (FY 2012-13)
1	Fuel Cost for 2 months	11.67	10.98
2	Power Purchase Cost for one month	-	-
3	Employee Cost for one month	0.76	0.77
4	A&G Expenses for one month	0.13	0.08
5	R&M Expenses for one month	0.27	0.26
6	**Total Working Capital for one month**	**12.82**	**12.03**
7	**Net Working Capital for one month after deducting security deposit**		**11.96**
8	SBI PLR Rate	14.75%	14.75%
9	**Interest on Working Capital**	**1.89**	**1.76**

The Commission considers Rs. 1.76 Crores as Interest on Working Capital as reasonable and approves the same for ARR for FY 2012-13.

5.10.3 Interest on Security Deposit

Petitioner's Submission

The petitioner has not claimed any interest on security deposit as part of the Aggregate Revenue Requirement (ARR) for FY 2012-13.

[7] SBI advance rate notified on 14.02.2011; Thereafter four revisions in the SBI advance rate was notified in FY 2011-12 and are as under: 25.04.2011-13.25%; 12.05.2011-14% ; 11.07.2011-14.25%; 13.09.2011 – 14.75%. No further revision has been notified

Commission's analysis

The Commission has assessed the need and availability of funds to the licensee. Consumer's security deposit is the quantum of consumer's funds available to the licensee and hence deducted from the funds available to meet working capital requirements and the interest on working capital is allowed on the balance amount. The cost of available security deposit of the consumer is allowed as an interest on security deposit to be paid to the consumer as per section 47(4) and regulation 25 of the JERC Tariff Regulations 2009 and the same is allowed as expenditure in the ARR.

As per Clause 47(4) of the Electricity Act, 2003 and as specified in regulation 25 of JERC Tariff Regulations 2009, *the distribution licenses shall pay interest on security deposit collected from the consumers, equivalent to the bank rate or more as may be specified by the Commission*. On account of provisions mentioned in the Act and regulation, **Commission directs the petitioner to pay the interest on consumer security deposit for FY 2012-13 (at the Bank Rate i.e. 9.50[8]% per annum as on 1st April 2012) to the consumers on their security deposit irrespective of petitioner's constraints** and should explicitly mention the same as the 'Interest on security deposit for FY 2012-13' on the bills of the consumers. **Any non-compliance in this regard shall be viewed seriously by the Commission.**

The petitioner in its additional submission dated October 8' 2012 has submitted the amount of security deposit held as on April 1' 2012 as Rs 6.34 lakhs. This has been considered as the opening security deposit amount for FY 2012-13 and has accordingly been considered for calculation of the interest on security deposit for FY 2012-13.

Table 5.10.3.1 : Interest on Security Deposit approved by the Commission for FY 2012-13 (in Rs. Crores)

S. No.	Particulars	Petitioner Submission (FY 2012-13)	Approved (FY 2012-13)
1	Opening Security Deposit/Misc. Deposit	Not Claimed	0.06
2	Add: Deposits during the Year		-
3	Less: Deposits refunded		-
4	Closing Security Deposit		NA
5	Bank Rate		9.50%
6	**Interest on Security Deposit**		**0.01**

8 As per RBI circular no. RBI/2011-12/432, UBD.BPD. (PCB).Cir. No. 26 /16.11.00/2011-12 dated March 07'2012 on bank rate

The Commission allows Rs 0.01 Crores as the interest on security deposit and considered as expenditure in the ARR for FY 2012-13.

5.11 Return on Capital Base/Equity

Petitioner's Submission

The petitioner has submitted that 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.

The petitioner has submitted that Distribution Business has always been perceived to be a business having a greater inherent risk than the Generation or Transmission Business due to various factors amongst which the direct interface with the retail consumers is the biggest risk. The same has been recognized by many Commissions across the country and they have proposed a higher rate of return on the equity invested in distribution business as compared to generation and transmission business. This has been demonstrated by the various Commissions by offering rate of return @16% for distribution business and accordingly LED has claimed RoE of 16% for FY 2012-13.

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. The petitioner has claimed return of equity of Rs 0.46 Crores for FY 2012-13.

Commission's analysis

LED is an integrated utility in its present form as defined in Regulation 2(9) of the JERC (Terms and Conditions for Determination of Tariff) Regulations, 2009 and is not restructured and corporatized till date. As of now, it is an integrated utility and is entitled to return on capital base under the provisions of Schedule VI of the repealed Electricity (Supply) Act, 1948 vide provision under Regulation 23 of JERC (Terms and Conditions for Determination of Tariff) Regulations, 2009. The basic requirement for consideration of either return on capital base or return on equity for historical assets is information in the form of audited annual accounts and assets & depreciation registers. The Petitioner has not been maintaining the adequate information.

As discussed in earlier paras 5.8, 5.9 and 5.10; the Commission has considered Rs. 25.50 Crores as the gross block at the beginning of FY 2012-13 and accumulated depreciation of Rs. 1.46 Crores. The Commission has therefore considered the reasonable return of Rs 0.72 Crores at the rate of 3% on net fixed asset of Rs. 24.04 Crores at the beginning of FY 2012-13.

Table 5.11.1 : Return on capital base approved by the Commission for FY 2012-13 (in Rs. Crores)

Sr. No.	Particulars	Petitioner Submission (FY 2012-13)	Approved (FY 2012-13)
1	Gross block at beginning of the year	RoE amount of Rs 0.46 Crores has been claimed	25.50
2	Less accumulated depreciation		1.46
3	Net block at beginning of the year		24.04
4	Less accumulated consumer contribution		-
5	**Net fixed assets at beginning of the year**		**24.04**
6	**Reasonable return @3% of NFA**	**0.46**	**0.72**

Commission considers the Return on Net Fixed Assets of Rs. 0.72 Crores as reasonable and approves the same for FY 2012-13.

5.12 Provision for bad & doubtful debts

Petitioner's Submission

The petitioner has submitted that it has considered the provision for Bad and Doubtful Debts at 1% of the receivables for FY 2011-12 and FY 2012-13. The petitioner has submitted the provision for bad debts at Rs 0.08 Crores and Rs 0.09 Crores respectively for FY 2011-12 and FY 2012-13.

Table 5.12.1 : Provision for bad and doubtful debts submitted by the Petitioner for FY 2012-13 (in Rs. Crores)

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

Commission's analysis

As specified in the regulation no. 28 of JERC Tariff regulations, read with the format -

"28. Bad and Doubtful Debts

The Commission may, after the generating company/licensee gets the receivables audited, allow a provision for bad debts up to 1% of receivables in the revenue requirement of the generating company/licensee. (Information to be furnished in format 18)"

Format -18

S.No.	*Particulars*	*Amount (Rs. in Crores)*
1.	*2.*	*3.*
1.	*Amount of receivable bad and doubtful debts (audited)*	
2.	*Provision made for debts in ARR*	

In the absence of audited accounts showing the trend of the actual write-off of the bad/doubtful debts for the past year(s), the Commission has considered the provision of 0.5% (against up to 1% in the regulation) of the receivables towards bad and doubtful debts subject to availability (at the time of true up) of audited accounts & auditor's certificate of actual write off of bad & doubtful debts.

Commission has considered the provision of 0.5% of the receivables from the retail sales for FY 2012-13 as bad and doubtful debt at Rs 0.04 Crores as reasonable and approves the same as per the regulations for ARR of FY 2012-13 subject to final adjustment in true-up when audited accounts become available and auditor's certificate of write off of bad and doubtful debts is furnished.

The submission of the petitioner vis-à-vis the approved value for FY 2012-13 is as shown below

Table 5.12.2 : Provision for bad and doubtful debts approved by the Commission for FY 2012-13 (in Rs. Crores)

S. No.	Particulars	Petitioner Submission FY 2012-13	Approved FY 2012-13
1	Receivables	8.57	8.47
2	Provision for Bad &Doubtful Debts as % of Receivables	1%	0.5%
3	**Provision for Bad & Doubtful Debts**	**0.09**	**0.04**

5.13 Non-Tariff Income

Petitioner's Submission

The petitioner has estimated Rs. 0.19 Crores for FY 2012-13 based on the actuals of FY 2011-12 as the non-tariff income in the form of meter rent, late payment charges & misc. charges from various categories of consumers. The petitioner has submitted that the actual non tariff income for FY 2011-12 was Rs 0.18 Crores and has considered an increase of 5% over the actual non tariff income of FY 2011-12 for projecting the non tariff income of FY 2012-13.

Commission's analysis

The Commission has observed the submission made by the petitioner for FY 2011-12 and **has considered Rs. 0.19 Crores as reasonable and approves the same for FY 2012-13.**

5.14 Revenue at existing tariff for FY 2012-13

Petitioner's Submission

The petitioner 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.

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

The Revenue from sale of power at existing tariff has been estimated to be Rs. 8.57 Crores for FY 2012-13, as shown in the table below.

Table 5.14.1 : Revenue at existing tariff projected by the petitioner for FY 2012-13 (Rs Crores)

Sr. No.	Particulars	FY 2011-12	FY 2012-13
		Actual	Projected
1	Domestic	3.75	4.09
2	Commercial	3.60	3.88
3	Industrial	0.18	0.20
4	Public (Street Light)	0.37	0.39
5	Temporary connections	0.01	0.01
6	**Total revenue from existing tariff**	**7.91**	**8.57**

Commission's analysis

Commission has estimated the revenue on the basis of approved sales for FY 2012-13. The petitioner has not submitted the slab wise sales and revenue in accordance with the existing tariff schedule, **the Commission therefore directs the petitioner to maintain slab wise details of sales, consumers and connected load and should submit the same in the next ARR and tariff petition.** In the absence of slab wise details of sales, consumers and connected load; the Commission has considered the average revenue realization of the various consumer categories for FY 2011-12 as submitted by the petitioner (based on actual for FY 2011-12) for determination of revenue at existing tariff for FY 2012-13.

Table 5.14.2 : Revenue at existing tariff approved by the Commission for FY 2012-13

S. No.	Particulars	Sales (MU) FY 2012-13	Average Revenue Realization (Rs/kWh) FY 2012-13 (Existing tariff)	Revenue at existing tariff (Rs Crores) FY 2012-13
1	Domestic	26.11	1.58	4.13
2	Commercial	7.60	4.94	3.75
3	Industrial	0.46	4.38	0.20
4	Public (Street Light)	1.59	2.43	0.39
5	Temporary Connections	0.02	3.70	0.01
6	**Total**	**35.78**	**2.37**	**8.47**

5.15 Aggregate Revenue Requirement and Revenue Surplus/Deficit for FY 2012-13

Petitioner's Submission

The petitioner has submitted Rs. 93.17 Crores as the Aggregate Revenue Requirement for FY 2012-13 in the ARR & tariff petition on the basis of the estimates of the various components of the ARR as discussed above.

Commission's analysis

The Commission has considered and approved the ARR for FY 2012-13 based on the items of expenditure discussed in the preceding sections and the same has been summarized in the table below.

Table 5.15.1 : Aggregate Revenue Requirement approved by the Commission for FY 2012-13 (Rs. Crores)

S. No.	Particulars	Petitioner Submission FY 2012-13	Approved FY 2012-13
1	Cost of fuel	70.00	65.87
2	Cost of power purchase for full year	-	-
3	Employee costs	9.12	9.30
4	Repair & Maintenance Expenses	3.22	3.14
5	Administration and general expenses	1.54	0.90
6	Depreciation	6.09	1.83
7	Interest and finance charges	0.94	3.17
8	Interest on working capital	1.89	1.76
9	Interest on Security Deposit	-	0.01
10	Return on NFA /Equity	0.46	0.72

11	Provision for Bad Debt	0.09	0.04
12	Advance Against Depreciation	-	-
13	**Total Revenue Requirement**	**93.36**	**86.75**
14	Less: Non-Tariff Income	0.19	0.19
15	**Net Revenue Requirement (13-14)**	**93.17**	**86.57**

The estimated revenue deficit at existing tariff as approved for FY 2012-13 is given below.

Table 5.15.2 : Revenue Gap approved by the Commission for FY 2012-13 (Rs. Crores)

S. No.	Particulars	Petitioner Submission FY 2012-13	Approved FY 2012-13
1	Net Revenue Requirement	93.17	86.57
2	Less: Revenue from Retail Sales at Existing Tariff	8.57	8.47
3	**Net Gap at existing tariff for FY 2012-13 (1-2)**	**84.60**	**78.09**
4	Gap of the previous year	-	-
5	**Total Gap at existing tariff of FY 2012-13 (3+4)**	**84.60**	**78.09**

As seen from the table above, there is a revenue gap of Rs 78.09 Crores at the end of FY 2012-13 at existing tariff as estimated by the Commission against the gap of Rs. 84.60 Crores estimated by the petitioner at the existing tariff for FY 2012-13. The major reason for the reduction in gap for FY 2012-13 as assessed by the Commission is the reduction in the cost of fuel and non-consideration of full amount of depreciation as claimed by the Petitioner. It is expected that in future ARRs and True-ups, when the Petitioner submits the actual figures of revenue for FY 2012-13, fixed asset registers, separate accounts of the cost of the generation from diesel generating sets; the gap assessed (as of now) in the revenue requirement as above shall be appropriately considered.

6. DIRECTIVES

6.1 Background

While examining the information and data submitted by the Petitioner in the proposed ARR and Tariff Petition for FY 2012-13, it has been observed that the distribution licensee has not been maintaining the required information and has used assumptions for computation of several components of ARR. ED- Lakshadweep requires substantial improvement in the maintenance of data related to operational and financial parameters.

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. km and is comprised of eleven inhabited islands, 17 uninhabited islands attached islets, four newly formed islets and 5 submerged reefs. 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.

In spite of geographical and technical constraints, the petitioner has attempted to submit its first ARR and tariff petition for FY 2012-13. The Commission has therefore taken a pragmatic view after looking at the operational constraints and hereby directs to comply with the following directions in order to evolve and develop mechanisms in the larger interest of stakeholders.

1. **Filing of Review and True-up Petition for FY 2012-13**

   As per the regulation no. 8 of JERC tariff regulations 2009, the petitioner is directed to submit the Review of FY 2012-13 along with the ARR and Tariff Petition for FY 2013-14 in line with JERC regulations as modified from time to time. The Commission shall consider variations between approvals and revised estimates/pre-actual of sale of electricity, income and expenditure for the relevant year and permit necessary adjustments/ changes in case such variations are for adequate and justifiable reasons for FY 2012-13 during Review.

   After audited accounts of FY 2012-13 are made available; the Commission shall undertake similar exercise as mentioned above with reference to the final actual figures as per the audited accounts. This exercise with reference to audited accounts shall be called 'Truing Up', for which true-up petition should be submitted along with the audited accounts for consideration of the Commission.

2. Fuel and Power Purchase Cost Adjustment Formula (FPPCA)

FPPCA formula has been separately notified under the Regulation. It is seen that in the case of LED, majority of the generation is diesel based, making per unit cost of generation very high compared to other utilities. In view of this, the approved tariff is not covering the full cost of supply. Historically, there has been substantial gap between the actual cost of supply and revenue realized. This gap so far has been borne by the administration of LED, with the help of the budgetary support of the Government of India.

Keeping the above in view, the Commission is of the view that any variation in power purchase cost (including variation in cost of their own generation) should, for the time being, be borne by the utility. Further, the utility is directed to propose a scheme for sharing of the increase in cost of own generation/ power purchase cost with the consumers for the Commission's consideration and approval.

3. Annual Statement of Accounts

The Commission has observed that the department of Lakshadweep is not maintaining separate accounts on commercially accepted principles for the electricity business. The Petitioner is directed to segregate the accounts pertaining to electricity business as per the Electricity Act 2003 and get them duly audited as required under JERC (Terms and Conditions for Determination of Tariff) Regulations 2009.

4. Preparation of Asset and Depreciation Register

The Electricity Department, Lakshadweep is directed to arrange for the preparation of asset and depreciation registers function wise, and asset classification wise. Till such time the above registers are prepared and got audited, the Commission cannot consider the gross fixed assets and accumulated depreciation over the years to arrive at the capital base and allow the return thereon as per JERC (Terms and Conditions of Determination of Tariff) Regulations, 2009.

The Petitioner is directed to submit quarterly progress report and the completion date of the preparation of the asset and depreciation registers, function wise and asset classification wise after getting them audited.

5. Optimization of Fuel Cost

The UT of Lakshadweep is an archipelago consisting of 11 inhabited islands and located far from the mainland of India; it 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 besides some production from solar plants.

The diesel is generally received in bulk in big tankers, thereafter it is transported to various islands in drums. Obviously, there are losses in transportation, storage and handling of which no assessment is available. It is understood that presently there is no system through which actual fuel consumption per generating station can be ascertained for generation of one unit of energy. In fact, there should be proper accounting of generating station wise fuel receipts & issues. The ED LED is directed to evolve a system of accounting of fuel received at port, dispatched island wise, actual quantity received on the islands and actual quantity consumed island wise for generating electricity; so that actual fuel consumption per unit generation could be worked out. Accordingly, the petitioner is directed to furnish such details along with the next filing.

6. Renewable Purchase Obligation

The Petitioner is directed to encourage and incentivize generation from renewable sources to meet its overall and individual RPO targets. The petitioner has to purchase 3% of total consumption of all the consumers in its area as power purchase from renewable sources for FY 2012-13 including 0.40% from Solar and 2.60% from Non-Solar as per the JERC (Procurement of Renewable Energy) Regulations 2010.

7. Segregation of O&M expenses under different accounting heads

The Commission directs the Petitioner to maintain segregation of the O&M expenses under different accounting heads and maintain the information as desired as per the regulatory formats and submit the same alongwith the next ARR/tariff filing.

8. Bill Payment

The Petitioner is directed to explore options for multiple payment points/gateways for online collection and status of existing system of bill payment should be submitted within three months.

9. Collection of Arrears

The Petitioner is directed to analyze the outstanding dues; bad debts etc. & construct a data base of such consumers including particulars like amount, aging schedule and category. The Petitioner should identify those consumers having an outstanding of Rs. 50 thousand and above, for more than six months from the due date.

10. Capital expenditure

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

11. Metering of consumer installations / replacement of Non-Functional or defective Meters

Under Section 55 (1) of Electricity Act 2003, no licensee shall supply electricity after expiry of 2 years from the appointed date except through installation of correct meter in accordance with the regulation to be made in this behalf by the authority. Accordingly, metering is required to be done in line with CEA (installation and operation of meters) Regulations 2006 for all consumers. ED LED is directed to submit an action plan regarding installation/replacement of meters by 30th December 2012.

12. Strengthening of the Consumer Grievance Redressal System

The Commission directs the petitioner to find a way to dispose all pending applications as per the provisions under section 43 of the Electricity Act, and relevant JERC Regulations, other than the cases pending due to lack of documentary evidence of legal heirs after the death of original owner of the premises.

The Commission also directs the petitioner to follow the Standard of Performance notified by the Commission strictly and the status report on all new/shifting connection applications pending by more than 45 days, with the reason for their pendency be submitted to the Commission by 30th December 2012.

The petitioner is directed to promote and give publicity to the functioning of the Consumer Grievance Redressal Forum (CGRF), so that consumers can approach CGRF for redressal of theie grievances.

The Commission directs the petitioner to publicize the benefit to consumers, highlighting the steps and necessary documents required for redressal of complaints and to initiate action on the following:

- Complaints against fast meters/defective meters
- Application for shifting of electricity connection
- Application for new Connection
- Complaints regarding no-supply.
- Any other complaints

Commission further directs to prepare monthly/ quarterly schedule for visit to different islands by officers i.e. S.D.O., Executive Engineers and Superintendent Engineer LED to bring in greater efficiency in the working of LED and also to hear and settle the public grievances and complaints of the consumers at the spot so that no consumer is forced to visit the main office of the LED.

13. Exploration of alternative sources of electrical energy

The Commission has observed that there is huge dependency on diesel for generating electricity, which not only increases the average cost of supply but also puts a huge burden on the financial health of the utility. The Commission has noticed that the Petitioner has taken some initiatives in this regard but firm execution is required so as to speed up the process of the construction and achievement of commercial operation date of renewable generation plants. It is inevitable for the distribution licensee to explore alternative sources of power, and at the same time consumer's contribution in this regard is required in terms of installation of roof top solar, wind or hybrid equipments etc. to reduce the load on the existing power stations of the utility.

The petitioner is directed to submit a quarterly progress report for the initiatives taken in this regard and submit the first report by 30th January 2013.

14. Energy Audit

The Petitioner is directed to get an energy audit conducted to assess actual technical and commercial losses. The energy audit of the generating stations is required for an actual assessment of losses. Based on the studies, ED LED shall propose an action plan for the reduction of losses in subsequent years along with the investment required for reduction of such losses and augmentation of transmission and distribution system. Effective technical and administrative measures shall be taken to reduce the commercial losses. The action plan for energy audit and loss reduction measures shall be furnished to the Commission by 30th December 2012.

15. Management Information System (MIS)

The Commission has observed that the petitioner is not maintaining the sales and revenue data as per the regulatory formats, specified in the JERC tariff regulations. **The slab wise and category wise data is directed to be maintained month-wise for proper analysis of sales and revenue.**

The Petitioner is directed to take steps to build credible, accurate & verifiable data base and management information system (MIS) to meet the requirements of filing ARR & Tariff Petition as per the regulatory requirements of the Commission.

The ED LED shall conduct a study for computerization of data and shall give a proposal for the same along with an action plan (with target dates) to the Commission by 30th January 2013.

16. Interest on Security Deposit

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

17. Cost of Power Generation

The Commission has observed that the ED LED is not maintaining separate accounts for their diesel generating sets and solar power plants. The Commission directs the petitioner to provide separate details of cost of generation and final arrived tariff from the following stations/sets:

i. Cost of generation and Tariff from each Diesel Generating set

ii. Cost of generation and Tariff from Solar Power Plant

iii. Cost of generation and Tariff from other Renewable Power Plants

iv. Power Purchase cost from other sources, if any

18. Improvement in Specific Fuel Consumption

It is observed that the specific fuel consumption in case of LED is much higher at 0.32 litres per unit of electricity based on actual for FY 2011-12 whereas for similarly placed territory of Andaman & Nicobar Islands it is 0.23[9] litres to generate one unit of electricity based on approved cost for FY 2012-13. Also, the actual specific fuel consumption for the IPP at A&N is 0.24 litres/unit based on actual for FY 2011-12.

So, the utility needs to take serious steps to economies its use of the HSD fuel and bring its specific fuel consumption at par with other similarly placed utilities.

[9] For 266570000 units of gross generation, 60486314 litres of HSD fuel consumption have been approved for FY 2012-13 resulting in 0.23 litres being consumed to generate one unit of electricity in the Andaman & Nicobar Islands

19. Generator–wise data

The utility is required to submit generator-wise data of the generators installed each station, including unit generated, auxiliary power consumption, plant load factor and specific fuel consumption based on actual. The same is required to evaluate the efficacy of each plant installed at the islands.

20. Cost of Fuel

The Commission directs the petitioner to explore possibilities of sourcing the fuel from a station other than Beypore, if that is logistically and physically possible keeping the overall cost of transportation lower than the present cost.

7. TARIFF PRINCIPLES AND DESIGN

7.1 Preamble

The Commission in determining the revenue requirement and retail supply tariff for the financial year 2012-13 has been guided by the provisions of the Electricity Act, 2003, the Tariff Policy, Regulations on Terms and Conditions of Tariff issued by the Central Electricity Regulatory Commission (CERC) and Regulations on Terms and Conditions of Tariff notified by the JERC under Section 61 of the Act which lay down the broad principles, which shall guide determination of retail tariff.

Keeping view of the above, the tariff should ideally be designed in such a way to bring down the cross subsidies within reasonable and sustainable levels so as to reduce it gradually without giving 'Tariff Shock' to any category and retail tariff of different categories of consumers remains within + / - 20% of average cost of supply and that even for BPL category consumers, tariff rates more close to 50% of the average cost of supply. However, considering the average cost of supply at Lakshadweep and the assessed gap, the tariff could not be determined as per the principles referred above due to huge gap between the present tariff and the cost of supply. The Commission has therefore taken a considerate view in this regard balancing the interest of the utility and the consumers, thus compensating the department with additional revenue by providing reasonable hike in consumer's tariff.

7.2 Average Cost of Supply

The average cost of supply for FY 2012-13 is estimated at Rs 24.20/kWh as against Rs 26.03/kWh projected by the petitioner in its tariff petition for FY 2012-13.

7.3 Tariff Proposal

Petitioner's submission

The petitioner has proposed an average tariff increase of approximately 40% resulting in additional revenue from the increased tariff. The category wise existing and proposed tariff submitted by the Petitioner is as under:

Table 7.3.1: Existing and Proposed Tariff proposed by the Petitioner 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	

Commission's Analysis

The Commission has determined the retail tariff for FY 2012-13 keeping in view the guiding principles as stated in the Electricity Act, 2003 and the Tariff Policy, the suggestions/objections of the stakeholders in this regard and the petitioner's submission as discussed above.

Further, keeping in view the relevant directions given by the Hon'ble APTEL in the judgment in O.P. no. 1 of 2011 as mentioned below, the Commission has taken a considered view in this regard.

Relevant section from tariff policy:

Quote"

8.3 Tariff design: Linkage of tariffs to cost of service

It has been widely recognised that rational and economic pricing of electricity can be one of the major tools for energy conservation and sustainable use of ground water resources.

In terms of the Section 61 (g) of the Act, the Appropriate Commission shall be guided by the objective that the tariff progressively reflects the efficient and prudent cost of supply of electricity.

The State Governments can give subsidy to the extent they consider appropriate as per the provisions of section 65 of the Act. Direct subsidy is a better way to support the poorer categories of consumers than the mechanism of cross-subsidizing the tariff across the board. Subsidies should be targeted effectively and in transparent manner. As a substitute of cross-subsidies, the State Government has the option of raising resources through mechanism of electricity duty and giving direct subsidies to only needy consumers. This is a better way of targeting subsidies effectively. Accordingly, the following principles would be adopted:

1. *In accordance with the National Electricity Policy, consumers below poverty line who consume below a specified level, say 30 units per month, may receive a special support through cross subsidy. Tariffs for such designated group of consumers will be at least 50% of the average cost of supply. This provision will be re-examined after five years.*
2. *For achieving the objective that the tariff progressively reflects the cost of supply of electricity, the SERC would notify roadmap within six months with a target that latest by the end of year 2010-2011 tariffs are within ± 20 % of the average cost of supply. The road map would also have intermediate milestones, based on the approach of a gradual reduction in cross subsidy.*

   For example if the average cost of service is Rs 3 per unit, at the end of year 2010-2011 the tariff for the cross subsidised categories excluding those referred to in para 1 above should not be lower than Rs 2.40 per unit and that for any of the cross-subsidising categories should not go beyond Rs 3.60 per unit.
3. *While fixing tariff for agricultural use, the imperatives of the need of using ground water resources in a sustainable manner would also need to be kept in mind in addition to the average cost of supply. Tariff for agricultural use may be set at different levels for different parts of a state depending of the condition of the ground water table to prevent excessive depletion of ground water. Section 62 (3) of the Act provides that geographical position of any area could be one of the criteria for tariff differentiation. A higher level of subsidy could be considered to support poorer farmers of the region where adverse ground water table condition requires larger quantity of electricity for irrigation purposes subject to suitable restrictions to ensure maintenance of ground water levels and sustainable ground water usage*
4. *Extent of subsidy for different categories of consumers can be decided by the State Government keeping in view various relevant aspects. But provision of free electricity is not desirable as it encourages wasteful consumption of electricity besides, in most cases, lowering of water table in turn creating avoidable problem of water shortage for irrigation and drinking water for later generations. It is also likely to lead to rapid rise in demand of electricity putting severe strain on the distribution network thus adversely affecting the quality of supply of power. Therefore, it is necessary that reasonable levels of user charges are levied. The subsidized rates of electricity should be permitted only up to a pre-identified level of consumption beyond which tariffs*

reflecting efficient cost of service should be charged from consumers. If the State Government wants to reimburse even part of this cost of electricity to poor category of consumers the amount can be paid in cash or any other suitable way. Use of prepaid meters can also facilitate this transfer of subsidy to such consumers.

5. *Metering of supply to agricultural / rural consumers can be achieved in a consumer friendly way and in effective manner by management of local distribution in rural areas through commercial arrangement with franchisees with involvement of panchayat institutions, user associations, cooperative societies etc. Use of self closing load limitors may be encouraged as a cost effective option for metering in cases of "limited use consumers" who are eligible for subsidized electricity.*

   *" **Unquote***

Directions given by the Hon'ble APTEL in the Judgment in O.P. no. 1 of 2011:

Quote"

1) *…………………….*
2) *…………………….*
3) *……………………..*
4) *In determination of ARR/tariff, the revenue gaps ought not to be left and Regulatory Asset should not be created as a matter of course except where it is justifiable, in accordance with the Tariff Policy and the Regulations. The recovery of the Regulatory Asset should be time bound and within a period not exceeding three years at the most and preferably within Control Period. Carrying cost of the Regulatory Asset should be allowed to the utilities in the ARR of the year in which the Regulatory Assets are created to avoid problem of cash flow to the distribution licensee.*
5) *Truing up should be carried out regularly and preferably every year. For example, truing up for the financial year 2009-10 should be carried out along with the ARR and tariff determination for the financial year 2011-12.*
6) *Fuel and Power Purchase cost is a major expense of the distribution Company which is uncontrollable. Every State Commission must have in place a mechanism for Fuel and Power Purchase cost in terms of Section 62 (4) of the Act. The Fuel and Power Purchase cost adjustment should preferably be on monthly basis on the lines of the Central Commission's Regulations for the generating companies but in no case exceeding a quarter. Any State Commission which does not already have such formula/mechanism in place must within 6 months of the date of this order must put in place such formula/ mechanism." **Unquote***

The Commission is required to determine the tariff in such a way so as to move towards the average cost of supply. Since the gap between the present tariff and cost of supply is huge, it could not be met through the present tariff hike. As analyzed by the Commission, a minimum of 1049%

of average tariff hike is required to meet the revenue gap assessed by the Commission. As such this is not possible in view of the strategic location of the island and requirement of maintaining essential services at nominal price in the islands irrespective of the economic viability. At the same time considering that since 2004 the electricity tariff in the UT of Lakshadweep has not been revised, the tariff hike is inevitable. This is required to meet the need of funds at least to maintain reliable distribution network and to keep the islands electrified. Historically, there has been substantial gap between the actual cost of supply and revenue realized. This gap so far has been borne by the administration of Lakshadweep. Therefore keeping this in view the assessed gap of Rs 76.90 Crores will be borne by the Administration of Lakshadweep. The Commission has approved an average hike of 28.15**%** and the proposal for the introduction of two new consumer categories – BPL/Kutir Jyoti and HT consumers - has been accepted by the Commission.

Air-Conditioner Surcharge:

The Commission approves surcharge of Rs 500 per air conditioning unit per month to be levied on the consumers in addition to the normal tariff applicable as per the relevant consumer category.

The Commission's approved tariff for FY 2012-13 is given below:

Table 7.3.2: Commission's Approved Tariff for FY 2012-13

S. No.	Category/Consumption Slab per month	Approved Tariff (FY 2012-13)	
		Fixed Charges (Rs /per month per connection or Rs/kVA/month)	Energy Charges (Rs/kWh)
1	**BPL / Kutir Jyoti**	Rs. 25.00/ connection/month	
2	**Domestic**		
	0- 50 units	Rs 10/connection/month for single phase and Rs 50/connection/per month for 3 phase connections	1.00
	51 to 100 units		1.25
	101 to 200 units		2.50
	201 units and above		4.00
3	**Commercial**		
	0-100 units	Rs. 25/connection/ month for singe	4.25
	101 - 200 units		5.00

	201 units and above	phase and Rs. 100/connection/ month for 3 phase connections	6.00
4	**HT Consumers**	Rs. 100/ kVA/month	6.00
5	**Industrial**	Rs. 30 /kVA/month	4.50
6	**Public (Street Light)**	-	4.00
7	**Temporary Connection**		7.00

7.4 Estimated Revenue and Revenue Deficit at revised Tariff for FY 2012-13

The Commission has considered an average hike of 28.15% for all consumer categories to recover the revenue gap of FY 2012-13 (applicable from 1st October 2012) which computes to an overall increase in revenue of 14.07% to recover the revenue gap of FY 2012-13 over the financial year 2012-13. The tariff would be applicable for part period in FY 2012-13 therefore the revenue recovery from new tariff would be lower.

The tariff hike has been approved to minimize the revenue gap of LED. Any further increase in tariff would have caused undue hardship to the consumers.

The estimated revenue at revised tariff for FY 2012-13 works out to be as under. The Commission has considered the average revenue realizations for the respective consumer categories after applying the average increase in the respective consumer category. The Commission is forced to consider the same in the absence of slab wise data of sales, consumers and connected load for calculation of estimated revenue for FY 2012-13 and hence an increase in the average revenue realizations from the existing average revenue realizations has been considered to determine the revenue at the revised tariff for FY 2012-13.

Table 7.4.1 : Total Revenue estimated by the Commission at approved tariff for FY 12-13 (in Rs. Crores)

S. No.	Particulars	Sales (MU) FY 2012-13	Average Revenue Realization (Rs/kWh) FY 2012-13 (Revised Tariff)	Revenue at revised tariff (Rs Crores) FY 2012-13
1	Domestic	26.11	2.04	4.73
2	Commercial	7.60	6.18	4.22
3	Industrial	0.46	5.97	0.24

4	Public (Street Light)	1.59	3.46	0.47
5	Temporary Connections	0.02	5.40	0.01
6	**Total**	**35.78**	**3.04**	**9.67**

Note: For working out expected revenue for FY 2012-13, tariff at old rate for 6 months and tariff at revised rate for 6 months (applicable from 1st October 2012) has been considered.

The estimated gap/surplus after incorporating impact of revised tariff for FY 2012-13 from 1st October 2012 is as under:

Table 7.4.2 : Estimation of ARR Gap/Surplus at revised tariff for FY 2012-13 (in Rs. Crores)

Sr. No.	Particulars	Approved by the Commission (FY 2012-13) (Rs Crores)
1	Net Revenue Requirement	86.57
2	Less: Revenue from Retail Sales at Existing Tariff	8.47
3	Less: Revenue from Surplus Power Sale/UI	-
4	**Net Gap/(Surplus) for FY 2012-13 (1-2-3)**	**78.09**
5	Gap for the previous year/ (Surplus)	-
6	**Total Gap for FY 2012-13 at the existing tariff of FY 2012-13 (4+5)**	**78.09**
7	Additional Revenue from proposed tariffs (applicable from 1st October 2012)	1.19
8	**Revenue Gap after proposed tariffs (6-7)**	**76.90**

As discussed in earlier para, **historically there has been substantial gap between the cost of supply and revenue realized. This gap so far has been borne by the administration of Lakshadweep;** therefore the assessed gap of Rs 76.90 Crores shall be funded as per the present arrangements through non-planned funding in Annual Plan by the Govt. of India to the Electricity Department of Lakshadweep. As such the entire gap would be covered through the budgetary support by the Government of India, therefore revenue gap of Rs 76.90 Crores for FY 2012-13 will not be carried forward to the next financial year 2013-14. In view of the above, the licensee has to take a call on the gap which at present is being funded through budgetary support by the Government of India.

8. CONCLUSION OF COMMISSION'S ORDER

Having considered the Petition no. 85/2012 of Electricity Department of Lakshadweep for approval of Aggregate Revenue Requirement (ARR) and determination of retail tariffs for supply of electricity for FY 2012-13, the Commission approves the Aggregate Revenue Requirement (ARR) and the revised tariff for ED-Lakshadweep for FY 2012-13 as below.

1. The break-up of the Aggregate Revenue Requirement (ARR) approved for ED Lakshadweep for the year 2012-13 is given below.

S. No.	Particulars	Approved FY 2012-13 (Rs Crores)
1	Cost of fuel	65.87
2	Cost of power purchase for full year	-
3	Employee costs	9.30
4	Repair & Maintenance Expenses	3.14
5	Administration and general expenses	0.90
6	Depreciation	1.83
7	Interest and finance charges	3.17
8	Interest on working capital	1.76
9	Interest on Security Deposit	0.01
10	Return on NFA /Equity	0.72
11	Provision for Bad Debt	0.04
12	Advance Against Depreciation	-
13	**Total Revenue Requirement**	**86.75**
14	Less: Non-Tariff Income	0.19
15	**Net Revenue Requirement (13-14)**	**86.57**
16	Less: Revenue from Retail Sales at Existing Tariff	8.47
17	Less: Revenue from Surplus Power Sale/UI	-
18	**Net Gap/(Surplus) for FY 2012-13 (15-16-17)**	**78.09**
19	Gap for the previous year/ (Surplus)	-
20	**Total Gap for FY 2012-13 at the existing tariff of FY 2012-13 (18+19)**	**78.09**
21	Additional Revenue from proposed tariffs	1.19
22	**Revenue Gap after proposed tariffs (20-21)**	**76.90**

2. The approved retail tariff (as given below) shall be in accordance with the tariff schedule specified in this order to meet the ARR of FY 2012-13.

S. No.	Category/Consumption Slab	Approved (FY 2012-13)	
		Fixed Charges (Rs /per month per connection or Rs/kVA/month)	Energy Charges (Rs/kWh)
1	**BPL/Kutir Jyoti**	Rs 25/connection/month	
2	**Domestic**		
	0- 50 units	Rs 10/connection/month for single phase and Rs 50/connection/per month for 3 phase connections	1.00
	51 to 100 units		1.25
	101 to 200 units		2.50
	201 units and above		4.00
3	**Commercial**		
	0-100 units	Rs. 25/connection/ month for single phase and Rs. 100/connection/ month for 3 phase connections	4.25
	101 - 200 units		5.00
	201 units and above		6.00
4	**HT Consumers**	Rs. 100/ kVA/month	6.00
5	**Industrial**	Rs. 30 /kVA/month	4.50
6	**Public (Street Light)**	-	4.00
7	**Temporary Connection**	**-**	7.00

3. The approved revised tariff shall come into force with effect from 1st October 2012 and shall remain valid till 31st March 2013. <u>The licensee shall publish the revised tariff structure and the salient features of tariff within one week in three daily newspapers in the respective local languages of the region, besides English, having wide circulation in their respective areas of supply.</u>

4. For the first 6 months of FY 2012-13 (April to September'12), the pre-revised tariff shall be considered approved.

JERC Order on ARR & Tariff Petition for ED-Lakshadweep for FY 2012-13

5. FPPCA formula has been separately notified under the Regulation. It is seen that in the case of Lakshadweep, majority of the generation is diesel based, making per unit cost of generation very high compared to the other utilities. Thus, the approved tariff is not covering the full cost of supply. Historically, there has been substantial gap between the actual cost of supply and revenue realized. This gap so far has been borne by the administration of Lakshadweep & is so large that in near future there seems to be no feasibility of recovering average cost of supply from the consumer.

   Keeping the above fact in view, the Commission is of the view that any variation in the cost of power generation (including variation in power purchase cost, if any) should for the time being be borne by the utility. Further, the utility is directed to propose a scheme for sharing of the increase in the cost of power generation (including power purchase cost, if any) with the consumers for the Commission's consideration and approval.

6. Copy of this order may be sent to the Petitioner, CEA and Administration of UT of Lakshadweep. It shall be placed on the website of the Commission.

सु. चतुर्वेदी

(S. K. Chaturvedi)

Member

(Dr. V. K. Garg)

Chairman

Place: Gurgaon
Date: 31st October 2012

JOINT ELECTRICITY REGULATORY COMMISSION FOR THE STATE OF GOA and UNION TERRITORIES Page 91

R. K. Malik
Secretary
Joint Electricity Regulatory Commission
For State of Goa and Union Territories
Vanijya Nikunj, 2nd Floor, Udyog Vihar, Ph-V
Gurgaon-122016, Haryana

9. TARIFF SCHEDULE

General Terms and Conditions:

1) The tariffs are exclusive of electricity duty, taxes and other charges levied by the Government or other competent authority from time to time which are payable by the consumers in addition to the charges levied as per the tariffs.

2) Unless otherwise agreed to, these tariffs for power supply are applicable for supply at one point only.

3) If energy supplied for a specific purpose under a particular tariff is used for a different purpose, not contemplated in the contract for supply and / or for which higher tariff is applicable, it will be deemed as unauthorized use of electricity and shall be dealt with for assessment under the provisions of section 126 of the Electricity Act, 2003 & Supply Code Regulation notified by JERC.

4) The department shall not permit installation of contracted load of 3 HP and above in LT unless they are provided with the capacitors of adequate rating to comply with power factor conditions as specified in the JERC Supply Code Regulations 2010. The consumer has to provide appropriate capacitors for these installations presently running on without capacitors.

5) If the consumer fails to pay the energy bill presented to him by the due date, the Department shall have the right to disconnect the supply after giving 15 days' notice as per provision of the Act & Supply Code Regulation. Notice to this effect shall be printed on the bill of the consumer.

6) Fixed charges, wherever applicable, will be charged on pro-rata basis from the date of release of connection. Fixed charges, wherever applicable, will be double as and when bi-monthly billing is carried out; similarly slabs of energy consumption will also be considered accordingly in case of bi-monthly billing.

7) Supply to consumers connected at 11kV will be charged as per the HT Consumer category rate.

8) The billing in case of HT shall be on the maximum demand recorded during the month or 75% of contracted demand, whichever is higher. If in any month, the recorded maximum demand of the consumer exceeds its contracted demand, that portion of the demand in excess of the contracted demand shall be billed at double the normal rate. Similarly, energy consumption corresponding to excess demand shall also be billed at double the normal rate. The definition of the maximum demand would be in accordance with the provisions of the JERC Supply Code Regulation 2010. If such over-drawl is more than 20% of the contract demand then the connections shall be disconnected after due notice to the consumers.

Explanation: Assuming the contract demand as 100 KVA, maximum demand at 120 KVA and total energy consumption as 12000 Kwh, then the consumption corresponding to the contract demand will be 10000 Kwh (12000*100/120) and consumption corresponding to the excess demand will be 2000 Kwh. This excess demand of 20 KVA and excess consumption of 2000 Kwh will be billed at twice the respective normal rate. Such connections drawing more than 120 kVA, shall be disconnected after due notice.

9) In case of exceeding the sanctioned load by the low-tension consumers by adding additional load, the penalty charges shall be charged as per the relevant provisions of the JERC Supply Code Regulations 2010.

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

11) Delayed payment surcharge shall be applicable to all categories of consumers. Delayed payment surcharge of 2% per month or part thereof shall be levied on all arrears of bills. Such surcharge shall be rounded off to the nearest multiple of one rupee. Amount less than 50 paise shall be ignored and amount of 50 paise or more shall be rounded off to next rupee. In case of permanent disconnection, delayed payment surcharge shall be charged only upto the month of permanent disconnection.

12) Schedule of other charges approved in this Tariff Order will remain in force until it is amended by the Commission.

13) The Commission has approved additional charge of Rs 500 per air conditioning unit per month to be levied from the consumers besides the normal tariff applicable from the relevant consumer category.

14) 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.

The detailed tariff Schedule is outlined as below.

DETAILED TARIFF SCHEDULE

A. Tariff BPL/Kutir Jyoti:

Applicable to consumers of Below Poverty Line (BPL) category with monthly consumption of 30 units and below.

Fixed Charge – Rs 25/- per service connection per month or part thereof

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.

ED Lakshadweep shall install meters on all such consumers, latest by March 31’ 2013.

B. Domestic Category

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

I. Fixed Charges

Rs. 10 / connection/ month or part thereof for single phase connection
Rs. 50/connection/ month or part thereof for three phase connection

II. Energy Charges

Usage (Units/Month)	Energy Charge (Ps/Unit)
0-50 units	100
51-100 units	125
101-200 units	250
201 units and above	400

C. Commercial

This includes all categories which are not covered by other tariff categories i.e Domestic Category, BPL, Industrial LT, HT Consumers and Public Lighting.

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

I. Fixed Charges

Rs. 25/ connection/ month or part thereof for single phase connection
Rs. 100/connection/month or part thereof for three phase connection

II. Energy Charges

Usage (Units/Month)	Energy charge (Ps/Unit)
0-100 units	425
101-200 units	500
201 units and above	600

D. Industrial Category

Applicable to all Low Tension Industrial Connections including water works/pumps.

I. Fixed Charges

Rs 30/kVA/month or part thereof

II. Energy Charges

	Energy charge (Ps/Unit)
For all units	450

E. HT Consumers

Applicable for the consumers connected with 11 KV.

i. Fixed Charges (Demand Charges)

For Billing Demand	Charges (Rs/KVA/month) or part thereof
Upto Contract Demand	Rs 100/kVA/month or part thereof

ii. Energy Charges

Usage (Units/Month)	Tariff (Ps/Unit)
For all units	600

iii. Penalty Charges: Shall be in accordance with S.No. 8 of the General Terms and Conditions.

iv. Power Factor Charges

The power factor of the consumer if, less than 0.90; for every 0.01 of the power factor decrease, 0.5% of the total units consumed will be charged extra as surcharge at the rate of 500 ps/unit. Payment of the power factor charge won't exempt the consumer from his responsibility to maintain the power factor. In case of abnormal power factor decrease, the department will give the consumer 15 days' time to install appropriate capacitors and maintain the standard power factor. If the consumer is not able to rectify the problem within the notice time, the connection will be liable for disconnection. In case the monthly average power factor is less than 0.70 lagging, the installation is liable for disconnection after due notice.

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

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

v. Billing Demand

Billing demand in a billing cycle will be the higher of the following:

(a) 75% of the Contract Demand

(b) Actual Demand recorded by the meter

F. Public (Street Lighting)

Applicable for lighting on public roads, footpaths, streets and fares in parks & markets.

i. Energy Charges

Usage	Tariff (Ps/Unit)
For all units	400

G. Temporary Supply:

i. Energy Charges

Usage	Tariff (Ps/Unit)
For all units	700

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 a maximum period of six months.

Schedule of Other Charges

a. Meter Rent Charges

S.No.	Meter Type	Charges (in Rs.) / month or part there of
1	Single Phase	Rs 10 per month or part thereof
2	Three Phase	Rs 25 per month or part thereof
3	LT Meter with MD indicator	Rs 200 per month or part thereof
4	Tri- vector Meter	Rs 500 per month or part thereof

Note: The type of meters to be installed in consumer premises will be decided by the department. Generally the LT consumers having connected load above 50 HP will be provided with L.T.M.D.I meters.

Considering the constraints prevailing in Lakshadweep Islands, the energy meters will be provided by the department only.

b. Reconnection Charges after temporary disconnection

S. No.	Connection Type	Charges (in Rs.)
1	Single Phase LT	Rs 50
2	Three Phase LT	Rs 100
3	HT	Rs 500

c. Service Connection Charges

S. No.	Connection Type	Charges (in Rs.)
1	Single Phase LT	Rs 250
2	Three Phase LT	Rs 500
3	HT	Rs 1000

d. Extra Length Charge

S.No.	Connection Type	Charges / Meter (in Rs.)
1	Single Phase	Rs 50/meter
2	Three Phase	Rs 100/meter

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

e. Testing Fee for various Metering Equipment

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

f. Fees (Non-refundable) for submission of Test Report of wiring completion

S. No.	Types of Connection	Fee Per Test Report (in Rs.)
1	Single Phase Lighting / Domestic	10
2	Three Phase Lighting /Domestic	25
3	Single Phase Lighting / Commercial	50
4	Three Phase Lighting / Commercial	100
5	Three Phase LT Industries	250
6	Single Phase / Streetlight / Public Lighting & others	50

g. 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 meter

d) Penalty for tampering/damaging of supplier equipments – As per the relevant provisions of the JERC Supply Code Regulations 2010.

h. Air-conditioner Surcharge: The Commission approves surcharge of Rs 500 per air conditioning unit per month to be levied on the consumers in addition to the normal tariff applicable as per the relevant consumer category.