TARIFF ORDER

True-up of ARR for FY 2012-13, Review of ARR for FY 2013-14 and Determination of Aggregate Revenue Requirement & Retail Tariff for FY 2014-15

Petition no. 114/2013

For

Electricity Department, Daman & Diu

JOINT ELECTRICITY REGULATORY COMMISSION

For the State of Goa and Union Territories

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May 1’ 2014

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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
DISCOM/DD	:	Electricity Department, Daman & Diu
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
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
SCL	:	Sanctioned Connected Load
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]

S. K. Chaturvedi (Chairman)

Petition No. 114/2013

In the matter of

Truing up of Aggregate Revenue Requirement for FY 2012-13, Review for FY 2013-14 & Aggregate Revenue Requirement (ARR) & Retail Tariff for FY 2014-15 of the Electricity Department, Union Territory of Daman & Diu

And in the matter of

Electricity Department, Union Territory of Daman & Diu……………..…………………………………………………………………………………………..Petitioner

ORDER

Date: May 1' 2014

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

[1]As per section 93 of the Electricity Act, 2003; no act or proceedings of the Appropriate Commission shall be questioned or shall be invalidated merely on the ground of existence of any vacancy or defect in the constitution of the Appropriate Commission. Therefore, Shri S K Chaturvedi constituted the valid Coram for the public hearing in respect of the determination of the ARR & tariff for FY 2014-15, due to vacancy in the position of Chairperson at that time. Shri S.K. Chaturvedi, was the Member of the Commission at the time of public hearing and now is Chairperson of the Commission.

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 September 2008. Office of the Commission is presently located in the district town of Gurgaon, Haryana.

1.2 Electricity Department, UT of Daman and Diu

The Electricity Department, UT of Daman and Diu hereinafter called ED-DD, is responsible for procurement, transmission and distribution of electricity to the various consumer categories in the UT of Daman and Diu.

As submitted by the Petitioner,

Quote

''

The Electricity Department of Daman & Diu (EDDD) is engaged in the procurement, transmission and distribution of electricity to the various consumer categories in the Union Territory of Daman and Diu. It does not have its own power generation station and completely relies on the Central Sector Generating Stations (CSGS) in Western Region to meet its energy demand. ED-DD also has some allocation from Eastern Region Central Generating Stations.

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

The present power allocation of Daman & Diu is approximately 358 MW from various generating stations including 92 MW from NTPC-SAIL plant located at Bhilai and 38 MW from Ratnagiri Gas and Power Private Limited (RGPPL). At present, EDDD gets power from 220/66 kV Vapi substation through 66 kV D/C line and 220 kV Vapi-Magarwada Central Sector line, and Diu gets power from 66 kV Una substation through 66 kV double circuit line emanating from 220 /66 kV Kansari substation of GETCO.

Earlier in FY 12-13, electricity drawl of EDDD was approximately 220 to 250 MW against the daily scheduled availability of 280 to 290 MW resulting in a surplus of 30 to 40 MW during FY 12-13. The current demand is primarily dependent on the HT and LT Industrial consumers contributing approx. 94%

of the total sales in FY 12-13. The demand from the industrial consumers is primarily due to tax holiday benefit extended by the Govt of India in UT of Daman & Diu which has attracted a large number of industries to set up base in this area.

Considering the increase in demand from the large industries, the demand is likely to reach to 360 MW by FY 2014-15. In view of the huge power demand in future, EDDD had proposed a number of schemes to be implemented during FY 12-13 and FY 13-14 for strengthening and augmentation of the transmission and distribution system in the territory. EDDD is also undertaking efforts to get higher allocation from the Central Generating Stations. The ED-DD is undertaking all necessary actions to tie-up for long-term power purchase for meeting the deficit in the UT of Daman and Diu.''

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 (hereinafter referred to as JERC Tariff Regulations).

1.4 Filing of Petition

Electricity Department, UT of Daman & Diu has filed its petition for determination of Aggregate Revenue Requirement (ARR) & Retail Tariff for distribution and retail sale of electricity for FY 2014-15 under section 61, 62 & 64 of the Electricity Act, 2003. ED-DD submitted its ARR and Tariff petition for FY 2014-15 before the Commission on November 1’ 2013.

1.5 Admission of Petition

After initial scrutiny and analysis of the petition, the Commission admitted the petition on ARR & tariff determination for FY 2014-15 on November 6’ 2013. The Petitioner was directed to publish the summary of the ARR petition and the tariff proposal in leading newspapers of the union territory and upload the petition on the website of the Petitioner. The copy of the admission letter is enclosed as **Annexure 1** to this order.

The Commission vide its letter dated November 7’ 2013 directed the Petitioner to publish the public notice in abridged form in atleast two newspapers, widely circulated in the area of UT of Daman & Diu, highlighting the key features of the petition for inviting suggestions/objections from the general public/stakeholders.

The Petitioner as per its office letter dated November 13' 2013, received at the Commission's office on November 25' 2013 submitted the copies of the newspaper clippings wherein the public notices were published by the Petitioner for the information of the stakeholders.

The data as submitted along with the petition had data gaps and could not facilitate appropriate calculation of the power purchase cost and other components of the ARR and hence Commission sent the deficiency note for the petition for FY 2014-15 to the Petitioner on November 11' 2013.

The Commission sought important data like the amount of security deposit held by the Petitioner, frequency-wise details of UI over/under-drawl for FY 2012-13 and H1 of FY 2013-14, UI bills for FY 2012-13 and H1 of FY 2013-14, month-wise power purchase details based on actual for FY 2012-13 and H1 of FY 2013-14, amount of power purchase rebate, slab wise details of no. of consumers and load, compliance of directives etc.

The Commission also informed the Petitioner that the technical validation session would be held on November 25' 2013 and November 26' 2013. The Petitioner was asked to bring all the relevant documents alongside for the technical validation session to be held at the Commission's office.

The reply to the deficiency note was received vide email dated November 18' 2013.

On November 25' 2013, the representatives of the petitioner along with the representatives of the Commission conducted the technical validation session at the Commission's office. The Commission vide email dated November 27' 2013 sought clarifications/additional data on the issues/discrepancies highlighted during the technical validation session. This included clarifications on the compliance of directives, missing UI bills, mismatch of certain components claimed with the audited accounts for FY 2012-13, absence of physical verification certificate along with the fixed asset register etc. The same were responded by the Petitioner vide email dated December 2' 2013.

The pending submission on the compliance of directives was received on November 30' 2013.

The Commission on analysis of the submissions of the Petitioner vide email dated December 2' 2013, issued a reminder mail to the utility vide email dated December 26' 2013 on the pending clarifications which were delaying the processing of the tariff order.

The Petitioner, subsequently, vide its email dated January 28' 2014 sent its response to the above mentioned clarifications of the Commission.

The Commission has considered the submissions of the Petitioner till January 28' 2014 in its analysis for this tariff order.

1.6 Interaction with the Petitioner

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

Table 1.6.1 : Interaction with the Petitioner

S. No.	Date	Action by	Subject
1.	01.11.2013	ED-DD	Petition submission
2.	06.11.2013	Commission	Admission of the petition
3.	11.11.2013	Commission	Data gaps to be submitted for issuance of a complete tariff order; Important data like the amount of security deposit held by the Petitioner, frequency-wise details of UI over/under-drawl for FY 2012-13 and H1 of FY 2013-14, UI bills for FY 2012-13 and H1 of FY 2013-14, month-wise power purchase details based on actual for FY 2012-13 and H1 of FY 2013-14, amount of power purchase rebate, slab wise details of no. of consumers and load, compliance of directives etc. sought from the Petitioner
4.	18.11.2013	ED-DD	Response to the data gaps sought by the Commission vide letter dated November 11' 2013
5.	25.11.2013	Commission	Technical Validation Session held at the Commission's office
6.	27.11.2013	Commission	Clarifications/supporting data sought as per the discrepancies/issues pointed out during the technical validation session vide email 27.11.2013
7.	30.11.2013	ED-DD	Pending submission on the compliance of directives
8.	02.12.2013	ED-DD	Petitioner submits the data as asked in email dated 27.11.2013 with some pending queries to be replied shortly
9.	26.12.2013	Commission	Reminder on the pending clarifications as submitted by Petitioner vide email dated 02.12.2013 and additional clarifications sought by the Commission
10.	28.01.2014	ED-DD	Reply on the pending submission/additional clarifications sought by the Commission vide email dated 26.12.2013

1.7 Public hearing process

The public notice was published by the Petitioner for inviting objections/ suggestions from its stakeholders on the ARR and Tariff petition in the leading newspapers as detailed below.

Table 1.7.1 : Details of public notices published by the Petitioner

S. No.	Date of Publication	Language	Name of Newspaper
1.	November 9' 2013	Gujarati	Vartaman Pravah

S. No.	Date of Publication	Language	Name of Newspaper
2.	November 8' 2013	Hindi	Asli Azadi, Daman & Diu
3.	November 9' 2013	Hindi	Savera India Times, Daman

The petitioner also uploaded the petition on Electricity Department, DD website (http://www.dded.gov.in/) for inviting objections and suggestions on their petition.

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

1.8 Notice for Public Hearing

The Commission published the notice for public hearing on the Aggregate Revenue Requirement (ARR) & tariff petition for FY 2014-15 in 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 as per the below mentioned schedule.

Table 1.8.1 : Schedule of Public hearing at Daman and Diu

S. No.	Date & Time	Venue of Hearing	Subject
1.	January 9' 2014 10:30 am onwards for all category of consumers	Swami Vivekananda Auditorium, Govt. College, Nani Daman	True-up of ARR for FY 2012-13, Review of ARR for FY 2013-14 and approval of ARR & Determination of Tariff for FY 2014-15
2.	January 24' 2014 10:30 am onwards for all category of consumers	Community Hall, Near Sidhivinayak Temple, Ashok Nagar Colony, Ghoghla, Diu	

Table 1.8.2 : Details of public notices published by the Commission

S. No.	Date	Language	Name of Newspaper
1.	November 26' 2013	Hindi	Savera India Times, Daman
2.	November 26' 2013	Hindi	Asli Azadi, Daman

Table 1.8.3 : Repeat public notices published by the Commission

S. No.	Date	Language	Name of Newspaper
1.	January 7' 2014	Hindi	Savera India Times, Daman
2.	January 7' 2014	Hindi	Asli Azadi, Daman & Diu
3.	January 7' 2014	Hindi	Janta Sarkar, Daman & Diu
4.	January 22' 2014	Hindi	Asli Azadi, Daman & Diu

S. No.	Date	Language	Name of Newspaper
5.	January 22' 2014	Hindi	Janta Sarkar, Daman & Diu

The copies of public notice published by the Commission for intimation of public hearing(s) are attached as **Annexure 3** to this order. The public notices were also uploaded 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 the 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

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.

1.9 Adherence to the Model Code of Conduct

In view of General Elections 2014, the Model Code of Conduct has been imposed since 05th March 2014. In this context, the Principal Secretary, Secretariat of the Election Commission of India, vide its letter no. 437/6/1//2014/-CC&BE/235 dated 29th March 2014 clarified to the CERC as follows:

Quote:

"The Commission has no objection to the continuance of the process required for the decision on the power tariff. However, tariff award shall be made only on the completion of poll in the relevant State, i.e. after the poll date/dates in that State.''

Unquote

The FOR (Forum of Regulators) communicated the above mentioned clarifications as received from Election Commission to all SERCs vide its letter no. 15/2(39)/2013 – FOR/CERC/36750 dated April 4' 2014. The poll date in Daman & Diu was on April 30' 2014, which is now over.

Hence, in view of the consent and instructions received from the Election Commission of India as above, the Commission has finalized the tariff order and issued the current Tariff Order.

2. Summary of True-Up for FY 2012-13, Review for FY 2013-14 and ARR & Tariff for FY 2014-15 filed by the Petitioner

2.1 Introduction

Electricity Department, UT of Daman and Diu has filed its petition for determination of Aggregate Revenue Requirement and Tariff for FY 2014-15 under 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. As submitted by the Petitioner, information provided in the True-Up for FY 2012-13 is based on the audited annual accounts and principles adopted by the Commission in its previous orders on Interest on Term Loan, Interest on Working Capital and Depreciation.

As discussed at Para 1.5 of Chapter 1, after initial scrutiny & analysis of the ARR and Tariff Petition filed by the ED- DD for FY 2014-15, the petition was admitted subject to the removal of infirmities to the extent possible. The Commission has taken the petition bearing no. 114/2013 on record.

2.2 Summary of the Petition for True-up for FY 2012-13, Review for FY 2013-14 and ARR for FY 2014-15

The Petitioner has submitted the truing up for FY 12-13, revised estimates for FY 13-14 and the basis, assumptions and projections of individual elements constituting the determination of ARR for FY 14-15. Based on the estimates and projections for FY 2014-15, the ARR for ED-DD for FY 2014-15 has been proposed at Rs. 1015.47 Crores. The brief summary of the proposal is presented below.

Table 2.2.1 : Summary of True-up for FY 2012-13, Review of FY 2013-14 and ARR for FY 2014-15 submitted by the Petitioner (Rs. Crores)

Sr. No.	Particulars	True-Up FY 2012-13	Revised Estimates FY 2013-14	Estimates FY 2014-15
1	Power Purchase Cost	775.63	836.02	948.26
2	O&M Expense	19.11	20.82	22.68
3	Depreciation	13.26	15.61	17.72
4	Interest Cost on Long-term Capital Loans	4.02	6.74	10.33
5	Interest on Working Capital Loans	9.77	10.53	11.93
6	Return on Equity	5.06	6.16	6.36
7	Provision for Bad Debt	0.00	4.67	4.77
8	Interest on Security Deposit	0.00	0.00	0.00
9	Less: Non-Tariff Income	5.26	6.08	6.57
10	**Annual Revenue Requirement (ARR)**	**821.59**	**894.47**	**1015.47**
11	Revenue @ Existing Tariff	802.17	927.87	954.17

Sr. No.	Particulars	True-Up FY 2012-13	Revised Estimates FY 2013-14	Estimates FY 2014-15
12	Revenue from Surplus Power Sale	12.43	9.07	28.21
13	**Total Revenue**	**814.60**	**936.93**	**982.37**
14	**Revenue (Gap) /Surplus at Existing Tariff**	**(6.99)**	**42.46**	**(33.10)**
15	Previous year's gap carried over	-	(6.99)	34.44
16	Carrying Cost	0.00	(1.03)	0.00
17	**Total (Gap)/ Surplus at Existing Tariff**	**(6.99)**	**34.44**	**1.34**
	Covered by			
18	Additional Revenue @ Proposed Tariff	-	-	-
19	**Net (Gap)/ Surplus at Proposed Tariff**	**(6.99)**	**34.44**	**1.34**

2.3 Summary of the Tariff Proposal for FY 2014-15

The Petitioner has submitted that as there is a cumulative surplus of Rs. 1.34 Crores for FY 2012-13, FY 2013-14 and FY 2014-15 the ED-DD has not proposed any tariff hike for the FY 2014-15. The ED-DD has requested the Commission to approve the same retail tariff for FY 2014-15 as approved by the Commission for FY 2013-14.

The Petitioner has requested the Commission to approve the fuel purchase adjustment formula including the "K" factor for FY 2014-15, which can take care of any variation in the ARR over and above the approved levels by the Commission for FY 2014-15.

Table 2.3.1 : Summary of the Tariff Proposal for FY 2014-15 submitted by the Petitioner

Tariff Structure	Existing (FY 2013-14)		Proposed (FY 2014-15)	
	Fixed Charges	Energy Charges (Rs/kWh)	Fixed Charges	Energy Charges (Rs/kWh)
Low Income Group	Rs. 10/connection /month		Rs. 10/connection /month	
LT-D/Domestic				
Ist 50 Units	-	1.20	-	1.20
51 to 200 Units	-	1.80	-	1.80
201 to 400 Units	-	2.20	-	2.20
401 to 600 Units	-	2.55	-	2.55
LT-C/Commercial				
1st 100 Units	-	2.65	-	2.65
Beyond 100 Units	-	3.65	-	3.65
LT- Ag/ Agriculture				

Tariff Structure	Existing (FY 2013-14)		Proposed (FY 2014-15)	
	Fixed Charges	Energy Charges (Rs/kWh)	Fixed Charges	Energy Charges (Rs/kWh)
Upto 10 HP per unit	-	0.70	-	0.70
Beyond 10 HP per unit	-	1.00	-	1.00
LTP Motive Power				
Upto 20 HP of Connected Load	-	3.70	-	3.70
Above 20 HP Connected Load	Rs 25.00/HP	3.80	Rs 25.00/HP	3.80
LTP Public Water Work				
Upto 20 HP of Connected Load	-	3.70	-	3.70
Above 20 HP Connected Load	Rs 25.00/HP	3.80	Rs 25.00/HP	3.80
LT-PL/Public Lighting				
Public Lighting	-	4.20	-	4.20
HT				
HTC General Industrial / Motive Power 11KV or 66KV having CMD above 100KVA				
50000 units	Rs 100.00/kVA	4.70	Rs 100.00/kVA	4.70
50000 to 5 lakh units	Rs 100.00/kVA	4.85	Rs 100.00/kVA	4.85
Beyond 5 lakh units	Rs 100.00/kVA	5.05	Rs 100.00/kVA	5.05
HT Industrial(Ferro Metallurgical / Steel Melting/ Steel Rerolling Power Intensive)				
First 300 Units per KVA	Rs 550.00/kVA	3.85	Rs 550.00/kVA	3.85
Next 200 units per KVA	Rs 550.00/kVA	4.55	Rs 550.00/kVA	4.55
Above 500 units per KVA	Rs 550.00/kVA	4.80	Rs 550.00/kVA	4.80

2.4 Prayer to the Commission

The Petitioner respectfully prays that the Commission may:

Quote

"

- Admit the Aggregate Revenue Requirement of FY 14-15 as submitted herewith as well as the revised estimates for FY 13-14.
- Admit and approve the Trued-Up ARR for FY 2012-13.
- Condone any inadvertent omissions/ errors/ shortcomings and permit the Petitioner to add/ change/ modify/ alter this filing and make further submissions as may be required at a future date.
- Submit necessary additional information required by the Commission during the processing of this petition.
- And pass such other and further orders as are deemed fit and proper in the facts and circumstances of the case. "

Unquote

3. Approach of the Order for determination of ARR & Tariff for FY 2014-15, Review for FY 2013-14 and True-up for FY 2012-13

3.1 Introduction

The Petitioner has submitted the ARR & tariff petition for FY 2014-15 comprising of the true up for FY 2012-13, revised estimates for FY 2013-14 and projections for FY 2014-15. The Petitioner has submitted that the audited accounts for FY 2012-13 and the principles adopted by the Commission in its previous order form the basis for the true-up of FY 2012-13. The actual of FY 2012-13, actual available data of FY 2013-14 and revised estimates of FY 2013-14 form the basis of projection for FY 2014-15.

3.2 Approach for True-up of FY 2012-13 and Review for FY 2013-14

The Petitioner has requested for the True-up of FY 2012-13 and Review of the ARR for FY 2013-14 estimates of which were determined earlier by the Commission in its order for FY 2013-14 dated March 22 '2013. The True-up of FY 2012-13 and Review of ARR for FY 2013-14 is to be carried out as per the provisions of regulation 8 of JERC Tariff Regulations, 2009, which is as under:

Quote

''The Commission shall undertake a review along with the next Tariff Order of the expenses and revenues approved by the Commission in the Tariff Order. While doing so, the Commission shall consider variations between approvals and revised estimates/pre-actuals 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. Such an exercise shall be called 'Review'.

After audited accounts of a year are made available, the Commission shall undertake similar exercise as 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'.

The Truing Up for any year will ordinarily not be considered after more than one year of 'Review'.

The revenue gap of the ensuing year shall be adjusted as a result of review and truing up exercises.

While approving such expenses/revenues to be adjusted in the future years as arising out of the Review and / or Truing up exercises, the Commission may allow the carrying costs as determined by the Commission of such expenses/revenues. Carrying costs shall be limited to the interest rate approved for working capital borrowings.

For any revision in approvals, the licensee would be required to satisfy the Commission that the revision is necessary due to conditions beyond its control.

In case additional supply is required to be made to any particular category, the licensee may, any time during the year make an application to the Commission for its approval. The application will demonstrate the need for such change of consumer mix and additional supply of power and also indicate the manner in which the licensee proposes to meet the cost for such change of consumer mix and additional supply of power.

The Commission may consider granting approval to such proposals provided the cost of additional supply is ordinarily met by the beneficiary category.''
Unquote

In view of the above, the Commission has reviewed the variations between approvals and actual of sale of electricity, income and expenditure for FY 2012-13 based on the audited accounts and also revised estimates/actual for sale of electricity, income and expenditure for FY 2013-14 as submitted by the Petitioner and permitted necessary adjustments in cases where variations are for reasonable and justifiable reasons.

The detailed analysis & treatment of each component is provided in **Chapter 5 (True-up of ARR for FY 2012-13) and Chapter 6 (Review of ARR for FY 2013-14)** of this order.

3.3 Approach for Determination of ARR & Retail Tariff for FY 2014-15

In the determination of ARR & tariff for FY 2014-15, various provisions of the JERC's Tariff Regulations 2009 pertaining to business of the integrated utility are relevant and the Commission has been guided by the principles contained in Section 61 of the Act among other things to examine the sales forecast, power purchase quantum 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 principles and methodologies specified by the Central Commission for determination of the tariff applicable to generating companies and transmission licensees;

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

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

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

e) The principles rewarding efficiency in performance;

f) Multi-year tariff principles;

g) 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;

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

i) The National Electricity Policy and tariff policy;

The Commission has also kept in mind the JERC (Procurement of Renewable Energy Regulations) 2010 for meeting the RPO requirements of the utility.

The Commission has considered the figures of income & expenditure submitted by the Petitioner in the audited accounts for FY 2012-13 (after prudence check) and revised estimates for FY 2013-14 to form the basis of projection for income and expenditure for FY 2014-15. Further, the Commission has relied on the actual data of FY 2012-13 and actual available figures for FY 2013-14 provided by the Petitioner and validated by the Commission during the technical validation session, held after the submission of the petition. The detailed analysis & treatment of each component is provided in **Chapter 7 (Aggregate Revenue Requirement for FY 2014-15)** of this order.

4. Summary of objections raised, response from ED - Daman & Diu and Commission's views

4.1 Public response to the Petition

The Petitioner has published the summary of ARR and Tariff proposal in the newspapers, copies of the petition made available to the general public and the petition posted on the website of the Petitioner duly inviting comments/objections from public as per provisions of the JERC (Conduct of Business) regulations 2009. The stakeholders have also participated in the public hearing held on the petition at Daman and Diu.

4.2 Objections/Suggestions, Response from Electricity Department, UT of Daman & Diu and Commission's views

PART 1: General Issues and Comments

4.2.1 Stakeholders Objections/Comments

1. Daman Industries Association has submitted that Bank Guarantee should be accepted as a form of Security Deposit. This will ease out the fund blockage of the consumers.
2. Shri S K Sharma representing Perfect Filaments Limited has made the following submissions:
   i. The stakeholder has requested the Commission to approve the fuel purchase adjustment formula including the 'K' factor for FY 2014-15, which can take care of any variation in the power purchase cost over and above the approved level by the Commission for FY 2014-15.
   ii. Allow the industrial consumers for open access for purchasing power at competitive rates from the open market, which is the ultimate spirit of the Electricity Act 2003.
   iii. The stakeholder has highlighted that open access is a non-discriminatory provision for the use of transmission or distribution system by any consumer/generator and no industry should be denied access to open access.
3. Shri Manojkumar Ishverlal Naik representing the Daman Municipal Council has made the following submissions:
   i. The stakeholder has submitted that since the majority of the consumer base in the union territory of Daman & Diu is industrial, the line losses are on the higher side and should be brought further down. He has submitted that line losses are high due to the presence of theft in the union territory and the Department has not taken strict measures to control theft and bring down the line losses further. He has further alleged that some of the officials of the Department are themselves involved in misconduct and have not taken adequate measures to

control line losses. Further, he has stated that he had sought details of the steps taken by the Department to curb losses under the RTI which have not been responded to by the Department.

ii. He has alleged that the Department has been spending huge sums of money on the replacement of meters which has not resulted in commensurate benefit to the Department through resultant better revenue recovery. He has stated that such an exercise is wasteful if commensurate benefits are not derived out of the expenditure incurred.

iii. The stakeholder has stated that corruption is rampant amongst the officials of the Department and enquiry through independent agencies like the CBI, CAG etc. should be carried out against corrupt officials.

iv. Further, the stakeholder has submitted that he had sought details from the Department through the RTI channel regarding the functioning of the Department which has not been responded to. He has submitted that the reluctance in divulging details regarding the performance of the Department indicate that the working of the Department is not transparent and some officials of the Department themselves are involved in misconduct. He has stated that repeated requests were made by him through RTI, and yet they have not been responded to. He has requested the Commission to look into the matter and help in getting the information sought by the stakeholder.

v. The stakeholder has requested the Commission to set up a Public Advisory Committee which includes members of the general public to look into the day-to-day working of the Department. He has also requested the Commission to play an active role in controlling unchecked irregularities of the Department.

Petitioner's submission

The Petitioner has submitted that as per the order issued by the Commission dated 13.08.2013 on the petition seeking relaxation of Regulation 6.10 (2) of JERC (Electricity Supply Code) Regulations, 2010 to the extent of allowing payment of Security Deposit in the form of Bank Guarantee instead of Demand Draft or Banker's Cheque, the Commission has allowed security in the form of Bank Guarantee and fixed deposit for LT, HT, EHT and Micro, Small and Medium Entrepreneurs Consumers (MSME) for the existing and new connections of consumers of ED-DNH. Accordingly, the Petitioner has also stopped the conversion of security deposit in the form of Bank Guarantee to Demand Draft or Banker's Cheque and is accepting security deposit in the form of Bank Guarantee.

Regarding the implementation and access of consumers to open access in its territory, the Petitioner has submitted that it has filed a separate petition before the Commission for availing open access and the matter will be accordingly dealt with under the said petition.

Commission's views

The Commission has made note of the objections of the stakeholders and the Petitioner's response.

The Commission in petition no. 81/2012 and 106/2013 has decided to relax the provisions of the Electricity Supply Code Regulations 2010 and allow security in the form of bank guarantee and fixed deposit. The Commission has notified the amendments in JERC Electricity Supply Code Regulations 2010 on October 10' 2013 wherein Bank Guarantee has been included as a form of security deposit.

The relevant extract of the Amendment in Regulation 6.10 (2) of the principal regulation is reproduced below.

Quote

''Consumer shall have the option to make advance payment and in such an event security amount shall be proportionately fixed. The procedure for determination of security deposit, for different categories of consumers, shall be determined by the licensee and approved by the Commission. The deposit shall be accepted in the form of Cash, Cheque, draft or Bank Guarantee in case of LT consumers and in the form of draft, banker's cheque or Bank Guarantee in case of HT/EHT consumers. The Licensee shall maintain separate head of account of such security deposits. On termination of the agreement, the security deposit will be refunded to the consumer after adjustment of the amount, if any, remaining payable by him. ''

Unquote

Regarding the notification and implementation of the FPPCA formula, the same has already been notified and implemented by the licensee. FPPCA would be implemented for FY 2014-15 and the required parameters – 'R approved' and the 'K' factor for the FPPCA formula for FY 2014-15 have been approved in this tariff order.

The Commission has already notified JERC (Open Access in Transmission and Distribution) Regulation 2010 which is in force in the State of Goa & Union Territories including Daman & Diu. Further, the Commission has been approving the open access charges payable by open access consumers since past and has also approved for FY 2014-15 in chapter 10 (Determination of Open Access Charges) of this Tariff Order. As regards the high line losses, the Commission has noted the grievances of the stakeholders. The Commission is of the view that although the line losses of D&D is in single digit, it has still potential for further reduction of line losses through curbing theft of power, energy accounting of each Distribution Transformers.

The Commission in this regard directs the Petitioner to conduct DT wise energy audit and anti-theft drive in the high loss level area and submit the quarterly report.

PART 2: Tariff related

4.2.2 General Comments

Stakeholders Objections/Comments

1. Consumers coming under the HT category B (Ferro) have requested the Commission to reduce the demand charges from Rs 550 per kVA to Rs 60 per kVA, in case the factory is closed for a minimum period of one month. The industry associations representing the HT category B (Ferro) have requested the reduction in demand charges in view of the bad market conditions which the industry has been facing since the last three years. The industry associations – A.J. Castings Private Limited, Anupam Industries, Sewa Castings Private Limited have all made this common suggestion.

2. The Daman Industries Association, representing the industrial consumers of LT-P, LT-C, HT-C General and HT-C Ferro have made the following submissions:

    i. As per the tariff order for FY 2013-14, the surcharge applicable is 1% if the power factor falls below 0.90% whereas the consumer maintaining their power factor at 0.90% is given incentive of 0.5% only which should be increased.

    ii. Night tariff should be introduced at the lowest possible rate without affecting or burdening the day time tariff.

    iii. The general transmission & distributing pattern has been designed & drawn at 11KVA, 22KVA, 33KVA, 66KVA line keeping the geographical condition & space constrain in Daman. The distribution network is designed from 11 KVA & 66 KVA Line. In this above situation the stakeholder has submitted that the 4000 kV load should be given from 11 KVA line & the same practice is being followed in our neighboring Territories which is governed by the same Regulatory Commission.

    iv. The Association has submitted that the minimum demand charges for Ferro Industries (Induction Furnish Units) should be charged as per the HT General Category demand charges whenever they shut down their plants for minimum 30 days or more.

    v. The Association has requested that 66 kV feeder consumers should be given some rebate as compared to the 11 kV feeder consumers, as the line losses are nominal in case of 66 kV feeders.

vi. Revision of tariff should not be from retrospective date and should be divided in the remaining period after passing the tariff order so that the industries can add the revised cost of electricity in their costing as industries do not have a mechanism to recover the cost charge from retrospective date.

Petitioner's submission

The Petitioner has submitted that the levy of fixed charges is in accordance with relevant provisions of National Tariff Policy and is essential to recover the fixed expenditure incurred by the utility in distribution of power. The fixed expenditure are those expenses which are independent from the units of electricity supplied to the consumers and are incurred for building, operating, maintaining and strengthening of electrical system like R&M expenses, employee expenses, depreciation, interest on long term loans etc. The department allocates the capacity to the consumer on their demand and this capacity cannot be reallocated to any other consumer for a short period. Therefore, any reduction in demand charges on account of closure of the factory would require alternate mode of recovery to ensure full recovery of the approved annual revenue requirement. Under these circumstances, the Petitioner has submitted that it may not be feasible to make any adjustment in tariff on this account.

Further in regard to the objections of the Daman Industries Association, the Petitioner has submitted the following to the respective objections:

Quote ''

i. The ED-DD would like to submit that the power factor surcharge is levied on all those consumers whose power factor falls below 90% (0.9 lagging) @ 1% on billed demand and energy charges for each fall of 0.01 in power factor upto 0.7(lagging) so that all those consumers whose power factor falls below 90% (0.9 lagging) improve their power factor and help the department in mitigating the overall losses. However, the power factor incentive is given to those consumers whose power factor is more than 95% (0.95 lagging) @ 0.5% on demand and energy charges and is given for each increase of 0.01 in power factor above 0.95 (lagging) so that they maintain their power factor above the permissible limit. Therefore, the surcharge has been kept at a higher rate than the incentive. However, the surcharge and the incentive may be brought to the same level once the maximum no. of consumers starts maintaining their power factor above the permissible limit.

ii. The ED-DD would like to submit that the night time concessions are offered for effective demand side management. The provisions of night time concessions are reviewed periodically based on the power supply situation. The ED-DD has noted the objection of the petitioner. However, the Hon'ble Commission is empowered to take such a decision.

iii. The ED-DD has already submitted the cost benefit analysis for providing 4000KV load from 11KVA line to the Hon'ble Commission. Thus, the Hon'ble Commission is empowered to take any decision in the matter.

iv. The levy of fixed charges is in accordance with relevant provisions of National Tariff Policy and is essential to recover the fixed expenditure incurred by the utility in distribution of power. The fixed expenditure are those expenses which are independent from the units of electricity supplied to the consumers and are incurred for building, operating, maintaining and strengthening of electrical system like R&M expenses, employee expenses, depreciation, interest on long term loans etc. It may be noted that currently, only a small part of the total fixed expenditure is recovered through fixed charges from the consumers and in future, the same should be gradually increased.

v. Given the fact that the Hon'ble Commission has to allow full recovery of the approved ARR in the regulatory regime, the change in the rebate structure for supply of power at higher voltage level would require an increase in energy charges for supply of power at lower voltage level to maintain overall revenue neutrality. The ED-DD would like the Hon'ble Commission to take an independent view on this matter.

vi. The ED-DD has noted the objection of the petitioner. However, the Hon'ble Commission is empowered to take any decision in the matter**. " Unquote**

Commission's views

The approved tariff is applicable from April 1' 2014 and the apprehension of the stakeholder is not justified. The tariff has not been made applicable retrospectively.

As regards the suggestion of implementation of the night tariff, the Commission in the last year's tariff order dated March 22' 2013 had already introduced TOD tariff for the HT consumers having sanctioned demand of 900 kVA and above.

This time, the Petitioner has proposed to implement TOD tariff for all HT consumers. The Commission agrees with the suggestion of the Petitioner and directs that TOD tariff for all HT consumers be introduced within 3 months of the issuance of this tariff order. The licensee is directed to take necessary measures and ensure appropriate technical infrastructure for implementation of TOD tariff. The TOD tariff would also take care of the introduction of night tariff as suggested by some of the consumers. **Further, the Commission directs the Petitioner to submit quarterly reports regarding the status of implementation of TOD tariff in its territory after the issuance of this tariff order. The TOD Tariff would be revisited in the next order by the Commission based on the actual billing during the year in contention.**

As regards the shifting of consumers at 11 kV having contracted demand above 1500 kVA to higher voltage, the Commission has made note of the submission of the cost-benefit analysis of the Petitioner. The same has accordingly been discussed in **Chapter 8 (Directives)** under the appropriate directive - 'Shifting of existing consumers to higher voltage'.

As regards the reduction in demand charges of HT-B (Ferro) category for closure of the factory for short period due to bad market condition, the Commission has made a prudent assessment of the revenue gap of the different years and has found that the fixed cost of power purchase alone is around one-third of the ARR which is required to be paid to the generating companies irrespective of energy drawls. Accordingly, the Commission has ascertained the tariff for the different consumer categories in such a way that the weighted average of the fixed and energy charges is within +20% and -20% of the ACS and at the same time a reasonable percentage of fixed cost is assured to the Petitioner. However, the Commission considers the issue raised by HT-B consumers regarding higher demand charges of HT-B (Ferro) category as compared to HT (General) category and has rationalised the fixed and energy charges keeping intact the %age of average cost of supply of the category. The detailed analysis of the tariff for FY 2014-15 is in **Chapter 9 (Tariff philosophy and category-wise tariffs for FY 2014-15)** of this order.

As regards the voltage-wise tariff for 66kV and 11kV consumers, the Commission agrees that the tariff for 66kV should be lower than 11kV as the line losses and A&G costs in 66kV is lower than that in 11kV. However, the Commission at this stage finds it difficult to determine voltage wise tariff for 66kV and 11kV in absence of details of voltage wise cost of supply. The Commission would desire the Petitioner to file the ARR based on voltage wise cost of supply and would then take a view in this regard.

True up of Aggregate Revenue Requirement for FY 2012-13

5. True-up of Aggregate Revenue Requirement for FY 2012-13

5.1 Preamble

The Petitioner, in their true-up for FY 2012-13 has submitted the details of expenditure and revenue for FY 2012-13 based on the audited accounts submitted by the Petitioner for FY 2012-13. The Petitioner has provided the comparison of actual revenue and expenditure against each head with the revenue and expenditure approved by the Commission. The petitioner has not submitted the reasons for deviation against each component of the ARR along with the true-up for FY 2012-13.

It is to be noted that the Petitioner has submitted the true-up for FY 2012-13 along with the audited accounts for FY 2012-13, though not audited by CAG. The audit of accounts by CAG is an important requirement to ascertain the validated information for true-up. Audit with respect to a government department would essentially require a Proprietary and Commercial audit. However, the Commission feels that the tariff determination process should not be stalled in the absence of CAG audit in the larger interest of the consumer and the utility. **The petitioner is required to file an affidavit before the Commission bringing out any change in the true-up of ARR, as and when the CAG audit is carried out.**

The Commission in its previous tariff orders had directed the petitioner for furnishing the fixed asset register physically verified by a third party. In compliance to the said directive, the Petitioner has furnished the fixed asset register along with the Chartered Accountant's certificate stating that the assets have been physically verified by the CA for FY 2012-13 on test check basis. The Commission has dealt with the treatment of the same in detail in Para 5.10 of this order.

In this Chapter, the Commission has analyzed all the elements of actual revenue and expenses for FY 2012-13 based on the audited accounts submitted by the Petitioner, and has carried out the true-up of expenses and revenue after due prudence check.

5.2 Truing up and Analysis of performance for FY 2012-13

The True-up of FY 2012-13 is to be carried out as per the provisions of regulation 8 of JERC Tariff Regulations, 2009. As per the regulation 8 of JERC Tariff Regulations, 2009:

Quote

'The Commission shall undertake a review along with the next Tariff Order of the expenses and revenues approved by the Commission in the Tariff Order. While doing so, 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. Such an exercise shall be called 'Review''.

After audited accounts of a year are made available, the Commission shall undertake similar exercise as 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'.

The Truing Up for any year will ordinarily not be considered after more than one year of 'Review'.

The revenue gap of the ensuing year shall be adjusted as a result of review and truing up exercises.

While approving such expenses/revenues to be adjusted in the future years as arising out of the Review and / or Truing up exercises, the Commission may allow the carrying costs as determined by the Commission of such expenses/revenues. Carrying costs shall be limited to the interest rate approved for working capital borrowings.

For any revision in approvals, the licensee would be required to satisfy the Commission that the revision is necessary due to conditions beyond its control.

In case additional supply is required to be made to any particular category, the licensee may, any time during the year make an application to the Commission for its approval. The application will demonstrate the need for such change of consumer mix and additional supply of power and also indicate the manner in which the licensee proposes to meet the cost for such change of consumer mix and additional supply of power.

The Commission may consider granting approval to such proposals provided the cost of additional supply is ordinarily met by the beneficiary category.'

Unquote

The Commission has reviewed the variations between approvals and actual of sale of electricity, power purchase expenses, other income and expenditure for FY 2012-13 as per the audited accounts submitted by the Petitioner and has permitted necessary adjustments after prudence check in cases where variations are for reasonable and justifiable reasons.

5.3 Energy Sales

Petitioner's submission

The petitioner has submitted the category-wise actual energy sales of 1863.00 MU for FY 2012-13. The petitioner has stated that there has been a decrease in energy sales as compared to the energy sales approved by the Commission in its ARR and Tariff Order dated March 22' 2013 of 1867.01 MU, as part of the "review" exercise.

The Petitioner has submitted that the variation in the actual energy sold as compared to the energy sales approved by the Commission is due to the following reasons:

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

ED-DD has requested the Commission to approve the actual sales for FY 2012-13 as submitted by the Petitioner.

Commission's analysis

The Petitioner had forecasted the energy sales of 1864.69 million units in its ARR and tariff petition for FY 2012-13, wherein the Commission had approved the sales of 1830.28 MU in its ARR & tariff order dated August 25' 2012. Further, the Commission had revised its approval of sales to 1867.00 million units in the ARR and tariff order dated March 22' 2013 based on the half yearly sales submitted for the review of FY 2012-13. The Petitioner has now submitted the actual sales at 1863.00 MU for FY 2012-13 in its true-up for the year. The variation in sales from the approved values is majorly on account of the increased energy sales to the domestic and commercial categories and marginal increase in sales to agriculture, LIG, public lighting, public water works and temporary category. However, the sales to the LT and HT industrial categories have shown a marginal decrease, resulting in an overall decrease in sales.

The Commission has observed that the Petitioner has submitted the sales for the LIG category as 0.10 MU. The Commission had asked for the details of the consumers and the connected load for the LIG category from the Petitioner. The Petitioner responded by submitting the number of consumers for the LIG category as 121; however the connected load details were not furnished.

The Commission has considered consumption of consumers under the LIG category as 30 units/consumer/month adopting the guidelines as mentioned in the Tariff Policy. This works out to be 360 (30 x 12) unit/consumer/year which is considered adequate for such consumers.

The Petitioner has claimed consumption of 0.10 MUs for 121 consumers in the LIG category, thereby, giving an average consumption 826.4 units/consumer/year which is much higher than as fairly assessed by the Commission. The Petitioner has not furnished any basis for arriving at the consumption assessed for such category.

In the absence of any clarification received from the Petitioner, the Commission has considered the assessed consumption of 360 unit/year/consumer arrived by the Commission as explained above. On the basis of this, the Commission approves the normative sales for the LIG consumers as 0.04 MU.

It is observed that the overall variation in the sales as against the approval of the Commission is negligible. Further, the Commission finds the energy sales for the other consumer categories (other than the LIG category) to be an uncontrollable factor at the hands of the utility. Therefore, the Commission approves the total sales of 1862.94 million units for FY 2012-13 based on actual submitted by the Petitioner and after adjusting the consumption of LIG consumers as explained in the previous Para.

Table 5.3.1 : Energy Sales approved by the Commission for FY 2012-13 (in Million Units)

S. No.	Category	Petitioner Submission	Approved TO dated 25 August'12	Petitioner Review	Approved TO dated 22 March'13	Petitioner's Submission True-up	Approved
1	**Domestic**	70.40	72.96	75.39	75.39	77.79	77.79
2	**Low Income Group**	0.10	0.10	0.06	0.06	0.10	0.04
3	**NRS/Commercial**	32.46	32.58	34.64	34.64	38.74	38.74
4	**Agriculture**	2.82	2.82	3.59	3.59	4.22	4.22
5	**LT Industrial**	157.19	152.64	164.92	164.92	161.21	161.21
6	**Public Lighting**	4.84	5.02	4.10	4.10	6.51	6.51
7	**Public Water Works**	0.92	0.97	0.88	0.88	1.12	1.12
8	**HT/EHT Industry**	1595.18	1562.41	1583.03	1583.03	1572.81	1572.81
9	**Temporary Supply**	0.78	0.78	0.40	0.40	0.51	0.51
	TOTAL	**1864.69**	**1830.28**	**1867.00**	**1867.00**	**1863.00**	**1862.94**

5.4 Surplus Energy Sale/UI Sales

Petitioner's submission

The Petitioner has submitted the actual surplus energy sale of 49.61 million units for FY 2012-13 in its ARR & tariff petition for FY 2014-15.

Commission's analysis

The Commission has verified the actual quantum of UI under / overdrawal from the weekly summary sheets/bills of UI from the WRPC for the period under consideration. The Commission has therefore considered the actual surplus energy sale of 49.08 MU under UI mechanism for FY 2012-13 for the purpose of truing-up. The Commission considers the under-drawal of 49.08 MU from the UI weekly summary sheets as per the latest bills from WRPC as final and accordingly approves the same for the true-up of FY 2012-13.

5.5 Inter-State Transmission Losses

Petitioner's submission

The petitioner has submitted the energy balance for FY 2012-13 wherein the Petitioner has considered the actual pool losses at 4.09% resulting in inter-state transmission loss of 89.30 MU.

Commission's analysis

The Commission in its ARR & tariff order for FY 2012-13 dated August 25' 2012 had approved the loss level of 3.56% against the loss level of 3.90% submitted by the Petitioner. The Petitioner in the Review for the year had submitted the average pooled losses for FY 2012-13 of the Western Region at 3.56% and the Commission had accordingly considered the regional pool loss of 3.56% in its tariff order dated March 22' 2013.

The petitioner has submitted the inter-state transmission losses of 4.09% in the true-up for FY 2012-13. The Commission in the last tariff order dated March 22' 2013 had approved 3.56% inter-state losses based on the pooled losses of the Western Region as per the data available on the WRLDC site. Now with the introduction of the new POC transmission charges and losses, the methodology for the apportionment of losses of the region to beneficiaries has undergone a change. Accordingly, the Commission has considered the inter-state transmission losses based on energy scheduled by the licensee and the energy scheduled at the generation end.

The gross energy purchase, including the UI over-drawal has been 2180.12 MU as analyzed by the Commission and as discussed in para 5.6 of the order. **This result in the inter-state transmission loss of 87.50 MU, which is 4.06% inter-state losses of the gross energy purchased excluding the UI over-drawl.**

The Commission considers the inter-state loss of 4.06% as reasonable and hence approved.

5.6 Intra-State Transmission and Distribution Losses

Petitioner's submission

The petitioner has submitted that the actual loss level achieved in FY 2012-13 is 8.87% as against the loss level of 9.25% approved by the Commission in its ARR and tariff order dated March 22'2013.

Commission's analysis

In the review for the year, the Petitioner had submitted the T&D loss level of 9.50% against the target of 9.25% for the year as per the tariff order for FY 2012-13 dated August 25' 2012. The Commission for the review for the year had approved the T&D loss level at 9.25% in the order dated March 22' 2013, retaining it at the level approved earlier.

The Petitioner has submitted the T&D losses at 8.87% for the true-up. The Petitioner in the true-up has mentioned the total units purchased as 2183.27 MU and has also mentioned that the same includes 24.31 MU towards UI.

As part of its prudence check, the Commission has verified the energy quantum scheduled from the generating stations with the REA. Variation in the units as part of the prudence check has been recorded and the units recorded in the REA as available from the WRPC website is considered to be final.

The UI over-drawal figure has been verified by the Commission from the weekly summary sheets/bills of UI on the WRPC site for the period FY 2012-13. The Commission has considered the UI over-drawal figure as per the UI bills on WRPC site as final and accordingly considers the UI over-drawal of 22.85 MU in the true-up for FY 2012-13.

Table 5.6.1 : Energy Purchase analyzed by the Commission for FY 2012-13 (in Million Units)

Source	Petitioner's claim in true-up of FY 2012-13	Actual
NTPC Stations	1267.77	1267.67
NSPCL-Bhilai	643.78	642.19
KHSTPP II	11.95	11.95
KAPS	58.68	58.68
TAPS 3&4	92.20	92.20
RGPPL	84.58	84.58
UI Purchase	24.31	22.85
Total	**2183.27**	**2180.12**

The energy drawal figure has been reconciled with the UI weekly summary sheets/ bills available on the WRPC site. The energy-drawal of 2043.54 MU has been considered by the Commission for FY 2012-13.

The calculation for the same is given in the table below.

Table 5.6.2 : T&D loss analyzed by the Commission for FY 2012-13

Source	S. No. (Derivation of figures in Col 5 of the table)	UoM	Petitioner's Submission	Actual Analyzed
1	2	3	4	5
Total allocation from Gen Stations	A	MU	2158.96	2157.27
Purchase through UI	B	MU	24.31	22.85
Gross Purchased Energy	C=A+B	MU	2183.27	2180.12
Pooled Loss	D =C-E	MU	89.30	87.50
Inter-state transmission loss	D/A	%	4.09%	4.06%
Total energy requirement for state	E = F + G	MU	2093.98	2092.62
Sale through UI	F	MU	49.61	49.08
Energy requirement at state periphery for sale to retail consumers	G	MU	2044.37	2043.54
Sales	H	MU	1863.00	1862.94
T&D loss	I=G-H	MU	181.37	180.60
T&D loss	J=I/G*100	**%**	8.87%	8.84%

Accordingly, the T&D losses based on the approved sales and the interstate losses and the quantum of energy scheduled at the periphery results to 8.84% (based on the actual analyzed by the Commission).

It may be observed that the achieved T&D loss is lower than the target loss of 9.25% for FY 2012-13. The regulation 9 of the JERC tariff regulations, 2009 (reproduced below) deals with the overachievement/underachievement of the targets laid down.

'9. Excess or Under Recovery with Respect to Norms and Targets

1) *The generating company or the licensee, as the case may be, shall pass on to the consumers, the 70 % of the gain arising from over achievement of the norms laid down by the Commission in these Regulations or targets set by the Commission from time to time and retaining balance 30% with themselves.*

2) *The generating company or the licensee, as the case may be, shall bear the entire loss on account of its failure to achieve the norms laid down by the Commission or targets set by the Commission from time to time.'*

The Commission, therefore, finds it reasonable to allow 30% of the gain arising from over-achievement of the norms laid down by the Commission to be retained by the ED-DD in accordance with the above stated Regulations.

Thus, the 30% of total estimated gain is to be shared with ED-DD and is allowed as an expense in the Aggregate Revenue Requirement of FY 2012-13 which is given in the table below.

Table 5.6.3 : Calculation of gain for FY 2012-13

Particulars	UoM	Actual	Targeted
Energy Sales	MUs	1862.94	1862.94
T&D losses	% age	8.84%	9.25%
Energy at the state periphery	MUs	2043.54	2052.83
		X	Y
Overachievement (Y-X)	MUs	9.29	
Average rate of energy at the periphery	Rs/Unit	3.79	
Overachievement amount	Rs Crores	**3.52**	
30% of total estimated gain to be shared with ED-DD	Rs Crores	**1.05**	

The Commission considers the loss level of 8.84% as reasonable and approves the same for True-up of FY 2012-13 and allows the gain of Rs. 1.05 Crores, which shall be considered as expenditure in the Aggregate Revenue Requirement of FY 2012-13, for the purpose of truing-up of FY 2012-13.

5.7 Energy Requirement

Petitioner's submission

The petitioner has submitted the energy requirement for FY 2012-13 based on the actual sales, power purchase quantum and losses for the year.

Commission's analysis

The Commission has approved the T&D losses and the inter-state transmission losses as elaborated in the foregoing paragraphs. The energy requirement for FY 2012-13 is drawn based on the approved inter-state and intra-state T&D losses and the approved energy sales. The gross energy requirement approved for FY 2012-13 is shown in the table below, along with the energy requirement submitted by the Petitioner for the true-up of FY 2012-13.

Table 5.7.1 : Energy Requirement approved by the Commission for FY 2012-13 (in Million Units)

S. No.	Particulars	Petitioner Submission FY 2012-13	Approved TO dated 25 August'12 FY 2012-13	Petitioner Review FY 2012-13	Approved TO dated 22 March'13 FY 2012-13	Petitioner's submission True-up FY 2012-13	Approved FY 2012-13
1	**Energy sales within the State/UT (in MUs)**	1864.69	1830.28	1867.00	1867.00	1863.00	1862.94
2	**Distribution losses**						
I	%	9.70%	9.25%	9.50%	9.25%	8.87%	8.84%
Ii	MU	200.30	186.56	195.98	190.30	181.37	180.60
3	**Energy required at State Periphery for Sale to Retail Consumers**	**2064.99**	**2016.84**	**2062.99**	**2057.30**	**2044.37**	**2043.54**
4	**Add: Sales to common pool consumers/ UI (in MUs)**	**99.85**	**0.00**	**76.55**	**25.31**	**49.61**	**49.08**
5	**Total Energy Requirement for State**	**2164.84**	**2016.84**	**2139.53**	**2082.61**	**2093.98**	**2092.62**
6	**Transmission losses**						
I	%	3.90%	3.56%	3.56%	3.56%	4.09%	4.06%
II	MU	87.85	74.45	78.98	76.76	89.30	87.50
7	**Energy required to be purchased**	**2252.69**	**2091.29**	**2218.51**	**2159.37**	**2183.27**	**2180.12**

5.8 Power Purchase Quantum & Cost for FY 2012-13

Petitioner's submission

The petitioner has submitted that the actual power purchase cost for FY 2012-13 is Rs. 775.63 Crores to procure 2093.98 million units energy for FY 2012-13.

The Commission had approved the power purchase cost at Rs. 788.31 Crores in the tariff order dated March 22' 2013. Now, the ED-DD has claimed a power purchase cost of Rs. 775.63 Crores based on the annual accounts for FY 2012-13 and there is a decrease in the power purchase cost as compared to the power purchase cost approved by the Commission.

ED-DD has requested the Commission to allow the UI purchase during FY 2012-13 without any penalty as the ED-DD has already incurred that amount. Therefore, ED-DD has included the total UI amount paid in the total power purchase cost for FY 2012-13.

ED-DD purchased 24.31 MU during FY 2012-13 through UI at the cost of Rs. 6.10 Crores to meet the energy shortfall during the year.

The Petitioner has requested the Commission to allow the power purchase cost for FY 2012-13 without any deduction.

Table 5.8.1 : Power Purchase Quantum and Cost submitted by the Petitioner for FY 2012-13

	FY 2012-13 (Approved vide order dated 22nd March, 2013)			FY 2012-13 (Actual)		
Source (Rs. Crs)	Units Purchased	All Charges Total	Per Unit Cost	Units Purchased	All Charges Total	Per Unit Cost
NTPC Stations						
KSTPP	367.44	60.15	1.64	385.91	69.23	1.79
KSTPP-III	46.96	11.85	2.52	48.27	11.87	2.46
VSTPP-I	101.91	24.76	2.43	104.86	23.40	2.23
VSTPP-II	75.44	17.68	2.34	78.44	17.81	2.27
VSTPP- III	93.66	26.33	2.81	99.25	25.53	2.57
VSTPP- IV	0.00	0.00	0.00	1.12	0.32	2.82
KAWAS	133.42	53.91	4.04	150.12	56.78	3.78
JGPP	190.78	71.83	3.77	189.62	71.54	3.77
Bhilai Unit-I &II(NTPC)	669.43	274.32	4.10	643.78	277.56	4.31
Sipat-I	145.53	40.39	2.78	134.55	37.42	2.78
Sipat-II	84.17	21.43	2.55	75.54	19.63	2.60
MSTPS-I	0.00	0.00	0.00	0.10	0.05	5.45
Subtotal	**1908.74**	**602.65**	**3.16**	**1911.56**	**611.14**	**3.20**
Eastern Region						

Source (Rs. Crs)	FY 2012-13 (Approved vide order dated 22nd March, 2013)			FY 2012-13 (Actual)		
	Units Purchased	All Charges Total	Per Unit Cost	Units Purchased	All Charges Total	Per Unit Cost
KHSTPP-II	11.22	4.04	3.60	11.95	3.91	3.27
Subtotal	**11.22**	**4.04**	**3.60**	**11.95**	**3.91**	**3.27**
NPCIL						
KAPPS	58.66	13.61	2.32	58.68	13.79	2.35
TAPP 3&4	88.73	25.19		92.20	25.83	2.80
Subtotal	**147.39**	**38.80**	**2.63**	**150.88**	**39.62**	**2.63**
Others						
Ratnagiri	60.03	51.29	8.54	84.58	48.62	5.75
Subtotal	**60.03**	**51.29**	**8.54**	**84.58**	**48.62**	**5.75**
Power purchase from Other Sources						
Power purchase from Indian E. Exchange	0.00	0.00	0.00	0.00	0.00	0.00
UI	3.27	1.61	4.92	24.31	6.10	2.67
Solar	3.83	3.44	8.98	0.00	0.00	0.00
Non Solar	24.88	9.95	4.00	0.00	0.71	0.00
Subtotal	**31.98**	**15.00**	**4.69**	**24.31**	**6.10**	**2.67**
Misc. Arrears		**5.00**	**0.00**		**2.96**	
NTPC Rebate					**3.50**	
Gross Power Purchase	**2159.36**	**716.78**		**2183.27**	**708.86**	
External Losses	76.76			89.30		
Total Power Purchase	**2082.60**	**716.78**	**3.44**	**2093.98**	**708.86**	**3.38**
PGCIL CHARGES		67.51			62.18	
WRLDC		0.54			0.51	
Other		3.48			4.08	
Grand Total of Charges - Net	**2082.60**	**788.31**	**3.79**	**2093.98**	**775.63**	**3.70**

Commission's Analysis

The Commission had approved the power purchase cost including transmission charges as Rs 788.30 Crores (including UI) for purchase of 2159.37 million units in its ARR and tariff order dated March 22' 2013 as part of the review exercise for the year.

The Petitioner in its true-up has submitted the actual power purchase quantum of 2183.27 MU at Rs. 775.63 Crores including transmission costs during FY 2012-13 (including UI of 24.31 MU). However, on prudence check the quantum of purchase has been found to be 2180.12 MU after verification as discussed at Para 5.6 of this order including the UI quantum of 22.85 MU. The Commission has considered the power purchase corresponding to the energy requirement approved for FY 2012-13 in para 5.7 of this order.

The summary of the power purchase quantum for FY 2012-13 as approved by the Commission after the truing up, is given in the following table:

Table 5.8.2 : Power Purchase Units approved by the Commission for FY 2012-13 (in Million Units)

S. No.	Particulars	Petitioner's claim True-up	Actual FY 2012-13 basis the units verified	Approved (FY 2012-13)
1	NTPC Stations	1267.77	1267.67	1267.67
2	NSPCL-Bhilai	643.78	642.19	642.19
3	KHSTPP II	11.95	11.95	11.95
4	KAPPS	58.68	58.68	58.68
5	TAPS 3&4	92.20	92.20	92.20
6	RGPPL	84.58	84.58	84.58
7	UI Purchase	24.31	22.85	22.85
8	**Total**	**2183.27**	**2180.12**	**2180.12**

Power Purchase from UI and Power Exchanges

The Petitioner in its true-up petition has submitted that they had procured Power from short term source - UI mechanism to meet the peak demand. The Commission has noticed that the Petitioner has procured 24.31 million units through over drawls under UI mechanism at an average price of Rs. 2.67 per unit (as submitted in the petition). It is observed that the Petitioner has not procured any energy through other short-term sources other than UI and is accordingly not being considered here. UI cost of Rs 6.10 Crores has been claimed by the Petitioner.

Table 5.8.3 : Summary of Purchase from UI for FY 2012-13 as submitted by the Petitioner in petition (Rs. Crores)

S. No.	Source	Energy Units (in MUs)	Amount (Rs. Crores)
1	UI mechanism	24.31	6.10
	Total	**24.31**	**6.10**

As per the reports generated by WRLDC on UI, it has been found that the Petitioner has overdrawn beyond the permissible limits of frequency. Therefore as per the CERC (Unscheduled Interchange charges and related matters) Principle Regulations and its amendments thereof applicable for FY 2011-12 and Press Notification issued by Ministry of Power on 23rd July 2009 and after verification of the data submitted by the Petitioner, Commission has disallowed the additional UI charges of **Rs 0.54**

Crores against the UI overdrawal beyond 49.5 Hz frequency (amended to 49.7 Hz from March 5' 2012) imposed on the utility as per the UI regulations of CERC (as amended from time to time) for over-drawal and it will not be a pass through in the truing up of aggregate revenue requirement of the Petitioner for FY 2012-13. As such penal rate which have been imposed as Unscheduled Interchange (UI) charges should be stated separately and very clearly and those payments which are in the nature of penal charges should not be shown purchase of power because it is on account of inadequate management of load by ED-DD.

After consideration of the disallowed amount of **Rs 0.54 Crores** towards penal charges paid for UI over-drawal as discussed above, the approved purchase from UI and Power Exchange for the truing-up of ARR for FY 2012-13 is given below. The Commission has considered the UI over-drawal quantum and cost as per its analysis and due prudence check from the weekly summary sheets/bills of UI on the WRPC site and considers 22.85 MU as the UI over-drawal quantum.

Table 5.8.4 : Approved Purchase and cost from UI for true-up of FY 2012-13 (Rs. Crores)

Sr. No.	Source	FY 2012-13 (Approved)	
		UI over-drawl	
		Energy Units (in MUs)	Amount (Rs. Crores)
1	UI mechanism	22.85	6.32
2	Less: Penal UI Charges		0.54
3	**Total**	**22.85**	**5.77**

Transmission Charges

The transmission charges of Rs. 62.18 Crores as submitted by the Petitioner for FY 2012-13 have been verified from the bills and considered approved for the purpose of truing-up of ARR for FY 2012-13. The Commission has also allowed Rs 0.51 Crores towards the WRLDC charges and Rs 4.08 Crores towards the MSTCL charges, as submitted by the Petitioner as reasonable and approved.

Renewable Energy Purchase and RPO obligation

The Petitioner in its additional submission to the Commission has submitted that ED-DD purchased non-solar certificates during FY 2012-13 amounting to Rs 0.71 Crores. ED-DD purchased 4700 non-solar certificates at a price of Rs 1500/certificate; **the Commission approves Rs 0.71 Crores as part of the power purchase cost and the same is as per the audited accounts submitted**.

The Commission notes that the RPO obligation for the utility for FY 2012-13 is 3%; with 0.40% to be met from solar purchases and 2.60% to be met from non-solar purchase. It is observed that the utility has not been able to meet its RPO obligation for the year. Further, the Commission has observed that the utility has not been meeting its RPO obligation for the past years, starting from FY 2010-11 onwards.

In the order of the Commission dated October 25' 2013 in petition no. 61/2012, the Commission has given strict directions to the utility to meet its RPO obligations for the respective years and comply with the same by March 31' 2014, failing which the Commission shall be constrained to proceed under Regulation 4 of JERC (Procurement of Renewable Energy) Regulations 2010 against the licensees/obligated entities. Therefore, ED-DD has to strictly comply with the orders of the Commission and fulfill its RPO commitments for the respective years.

In the interest of the stakeholders, the Commission has provisioned the RPO obligations of the utility of the respective years i.e. FY 2010-11, FY 2011-12 and FY 2012-13 in Review of ARR for FY 2013-14, as the utility is required to meet its obligations by 31.03.2014. The RPO provisioning has been done assuming the fulfillment of RPO obligation through REC certificates; as seen from the past trends and considering that the utility has so far not been able to meet its obligation through renewable energy purchase, in energy terms. The same has been discussed in detail in para 6.19 of this order.

The Commission directs the utility to comply with the directions of the Commission and fulfill its RPO obligations, including the backlog of the previous years.

Power Purchase Quantum and Cost approved by the Commission

The power purchase cost for FY 2012-13 has been considered as discussed in the preceding sections after disallowing the UI/penal charges. The power purchase cost has been allowed corresponding to the energy requirement approved at para 5.7 of this order. The Commission has verified the cost of power purchase from the power purchase bills submitted alongside and arrived at the cost of power purchase of Rs 768.68 Crores against the Rs 768.82 Crores submitted by the Petitioner (excluding the UI quantum REC certificate purchase amount and rebate amounts; discussed separately in the section). Further, the Commission has approved the power purchase cost after exclusion of the rebate amounts.

The Commission has considered the power purchase cost after consideration of the rebate for all stations. It is noted that the Petitioner has already availed the rebate amounts from NTPC stations and NSPCL stations of Rs 3.50 Crores and Rs 2.51 Crores respectively.

The Commission provides the interest on working capital requirement including power purchase cost of one month. The above treatment enables the utility to avail rebate on its power purchase and transmission bills. The Commission has observed that the petitioner has not availed rebate from PGCIL and Ratnagiri which were available to them. Therefore the Commission has considered the rebate for PGCIL and Ratnagiri as Rs 1.50 Crores, which were provided by the Petitioner in its additional submission. The rebate for PGCIL and Ratnagiri has been excluded from the total power purchase cost approved by the Commission for FY 2012-13. This results in the approved power purchase cost of Rs 767.18 Crores (UI cost and REC certificate cost allowed separately as shown in table 5.8.6 below) for FY 2012-13 from the approved sources of power purchase (including transmission charges).

The power purchase cost approved for FY 2012-13 is as shown below.

Table 5.8.5 : Power Purchase Quantum and Cost approved by the Commission for FY 2012-13

S. No.	Source	Purchase (MU)	VC (Ps/ Unit)	FC (Rs. Cr)	VC (Rs. Cr)	Others (Rs. Cr)	Total (Rs. Cr)
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
I	**NTPC Stations**						
1	KSTPP	385.91	92	21.75	35.56	11.92	69.23
2	KSTPP-III	48.27	92	7.06	4.42	0.35	11.83
3	VSTPP-I	104.86	124	6.64	12.97	4.05	23.66
4	VSTPP-II	78.34	116	6.01	9.11	2.68	17.81
5	VSTPP- III	99.25	117	10.67	11.59	3.27	25.53
6	VSTPP- IV	1.12	98	0.41	0.11	(0.20)	0.32
7	KAWAS	150.12	239	21.15	35.91	(0.28)	56.78
8	JGPP	189.62	233	27.07	44.10	0.37	71.54
9	Bhilai Unit-I &II(NTPC)	642.19	257	113.61	164.82	(0.95)	277.49
10	Sipat-I	134.55	132	18.41	17.78	1.23	37.42
11	Sipat-II	75.54	121	10.08	9.11	0.44	19.63
12	MSTPS-I	0.10	307	0.26	0.03	(0.24)	0.05
13	**Subtotal**	**1,909.87**	**181**	**243.11**	**345.51**	**22.65**	**611.28**
II	**Eastern Region**						
1	KHSTPP-II	11.95	201	1.52	2.40	(0.02)	3.90
2	**Subtotal**	**11.95**	**201**	**1.52**	**2.40**	**(0.02)**	**3.90**
III	**NPCIL**						
1	KAPPS	58.68	232	0.00	13.63	(0.17)	13.46
2	TAPP 3&4	92.20	280	0.00	25.78	(0.29)	25.49
3	**Subtotal**	**150.88**	**261**	**0.00**	**39.41**	**(0.45)**	**38.95**
IV	**Others**						
1	Ratnagiri	84.58	283	25.92	23.97	(1.61)	48.31
2	**Subtotal**	**84.58**	**283**	**25.92**	**23.97**	**(1.61)**	**48.31**

V	**Power purchase from Other Sources**						
1	Power purchase from Indian E. Exchange	0.00	0.00	0.00	0.00	0.00	0.00
2	UI	22.85	251	0.00	6.32	0.00	6.32
3	Solar	0.00	0.00	0.00	0.00	0.00	0.00
4	Non Solar	0.00	0.00	0.00	0.71	0.00	0.71
5	**Subtotal**	**22.85**		**0.00**	**7.03**	**0.00**	**7.03**
VI	**Add: Misc. Arrears**						**2.96**
VII	**Less: NTPC Rebate**						**3.50**
VIII	**Total Power Purchase**	**2,180.12**		**270.55**	**418.32**	**20.57**	**708.93**
1	PGCIL CHARGES	87.50					62.18
2	WRLDC						0.51
3	MSTCL						4.08
	Less: PGCIL Rebate and Ratnagiri Rebate						**1.50**
	Less: UI penal charges						**0.54**
	Grand Total	**2,092.62**					**773.66**

The summary of power purchase quantum and costs, including the transmission charges for FY 2012-13 as approved by the Commission after due verification from the power purchase bills submitted by the Petitioner is given in the following table.

Table 5.8.6 : Summary of Power Purchase Expenses approved by the Commission for FY 2012-13 (Rs. Crores)

S. No.	Source	FY 2012-13	
		As submitted in true-up	Approved
1	Power Purchase from approved sources including transmission charges	768.82	767.18
2	UI overdrawl amount	6.10	5.77
3	Renewable Energy Cost	0.71	0.71
4	**Total (Rs. Crores)**	**775.63**	**773.66**

5.9 Operation and Maintenance Expenses

Petitioner's submission

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 expenses of Rs. 19.11 Crores for true-up of FY 2012-13 as compared to the Operation and Maintenance expenses of Rs. 16.13 Crores approved by the Commission in its ARR and tariff order dated March 22' 2013 and Rs 10.28 Crores approved vide ARR & tariff order for FY 2012-13 dated August 25' 2012.

Commission's analysis

Employee Expenses

The Petitioner has submitted the actual employee expenses for FY 2012-13 as Rs 8.24 Crores as compared to the employee expenses of Rs. 7.27 Crores approved by the Commission in its ARR and tariff order dated March 22' 2013.

As per the sub-regulation 2 (i) of regulation 8 of JERC tariff regulations 2009, **the Commission considers the final figures of employee expenses of Rs 8.24 Crores as per the audited accounts as reasonable and approves the same for the purpose of truing up of FY 2012-13.**

Administration and General Expenses

The Petitioner has submitted that the actual Administration and General Expenses for FY 2012-13 have been Rs. 3.31 Crores as against the Administration and General Expenses of Rs. 3.28 Crores approved by the Commission in its ARR and tariff order dated March 22'2013.

The Commission during the technical validation held at the Commission's office pointed to the Petitioner that the head in the P&L titled 'Auditors Remuneration' had not been claimed by the Petitioner under any of the heads in the ARR. This was subsequently agreed upon by the Petitioner and the Petitioner requested the Commission to allow the expenses pertaining to the Auditors Remuneration amounting to Rs 394,000 as the same had been erroneously missed out in the submitted petition.

The Commission considers the expense of Rs 394,000 (as mentioned in the 'Profit & Loss' statement in the audited accounts) as reasonable and considers the same approved as part of the A&G expenses.

As per the sub-regulation 2 (i) of regulation 8 of JERC tariff regulations 2009, the **Commission considers the administration and general expenses of Rs. 3.34 Crores (including 'Auditors Remuneration' of Rs 0.0394 Crores) as per the audited accounts as reasonable and approves the same for the purpose of truing-up of FY 2012-13.**

Repair and Maintenance Expenses

The Petitioner has submitted that the actual Repair and Maintenance expenses for FY 2012-13 have been Rs. 7.56 Crores as against the Repair and Maintenance expenses of Rs. 5.58 Crores approved by the Commission in its ARR and tariff order dated March 22' 2013.

The Petitioner has not submitted the detailed break-up of the R&M expenses as required as per the regulatory formats and the Commission directs the petitioner to provide the detailed break-up of the R&M in the subsequent petitions for true-up. The Commission has approved the actual R&M expense as the same is considered necessary for the maintenance of infrastructure and for ensuring proper Standard of Performance of the integrated utility.

As per the sub-regulation 2 (i) of regulation 8 of JERC tariff regulations 2009, the **Commission has considered the repair and maintenance expense of Rs. 7.56 Crores as per the audited accounts as reasonable and approves the same for the purpose of truing up of FY 2012-13.**

Summary of O&M Expenses approved for the true-up of FY 2012-13

The O&M expenses approved for FY 2012-13 are as below.

Table 5.9.1: Approved O&M Expenses for FY 2012-13

S. No.	Particulars	Petitioner Submission FY 2012-13	Approved TO dated 25 August'12 FY 2012-13	Petitioner Review FY 2012-13	Approved TO dated 22 March'13 FY 2012-13	Petitioner's submission True-up FY 2012-13	Approved FY 2012-13
1	Employee Expenses	5.50	5.32	7.27	7.27	8.24	8.24
2	A&G Expenses	2.39	2.36	3.08	3.28	3.31	3.34[2]
3	R&M Expenses	6.84	2.60	5.58	5.58	7.56	7.56

[2] Including the Auditors Remuneration of Rs 394,000 as discussed in para 5.9 under the head 'A&G' expenses

4	**Sub-Total**	**14.73**	**10.28**	**15.93**	**16.13**	**19.11**	**19.15**
5	Less: Expenses Capitalized	-	-	-	-	-	-
6	**Total O&M Expenses**	**14.73**	**10.28**	**15.93**	**16.13**	**19.11**	**19.15**

5.10 Capitalization, GFA & Depreciation

Petitioner's submission

The Petitioner has submitted that the actual capital expenditure incurred by ED-DD during FY 12-13 was Rs. 41.12 Crores, which is lower than that approved by the Commission in its Tariff Order dated March 22' 2013. The capital expenditure planned was Rs 41.12 Crores and actual capitalization made by the Department was Rs 37.18 Crores.

The Petitioner has computed the depreciation at Rs. 13.26 Crores as against the depreciation of Rs. 13.82 Crores approved by the Commission in its ARR and tariff order dated March 22' 2013. The depreciation has been computed on the opening GFA of Rs 274.27 Crores as submitted by the Petitioner.

The petitioner has submitted that the depreciation has been computed by applying the depreciation rates as given in the depreciation schedule of CERC (Terms and Conditions of Tariff) Regulations, 2009 on the opening Gross Fixed Assets and the subsequent additions to it in FY 2012-13.

Commission's analysis

The Commission in its earlier order had made the following observations while disallowing the opening GFA for FY 2010-11. The relevant extract for ease of reference is reproduced below.

Quote *'' the entire capital expenditure has been funded by the Government of India through budgetary support without any external borrowings. The ED-DD has not prepared any proforma accounts. The Electricity Department has not prepared and maintained the statements of accounts viz Profit & Loss account, balance sheet etc. The statement of assets for FY 2008-09 and FY 2009-10 submitted by the Department is not audited. The Department has mentioned that in the absence of annual account being maintained the age and other details of withdrawn / fully depreciated assets are not available.*

Regulation 22 (2) of JERC (Terms and Conditions for Determination of Tariff) Regulations, 2009 reads as follows:

"Investments made prior to and upto 31st March immediately preceding the date of the notification of these regulations or date of receipt of a petition of tariff determination whichever is earlier shall be considered on the basis of audited accounts or approvals already granted by the Commission".

In the absence of audited Asset Register the depreciation registers and the audited annual accounts, the gross block assets, projected by the ED-Daman and Diu in the ARR and Tariff Petition and subsequent submissions with reference to the data gaps pointed out, cannot be considered for the purpose of arriving at the capital base and allowing depreciation and return on capital base.

The Commission directs the ED-Daman and Diu to prepare and maintain Asset Register, depreciation registers in complete shape, the annual statement of accounts for the regulated business, get them audited.'' ***Unquote***

The following observation was made in the ARR & tariff order dated August 25' 2012 -

Quote

'' In compliance to the Commission's directive the petitioner has furnished the audited accounts for FY 2010-11 but has not submitted the fixed asset and the depreciation registers. The accounts of the petitioner provide the value of the fixed assets based on the values provided by the department and the assets are not physically verified. Further, it is difficult to ascertain that the assets shown in the audited accounts are still rendering the services or lying elsewhere. As such the information on the following could not be ascertained from the accounts submitted by the petitioner:

- *Assets in use either for rendering the service or lying as redundant in stores.*
- *Assets not in use.*
- *Assets exist lying as dead stock.*
- *Assets considered as scrap.*
- *Assets if considered as scrap but not traceable.*

The Commission is of the view that in the absence of the Fixed Asset Register, the opening value of assets is driven by assumptions. As such, the opening value of gross block as on 01.04.2010 is not being allowed as a gross block for the purpose of depreciation, interest charges and return on equity.''

Unquote

The Commission in its last tariff order dated March 22' 2013 allowed the opening GFA from FY 2010-11 in view of the submissions of the Fixed Asset Registers for FY 2010-11 & FY 2011-12 and the audited accounts for FY 2010-11 & FY 2011-12 by the Petitioner.

The Commission during the technical validation session reminded the utility of its pending submission of the FAR along with the physical verification certificate for FY 2012-13. The Petitioner, subsequently, submitted the FAR along with the third party physical verification certificate for FY 2012-13. Additionally, audited accounts have also been submitted in support of the GFA and the capitalization for the year.

The Commission has made note of the submissions and allows the opening GFA and capitalization for FY 2012-13 to be considered for the purpose of ARR computation.

The opening GFA of Rs 274.33 Crores is being considered allowed for FY 2012-13, as per the audited annual accounts for the year. The same is in accordance with the Fixed Asset Register (FAR) and the audited accounts furnished by the Petitioner for FY 2012-13. As per the audited accounts submitted by the petitioner, the addition in GFA of Rs. 37.18 Crores is considered admissible for the purpose of truing-up of FY 2012-13. **In view of the above, the Commission considers the depreciation of Rs. 14.06 Crores as given in the table below for the purpose of true-up of ARR of FY 2012-13.**

Table 5.10.1: Depreciation approved for FY 2012-13 (Rs Crores)

Sr. No.	Particulars	Value of assets at the beginning of FY 2012-13	Addition during FY 2012-13	Closing balance at the end of FY 2012-13	Rate of Depreciation	Depreciation for FY 2012-13
1	Plant & Machinery	240.73	34.17	274.90	5.28%	13.61
2	Buildings	8.31	2.61	10.92	3.34%	0.32
3	Vehicles	0.57	-	0.57	9.50%	0.05
4	Furniture and Fixtures	0.25	0.10	0.35	6.33%	0.02
5	Computers and Others	0.71	0.30	1.01	6.33%	0.05
6	Land	23.75	-	23.75	0.00%	-
7	**Total**	**274.33**	**37.18**	**311.51**		**14.06**

5.11 Interest and Finance Charges

Petitioner's submission

The petitioner for assessing the interest on loans in FY 12-13 has considered the opening balance of loans for FY 12-13 as approved by the Commission vide its Tariff Order dated March 22' 2013 for the Review of the ARR for FY 12-13. The normative loan addition in FY 12-13 has been computed as 70% of the capitalization for FY 2012-13 which works out to Rs. 26.03 Crores. The capitalization for FY 12-13 was Rs. 37.18 Crores as per the audited accounts for FY 12-13.

In line with the approach adopted by the Commission in its Tariff Order dated 25th August 2012, 10% of the opening loans have been considered as the repayment during the year. Further, the rate of interest has been considered as equal to the SBI PLR of 14.75%. Accordingly, the Petitioner has claimed interest on loan charges of Rs 4.02 Crores for FY 2012-13.

Commission's analysis

As per Regulation 25 of JERC (Terms and Conditions for Determination of Tariff) Regulations, 2009 –

Quote

"

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. "* **Unquote**

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

Quote

"23. Debt-Equity Ratio

1) *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:*

2) *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: .*

3) *(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.*

4) *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."* ***Unquote***

The above stated regulations mandate the debt equity ratio for assets deployed, post the commencement of the JERC Tariff Regulations. It is pertinent to mention here that the first application filed by the Petitioner before this Commission under the above stated regulation was for FY 2010-11, wherein the Commission had determined tariff as per the JERC Tariff Regulations 2009. The Commission has also perused the accounts certified by a chartered accountant submitted by the petitioner for FY 2010-11 and FY 2011-12. It has been observed that the Petitioner does not have any opening loan portfolio and the entire capital base is funded through government budgetary support.

In the review for the FY 2012-13, the Commission had considered the normative interest on the assets created during the year FY 2010-11 onwards excluding the opening capital base as projected by the petitioner for FY 2010-11 and had accordingly allowed interest on normative loan of Rs 3.55 Crores for FY 2012-13.

The normative interest under the JERC Tariff Regulations has therefore been considered on the assets created during FY 2010-11 onwards excluding the opening capital base for FY 2010-11. The Commission had considered an addition of Rs. 9.22 Crores in the Gross Fixed Assets for FY 2010-11 which are considered funded through normative debt to the tune of 70% as per the tariff order dated August 25' 2012. Further, the capitalization for FY 2011-12 as per the true-up for the year was considered at Rs 13.56 Crores.

The Commission has considered the capitalization of assets as per the audited accounts for FY 2012-13 at Rs 37.18 Crores for the true-up of FY 2012-13.

The Commission for the purpose of funding of the capitalization has considered the normative debt equity ratio of 70:30, whereby it has considered the addition in normative loan at Rs 26.03 Crores for FY 2012-13. The calculation of the interest on the normative loan is given below.

Table 5.11.1 : Normative Interest on Loan approved in the true-up for FY 2012-13 (Rs. Crores)

Sr. No.	Particulars	Approved True-up FY 2010-11	Approved True-up FY 2011-12	Approved True-up FY 2012-13
1	Opening Normative Loan	-	6.45	15.30
2	Add: Normative Loan during the year	6.45	9.49	26.03
3	Less: Normative Repayment	0.00	0.64	1.59
4	Closing Normative Loan	6.45	15.30	39.73
5	**Average Normative Loan**	**3.22**	**10.87**	**27.51**
6	Rate of Interest (@SBAR rate)	12.25%	13.00%	14.75%
7	**Interest on Normative Loan**	**0.39**	**1.41**	**4.06**
8	**Finance Charges**	**0.74**	**1.44**	**1.65**
9	**Interest and Finance Charges**	**1.13**	**2.86**	**5.70**

The Commission has analyzed the nature of expenses (interest charges on LC, bank charges etc.) amounting to **Rs 1.65 Crores** as mentioned in the audited accounts under the sub-head of Finance Charges and considering the reasonableness of the expenditure, considers them allowed for the purpose of truing of FY 2012-13. The Commission has observed from the audited accounts that the Petitioner had not taken any loan to meet the capital expenditure for FY 2012-13. The Commission has considered the normative interest on the actual capital expenditure incurred during FY 2012-13 and has therefore considered it as an allowable expense for the purpose of truing-up of ARR of FY 2012-13.

The Commission therefore considers Rs. 5.70 Crores (Rs 4.06 Crores of Normative interest and Rs 1.65 Crores of Finance charges) on account of Interest and Finance Charges as reasonable and approves the same for truing-up of FY 2012-13.

5.12 Interest on Working Capital

Petitioner's submission

The petitioner has computed the interest on working capital for FY 2012-13 as Rs. 9.77 Crores as against Rs. 8.62 Crores approved by the Commission in its ARR and tariff order dated March 22' 2013.

The petitioner has submitted that the interest on working capital has been calculated based on the normative principles outlined by the Commission in the JERC (Terms and Conditions for determination of Tariff), Regulations, 2009. ED-DD has computed the interest on working capital at 14.75% as equal to the SBI PLR rate.

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 calculation of the different components of the interest on working capital as per the JERC Tariff Regulations.

Further, the consumer's security deposit amount is available to the Petitioner and the same can be used to meet working capital requirements of the Petitioner. In the interest of the consumers, the Commission finds that by utilizing such available security deposit to meet the working capital requirement, the interest on working capital is reduced to that extent; resulting into lower tariff determination. The Commission has therefore considered the amount against the consumer security deposit available till March 31'2012 to meet the working capital required for FY 2012-13.

The Commission had repeatedly asked the Petitioner for the split of the consumer security deposit into bank guarantee, fixed deposit and cash forms, to which the Petitioner responded stating that the same is being compiled. Even the latest submission by the Petitioner on January 28' 2014 (considered by the Commission in its analysis of this tariff order) did not consist of the required details.

In absence of the required details, the Commission has considered the security deposit amount of Rs 8.03 Crores available with the Petitioner as on March 31'2012 (as per the audited accounts for FY 2012-13) to meet the working capital requirement of the Petitioner.

Therefore, the Commission has considered security deposit as a source to meet its working capital requirement and has deducted this amount from the working capital requirement for FY 2012-13. The Petitioner simultaneously has a liability to pay interest to the consumers on the security deposit, which the Commission has allowed as a pass through in the expenses approved, as discussed in para 5.13 of the order.

The SBI Advance Rate of 14.75% as on 1st April 2012 has been considered for the calculation of the interest on working capital. Further, the Commission clarifies that the SBI PLR rate has now been substituted by the SBI Advance Rate.

The table below shows the interest on working capital approved for FY 2012-13.

Table 5.12.1 : Interest on Working Capital approved by the Commission for FY 2012-13 (Rs. Crores)

S. No.	Particulars	Petitioner Submission FY 2012-13	Approved TO dated 25 August'12 FY 2012-13	Petitioner Review FY 2012-13	Approved TO dated 22 March'13 FY 2012-13	Petitioner's submission True-up FY 2012-13	Approved FY 2012-13
1	Power Purchase Cost for one month	65.48	64.17	68.17	65.11	64.64	64.25[3]
2	Employee Cost for one month	0.46	0.44	0.61	0.61	0.69	0.69
3	A&G Expenses for one month	0.20	0.20	0.26	0.27	0.28	0.28
4	R&M Expenses for one	0.57	0.22	0.46	0.46	0.63	0.63

[3] Amount earned through the sale of surplus power has been reduced from the approved power purchase cost to ascertain one month power purchase requirement for working capital purposes. Total rebate for the year at Rs (2.51+3.5+1.50) = 7.51 Crores has been considered as part of the one month power purchase cost available to the Petitioner.

	month						
5	**Total Working Capital for one month**	**66.71**	**65.03**	**69.49**	**66.45**	**66.23**	**65.84**
6	**Security Deposit**		**4.36**		**8.03**		**8.03**
7	**Net Working Capital after deduction of Security Deposit**	**-**	**60.67**	-	**58.42**	-	**57.81**
8	SBAR Rate	14.75%	14.75%	14.75%	14.75%	14.75%	14.75%
9	**Interest on Working Capital**	**9.84**	**8.95**	**10.25**	**8.62**	**9.77**	**8.53**

The Commission accordingly approves the interest on working capital at Rs. 8.53 Crores against the Rs. 9.77 Crores claimed by the Petitioner as part of the true-up for FY 2012-13.

5.13 Interest on Security Deposit

Petitioner's submission

The petitioner has not claimed the interest on security deposit from consumers for FY 2012-13.

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. In the interest of the consumers, the interest on working capital is allowed on the balance amount, as discussed in para 5.12 of this order The cost of available security deposit of the consumer is allowed as an interest on security deposit to be paid to the consumers as per section 47(4) and regulation 25 of the JERC Tariff Regulations 2009 and the same is allowed as expenditure in the ARR.

In terms of the section 47 (4) of the Electricity Act, 2003 '*the distribution licensee is required to pay interest on security deposit collected from consumers equivalent to bank rate or more as may be specified by the Commission.'*

The Commission has observed that the petitioner has not paid any interest to the consumers on the security deposit held during FY 2012-13 even though the Commission had issued a directive on the same in the last year's tariff order. As regards the compliance on the same, the Petitioner has submitted that the present billing system of the department is not having the provision of giving the interest on security deposit to its consumers. Further, the Petitioner has submitted that the department is presently upgrading its billing software and also updating the security deposits record and as soon as the two processes are complete it will start paying interest on security deposit to its consumers.

The Commission has assessed the security deposit of Rs 8.03 Crores (as on March 31' 2012; from the audited accounts for FY 2012-13) to be available with the Petitioner. It is observed that the department is not actually paying interest on the security deposit to the consumers and therefore, the same is not being allowed as a pass through in the ARR for true-up of FY 2012-13. The Commission again directs the Petitioner to deliver its obligation under Section 47(4) of the Electricity Act, 2003 and it must pay the interest on security deposit w.e.f. April 1'2012 at the rate of 9.50% per annum and should explicitly mention the same as the 'Interest on security deposit for FY 2012-13' on the bills of the consumers. **The Petitioner is directed to comply and submit the progress report in this regard, failing which action under section 142 of the Electricity Act, 2003 would be initiated against the Petitioner and / or responsible person.**

Further, in the interest of the stakeholders, the Commission has provisioned the pending amount due to the consumers of the interest on the security deposit for FY 2012-13 in the ARR of FY 2014-15; this would enable the utility to discharge its duty of paying the interest on security deposit and the same would accordingly be adjusted once the actual payment has been made. The provisioning of the interest on security deposit for FY 2012-13 in FY 2014-15 has been addressed in para 7.20 of this order.

The Commission considers it appropriate to allow NIL interest on security deposit for the purpose of truing-up of ARR of FY 2012-13. The Petitioner should confirm payment of this interest to eligible consumers in their next ARR and Tariff filing and would then accordingly be adjusted in the ARR of the respective year in which payment is made.

5.14 Return on Capital Base

Petitioner's submission

The Petitioner has computed the Return on Capital Base for FY 2012-13 at Rs. 5.06 Crores in the true-up. The petitioner has computed the return on capital base of 3% on the net block of approved assets. The Return on Capital Base has been computed at 3% of the net block at the beginning of FY 2012-13.

Commission's analysis

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

The Commission in its ARR & tariff order dated November 1' 2010 for FY 2010-11 had made the following observation:

''The ED-DD is an integrated utility in its present form as defined in Regulation 2 (9) of the JERC (Terms and Conditions for Determination of Tariff) Regulations, 2009. The ED-Daman & Diu is not restructured and corporatized. As of now it is an integrated utility and it is entitled to return on capital base under the provisions of Schedule VI of the repealed Electricity (Supply) Act, 1948 vide proviso under Regulation 23 of JERC (Terms and Conditions for Determination of Tariff) Regulations, 2009.

The basic requirement either for return on capital base or return on equity is the audited annual accounts and register of assets and depreciation. The ED – Daman & Diu has not prepared the statement of accounts viz profit and loss account, balance sheet etc. As admitted by the Department the petitioner has not been maintaining adequate information.

The Department has no separate audited accounts for the regulated business; there are no assets and depreciation registers. Till such time the Department prepares and maintains the assets register and depreciation registers and get them duly audited it is not feasible for the Commission to consider return on equity or return on capital base in accordance with Regulations 23 and 24 of JERC (Terms and Conditions for Determination of Tariff) Regulations, 2009.''

Further, the Commission in its ARR & tariff order dated August 25' 2012 had observed that the basic requirement for consideration of either return on capital base or return on equity for historical assets is information in the form of the asset and depreciation registers besides other data and had not considered the gross opening block of assets at that time as the same was based on assumptions and not verified.

In the tariff order dated March 22' 2013, the Commission had allowed the opening GFA from FY 2010-11 to be considered for the purpose of ARR computation in view of the submissions of the Fixed Asset Registers and the audited accounts for the respective year.

This time the Petitioner was reminded of the submission of the Fixed Asset Register besides the physical verification certificate for FY 2012-13 during the technical validation session. The FAR alongwith the physical verification certificate was submitted subsequently by the Petitioner for FY 2012-13. Audited Accounts duly certified by a Chartered Accountant have also been submitted for FY 2012-13.

The Commission has made note of the submissions and has considered the opening GFA from FY 2010-11 and additions in respective years as per the audited accounts and the FAR to be considered for the purpose of the ARR computation.

As discussed in para 5.10 of this order, the Commission has considered return on capital base as per the Regulation 23 of JERC (Terms and Conditions for Determination of Tariff) Regulations, 2009 and has considered Rs. 5.43 Crores as a 3% return on net block of approved assets/capitalization at the beginning of FY 2012-13 of Rs 274.33 Crores.

Table 5.14.1 : Return on capital base approved by the Commission for FY 2012-13 (Rs. Crores)

Sr. No.	Particulars	Approved True-up FY 2012-13
1	Gross block at beginning of the Year/Opening GFA	274.33
2	Less accumulated depreciation	93.29
3	Net block at beginning of the year	181.03
4	Less accumulated consumer contribution	-
5	**Net fixed assets at beginning of the year**	**181.03**
6	**Reasonable return @3% of NFA**	**5.43**

The Commission considers the Return on Capital Base of Rs. 5.43 Crores as reasonable and approves the same for the purpose of true-up of FY 2012-13.

5.15 Provision for bad and doubtful debts

Petitioner's submission

The petitioner has not claimed any amount against the provision of bad and doubtful debts in the true-up for FY 2012-13.

Commission's analysis

As specified in the regulation no. 28 of JERC Tariff regulations read with the format is explained below.

"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. Crores)*
1.	*2.*	*3.*
1.	*Amount of receivable bad and doubtful debts (audited)*	
2.	*Provision made for debts in ARR*	

JERC tariff regulation allows a provision for bad and doubtful debts up to 1% of receivables in the revenue requirement. It is seen that the licensee has not actually written off any bad and doubtful debts for FY 2012-13 as per the audited accounts submitted alongside. The Commission, therefore, has not considered any bad and doubtful debts for truing up of FY 2012-13.

The Commission has, therefore, not considered any expenses on account of bad & doubtful debt for truing-up of ARR for FY 2012-13.

5.16 Non-Tariff Income

Petitioner's submission

The Non-tariff income comprises of metering, late payment charges, interest on staff loans, reconnection fee, miscellaneous revenue etc. The Petitioner has claimed Rs. 5.26 Crores as actual non-tariff income as against the approved value of Rs. 8.75 Crores for FY 2012-13 as per the ARR & tariff order dated March 22' 2013.

Commission's analysis

The Commission has verified the claim of Rs 5.26 Crores from the audited accounts for FY 2012-13. On analysis of the audited accounts, it was observed that the income head of Rs 8,973,022 under the

'Miscellaneous Income' head has not been accounted for by the Petitioner under any of the revenue heads in the claimed revenue gap.

This was pointed out by the Commission during the technical validation session and the Petitioner later on submitted that the same was erroneously omitted by it in the ARR/revenue. The Commission has considered the income as reflected in the P&L and has considered the total income of Rs (5.26 + 0.89) Crores = Rs 6.16 Crores as non-tariff income to be considered for the purpose of true-up of ARR for FY 2012-13.

As per the sub-regulation 2 (i) of regulation 8 of JERC tariff regulations 2009, the **Commission has considered the final figure of non-tariff income of Rs. 6.16 Crores as per the audited accounts as reasonable and approves the same for the true-up of ARR of FY 2012-13.**

5.17 Revenue from Sale of Surplus Power

Petitioner's submission

The Petitioner has submitted that the revenue earned from actual sale of surplus power during FY 2012-13 is Rs. 12.43 Crores as per the audited accounts for the year.

Commission's analysis

The Commission has considered the revenue received of Rs 10.20 Crores from the UI under-drawal of 49.08 MU from the UI week-wise summary/bills on WRPC site for the purpose of energy balance and discussed at para 5.4 of this order. The UI over-drawal and under-drawal quantum and cost has been considered as per the WRPC as final for the purpose of truing-up of FY 2012-13.

Table 5.17.1 : Summary of Sale from UI for FY 2012-13 (Rs. Crores)

Sr. No.	Source	FY 2012-13 (Approved)	
		Sale	
		Energy Units (in MUs)	Amount (Rs. Crores)
1	UI mechanism	49.08	10.20
2	**Total**	**49.08**	**10.20**

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After verification of statements/bills as per the WRPC for the respective year, **the Commission considers the sale of surplus power for the purpose of truing up of FY 2012-13 at Rs. 10.20 Crores**

for the sale of 49.08 million units as reasonable and approves the same for the truing up of FY 2012-13.

5.18 Revenue at retail tariff for FY 2012-13

Petitioner's submission

The Petitioner has submitted that the actual revenue for FY 2012-13 amounted to Rs. 802.17 Crores (including the amount received on account of PPCA charges) as against Rs. 600.54 Crores and Rs. 842.70 Crores approved vide Tariff Order dated August 25' 2012 and March 22' 2013 respectively by the Commission.

Commission's analysis

As per the sub-regulation 2 (i) of regulation 8 of JERC tariff regulations 2009, the **Commission has considered the figures of revenue of Rs. 802.17 Crores from the sale of power within the state as per the audited accounts as reasonable and approves the same for the truing-up of FY 2012-13.**

5.19 Aggregate Revenue Requirement and Revenue Surplus/Deficit for truing-up of FY 2012-13

Petitioner's submission

The petitioner has submitted the aggregate revenue requirement of Rs. 821.59 Crores for FY 2012-13 and has estimated the revenue gap of Rs. 6.99 Crores for FY 2012-13.

Commission's analysis

The Commission has considered and approved the truing-up of ARR for FY 2012-13 based on the items of expenditure discussed in the preceding Chapters and the same has been summarized in the table below vis-à-vis petitioner's claim for the true-up of FY 2012-13.

As per the sub-regulation 2 (i) of regulation 8 of JERC tariff regulations 2009, the **Commission has considered the figures as per the audited accounts and regulations for the purpose of truing-up of FY 2012-13.**

Table 5.19.1 : Aggregate Revenue Requirement (ARR) approved for truing-up of FY 2012-13 (Rs. Crores)

S. No.	Particulars	Petitioner Submission FY 2012-13	Approved TO dated 25 August'12 FY 2012-13	Petitioner Review FY 2012-13	Approved TO dated 22 March'13 FY 2012-13	Petitioner's submission True-up FY 2012-13	Approved FY 2012-13
1	Power Purchase Cost	785.76	770.09	817.98	788.30	775.63	773.66
2	Employee costs	5.50	5.32	7.27	7.27	8.24	8.24
3	A&G Expenses	2.39	2.36	3.08	3.28	3.31	3.34[4]
4	R&M Expense	6.84	2.60	5.58	5.58	7.56	7.56
5	Depreciation	16.76	2.86	14.51	13.82	13.26	14.06
6	Interest and Finance charges	1.64	5.30	3.32	3.55	4.02	5.70
7	Interest on working capital	9.84	8.95	10.25	8.62	9.77	8.53
8	Interest on security deposit	NIL	0.41	NIL	0.76	NIL	NIL
9	Return on NFA	0.80	1.08	1.21	5.43	5.06	5.43
10	Provision for Bad Debt	5.81	3.00	4.08	4.21	-	-
11	Incentive on achievement of norm of T&D loss						1.05
12	**Total Revenue Requirement**	**835.34**	**801.97**	**867.28**	**840.82**	**826.85**	**827.58**
13	Less: Non Tariff Income	9.88	9.88	9.17	8.75	5.26	6.16[5]
14	**Net Revenue Requirement**	**825.46**	**792.09**	**858.11**	**832.07**	**821.59**	**821.43**

The approved gap has been mentioned in the following table.

Table 5.19.2 : (Surplus)/Gap approved for truing-up of FY 2012-13 (Rs. Crores)

S. No.	Particulars	Petitioner Submission FY 2012-13	Approved TO dated 25 August'12 FY 2012-13	Petitioner Review FY 2012-13	Approved TO dated 22 March'13 FY 2012-13	Petitioner's submission True-up FY 2012-13	Approved FY 2012-13
1	**Net Revenue Requirement**	**825.46**	**792.09**	**858.11**	**832.07**	**821.59**	**821.43**
2	Less: Revenue from Retail Sales at Existing Tariff	580.79	600.54	815.83	842.70	802.17	802.17
3	Less: Revenue from Surplus Power Sale/UI	27.46	-	23.81	7.02	12.43	10.20
4	**Net Gap/(Surplus) (1-2-3)**	**217.22**	**191.55**	**18.48**	**(17.64)**	**6.99**	**9.05**
5	Gap for the previous year	(8.75)	77.82		119.00	-[6]	119.00[7]
6	Carrying Cost					-	18.22
7	**Total gap (4+5+6)**	**208.47**	**269.37**	**18.48**	**101.35**	**6.99**	**146.27**

[4] Including the head of Auditors Remuneration of Rs 394,000 as per the audited accounts; originally not claimed by the Petitioner in its submission and later on claimed in its additional submission before the Commission; discussed in para 5.9 of this order

[5] Miscellaneous Income of Rs 8,973,022 included in the non-tariff income of Rs 5.26 Crores as per the audited accounts for the year; not claimed by the Petitioner in its petition filed before the Commission

[6] The Petitioner in its submission dated January 28' 2014 has acknowledged that it has mistakenly omitted carrying forward the gap of Rs 119 Crores as ascertained in the true-up of FY 2011-12 to FY 2012-13 and accordingly the gap be considered by the Commission

[7] The Commission has carried over the approved gap of FY 2011-12 as determined in the true-up of FY 2011-12 as per the Commission's order dated March 22' 2013 over to FY 2012-13

The Commission considers the estimated gap of Rs 146.27 Crores as reasonable and approves the same for the true-up of FY 2012-13. This revenue gap is carried over to the next year and has accordingly been considered in the Review of ARR for FY 2013-14.

Review of Aggregate Revenue Requirement (ARR) for FY 2013-14

6. Review of ARR for FY 2013-14

6.1 Background

The Commission had approved the Aggregate Revenue Requirement for FY 2013-14 vide its ARR and tariff order dated March 22'2013 as per the provisions of the JERC tariff regulations 2009. The Petitioner has submitted the revised estimates of sale of electricity, income and expenditure of FY 2013-14 for the Review of ARR of FY 2013-14 as per the Regulation 8 of JERC Tariff Regulations 2009.

The Commission for this Review of FY 2013-14 has considered the following:

a. Actual Performance in FY 2012-13 (audited figures)

b. Sales , power purchase and revenue figures based on the actual first half of FY 2013-14

c. Revised estimates of O&M expenses, capital expenditure, non-tariff income for FY 2013-14

d. Depreciation, Interest and Finance Charges, Interest on Working Capital, Interest on Security Deposit, and Return on Net Fixed Assets have been computed as per the JERC Tariff Regulations 2009.

6.2 Review for FY 2013-14

The review of aggregate revenue requirement requires assessment of quantum of energy sales, energy loss as well as various cost elements like power purchase cost, O&M expenses, interest cost and depreciation etc. As regards the various components of ARR, the Commission's analysis thereon and decision in respect of items given below is discussed in the following paras:

- Review of Energy Requirement
  - i. Sales Projections
  - ii. Loss Trajectory
  - iii. Energy Balance
  - iv. Power Purchase Sources
- Review 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

6.3 Consumers, Connected Load and Energy Sales

Petitioner's Submission

The petitioner has submitted that the energy sold to various consumer categories over the past 5 years has grown at approximately 9% per annum. This is mainly because of increase in the energy demand from the HT/EHT industries. The energy sales for FY 13-14 have been determined based on past years CAGR and actual energy sales in various consumer categories for the first six months of FY 13-14. Since the energy sales in each category depends upon a number of factors like growth in economy, climate, Government policies etc. normalization in sales has been undertaken in order to remove any wide fluctuations.

For FY 13-14, the actual six months energy sales has been analyzed and the energy sales for the remaining six months has been arrived at by considering the six months actual sale as well as the past years growth trend in each consumer category. The petitioner has submitted energy sales for FY 2013-14 of 1871.15 MU. The number of consumers as on April 1' 2013 is 55011.

Commission's Analysis

The Petitioner in its submission had not provided the category wise and slab wise connected load and the no. of consumer's details along with the regulatory formats submitted. The Commission had asked the petitioner to submit the slab-wise details of the no. of consumers and connected load, which were responded to by the Petitioner vide its additional submission dated November 18' 2013.

The energy sales for FY 2013-14 have been approved keeping the past growth trend of the energy sales and the first half actual sales of FY 2013-14. The Petitioner has submitted the first half energy sales for FY 2013-14 as 951.63 MU (other than LIG category).

The Petitioner has submitted the number of consumers for the LIG category as 121. On the basis of the normative approach as discussed in para 5.3 of the order, the Commission approves the sales for the LIG category as 0.04 MU for FY 2013-14.

For the rest of the consumer categories, the Commission has considered the H1:H2 ratio of the sales of each consumer category as per the actual of FY 2012-13. The same ratio has been considered for projection of the H2 sales for FY 2013-14, based on the H1 sales already achieved for FY 2013-14. As per this methodology, the H2 sales for the consumer categories (other than LIG) come out to 972.89 MU.

The Commission had observed that the sales for the commercial category for H1 are 36.59 MU against 43.91 MU submitted by the Petitioner for the whole year. The Commission had queried this to the Petitioner, to which the Petitioner responded stating that due to the replacement of electromechanical meters by electronic meters, the sales recording has become more accurate and therefore the sales as per actual of H1 of FY 2013-14 are higher and be considered.

The Commission has taken into consideration the sales for H1 of FY 2013-14 to arrive at the estimates for H2 of FY 2013-14 and thereby the sales for the whole year. The Commission has observed that the sales as projected by it are higher than submitted by the Petitioner for most consumer categories; however, in view of the actual H1 sales for FY 2013-14 already achieved, the overall sales for the whole year are considered reasonable and thereby approved. The Commission will revisit the sales during the true-up based on the actual performance of the utility.

The overall sales of 1924.56 MU for FY 2013-14 are considered reasonable and hence approved.

The no. of consumers and connected load for FY 2013-14 are considered reasonable as submitted by the Petitioner and hence approved.

The approved sales, connected load and number of consumers for FY 2013-14 have been shown in the table below.

Table 6.3.1 : Category wise Sales approved by the Commission (in million units)

S. No.	Consumer Category	FY 2012-13		FY 2013-14	
		H1(A)	H2(A)	H1(A)	H2(P)
1	Domestic	39.49	38.30	43.37	42.07
2	Low Income Group	0.05	0.05	0.10	-[8]
3	NRS/Commercial	19.21	19.53	36.59	37.20
4	Agriculture	2.08	2.14	1.55	1.60
5	LT Industrial	79.05	82.13	80.25	83.38
6	Public Lighting	3.38	3.14	2.81	2.61
7	Public Water Works	0.56	0.57	0.52	0.53
8	HT/EHT Industry	777.04	795.77	786.53	805.50
9	Temporary Supply	0.22	0.29	0.006	0.008
10	**TOTAL**	**921.08**	**941.93**	**951.63**	**972.89**

Table 6.3.2 : Category wise Sales approved by the Commission for FY 2013-14 (in million units)

S. No.	Consumer Category	FY 2013-14			
		Petitioner Submission	Approved TO dated 22 March'13	Petitioner Review	Approved
1	Domestic	82.59	82.46	82.40	85.44
2	Low Income Group	0.07	0.07	0.19	0.04
3	NRS/Commercial	38.21	37.61	43.91	73.79
4	Agriculture	3.70	3.70	2.95	3.15
5	LT Industrial	173.40	173.40	160.50	163.63
6	Public Lighting	4.46	4.46	6.60	5.42
7	Public Water Works	0.96	0.96	1.04	1.05
8	HT/EHT Industry	1728.19	1707.94	1573.06	1592.03
9	Temporary Supply	0.42	0.42	0.50	0.01
10	**TOTAL**	**2032.00**	**2011.02**	**1871.15**	**1924.56**[9]

[8] Normative approved = 0.04 MU for the whole year FY 2013-14

[9] Sales approved by the Commission for FY 2013-14 are higher than submitted by the Petitioner in view of the actual H1 sales for FY 2013-14 already achieved.

Table 6.3.3 : Category wise Connected Load approved by the Commission for FY 2013-14 (kW/kVA)

S. No.	Consumer Category	FY 2013-14	
		Revised Estimates	Approved (Review)
1	Domestic	56918	56918
2	Low Income Group*		
3	NRS/Commercial	18470	18470
4	Agriculture	5702	5702
5	LT Industrial	100179	100179
6	Public Lighting	2002	2002
7	Public Water Works	665	665
8	HT Industrial	520729	520729
9	**TOTAL**	**704663**	**704663**

* Details not submitted by the Petitioner

Note: Figures of load for the HT Industrial category are in kVA units

Table 6.3.4 : Category wise number of consumers approved by the Commission for FY 2013-14 (in numbers)

S. No.	Consumer Category	FY 2013-14			
		Petitioner Submission	Approved TO dated 22 March'13	Petitioner Review	Approved
1	Domestic	47030	47173	43083	43083
2	Low Income Group			121	121
3	NRS/Commercial	9105	9113	8222	8222
4	Agriculture	1688	1681	1190	1190
5	LT Industrial	1692	1663	1959	1959
6	Public Lighting	213	219	377	377
7	Public Water Works	78	78	78	78
8	HT/EHT Industry	828	798	798	798
9	**TOTAL**	**60634**	**60724**	**55828**	**55828**

6.4 Intra-State Transmission & Distribution Loss

Petitioner's Submission

The petitioner has considered the T&D loss level of 8.80% for FY 2013-14 as against the target of 9.25% set by the Commission. The Petitioner has submitted that reduction of T&D below 10% involves significant amount of capital expenditure and it is ED-DD's endeavor to bring the down the T&D loss levels further in the subsequent years.

Commission's Analysis

The Commission in its ARR and tariff order for FY 2013-14 had approved the targeted T&D loss level of 9.25% in its order dated March 22' 2013.

The Commission observes that the actual T&D loss level for FY 2012-13 has been 8.84% against the target set of 9.25% for the true-up of FY 2012-13. The Commission appreciates that the Petitioner has been able to bring down the loss levels from the target set and would like to see further reduction in the losses in the coming years.

However, for the purpose of this review the Commission retains the loss level approved earlier for the year and would review the loss level based on the actual performance during the year at the time of true-up. The Commission has further analyzed the losses for H1 of FY 2013-14 based on the actual data as available from WRPC and REA accounts. The loss figure for H1 comes out to be 9.67%, which is higher than the originally approved T&D loss of 9.25%. In view of this, the Commission considers it appropriate to retain the losses as approved originally as per the tariff order dated March 22' 2013. The computation of the losses for H1 of FY 13-14 is as tabulated below.

Table 6.4.1 : T&D loss analyzed by Commission for H1 of FY 2013-14

Source	S. No. (Derivation of figures in Col 4 of the table)	UoM	Actual Analyzed
1	2	3	4
Total allocation from Gen Stations	A	MU	1024.76
Purchase through UI	B	MU	63.49
Gross Purchased Energy	C=A+B	MU	1088.25
Pooled Loss	D =C-E	MU	29.15
Inter-state transmission loss	D/A	%	2.84%
Total energy requirement for state	E = F + G	MU	1059.10
Sale through UI	F	MU	5.62
Energy requirement at state periphery for sale to retail consumers	G	MU	1053.48
Sales	H	MU	951.63
T&D loss	I=G-H	MU	101.85
T&D loss	**J=I/G*100**	**%**	**9.67%**

The Commission for this review has retained the losses approved in the tariff order dated March 22' 2013 of 9.25% and approves the same for the review of FY 2013-14.

6.5 Inter-State Transmission Loss

Petitioner's Submission

The petitioner has considered the loss level of 3.90% for FY 2013-14 for estimating the power availability at the periphery.

Commission's Analysis

The Commission in the ARR & tariff order dated March 22' 2013 had considered the recent 52 week moving average of regional losses and approved 3.55% as the inter-state transmission loss for FY 2013-14.

The Commission has analyzed the inter-state losses for H1 of FY 2013-14 based on the actual data as available from the WRPC and REA accounts. The loss figure for H1 of FY 2013-14 comes out to be 2.84%. As the inter-state loss is not under the control of the licensee, the Commission considers it appropriate to retain the losses as approved originally and would revisit the same during the true-up exercise based on the actual performance during the year.

The Commission for this review has retained the inter-state loss approved in the tariff order dated March 22' 2013 of 3.55% and approves the same for Review of FY 2013-14. Further, the loss levels would be revisited at the time of true-up based on the actual performance during the year.

6.6 Energy Requirement

Petitioner's Submission

The overall energy requirement at the state periphery for FY 2013-14 is projected to be 2052 MU and the total power purchase is going to be 2182.13 MU.

Commission's Analysis

The Commission has approved the sales as explained above at 1924.56 MU, and approves the T&D loss of 9.25% resulting in a net energy requirement of 2120.73 MU for the territory.

The Commission has allowed the sales outside the state/UI sales at 5.62 MU (under-drawl for first half of FY 2013-14 as per Commission's prudence check from WRPC site from the weekly summary sheets/bills of UI) resulting in the net energy requirement at the periphery of 2126.35 MU. The sales outside the state have been allowed corresponding to the first half actual in FY 2013-14 i.e. 5.62 MU. Merit order principles have been adopted for estimating the energy requirement for H2 of FY 2013-14 and accordingly only that much power purchase has been estimated as required to meet the requirement within the territory. Therefore, no surplus sale of power has been considered for H2 of FY 2013-14. The Commission notes that the UI over-drawal/under-drawal would be considered appropriately during the true-up exercise for the year based on the actual performance and as per the WRPC bills.

Assuming the external losses of 3.55% to be reasonable, the gross energy purchase approved by the Commission is 2194.82 MU. This includes the UI over-drawal figure of 63.49 MU as per the weekly summary sheets/bills of UI from the WRPC site for the first half of FY 2013-14.

Table 6.6.1 : Energy Requirement approved for FY 2013-14

Sr. No.	Particulars	Petitioner Submission FY 2013-14	Approved TO dated 22 March'13 FY 2013-14	Petitioner Review FY 2013-14	Approved FY 2013-14
1	**Energy sales within the State/UT (in Mus)**	2032.00	2011.02	1871.15	1924.56
2	**Distribution losses**				
i	%	9.25%	9.25%	8.80%	9.25%
ii	MU	207.12	204.98	180.55	196.17
3	**Energy required at State Periphery for Sale to Retail Consumers**	**2239.12**	**2216.00**	**2051.70**	**2120.73**
4	**Add: Sales to common pool consumers/ UI (in Mus)**	**0.00**	**0.00**	**45.33**	**5.62**
5	**Total Energy Requirement for State**	**2239.11**	**2216.00**	**2097.03**	**2126.35**
6	**Transmission losses**				
i	%	3.56%	3.55%	3.90%	3.55%
ii	MU	83.86	81.63	85.10	68.46
7	**Energy required to be purchased (at Generator end)**	**2322.97**	**2297.64**	**2182.13**	**2194.82**

Table 6.6.2 : Variation Analysis of Power Purchase Quantum for FY 2013-14

Sr. No.	Particulars	Approved in T.O. of FY 13-14 dated March 22' 2013	Approved as part of the review for FY 2013-14	Difference
A)	**ENERGY REQUIREMENT** (in Mus)			
1	Energy sales within the State/UT (in Mus)	2011.02	1924.56	(86.46)
2	Distribution losses	204.98	196.17	(8.81)
3	Sales outside state/UT : UI/Under drawl (in Mus)	0.00	5.62	5.62
4	**Total Energy Requirement for UT**	**2216.00**	**2126.35**	**(89.65)**
3	**Gross power purchase (in MUs)**	**2297.64**	**2194.82**	**(102.82)**
4	Inter-State Transmission Losses	81.63	68.46	(13.17)
5	**Net Energy Availability**	**2216.00**	**2126.35**	**(89.65)**

The difference between the total power purchase quantum approved in the tariff order for FY 2013-14 vis-à-vis review in this order is a decrease of 102.82 MU (in monetary terms, decrease in approved cost of Rs 35.67 Crores). The Commission admits the revised expense in the review, subject to true-up.

6.7 Power Purchase Quantum and Cost

Petitioner's Submission

<u>Power Purchase Quantum</u>

ED-DD for the purpose of estimation of the power availability during FY 13-14 has considered the following sources of power:

- NTPC Western Region Generating Stations;
- NTPC Eastern Region Generating Stations;
- NSPCL (NTPC-SAIL Power Company Ltd);
- Nuclear Power Corporation of India Limited;
- Private sector power generating entities;
- Renewable energy sources (solar and non-solar); and
- Other Arrangements, in case of un-scheduled deficit of power

For projecting the energy availability for FY 13-14, actual power purchase for the first six months of FY 13-14 has been considered. The power availability for remaining six months i.e. October 2013 to March 2014 has been estimated based on the revised allocation issued by the Western Region Power Committee (WRPC) dated 5th October 2013.

Actual power purchase in first six months of FY 13-14 and revised power allocation of 92 MW from NTPC-SAIL Bhilai power plant has been considered while estimating the power availability from this plant during FY 13-14. Actual power purchase in first six months of FY 13-14 from Ratnagiri Gas Power Plant and revised power allocation of 38 MW has been considered while estimating the power purchase during FY 2013-14 from this plant.

Power purchase quantum from the NTPC stations for the second half of the current year has been calculated based on the installed capacity of each plant and by applying the average of previous three and half years (FY 11 to FY 13, FY 14 first six months) PLF to calculate the plant-wise gross generation. For NSPCL, an average PLF of 90% has been considered in line with the actual PLF for the first six months of FY 13-14.

For gas based generating stations i.e. Kawas (KGPP) and Gandhar (GGPP) weighted average PLF of FY 11-12, FY 12-13 and FY 13-14 (for the first six months) have been taken into account.

Auxiliary consumption of 9% and 3% has been considered for estimating the gross generation from coal and gas based generating stations respectively.

For FY 13-14, EDDD has considered power purchase of 4 MU and 20 MU from solar and non-solar renewable energy sources respectively as per the JERC’s Procurement of Renewable Energy Regulations, 2010 as well as approved by the Commission in the Tariff order for FY 13-14.

For computing the power availability at the periphery, 3.90% weighted average external transmission losses have been applied on the gross power purchase for FY 13-14.

Power Purchase Cost

The Petitioner has submitted that the cost of power purchase for FY 13-14 are based on actual power purchase bills, received by the ED-DD during the first six months of FY 13-14. Each element of the power purchase cost i.e. fixed, variable and other cost have been estimated for each generating station by considering 6 months (April’13 to September’13) actual cost incurred by the ED-DD. The projection for the remaining six months has been done on pro-rata basis by considering the actual power purchase cost of the first six months of FY 13-14.

For NTPC-SAIL Bhilai unit 1 & 2, fixed, variable and other charges have been projected for the entire FY 13-14 based on the actual cost for first six months of FY 13-14.

The EDDD has projected other charges (tax, incentives, etc) for FY 13-14 at similar level as estimated for full year of FY 14-15. For nuclear plants i.e. KAPP and TAPP single part tariff has been considered.

For power purchase from renewable energy sources, Commission's approved tariff for solar and non-solar power in the Tariff Order has been taken into account for the remaining six months of FY 13-14.

EDDD had surplus power during FY 13-14 on account of additional allocation of 38MW of power from RGPPL and revised allocation of 92 MW from NTPC-SAIL generating station.

The Petitioner has projected the gross power purchase of 2182.13 MU and the total cost of power purchase at Rs 764.57 Crores. Transmission losses of 85.10 MU have been considered, resulting in the net power purchase of 2097.03 MU (Energy availability at the periphery).

The same is summarized below.

Table 6.7.1 : Power Purchase Quantum and Cost submitted by the petitioner for FY 2013-14

Source (Rs. Crs)	Units Purchased	Fixed Charges	Variable Charges	Other Charges	All Charges Total	Per Unit Cost
NTPC Stations						
KSTPP	366.33	21.41	36.23	6.65	64.29	1.75
KSTPP-III	42.60	6.89	4.35	1.44	12.68	2.98
VSTPP-I	99.95	6.82	12.45	4.22	23.48	2.35
VSTPP-II	73.53	5.16	8.62	3.16	16.94	2.30
VSTPP- III	89.91	10.63	10.55	2.60	23.78	2.65
VSTPP- IV	44.34	6.70	5.24	0.31	12.25	2.76
KAWAS	134.79	20.52	32.77	(8.88)	44.41	3.29
JGPP	146.21	26.11	35.07	1.90	63.08	4.31
Bhilai Unit-I &II(NTPC)	592.36	109.03	168.90	2.67	280.60	4.74
Sipat-I	162.48	22.87	26.10	12.27	61.24	3.77
Sipat-II	70.57	10.15	11.81	1.66	23.62	3.35
MSTPS-I	15.85	4.94	4.39	0.00	9.34	5.89
Subtotal	**1838.91**	**251.23**	**356.48**	**27.99**	**635.71**	**3.46**

Eastern Region						
KHSTPP-II	9.59	1.61	2.30	0.14	4.05	4.23
Subtotal	**9.59**	**1.61**	**2.30**	**0.14**	**4.05**	**4.23**
NPCIL						
KAPPS	61.13	0.00	13.88	0.08	13.96	2.28
TAPP 3&4	80.18	0.00	22.23	0.00	22.23	2.77
Subtotal	**141.30**	**0.00**	**36.11**	**0.08**	**36.19**	**2.56**
Ratnagiri	168.33	28.80	47.86	0.00	76.66	4.55
Subtotal	**168.33**	**28.80**	**47.86**	**0.00**	**76.66**	**4.55**
Power purchase from Other Sources						
Power purchase from Indian E. Exchange	0.00	0.00	0.00	0.00	0.00	0.00
UI	0.00	0.00	0.00	0.00	0.00	0.00
Solar	4.00	0.00	3.60	0.00	3.60	9.00
Non Solar	20.00	0.00	8.00	0.00	8.00	4.00
Subtotal	**24.00**	**0.00**	**11.60**	**0.00**	**11.60**	**4.83**
Misc. Arrears					**1.40**	
NTPC Rebate					**1.04**	
Gross Power Purchase	**2182.13**	**281.64**	**454.36**	**28.22**	**764.57**	**3.50**
External Losses	**85.10**					
Total Power Purchase	**2097.03**	**281.64**	**454.36**	**28.22**	**764.57**	**3.65**

Transmission and Other Charges

Transmission charges payable to PGCIL are based on the total capacity allocation in the transmission network. ED-DD has a mix of firm and infirm capacity allocations from various Central Generating Stations which is revised by the Ministry of Power at regular intervals. Therefore, considering the changing capacity allocation, ED-DD has estimated the transmission charges for FY 13-14 based on the actual transmission charges for six months of FY 13-14 and pro-rata allocation of the same for remaining six months.

Table 6.7.2 : Total Power Purchase Cost submitted by the petitioner for FY 2013-14

Sr. No.	Particulars	Energy available at the DD periphery (MU)	Total Cost (Rs Crores)	Per unit cost (Rs/kWh)
1	Power Purchase Cost	2097.03	764.57	3.65
2	PGCIL Charges		66.54	
3	WRLDC		0.55	
4	MSTCL		4.37	
5	**Total Power Purchase Cost (including Transmission Cost)**	**2097.03**	**836.02**	**3.99**

Commission's Analysis

As discussed in the section on energy balance in para 6.6, the power purchase quantum approved for FY 2013-14 is 2194.82 MU.

The Commission has considered the submission of the Petitioner for actual H1 FY 2013-14. The Petitioner had initially submitted power purchase quantum and cost of 1035.30 MU and Rs 384.18 Crores respectively vide submission dated November 18' 2013 in response to the additional data requirements pointed out by the Commission.

The Commission as part of prudence check verified the station-wise power purchase bills submitted by the Petitioner for first six months of FY 2013-14 and pointed out discrepancies in the figures considered by the Petitioner and those as per the bills during the technical validation session. The Petitioner subsequently revised the submission vide email dated December 2' 2013 and submitted power purchase quantum and cost for H1 of FY 2013-14 at 1084.09 MU and Rs 384.18 Crores respectively, including transmission charges. This included the UI over-drawal quantum of 59.41 MU and cost incurred towards over-drawal of Rs 11.28 Crores as per the Petitioner.

The Commission has considered the quantum of 1024.76 MU and cost of Rs. 373.95 Crores for H1 of FY 2013-14 (excluding UI) as part of the prudence check of the Commission based on the revised submission of the Petitioner. The Commission has considered the UI over-drawal of 63.49 MU and cost incurred of Rs 11.74 Crores as per its prudence check (including the additional UI charges) from the weekly summary sheets/bills of UI on the WRPC site for the first half of FY 2013-14.

The Commission as part of its prudence check had observed that the REA for H1 of FY 2013-14 showed purchase of 44 MU from IEX, which had not been accounted for by the Petitioner. The Commission had queried this to the Petitioner, to which the Petitioner responded stating that these 44 MUs are the purchase of open access consumers from IEX. This quantum, therefore, has not been considered by the Commission.

The approved power purchase cost by the Commission as part of the review exercise does not include the additional/penal charges paid towards overdrawls/ below allowable frequency under the UI mechanism. As per the CERC (Unscheduled Interchange charges and related matters) Principle Regulations and its amendments thereof and Press Notification issued by Ministry of Power on 23rd July 2009 and after verification of the data submitted by the Petitioner, the Commission is mandated to disallow the additional UI charges of **Rs. 0.21 Crores** against the UI over-drawl/under-drawl beyond the allowed frequency for H1 of FY 2013-14 imposed on the utility under the UI regulations of CERC (as amended from time to time) and it will not be a pass through in the aggregate revenue requirement of the Petitioner for FY 2013-14.

Therefore, the UI over-drawal cost has been considered at Rs 11.53 Crores for H1 of FY 2013-14.

Thus, the overall quantum of power purchase has been considered as 1088.25 MU and cost incurred of Rs. 385.48 Crores for H1 of FY 2013-14.

For estimating the energy requirement for H2 of FY 2013-14, merit order principles have been considered. While full fixed (capacity) charges have been considered but the variable charges corresponding to the costliest source of power have not been considered, in respect of energy not considered for purchase (according to the merit order dispatch principles).

The Commission has observed that Ratnagiri power plant (RGPPL) has not been scheduling power from August'13 in absence of the fuel supply. The Commission has further exercised prudence in this regard and verified from the latest available REA accounts that RGPPL has not supplied any energy for the months of September'13, October'13 and November'13. However, the energy units have been supplied for the month of December'13. The Commission has made note of this and provisionally considers allowed the fixed charges of this plant for H2 of FY 2013-14; however, the same would be revisited at the time of true-up based on prudence check from final REA accounts for H2 of FY 2013-14.

Following assumptions have been considered for projecting the requirement and cost for H2 of FY 2013-14.

- The Commission has considered the firm allocation and allocation from the unallocated quota from the above stations except Kahalgaon STPS-II as per the notification of the Western Region Power Committee vide WRPC/Comml-I/6/Alloc/2013/2061 dated November 29' 2013. The allocation for Kahalgaon STPS-II is considered as per the notification of the Eastern Region Power Committee i.e. 1.30 MW.

- **Fixed Charges:** The fixed charges are considered based on the formula specified for the stations in the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009-14. The Annual Fixed Charges for each station have been taken as per the latest tariff orders for the respective stations.

- **Variable Charges:** The Commission has considered the average variable cost for the period July 2013 to September 2013 (as per actual analyzed by the Commission) for consideration of the per unit variable charges for H2 of FY 2013-14.

- The Commission has considered the nuclear plants as must run and has not subjected them to merit order dispatch.

Transmission Charges (PGCIL, NRLDC F&C and Reactive Energy Charges)

The Commission has considered the PoC rates as specified by the Central Electricity Regulatory Commission vide its order no L-1/44/2013-CERC dated 31.12.2013 applicable from January 2014 to March 2014 for approving the Transmission charges for H2 of FY 2013-14. Accordingly, the transmission charges for usage of the PGCIL network are approved at **Rs 40.53 Crores** for H2 of FY 2013-14.

The petitioner also utilizes the network of OPTCL for wheeling of power scheduled from different stations. The Commission therefore approves the petitioner's estimates of **Rs 2.62 Crores** as OPTCL - Wheeling Charges, WRPC, WRTM, Congestion charges, reactive charges, reactive charges (GETCO), others, misc. incentives for H2 of FY 2013-14.

Further, the Commission also allows the petitioner's claim of other charges including SLDC Charges, WRLDC charges amounting to **Rs 0.29 Crores** for H2 of FY 2013-14.

Accordingly, the total transmission charges approved for H2 of FY 2013-14 are **Rs. 43.44 Crores**.

The Commission has approved power purchase quantum of 1106.57 MU and cost of Rs 404.53 Crores for H2 of FY 2013-14, including the transmission charges of Rs 43.44 Crores.

As per the merit order principles adopted by the Commission for estimating the energy requirement for H2 of FY 2013-14, no surplus sale of power has been considered for H2 of FY 2013-14 and power purchase corresponding to meet the requirement within the territory has been estimated. Further, the UI over-drawal/under-drawal quantum and amount would be considered at the time of true-up based on the actual performance during the year based on the WRPC bills.

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 Commission as per its order dated January 2’ 2014 has specified the RPO obligations of the utilities, and accordingly the RPO has been considered as 3% for FY 2013-14; 0.4% from solar and 2.60% from non-solar sources.

It is observed that the Petitioner has not made any renewable energy purchase (in quantum terms) during H1 of FY 2013-14; however on a query regarding fulfillment of RPO obligation, the Petitioner vide its submission dated November 18’ 2013 submitted that it has made non-solar REC purchase amounting to Rs 1.49 Crores. This is on account of purchase of 9900 REC certificates at a price of Rs 1500/certificate.

The Commission provisionally considers and allows the cost incurred on purchase of non-solar REC certificate of Rs 1.49 Crores; however the same should be duly supported by documentary proof regarding payment in this regard during the true-up exercise.

It is observed that the utility has not been able to meet its RPO obligation for the year; further, the Commission has observed that the utility has not been meeting its RPO obligation for the past years, starting FY 2010-11.

In the order of the Commission dated October 25’ 2013 in petition no. 61/2012, the Commission has given strict directions to the utility to meet its RPO obligations for the respective years and comply with the same by March 31’ 2014 failing which the Commission shall be constrained to proceed under Regulation 4 of JERC (Procurement of Renewable Energy) Regulations 2010 against the licensees/obligated entities. Therefore, ED-DD has to strictly comply with the orders of the Commission and fulfill its RPO commitments for the respective years.

In the interest of the stakeholders, the Commission has provisioned the pending RPO obligations of the utility of the respective years in FY 2013-14, as the utility is required to meet its obligations by 31.03.2014. The RPO provisioning has been done assuming the fulfillment of RPO obligation through REC certificates; as seen from the past trends and considering that the utility has so far not been able to meet its obligation through renewable energy purchase in energy terms. The same has been discussed in detail in para 6.19 of this order.

The pending RPO obligation for the complete FY 2013-14 has been provisioned assuming the fulfillment of RPO obligation through the purchase of REC certificates. This is in consideration of the fact that the utility has so far not been able to meet its RPO obligation through renewable energy purchase in energy terms.

The Commission directs the utility to comply with the directions of the Commission and fulfill its RPO obligations, including the backlog of the previous years.

Based on the above, the total power purchase quantum and cost from various sources as approved for Review of FY 2013-14 is as mentioned below:

Table 6.7.3: Power purchase quantum and cost approved for H2 of FY 2013-14 (merit order principles)

Sr. No.	Source	Units Purchased (MU)	Fixed Charges (Rs Crores)	Variable Charge (Ps/kWh) Average of July, Aug, Sept 2013	Variable Charges (Rs Crores)	Total Charges (Rs Crores)
1	**NPCIL**					
	KAPPS	30.39		221	6.70	6.70
	TAPP 3&4	42.50		280	11.91	11.91
	Sub-total	**72.89**	-		**18.62**	**18.62**
2	**NTPC**					
	KORBA - III (KSTPS - VII)	22.21	3.40	88	1.96	5.36
	KSTPS	174.87	9.83	89	15.62	25.45
	VSTPS - IV	22.84	3.47	119	2.72	6.19
	VSTPS - II	36.03	2.41	125	4.52	6.93
	VSTPS -III	43.90	5.02	127	5.56	10.57
	VSTPS - I	51.47	3.37	134	6.91	10.28
	SIPAT - Stage I	89.48	11.82	175	15.70	27.51
	SIPAT Stage 2	37.61	4.87	184	6.90	11.77
	GGPP	93.79	12.42	252	23.62	36.04
	RGPPL	148.61	18.52	256	38.01	56.53
	*Bhilai***	312.88	50.74	257	80.37	131.11
	*KGPP**	-	9.73	259	-	9.73
	*KHSTPP - II**	-	0.74	269	-	0.74
	*MSTPS/MSTPS IV**	-	4.27	279	-	4.27
	Sub-total	**1033.68**	**140.59**		**201.88**	**342.47**
3	**Others**					
	UI	-	-	-	-	-
	Sub-total	-	-	-	-	-
4	**Other Charges**					
	PGCIL CHARGES					40.53

	WRLDC					0.29
	OPTCL Charges					2.62
5	**Total**	**1106.57**	**140.59**		**220.50**	**404.53**

**Fall out of the merit order*

*** Partial procurement because of the cut-off as per merit order principles*

Table 6.7.4: Power purchase quantum and cost approved for H1 FY 2013-14 (as per actual analyzed)

Sr. No.	Source	Units Purchased (MU)	Variable Charge (Ps/kWh)	Fixed Charges (Rs Crores)	Variable Charges (Rs Crores)	Other Charges (Rs Crores)	Total Charges (Rs Crores)
1	**NTPC Stations**						
	KSTPP	195.88	98	10.88	19.17	2.93	32.98
	KSTPP-III	21.62	100	3.49	2.16	0.62	6.27
	VSTPP-I	50.85	128	3.32	6.52	1.82	11.66
	VSTPP-II	39.72	121	2.56	4.80	1.35	8.71
	VSTPP- III	48.59	121	5.26	5.89	1.14	12.29
	VSTPP- IV	22.04	123	3.40	2.71	0.16	6.27
	KAWAS	48.76	247	10.24	12.02	(3.67)	18.59
	JGPP	48.68	241	12.30	11.74	(5.06)	18.98
	Bhilai Unit-I &II(NTPC)	315.62	243	55.29	76.69	(0.16)	131.83
	Sipat-I	86.84	164	11.55	14.20	5.22	30.97
	Sipat-II	41.99	169	5.14	7.11	0.75	13.00
	MSTPS-I	1.00	279	2.50	0.28	0.00	2.78
	Sub-total	**921.58**	**177**	**125.93**	**163.29**	**5.08**	**294.32**
2	**Eastern Region**						
	KHSTPP-II	6.37	240	0.80	1.53	0.06	2.39
	Subtotal	**6.37**	**240**	**0.80**	**1.53**	**0.06**	**2.39**
3	**NPCIL**						
	KAPPS	31.45	227	0.00	7.14	0.12	7.27
	TAPP 3&4	37.79	278	0.00	10.52	0.01	10.54
	Subtotal	**69.24**	**255**	**0.00**	**17.67**	**0.14**	**17.80**
4	**Others**						
	Ratnagiri	27.57	269	15.58	7.42	0.46	23.46
	Subtotal	**27.57**	**269**	**15.58**	**7.42**	**0.46**	**23.46**
5	**Power purchase from Other Sources**						
	UI over-drawal*	63.49		0.00	11.74	(0.21)	11.53
	Solar	0.00	0.00	0.00	0.00	0.00	0.00
	Non Solar	0.00	0.00	0.00	0.00	0.00	0.00

	Sub-total	**63.49**		**0.00**	**11.74**	**(0.21)**	**11.53**
6	**Misc. Arrears**						2.10
	NTPC Rebate						1.09
7	**Gross Power Purchase Cost**						
	Other Charges						
	PGCIL CHARGES						32.96
	WRLDC						0.26
	MSTCL						1.74
8	**Grand total of Charges**	**1088.25**		**142.31**	**201.64**	**5.53**	**385.48**

* UI quantum and cost considered as per the WRPC bills analyzed by the Commission; Penal Charges of Rs 0.21 Crores deducted.

Table 6.7.5: Summary of power purchase quantum and cost approved for FY 2013-14

S. No.	Particulars	Units Purchased (MU)	Total Cost (Rs Crores)
1	Power Purchase for H1 of FY 2013-14	1088.25	385.48
2	Power Purchase for H2 of FY 2013-14	1106.57	404.53
3	Non Solar REC Certificate Purchase for H1	-	1.49
4	**Total Power Purchase**	**2194.82**	**791.50**

The Commission, therefore, approves the purchase of 2194.82 MU and power purchase cost of Rs 791.50 Crores for FY 2013-14.

6.8 Operation and Maintenance Expenses

Petitioner's Submission

The petitioner has submitted that the Operation and Maintenance expenses comprise of the following heads:

- **Employees Expenses** which includes the salaries, dearness allowances, dearness pay, other allowances and retirement benefits paid to the staff;
- **Repair and Maintenance (R&M) Expenses**, which include all expenditure incurred on the maintenance and upkeep of transmission and distribution assets; and
- **Administrative and General Expenses**, which include all expenditure incurred in operating a business such as telephone charges, regulatory and consultancy fees such as energy auditing and chartered accountant fees, conveyance and travel expenses, water charges etc.

Summary of the past years operation and maintenance expense is summarized in the table below:

Table 6.8.1: Operation & Maintenance Expense of previous years (Rs. Crores)

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

The total Operation & Maintenance expense for FY 2012-13 as per the latest actual submitted by Petitioner is Rs 19.11 Crores against the Rs 14.62 Crores in FY 2011-12, an increase of Rs 4.51 Crores.

The increase in operation and maintenance cost in FY 11-12 is primarily on account of the increase in R&M expenses during FY 11-12.

Employee Expenses

Petitioner's Submission

The Employee expense estimated by the Petitioner comprise of all costs related to employees like basic salary, dearness allowances, medical cost, leave travel allowances, honorarium, etc. However the Petitioner does not maintain cost related to leave salary contribution and pension of the employee in the employee cost. Therefore, the Petitioner will claim these expenses relating to the employee cost at an appropriate time when the respective cost items become payable.

Based on the various expenses related to employee cost booked during six months of FY 13-14, ED-DD has estimated the total employee cost for full year of FY 13-14 at Rs 8.98 Crores.

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 & include 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:*

   a) *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;*

   b) *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;*

   c) *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.*

As may be seen from para 5.8.1, the Commission has considered Employee cost at Rs. 8.24 Crores for true-up of ARR for FY 2012-13 for reasons explained therein. The Commission has analyzed the past trends, the employee expenses of Rs. 7.92 Crores approved in the tariff order dated March 22' 2013 for FY 2013-14 and the revised estimates of Rs 8.98 Crores for the year submitted by the Petitioner.

The Commission has applied the escalation factor of 5.88%[10] per annum for estimation of the increase in the employee expenses from the figures approved for FY 2012-13 of Rs 8.24 Crores, to estimate the employee expenses for FY 2013-14. This results in the employee expenses of Rs 8.73 Crores, as considered reasonable and hence approved. The Commission will consider the actual employee expenses at the time of true-up once the audited accounts are furnished, subject to prudence check.

The Commission considers the employee cost of Rs. 8.73 Crores as reasonable and approves the same for Review of ARR for FY 2013-14; subject to true-up of FY 2013-14.

Repair and Maintenance Expenses

Petitioner's Submission

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

The actual R&M expense as submitted by the Petitioner for FY 2012-13 is Rs 7.56 Crores. For FY 13-14, ED-DD has considered the R&M expense of Rs. 8.24 Crores and has projected an 8.94% increase in the R&M expense for FY 14-15.

ED-DD has requested the Commission to approve the Repair & Maintenance expense without any disallowances as the same is necessary for proper maintenance and strengthening of the system and quality of supply in the region in order to ensure consumer satisfaction. Also, the price of most of the basic commodities like iron, copper, zinc and cement used in the repairs and maintenance has increased tremendously over the last 5 years.

[10] The WPI index upto February 2014 has been used as available on the website of Economic Advisor, Ministry of Commerce and Industry. Same index has been assumed for March 2014. The increase in WPI index has been considered from FY 2012-13 to FY 2013-14 to arrive at the increase in WPI of 5.88%.

Commission's Analysis

As discussed in the Para 5.8.2 of this order, the Commission has approved the repair and maintenance expenses at Rs 7.56 Crores for the true-up of ARR for FY 2012-13. The Commission has analyzed the past trends, repair and maintenance expenses of Rs. 6.08 Crores approved in the tariff order dated March 22' 2013 for FY 2013-14 and revised estimates for the year submitted by the Petitioner.

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.

The Commission has applied the escalation factor of 5.88%[11] per annum for estimation of the increase in the R&M expenses from the approved figures of FY 2012-13, for the approval of R&M expenses for FY 2013-14. This results in the R&M expenses of Rs 8.00 Crores.

Therefore, the Commission considers the Repair and Maintenance Expenses of Rs. 8.00 Crores as reasonable and approves the same for Review of ARR for FY 2013-14. The Petitioner is directed to submit complete details and proper justification of actual R&M expenses at the time of true-up to enable the Commission to take a view in this regard.

<u>**Administration and General Expenses**</u>

Petitioner's Submission

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

- Rent
- Rates and taxes
- Travel and conveyance expenses
- Consultancy and regulatory fees
- Energy auditing fee and consumer indexing

[11] The WPI index upto February 2014 has been used as available on the website of Economic Advisor, Ministry of Commerce and Industry. Same index has been assumed for March 2014. The increase in WPI index has been considered from FY 2012-13 to FY 2013-14 to arrive at the increase in WPI of 5.88%.

The actual A&G expense for FY 12-13 is Rs. 3.31 Crores. For FY 13-14, ED-DD has considered the A&G expense of Rs. 3.61 Crores and has projected an 8.94% increase in the A&G expense for FY 14-15.

Commission's Analysis

As discussed in the Para 5.8.3 of this order, the Commission has approved the A&G expenses at Rs 3.34 Crores for true-up of ARR for FY 2012-13. The Commission has analyzed the past trends, the A&G expenses of Rs. 3.57 Crores approved in the tariff order dated March 22' 2013 for FY 2013-14 and revised estimates for the year submitted by the Petitioner.

The Commission has applied the escalation factor of 5.88%[12] per annum for estimation of the increase in the A&G expenses from approved figures of FY 2012-13, for the approval of A&G expenses for FY 2013-14. This results in the A&G expenses of Rs 3.54 Crores.

The Commission, therefore, considers the Administration and General Expenses of Rs. 3.54 Crores as reasonable and approves the same for Review of ARR for FY 2013-14.

Summary of Operation and Maintenance Expenses

The overall summary of O&M expenditure estimated by the petitioner vis-à-vis approved by the Commission for FY 2013-14 is as given below:

Table 6.8.4: Summary of Operation & Maintenance Expenses for FY 2013-14 (Rs. Crores)

Sr. No.	Particulars	Petitioner Submission FY 2013-14	Approved TO dated 22 March'13 FY 2013-14	Petitioner Review FY 2013-14	Approved FY 2013-14
1	Employee Expenses	7.92	7.92	8.98	8.73
2	A&G Expenses	3.36	3.57	3.61	3.54
3	R&M Expenses	6.08	6.08	8.24	8.00
4	**Sub-Total**	**17.35**	**17.57**	**20.82**	**20.27**
5	Less: Expenses Capitalized	-	-	-	
6	**Total O&M Expenses**	**17.35**	**17.57**	**20.82**	**20.27**

[12] The WPI index upto February 2014 has been used as available on the website of Economic Advisor, Ministry of Commerce and Industry. Same index has been assumed for March 2014. The increase in WPI index has been considered from FY 2012-13 to FY 2013-14 to arrive at the increase in WPI of 5.88%.

6.9 Capital Expenditure and Capitalization

Petitioner's submission

The petitioner has submitted, "Considering the increase in demand from HT & LT consumers, ED-DD would be required to undertake significant capital expenditure for system augmentation and strengthening. System augmentation would not only help ED-DD in handling increased load but would also ensure better quality of supply and network reliability to the consumers. Though ED-DD T&D loss levels are very low, the capital expenditure would help in maintaining the low T&D loss levels and further reduction in the same."

The petitioner further submits that each year they draft an Annual Plan for the capital investment for new schemes and continuing schemes which it plans to incur in the ensuing year. 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 Petitioner has proposed the capital expenditure of Rs. 50.00 Crores, out of which the Petitioner has projected the addition of Rs. 22.36 Crores in the Gross Fixed Assets during FY 2013-14.

Commission's analysis

The Commission observes that the capital expenditure and the capitalization submitted by the petitioner for FY 2013-14 is required to maintain reliable supply for the consumers of UT of Daman and Diu.

As per the Regulation 21, of JERC for the states 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 separately ongoing projects that will spill into the Ensuing Year and new projects (along with their justification) that will commence in the ensuing year. The Commission has noticed that the petitioner has not submitted the capital investment plan as per the regulations. **The Commission has also observed that the Petitioner has not been submitting detailed Capital Expenditure Plan since FY 2010-11. The Commission has viewed it seriously and directs the Petitioner to adhere to the Regulation and file detailed Capital expenditure plan every year with the ARR & tariff filing.** However, for the purpose of this ARR computation, **the Commission approves the capital expenditure of Rs 50.00 Crores and capitalization of Rs. 22.36 Crores as proposed by the petitioner for Review of ARR for FY 2013-14.** A detailed statement of the capital expenditure incurred quarterly, the asset capitalized and added in the gross fixed assets upto 31.03.2014 on different dates during the year be provided for 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.

6.10 GFA and Depreciation

Petitioner's submission

The Petitioner has submitted that EDDD had Rs. 311.45 Crores of Opening Gross Fixed Assets (GFA) in FY 13-14. ED-DD has further proposed capital expenditure of Rs. 50.00 Crores during FY 13-14.

Based on the actual capitalization of the first six months and estimated addition in GFA during the remaining six months of FY 13-14, assets amounting to Rs. 22.36 Crores have been estimated to be added in the GFA during FY 13-14.

Depreciation is charged on the basis of straight-line method, on the Gross Fixed Assets in use at the beginning of the year and addition in assets during the financial year. The depreciation is based on the original cost of the Gross Fixed Assets. Based on the CERC norms, ED-DD has applied the following depreciation rates as specified by the CERC in the Tariff Regulations for FY 2009-14.

Table 6.10.1: Depreciation rate specified by CERC

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

Depreciation for the FY 13-14 is determined by applying aforesaid category-wise assets depreciation rates on the opening balance of Gross Fixed assets and addition during the year projected for FY 13-14, thereby arriving at the average GFA for the asset categories.

ED-DD has further submitted that the depreciation has been computed based on the closing value of GFA for FY 2012-13 as given in the fixed asset register and the estimated capitalization for FY 2013-14.

The Petitioner has claimed a depreciation amount of Rs 15.61 Crores on the average GFA of Rs 322.63 Crores for FY 2013-14.

Commission's Analysis

As discussed in para 5.10 of this order and as per Regulation 26 of JERC for the states of Goa and UTs (Terms and conditions for determination of Tariff), Regulation 2009 depreciation shall be computed on historical cost of the assets including additions during the year. As discussed at para 5.10 of this order, the Commission has allowed the opening GFA for FY 2010-11 at Rs 251.55 Crores and allowed the additions in the subsequent years, as per the true-up of the respective years. The opening GFA for FY 2013-14 has been considered at Rs 311.51 Crores, which is the closing GFA considered by the Commission in its true-up for FY 2012-13. The Commission as discussed at Para 6.9 of this order has allowed the capitalization for FY 2013-14 at Rs 22.36 Crores, to arrive at the closing GFA of Rs 333.87 Crores for FY 2013-14.

The 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 depreciation rates for distribution assets as specified by CERC vide Appendix-III (Depreciation schedule of CERC (Terms and Conditions of Tariff) Regulations, 2009) has been used to calculate the depreciation. The depreciation for FY 2013-14 has been worked out at Rs. 15.61 Crores.

Table 6.10.2 : GFA & Depreciation approved for FY 2013-14 (Rs. Crores)

Sr. No.	Particulars	Petitioner Submission FY 2013-14	Approved TO dated 22 March'13 FY 2013-14	Petitioner Review FY 2013-14	Approved FY 2013-14
1	Opening Value of Assets at the beginning of the year	299.53	301.62	311.45	311.51
2	Additions during the year	46.52	46.52	22.36	22.36
3	Gross Fixed Assets at the end of year	346.05	348.14	333.82	333.87
4	**Average Assets**	**322.79**	**324.88**	**322.63**	**322.69**
5	**Depreciation for the year**	**16.46**	**15.77**	**15.61**	**15.61**

Table 6.10.3 : Calculation of Depreciation for FY 2013-14 (Rs. Crores)

Sr. No.	Particulars	Value of assets at the beginning of FY 2013-14	Addition during FY 2013-14	Closing balance at the end of FY 2013-14	Rate of Depreciation	Depreciation
1	Plant & Machinery	274.90	22.36	297.26	5.28%	15.11
2	Buildings	10.92	-	10.92	3.34%	0.36
3	Vehicles	0.57	-	0.57	9.50%	0.05

Sr. No.	Particulars	Value of assets at the beginning of FY 2013-14	Addition during FY 2013-14	Closing balance at the end of FY 2013-14	Rate of Depreciation	Depreciation
4	Furniture and Fixtures	0.35	-	0.35	6.33%	0.02
5	Computers and Others	1.01	-	1.01	6.33%	0.06
6	Land	23.75	-	23.75	0.00%	-
7	**Total**	**311.51**	**22.36**	**333.87**		**15.61**

The Commission considers the depreciation of Rs. 15.61 Crores as reasonable and approves the same for Review of ARR of FY 2013-14.

6.11 Interest on Loan

Petitioner's submission

The petitioner has submitted that the entire capital expenditure of ED-DD since its inception has been funded by the Central Government through budgetary supports each year. Therefore, the department does not have any loan liabilities.

However, ED-DD is now migrating from a Government owned utility to a commercial utility under the Electricity Act, 2003; it has come under the direction of the Joint Electricity Regulatory Commission. It has been assumed that ED-DD would work as a separate commercial utility and therefore would be utilizing the debt facilities in the coming years.

Assets capitalized during FY 13-14 have been considered based on normative debt-equity ratio of 70:30 as per the JERC (Terms and Conditions for Determination of Tariff) Regulations, 2009. 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 interest on long term loans of Rs 6.74 Crores on the closing loan amount of Rs 52.17 Crores for FY 2013-14. The opening loan amount for FY 2013-14 has been taken as Rs 39.26 Crores i.e. the closing loan amount claimed by the Petitioner for FY 2012-13.

Commission's analysis

Regulation 25 of JERC (Terms and Conditions for Determination of Tariff) Regulations, 2009 lays down
Quote"

(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**". Unquote***

ED-DD is an integrated utility in its present form as defined in Regulation 2(9) of the JERC (Terms and Conditions for Determination of Tariff) Regulations, 2009 as the utility is not restructured and corporatized till date. Considering this as an integrated utility, it 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 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.

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

Quote

"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."**Unquote***

The above stated regulations mandate the debt equity ratio for assets deployed, post the commencement of the JERC Tariff Regulations. It is pertinent to mention here that the first application filed by the petitioner before this Commission under the above stated regulation was for FY 2010-11, wherein the Commission had determined tariff as per the JERC Tariff Regulations 2009. The Commission has also perused the accounts certified by a chartered accountant submitted by the petitioner for FY 2010-11 and FY 2011-12. It has been observed that the petitioner does not have any opening loan portfolio and the entire capital base is funded through government budgetary support.

As discussed in para 5.11 of this order, the normative interest under the JERC Tariff Regulations could therefore be considered on the assets created during the year FY 2010-11 onwards excluding the opening capital base. The Commission has accordingly considered the opening normative loan of Rs. 39.73 Crores and normative debt amounting to 70% of the addition to GFA of Rs. 15.65 Crores during FY 2013-14 and has calculated the normative interest as per the regulations which amount to Rs 6.57 Crores. The rate of interest has been considered as 14.45%[13], the SBAR as on April 1' 2013 for computation of the interest on the normative loan amount. The calculation is as given below.

Table 6.11.1 : Normative Interest on Loan approved for FY 2013-14 (Rs. Crores)

Sr. No.	Particulars	Petitioner Submission FY 2013-14	Approved TO dated 22 March'13 FY 2013-14	Petitioner Review FY 2013-14	Approved FY 2013-14
1	Opening Normative Loan	31.22	32.81	39.26	39.73
2	Add: Normative Loan during the year	32.56	32.56	15.65	15.65
3	Less: Normative Repayment	3.19	3.51	2.75	4.20
4	Closing Normative Loan	**60.60**	**61.87**	**52.17**	**51.19**
5	Average Normative Loan	45.91	47.34	45.72	45.46
6	Rate of Interest (@SBAR rate)	14.75%	14.45%	14.75%	14.45%
7	**Interest on Normative Loan**	**6.77**	**6.84**	**6.74**	**6.57**

Accordingly, the Commission has considered the Normative Interest on Loans at Rs 6.57 Crores as reasonable and approves the same for review of ARR of FY 2013-14.

[13] SBI advance rate as on 04.02.2013 has been considered for the computation of the interest on working capital; SBI advance rate prevailing as on April 1' 2013

6.12 Interest on Working Capital

Petitioner's submission

The petitioner has computed the Interest on Working Capital for FY 13-14 based on normative basis as per the JERC (Terms and Conditions for Determination of Tariff) Regulations, 2009.

The working capital requirement has been computed based on the following parameters:

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

A rate of interest of 14.75% has been considered on the working capital requirement, being the SBI Prime Lending Rate as on 1st April of the year. This is in line with the JERC (Terms and Conditions for Determination of Tariff) Regulations, 2009 which states that *"The rate of interest on working capital shall be equal to the short term Prime Lending Rate of State Bank of India on the 1st April of the relevant financial year."*

The normative interest on working capital for FY 13-14 has been claimed at Rs. 10.53 Crores.

Commission's analysis

The Commission has considered the approved power purchase expenses of FY 2013-14 and approved O&M expenses to work out the normative working capital required for FY 2013-14 in line with Regulation 29 of the JERC Tariff Regulations 2009.

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 investments could be utilized to pay the interest to the consumers under section 47(4) of the Electricity Act 2003. However, 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 consumers 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 in the interest of the consumers. The Commission finds that by utilizing such security deposit to meet the working capital, the interest on working capital is reduced resulting into lower tariff determination. Hence, the

Commission has deducted this amount from the working capital requirement considered for Review of ARR for FY 2013-14. Further, Commission clarifies that SBI PLR rate has now been substituted as SBI Advance Rate. The Commission has considered the SBI advance rate of 14.45%[14] as on 1st April 2013 for computation of the interest on working capital for the Review of ARR for FY 2013-14.

The Commission had repeatedly asked the Petitioner for the split of the consumer security deposit into bank guarantee, fixed deposit and cash forms, to which the Petitioner responded stating that the same is being compiled. Even the latest submission by the Petitioner on January 28' 2014 (considered by the Commission in its analysis of this tariff order) did not consist of the required details.

In absence of the required details, the Commission has considered the security deposit amount of Rs 9.79 Crores as considered by the Commission in its tariff order dated March 22' 2013 for the purposes of the security deposit amount for FY 2013-14. The same would be revisited at the time of true-up based on actual data; further, **the Commission gives strict directions to the utility to provide the split of the consumer security deposit amount into bank guarantee, fixed deposit and cash forms (as on March 31' 2013) for analysis during the true-up.**

The detailed calculation of the interest on working capital is as mentioned below.

Table 6.12.1 : Interest on working capital approved for FY 2013-14 (Rs. Crores)

Sr. No.	Particulars	Petitioner Submission FY 2013-14	Approved TO dated 22 March'13 FY 2013-14	Petitioner Review FY 2013-14	Approved FY 2013-14
1	Power Purchase Cost for one month	76.89	68.93	69.67	66.23[15]
2	Employee Cost for one month	0.66	0.66	0.75	0.73
3	A&G Expenses for one month	0.28	0.30	0.30	0.30
4	R&M Expenses for one month	0.51	0.51	0.69	0.67
5	**Total Working Capital for one month**	**78.34**	**70.39**	**71.40**	**67.92**
6	**Security Deposit**	**-**	9.79	**-**	9.79
7	**Net Working Capital required after deduction of Security Deposit**	**78.34**	**60.60**	**71.40**	**58.13**
8	SBAR Rate	14.75%	14.45%	14.75%	14.45%
9	**Interest on Working Capital**	**11.56**	**8.76**	**10.53**	**8.40**

[14] SBI advance rate as on 04.02.2013 has been considered for the computation of the interest on working capital; SBI advance rate prevailing as on April 1' 2013

[15] Amount earned through the sale of surplus power has been reduced from the approved power purchase cost to ascertain one month power purchase requirement for working capital purposes. Rebate amount for the year at Rs (2.66+1.09) = 3.75 Crores for H1 of FY 2013-14 has been included as part of the power purchase requirement to arrive at the working capital.

The Commission considers Rs 8.40 Crores as Interest on Working Capital as reasonable and approves the same for Review of ARR for FY 2013-14.

6.13 Interest on Security Deposit

Petitioner's submission

The petitioner has not claimed interest on security deposit.

Commission's analysis

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 in the interest of the consumers as discussed in the previous para 6.12 of this order. The cost of available security deposit of the consumer is allowed as an interest on security deposit to be paid to the consumers as per section 47(4) and regulation 25 of the JERC Tariff Regulations 2009 and the same is allowed as expenditure in the ARR.

In terms of the section 47 (4) of the Electricity Act, 2003 'the distribution licensee is required to pay interest on security deposit collected from consumers equivalent to bank rate or more as may be specified by the Commission.'

The Commission would like to reiterate its direction that the distribution licensee should deliver its obligation under the Section 47(4) of the Electricity Act, 2003 and it must pay the interest on security deposit at the rate of 8.50%[16] per annum (Being the Bank Rate as on 1st April 2013) and should explicitly mention the same as the 'Interest on Security Deposit for FY 2013-14' on the bills of the consumers. The Commission has considered the average security deposit amount outstanding for the previous year i.e. FY 2012-13 for consideration of the payment of the interest on security deposit for FY 2013-14.

The Commission allows the interest of Rs 0.76 Crores, on the assessed average security deposit amount of Rs 8.91 Crores at the bank rate of 8.50%[17], to be recovered as part of the ARR and to be

[16] Bank Rate of 8.50% as per RBI circular dated March 19' 2013; prevailing as on April 1' 2013

[17] Bank Rate prevailing as on April 1' 2013 i.e. 8.50%

paid to the consumers effective 1st April 2013. The opening and closing security deposit amounts of Rs 8.03 Crores and Rs 9.79 Crores respectively have been considered for FY 2012-13, for the purpose of analysis (as submitted by the Petitioner in tariff petition FY 2013-14).

Table 6.13.1 : Interest on Security Deposit approved for FY 2013-14 (in Rs. Crores)

Sr. No.	Particulars	Petitioner Submission FY 2013-14	Approved TO dated 22 March'13 FY 2013-14	Petitioner Review FY 2013-14	Approved FY 2013-14
1	Opening Security Deposit	NIL	9.79	NIL	9.79
2	Add: Deposits during the Year				
3	Less: Deposits refunded				
4	Closing Security Deposit		9.79		9.79
5	Bank Rate		8.75%		8.50%
6	**Interest on Security Deposit**		**0.86**		**0.76**

In view of the above, the Commission allows Rs. 0.76 Crores as interest on security deposit as expenditure in the ARR in the Review for FY 2013-14. This should be paid to the eligible consumers and actual expenditure be shown at the time of true up.

6.14 Return on Capital Base

Petitioner's submission

The ED-DD has considered return on capital base as per the Regulation 23 of JERC (Terms and Conditions for Determination of Tariff) Regulations, 2009 as Rs. 6.16 Crores as a 3% return on net block of approved assets/capitalization at the beginning of the FY 2013-14 of Rs 205.26 Crores.

The Petitioner has claimed return on capital base of Rs 6.16 Crores for FY 2013-14.

Commission's analysis

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

As discussed in para 5.10 and para 5.14 of this order, the Commission has considered return on capital base as per the Regulation 23 of JERC (Terms and Conditions for Determination of Tariff) Regulations, 2009 and has considered Rs. 6.12 Crores as a 3% return on net block of approved assets at the beginning of FY 2013-14.

Table 6.14.1 : Return on Capital Base approved for FY 2013-14 (Rs. Crores)

Sr. No.	Particulars	Petitioner Submission FY 2013-14	Approved TO dated 22 March'13 FY 2013-14	Petitioner Review FY 2013-14	Approved FY 2013-14
1	Gross block at beginning of the Year/Opening GFA	RoE @ 16% on average equity amount of Rs 18.61 Cr	301.62	311.45	311.51
2	Less accumulated depreciation [18]		107.12	106.20	107.35
3	**Net block at beginning of the year**		**194.51**	**205.26**	**204.15**
4	Less accumulated consumer contribution		-	-	-
5	**Net fixed assets at beginning of the year**		**194.51**	**205.26**	**204.15**
6	**Reasonable return @3% of NFA**	**2.98**	**5.84**	**6.16**	**6.12**

The Commission considers the Return on Capital Base of Rs. 6.12 Crores as reasonable and approves the same for Review of ARR for FY 2013-14.

6.15 Provision for Bad and Doubtful debts

Petitioner's submission

The petitioner has considered the provision of 0.50% of the receivables in the revenue requirement for FY 2013-14.

Table 6.15.1: Provision for Bad & Doubtful debts for FY 2013-14

Provision for Bad & Doubtful Debts (Rs. Crores)	FY 13-14 Revised Estimate
Provision for Bad &Doubtful Debts as 1% of Receivables	0.50%
Provision for Bad & Doubtful Debts	**4.67**

[18] At the beginning of the year

Commission's analysis

As can be observed from the audited accounts, there was no bad & doubtful debt written off in FY 2011-12 and FY 2012-13. Further as specified in the regulation no. 28 of JERC Tariff regulations read with the format is explained below.

Quote

"*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*	

Unquote

The petitioner has not actually written off Bad & Doubtful debts in the past. The Commission, therefore, keeping in view the past trends has not allowed any provision towards bad and doubtful debts for Review of ARR for FY 2013-14. The same would be considered at the time of true-up subject to availability of audited accounts & auditor's certificate of actual write off of bad & doubtful debts for FY 2013-14.

The Commission has considered NIL provision towards bad and doubtful debt as reasonable and approves the same as per the regulations for Review of ARR for FY 2013-14 subject to final adjustment in true-up when audited accounts become available.

6.16 Non-Tariff Income

Petitioner's submission

The petitioner has submitted that the non-tariff income includes meter rent/service line rentals, recovery for theft of power/malpractices, miscellaneous charges from consumers. Other income includes Interest on Staff loans & advances, delayed payment charges from consumers, interest on advances to suppliers/contractors, and miscellaneous receipts.

For estimating the non-tariff income for FY 13-14, an increase of 10% p.a. has been considered over the actual FY 12-13 non-tariff income. The Petitioner has claimed an amount of Rs 6.08 Crores as non-tariff income for FY 2013-14.

Commission's analysis

The Commission observes that the non-tariff income approved in the tariff order for FY 2013-14 dated March 22' 2013 was Rs 9.19 Crores, by applying an escalation of 5% on the approved figures for FY 2012-13. The Commission following the same approach approves the non-tariff income for FY 2013-14 at Rs 6.47 Crores by applying an escalation of 5% on the actual non-tariff income for FY 2012-13 as approved in the true-up for FY 2012-13 in this order i.e. Rs 6.16 Crores.

The Commission considers the non-tariff income of Rs. 6.47 Crores as reasonable and approves the same for Review of ARR for FY 2013-14.

6.17 Revenue from Sale of Surplus Power

Petitioner's submission

The petitioner has submitted the following:

Quote

> *'' During FY 13-14, EDDD has estimated a surplus of 45.33 MU based on the energy available and sale to various consumer categories. EDDD has sold surplus power during FY 12-13 at an average rate of Rs. 2.00 per unit. Revenue from surplus power available for sale during FY 13-14 and FY 2014-15 has been computed at the same rate.''*

Unquote

The petitioner has estimated an amount of Rs. 9.07 Crores towards the revenue from sale of surplus power as per the petition submitted to the Commission on November 1'2013.

Commission's Analysis

The Commission has considered the submissions made by the Petitioner and after a prudence check of UI transactions as per the weekly summary sheets/bills on WRPC, has noticed the under-drawl of 5.62

million units and revenue earned of Rs. 0.50 Crores in H1 of FY 2013-14. As discussed in the previous paras, the Commission has followed merit order dispatch principles and has not considered surplus energy during H2 of FY 2013-14. The Commission shall consider the same based on actual data and after due prudence at the time of true-up.

Thus, the Commission considers the under-drawal for FY 2013-14 at Rs. 0.50 Crores for the sale of 5.62 million units as reasonable and approves the same for Review of ARR for FY 2013-14; subject to true-up.

6.18 Revenue at existing tariff for FY 2013-14

Petitioner's submission

The petitioner has submitted that the Revenue from sale of power for FY 13-14 has been determined based on the energy sales estimated and category wise tariff prevalent in the UT of Daman & Diu.

The revenue from sale of power at existing tariff is estimated to be Rs. 936.93 Crores (inclusive of fuel price surcharge of Rs 9.92 Crores) in FY 13-14. The estimated revenue for FY 13-14 is based on the first six months actual revenue from sale of power as per the new retail tariff notified by the Commission vide Tariff Order for FY 2013-14 dated March 22' 2013.

The fuel purchase adjustment surcharge approved by the Commission is being levied to all the consumer categories except the Domestic and Agriculture consumers.

Commission's analysis

The Commission has considered the actual revenue submitted by the Petitioner for first six months of FY 2013-14 on the basis of actual energy sales during the period. The Commission has noticed that the actual revenue of FY 2013-14 for the first six months includes the additional charge on account of FPPCA from the consumers of DD. The Petitioner has provided the total amount at Rs 473.85 Crores as revenue for the first six months of FY 2013-14, including the FPPCA charges of Rs 9.92 Crores.

For the remaining six months of FY 2013-14, the Commission has considered the estimated sales of H2 FY 2013-14 for estimation of the revenue for the second half of the year. This results in the revenue of Rs. 503.94 Crores during the second half of FY 2013-14.

This together with the actual first half of FY 2013-14, results in the revenue of Rs 977.79 Crores from existing tariff for whole year.

Accordingly, the Commission considers the revenue of Rs 977.79 Crores including Rs 9.92 Crores (FPPCA billed during first half of FY 2013-14) as revenue from existing tariff for the purpose of this review.

6.19 Revenue from open access consumers

The Commission as part of its prudence check had observed that the REA for H1 of FY 2013-14 showed purchase of 44 MU from IEX, which had not been accounted for by the Petitioner. The Commission had queried this to the Petitioner, to which the Petitioner responded stating that these 44 MUs are the purchase of open access consumers from IEX. The Petitioner further stated that revenue recovered from the open access consumers from June'13 to Septemeber'13 is Rs 3.17 Crores. The Commission has considered this revenue as a source of income for the utility and accordingly arrived at the revenue gap for the year.

6.20 RPO provisioning to cover the backlog of the previous years, including the current year

The Commission has observed that the utility has not been able to meet its RPO targets for the previous years, starting FY 2010-11. In the interest of the stakeholders and in view of the Commission's order dated October 25' 2013, wherein the utility has been directed to fulfill its RPO commitments including the backlog of the previous years by March 31' 2014, the Commission provisions the amount for RPO obligations in FY 2013-14.

The RPO obligations can be met either through the purchase of energy from renewable sources or through REC certificates. The Commission has observed that in the past, the utility has not been able to meet its RPO through purchase of energy; hence has provisioned the amount assuming the fulfillment through the purchase of REC certificates. The Commission has allowed the amount corresponding to the prevailing floor price of REC certificates, as per the latest CERC order dated August 23' 2011.

The Commission has observed that the Petitioner in its submission dated January 28' 2014 has submitted that an amount of Rs 0.1125 Crores has been spent to meet the RPO obligation for FY 2011-12. However, the complete details have not been provided regarding as to when the payment was made for the purchase of the REC certificates for FY 2011-12. The Commission has taken note of this and has provisioned the entire amount due to meet the RPO obligation for FY 2011-12 in FY 2013-14. The Commission directs the utility to provide complete details in this regard in the next ARR & tariff filing.

The computation of the pending RPO obligation of the utility from FY 2010-11 to FY 2013-14 is as:

Table 6.20.1 : RPO provisioning to cover the backlog in FY 2013-14 (Rs Crores)

S. No.	Description	FY 2010-11	FY 2011-12	FY 2012-13	FY 2013-14
1	**Sales Within State**	1655.00	1771.16	1862.94	1924.56
2	**RPO Obligation (in %)**	**1.00%**	**2.00%**	**3.00%**	**3.00%**
	- Solar	0.25%	0.30%	0.40%	0.40%
	-Non Solar	0.75%	1.70%	2.60%	2.60%
3	**RPO Obligation (in MU)**				
	- Solar	4.14	5.31	7.45	7.70
	-Non Solar	12.41	30.11	48.44	50.04
4	**RPO Compliance (Actual Purchase)**				
	- Solar	0.00	0.00	0.00	0.00
	-Non Solar	0.00	0.00	0.00	0.00
5	**RPO Compliance (REC Certificate Purchase)**				
	- Solar	0.00	0.00	0.00	0.00
	-Non Solar	0.00	0.00	4.70	9.90
6	**Total RPO Compliance**				
	- Solar	0.00	0.00	0.00	0.00
	-Non Solar	0.00	0.00	4.70	9.90
7	**Shortfall in RPO Compliance**				
	- Solar	4.14	5.31	7.45	7.70
	-Non Solar	12.41	30.11	43.74	40.14
8	**Cumulative Shortfall in RPO Compliance (MU)**				
	- Solar	4.14	9.45	16.90	24.60
	-Non Solar	12.41	42.52	86.26	126.40
9	**Floor Price of REC Certificates /MWH**				
	- Solar				**9300.00**
	-Non Solar				**1500.00**
10	**Provision for RPO Compliance**				
	- Solar (Rs Crores)				**22.88**
	-Non Solar (Rs Crores)				**18.96**
	-Total (Rs Crores)				**41.84**

The amount of Rs 41.84 Crores is being provisioned to fulfill the RPO backlog of the previous years upto FY 2013-14. This amount would be reviewed during the true-up exercise based on actual payment made.

6.21 Review of Aggregate Revenue Requirement for FY 2013-14

The Commission has considered and approved the review of ARR for FY 2013-14 based on the items of expenditure discussed in the preceding sections; same has been summarized in the table below.

Table 6.21.1 : Aggregate Revenue Requirement approved for Review of ARR for FY 2013-14 (Rs Crores)

Sr. No.	Particulars	Petitioner Submission FY 2013-14	Approved TO dated 22 March'13 FY 2013-14	Petitioner Review FY 2013-14	Approved FY 2013-14
1	Power Purchase Cost	922.73	827.17	836.02	791.50
2	Employee costs	7.92	7.92	8.98	8.73
3	Administration and General Expenses	3.36	3.57	3.61	3.54
4	Repair and Maintenance Expenses	6.08	6.08	8.24	8.00
5	Depreciation	16.46	15.77	15.61	15.61
6	Interest and Finance charges	6.77	6.84	6.74	6.57
7	Interest on working capital	11.56	8.76	10.53	8.40
8	Interest on security deposit	NIL	0.86	NIL	0.76
9	Return on NFA	2.98	5.84	6.16	6.12
10	Provision for Bad Debt	4.41	4.45	4.67	NIL
11	RPO provisioning to cover backlog of the previous years upto current year	-	-	-	41.84
12	**Total Revenue Requirement**	**982.26**	**887.24**	**900.55**	**891.07**
13	Less: Non Tariff Income	10.08	9.19	6.08	6.47
14	**Net Revenue Requirement (12-13)**	**972.17**	**878.05**	**894.48**	**884.60**

Table 6.21.2 : Estimation of Deficit considered for the review of FY 2013-14 (Rs. Crores)

Sr. No.	Particulars	Petitioner Submission FY 2013-14	Approved TO dated 22 March'13 FY 2013-14	Petitioner Review FY 2013-14	Approved FY 2013-14
1	**Net Revenue Requirement**	**972.17**	**878.05**	**894.48**	**884.60**
2	Less: Revenue from Retail Sales at Existing Tariff	909.19	889.03	927.87	977.79
3	Less: Revenue from Surplus Power Sale/UI	(0.00)	-	9.07	0.50
4	Less: Revenue from OA consumer	-	-	-	3.17
5	**Net Gap/(Surplus) (1-2-3-4)**	**62.99**	**(10.97)**	**(42.46)**	**(96.86)**
6	Gap / (Surplus) for the previous year	43.87	101.35	6.99	146.27
7	Carrying Cost			1.03	-
8	**Total Gap/(Surplus) (5+6+7)**	**106.87**	**90.38**	**(34.44)**	**49.41**
9	Additional revenue from proposed tariffs	106.87	90.20	-	-
10	**Revenue Gap/(Surplus) after proposed tariffs**	**-**	**0.18**	**(34.44)**	**49.41**

A net surplus of Rs 96.86 Crores not considering the previous year gap has been considered for Review of ARR for FY 2013-14; further, considering the gap of previous years, the estimated revenue gap of Rs. 49.41 Crores is considered to be reasonable and approved for the Review of FY 2013-14. The same has been carried forward to FY 2014-15.

Aggregate Revenue Requirement (ARR) of FY 2014-15

7. Aggregate Revenue Requirement (ARR) for FY 2014-15

7.1 Background

The Petitioner has submitted the ARR & Tariff Petition for FY 2014-15 broadly on the basis of the principles outlined in 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 2014-15. In this chapter, the Commission has analyzed the petition of ED-DD based on the provisions mentioned in the regulations, audited figures of FY 2012-13 and revised estimates/actual of FY 2013-14 submitted by the Petitioner. The Commission has taken into consideration the following:

1. Performance in FY 2012-13 (Audited figures)
2. Revised estimates of FY 2013-14 submitted with the petition for FY 2014-15 dated November 1’ 2013
3. Actual first half performance of FY 2013-14 in respect of sales, power purchase and revenue

7.2 Analysis of Aggregate Revenue Requirement for FY 2014-15

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 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. "

7.3 Consumers, Connected Load and Energy Sales

Petitioner's Submission

The Petitioner has considered historical trend for estimating the energy consumption. The Petitioner has submitted that the overall energy sales are significantly dependent upon HT/EHT Industries to the extent of around 84%. Energy sold to various consumer categories over the past 5 years has grown at approximately 9% p.a., mainly contributed by increase in the energy demand from the HT/EHT industries.

The petitioner has further submitted that it is of the view that the factors affecting the actual consumption of electricity are numerous and often beyond the control of the utility including factors such as Government Policy, economic climate, weather conditions and force majeure events like natural disasters, etc. The petitioner, therefore for projecting the category-wise consumption for the FY 13-14 and FY 14-15 has considered the past growth trends in each of the consumer category including growth trend in number of consumers and connected load.

As submitted by the Petitioner in its petition -

Quote

''

The energy sales for FY 13-14 & FY 14-15 have been determined based on past years CAGR and actual energy sales in various consumer categories for the first six months of FY 13-14. Since the energy sales in each category depends upon a number of factors like growth in economy, climate, Government policies, etc, normalization in sales has been undertaken in order to remove any wide fluctuations.

For FY 13-14, the actual six months energy sales has been analyzed and the energy sales for the remaining six months has been arrived at by considering the six months actual sale as well as the past years growth trend in each consumer category. ED-DD would like to highlight that for estimating energy sales to various consumer categories for FY 13-14 & FY 14-15, previous years CAGRs have been considered as well as the new connections that are likely to be released by the EDDD in the remaining period of FY 13-14 and FY 14-15.

For the domestic consumers, the EDDD has projected the energy sales for FY 14-15 by applying a Compounded Annual Growth Rate (CAGR) of 7% on the estimated sales for FY 13-14. Whereas, a CAGR of 8% has been considered for estimation of sales in the commercial category.

For the agriculture and LT industry, the ED-DD has projected the energy sales for FY 14-15 by applying a CAGR of 5% and 2.5% on the estimated sales for FY 13-14.

For the HT/EHT category, variations have been seen in the growth on a year-to-year basis with variations in sale ranging from 2.90% to 12.50%. A CAGR of 4% has been considered for projecting the sales to HT/EHT consumers in view of the load enhancement of existing consumers as well as addition of new HT consumers. ''

Unquote

The petitioner has considered the compounded annual growth rate (CAGR) for Energy Sales (MUs) as mentioned in the following table.

Table 7.3.1 : CAGR (%) for estimation of Sales for FY 2014-15 considered by Petitioner

Sales	Adjusted CAGR
Domestic	7.00%
LIGH	7.00%
Commercial	8.00%
Agriculture	5.00%
LT Industry	2.50%
HT/EHT Industry	4.00%
Public Lighting	7.00%
Public Water Works	1.00%
Temp. Supply	0.00%

Source: Table 15 of Petition for FY 2014-15 submitted by ED-DD

Table 7.3.2 : Category wise Energy Sales projected for FY 2014-15 (in MUs)

S. No.	Consumer Category	FY 2014-15 (Petitioner's submission)
A	Domestic	88.17
B	LIGH	0.20
C	Commercial	47.42
D	Agriculture	3.09
E	LT Industry	164.51
F	HT/EHT Industry	1635.98
G	Public Lighting	7.07
H	Public Water Works	1.05
I	Temporary Supply	0.50
Total		**1948.00**

Source: Table 15 of Petition for FY 2014-15 submitted by ED-DD

Actual sales of 1863.00 MU have been submitted for FY 2012-13 and estimated sales of 1871.15 MU for FY 2013-14.

Further, the Petitioner has submitted the total number of consumers as 55011 as on April 1’2013.

Commission’s analysis

The modified CAGR (%) of three years (from FY 2009-10 to FY 2012-13) has been applied by the Commission on the revised estimates of FY 2013-14 (as approved by the Commission) to assess the Energy Sales for FY 2014-15 for the various consumer categories, other than the Agriculture and Public Lighting category. For the estimation of the energy sales for the Agriculture and Public Lighting category, the Petitioner's claim of growth is considered reasonable and hence applied on the approved energy sales for FY 2013-14, to estimate the sales for FY 2014-15.

It is observed that the energy sales approved for FY 2014-15 are higher than submitted by the Petitioner. The Commission has considered the actual sales already achieved for H1 of FY 2013-14 to arrive at the energy sales for H2 of FY 2013-14, resulting into higher approved energy sales for FY 2013-14 against that submitted by the Petitioner. The same has also been discussed in para 6.3 of this order. Due to consideration of a higher base of FY 2013-14 against that submitted by the Petitioner, the energy sales for FY 2014-15 have been approved higher than submitted by the Petitioner. The same would be revisited in the next tariff order based on the actual performance of the utility.

For estimation of the number of consumers, the past three years CAGR (from FY 2009-10 to FY 2012-13) growth was showing a negative growth of trend; therefore, the Commission has considered the Petitioner's estimate to be reasonable and hence approved. The number of consumers for FY 2014-15 is approved as submitted by the Petitioner to be reasonable and hence approved.

For estimation of the connected load, the modified three year CAGR (from FY 2009-10 to FY 2012-13) has been used on the revised estimates of FY 2013-14 as approved by the Commission to assess the connected load for FY 2014-15 except for the HT/EHT Industry category, where the submission of the Petitioner is considered to be reasonable in view of the large variation in the past trends and hence considered approved.

Table 7.3.3 : Modified CAGR (%) considered by the Commission for estimation of Sales and Connected Load for FY 2014-15

S. No.	Consumer Category	Sales	Connected Load
1	Domestic	10.33%	1.12%
2	Low Income Group	-	-
3	NRS/Commercial	11.79%	0.00%
4	Agriculture	5.00%	3.95%
5	LT Industrial	5.04%	0.00%
6	Public Lighting	7.00%	7.52%
7	Public Water Works	8.36%	0.00%
8	HT/EHT Industry	8.35%	-*

** Considered as submitted by the Petitioner to be reasonable*

Table 7.3.4 : No. of Consumers approved by the Commission for FY 2014-15 (in numbers)

S. No.	Consumer Category	FY 2014-15 Submission	FY 2014-15 Approved
1	Domestic	43792	43792
2	Low Income Group	121	121
3	NRS/Commercial	8287	8287
4	Agriculture	1208	1208
5	LT Industrial	1992	1992
6	Public Lighting	385	385
7	Public Water Works	78	78
8	HT/EHT Industry	828	828
9	**TOTAL**	**56692**	**56692**

Table 7.3.5 : Connected Load approved by the Commission for FY 2014-15

S. No.	Consumer Category	FY 2014-15 Submission	FY 2014-15 Approved
1	Domestic	58817	57555
2	Low Income Group*	-	-
3	NRS/Commercial	18764	18470
4	Agriculture	5873	5927
5	LT Industrial	103657	100179
6	Public Lighting	2088	2152
7	Public Water Works	676	665
8	HT/EHT Industry	561365	561365
9	**TOTAL**	**751238**	**746313**

**Details not provided by the Petitioner*

Table 7.3.6 : Energy Sales approved by the Commission for FY 2014-15 (Million Units)

S. No.	Consumer Category	FY 2014-15 Submission	FY 2014-15 Approved
1	**LT-D/Domestic**		
	Up to 50 units	0.15	0.16
	51-200 units	11.54	12.53
	201-400 units	11.90	12.69
	401 units and above	64.58	68.89
	Total Domestic	**88.17**	**94.26**
2	**Low Income Group**	**0.20**	**0.04**
3	**LT-C/Commercial**		
	0-100 units	18.97	33.00
	Beyond 100 units	28.45	49.50
	Total Commercial	**47.42**	**82.49**
4	**LT- Ag/Agriculture**		

S. No.	Consumer Category	FY 2014-15 Submission	FY 2014-15 Approved
	Upto 10 HP per unit	2.15	2.30
	Beyond 10 HP per unit	0.94	1.01
	Total Agriculture	**3.09**	**3.31**
5	**LTP Motive Power**		
	Upto 20 HP of connected load	162.78	170.06
	Above 20 HP of connected load	1.73	1.81
	Total	**164.51**	**171.87**
6	**LT-PL/Public Lighting**	**7.07**	**5.80**
7	**LT-Public Water Works**		
	Upto 20 HP of connected load	0.40	0.46
	Above 20 HP of connected load	0.60	0.68
	Total Public Water Works	**1.05**	**1.14**
8	**HT Industrial**		
	HT (A) General		
	0-50000	386.51	310.08
	50000-5 lakh	806.13	646.72
	Above 5 lakh	312.31	250.55
	HT (B) Furnace		
	0-300 units per kVA	83.59	330.52
	301-500 units per kVA	39.73	157.11
	Above 500 units per kVA	7.55	29.86
	Total HT Industrial	**1635.98**	**1724.95**
9	**Temporary Supply**	**0.50**	**0.01**
	TOTAL	**1948.00**	**2083.87**[19]

7.4 Intra-State Transmission & Distribution Loss

Petitioner's submission

The petitioner has submitted that the system improvement works executed every year under the plan schemes as well as increase in energy sales quantum to the HT consumers have resulted in the reduction of T & D losses.

[19] Energy Sales approved for FY 2014-15 are higher than submitted by the Petitioner in view of the higher base of approved energy sales for FY 2013-14 considered by the Commission, duly taking into account actual energy sales achieved for H1 of FY 2013-14.

The petitioner has submitted that the reduction of T&D below 10% involves significant amount of capital expenditure and the utility endeavors to bring the T&D loss level further down in the subsequent years. The petitioner proposes to reduce the T&D losses to 8.70% for FY 2014-15.

Considering the proposed capital expenditure in transmission and distribution network during FY 14-15, the petitioner expects to reduce the losses by approximately 0.10% in FY 2014-15 from the proposed losses of 8.80% in FY 2013-14.

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.''*

It is observed that the Petitioner has over-achieved the target set by the Commission for FY 2012-13. The Petitioner has achieved 8.84% against the target of 9.25% set by the Commission as per its order dated March 22’ 2013. This, the Commission feels is a significant improvement in the loss reduction and appreciates the efforts made by the Petitioner in this regard.

For FY 2013-14, the Commission has retained the losses at the level approved earlier as per its order dated March 22’ 2013 at 9.25% to be revisited at the true-up time. The Petitioner has submitted the loss level of 8.70% for FY 2014-15, against which the Commission considers allowed the T&D loss as submitted.

The Commission has made note of the submission of the Petitioner that system improvement works are going on and the proposed capital expenditure schemes are expected to bring down the losses further.

The T&D loss target of 8.70% for FY 2014-15 is considered reasonable and hence approved.

7.5 Inter-State Transmission Loss

Petitioner’s submission

The petitioner has submitted that the recent 52 week moving average of regional losses has been 3.90%. Transmission losses for FY 12-13 were recorded as 4.09%. For computing the power availability at the periphery, 3.90% weighted average external transmission losses have been applied on the gross power purchase for FY 2013-14 and FY 2014-15.

Commission’s analysis

The Commission has considered the recent 52-week moving average of regional losses available and found the inter-state transmission losses to be 3.70% for FY 2014-15 (Past 52 week data as available on December 15’ 2013)

The Commission considers inter-state transmission losses of 3.70% as reasonable and approves the same for FY 2014-15; same will be subject to further consideration at the time of true-up when actual data becomes available.

7.6 Energy Requirement

Petitioner’s submission

The petitioner has submitted the energy requirement for FY 2014-15, based on the projected sales, power purchase quantum and estimated losses for FY 2014-15. The overall energy requirement at ED-

DD's periphery is estimated to be 2133.62 MU in FY 2014-15. The increase in energy requirement as compared to FY 2013-14 is on account of higher sales but has been partially offset due to the reduction in proposed T&D losses.

Commission's analysis

The Commission has approved the T&D losses and the inter-state transmission losses as elaborated in the foregoing paragraphs. The energy requirement for FY 2014-15 is drawn based on the approved inter-state and intra-state transmission & distribution losses and the approved energy sales. The gross energy requirement approved for FY 2014-15 is as shown in the table below.

Table 7.6.1 : Energy Requirement approved by the Commission for FY 2014-15 (Million Units)

Sr. No.	Particulars	Petitioner Submission (FY 2014-15)	Approved (FY 2014-15)
1	**Energy sales within the State/UT (Mus)**	1948.00	2083.87
2	**Distribution losses**		
i	%	8.70%	8.70%
ii	MU	185.63	198.57
3	**Energy required at State Periphery for Sale to Retail Consumers (MUs)**	**2133.62**	**2282.45**
4	**Add: Sales to common pool consumers/ UI (in Mus)**	**141.03**	**0.00**
i	Sales outside state/UT : UI/Under drawal (in Mus)		
ii	Sales (in Mus)		
	a) To electricity traders (in Mus)		
	b) Through PX (in Mus)		
iii	Sales to other distribution licensees		
	a) Bilateral Trade (in Mus)		
	b) Banking Arrangement (in Mus)		
5	**Total Energy Requirement for State(MUs)**	**2274.66**	**2282.45**
6	**Transmission losses**		
i	%	3.90%	3.70%
ii	MU	92.31	87.57
	ENERGY REQUIRED AT GENERATOR END (MUs)	**2366.97**	**2370.02**

7.7 Energy Balance

Petitioner's submission

Based on the data on estimated & projected sales and purchase obtained, an energy balance has been prepared for FY 2014-15 as shown below.

Commission's analysis

Based on the Energy requirement, Energy availability and Transmission & Distribution Losses for FY 2014-15 as approved in the earlier paras, the energy balance for FY 2014-15 is presented below.

Table 7.7.1 : Energy Balance for FY 2014-15 as approved by the Commission

Sr. No.	Particulars	Petitioner Submission (FY 2014-15)	Approved (FY 2014-15)
1	**Energy sales within the State/UT (in Mus)**	1948.00	2083.87
2	**Distribution losses**		
i	%	8.70%	8.70%
ii	MU	185.63	198.57
3	**Energy required at State Periphery for Sale to Retail Consumers (MUs)**	**2133.62**	**2282.45**
4	**Add: Sales to common pool consumers/ UI (in Mus)**	**141.03**	**0.00**
i	Sales outside state/UT : UI/Under drawal (in Mus)		
ii	Sales (in Mus)		
	a) To electricity traders (in Mus)		
	b) Through PX (in Mus)		
iii	Sales to other distribution licensees		
	a) Bilateral Trade (in Mus)		
	b) Banking Arrangement (in Mus)		
5	**Total Energy Requirement for State (MUs)**	**2274.66**	**2282.45**
6	**Transmission losses**		
i	%	3.90%	3.70%
ii	MU	92.31	87.57
7	**Energy required to be purchased (at Generator end; in MUs)**	**2366.97**	**2370.02**
B)	**ENERGY AVAILABILITY**		
1	**Net power purchase after considering MOD principles (in MUs)**	**2366.97**	**2370.02**

7.8 Power Purchase Quantum and Cost

Petitioner's submission

Power Purchase Quantum

The petitioner has submitted that Daman & Diu has no generating stations of its own and relies on the firm and infirm allocations of power from Central Generating Stations like Korba, Vindyachal, Kahalgaon, Kawas, Tarapur and Kakrapar atomic power stations of NPCIL etc. to meet its energy requirement.

The petitioner for the purpose of estimation of the power availability during FY 14-15 has considered the following sources of power:

- NTPC Western Region Generating Stations
- NTPC Eastern Region Generating Stations
- NSPCL (NTPC-SAIL Power Company Ltd)
- Nuclear Power Corporation of India Limited
- Private Sector Power Generating Companies
- Renewable energy sources – Solar and Non-Solar
- Other arrangements, in case of unscheduled deficit of power

The Petitioner has allocation from Western as well as Eastern region from coal, gas and nuclear power stations. However, for meeting the demand-supply gap during the peak hours, the Petitioner has relied on the short term arrangement of power.

Daman & Diu has firm and infirm[20] allocations in Central Sector Generating Stations of NTPC, Nuclear Power Corporation of India Ltd (NPCIL), NTPC Sail Power Company Ltd (NSPCL) and Ratnagiri Gas and Power Private Limited (RGPPL).

For projecting the power availability for FY 14-15, EDDD has considered average allocation of firm and infirm power from the western region generation stations (NTPC and NPCIL) as per the allocation specified in the notification no's. WRPC/Comml-I/6/Alloc/2013/1654 dated October 1' 2013 of

[20] As per the Commission's analysis the Petitioner by infirm power means the unallocated share from the generating stations.

Western Regional Power Committee. For projecting the power purchase from eastern region NTPC generating stations, an allocation of 1.30 MW from KhSTPP has been taken into account.

Additionally, EDDD has 92 MW allocations from NSPCL Bhilai power stations. Energy availability from NSPCL Bhilai power stations for full year has been considered for projecting the power purchase during FY 14-15.

Table 7.8.1: Energy Allocation from Central Generating Stations as submitted by the Petitioner

Particulars	FY 2014-15	
	DD Allocation (MW)	Avg. EDDD Allocation (%)
NTPC Stations		
KSTPP	51	2.42%
KSTPP-III	6	1.24%
VSTPP-I	14	1.10%
VSTPP-II	10	0.99%
VSTPP- III	12	1.20%
VSTPP- IV	7	1.31%
KAWAS	31	4.72%
JGPP	31	4.76%
Bhilai Unit-I &II(NTPC)	91.5	18.30%
Sipat-I	26	1.33%
Sipat-II	11	1.08%
MSTPS - I	7	1.31%
Subtotal	**297**	
Eastern Region		
KHSTPP-II	1.30	0.13%
Subtotal	**1.30**	
NPCIL		
KAPPS	8.30	1.89%
TAPP 3&4	13.40	1.24%
Subtotal	**22**	
Others		
Ratnagiri	38	1.93%
Subtotal	**38**	
Grand Total	**358**	**-**

Power purchase quantum from the NTPC stations for the second half of the current year and FY 14-15 has been calculated based on the installed capacity of each plant and by applying the average of previous three and half years (FY 11 to FY 13, FY 14 first six months) PLF to calculate the plant-wise gross generation. For NSPCL, an average PLF of 90% has been considered in line with the actual PLF for the first six months of FY 2013-14.

For gas based generating stations i.e. Kawas (KGPP) and Gandhar (GGPP) weighted average PLF of FY 11-12, FY 12-13 and FY 13-14 (for the first six months) have been taken into account.

Auxiliary consumption of 9% and 3% has been considered for coal and gas based generating stations, respectively.

For FY 13-14, EDDD has considered power purchase of 4 MU and 20 MU from solar and non-solar renewable energy sources respectively as per the JERC's Procurement of Renewable Energy Regulations, 2010 as well as approved by the Commission in the Tariff order for FY 13-14. Further, EDDD has made the provision of power purchase from the renewable sources (solar and non solar) in FY 14-15 as well.

The recent 52 week moving average of regional losses was found to be 3.90%. For computing the power availability at the periphery, 3.90% weighted average external transmission losses have been applied on the gross power purchase for FY 13-14 and FY 14-15.

The table below lists down station wise estimated power purchase for FY 14-15.

Table 7.8.2: Power Purchase Quantum for FY 14-15 as submitted by the Petitioner (in million units)

Particulars	FY14-15
	Projected
NTPC Stations	
KSTPP	354.09
KSTPP-III	43.36
VSTPP-I	97.30
VSTPP-II	69.17
VSTPP- III	83.79
VSTPP- IV	45.90
KAWAS	159.40
JGPP	177.36
Bhilai Unit-I &II(NTPC)	646.27
Sipat-I	153.60
Sipat-II	62.96
MSTPS-I	26.16
Subtotal	**1919.36**
Eastern Region	
KHSTPP-II	7.24
Subtotal	**7.24**
NPCIL	

Particulars	FY14-15
	Projected
KAPPS	60.12
TAPP 3&4	81.91
Subtotal	**142.03**
Others	
Ratnagiri	242.34
Subtotal	**242.34**
Power purchase from Other Sources	
Power purchase from Indian E. Exchange	0.00
Short term arrangement	0.00
Solar	8.00
Non Solar	48.00
Subtotal	**56.00**
Gross Power Purchase	**2366.97**
External Losses	92.31
Total Power Purchase	**2274.66**

Power Purchase Cost

The cost of purchase from the central generating stations for FY 14-15 is estimated based on the following assumptions:

- The cost of power purchase for FY 13-14 are based on actual power purchase bills, received by the EDDD during the first six months of FY 13-14. Each element of the power purchase cost i.e. fixed, variable and other cost have been estimated for each generating station by considering 6 months (April 13 to September 13) actual cost incurred by the EDDD. The projection for remaining six months has been done on pro-rata basis by considering the actual power purchase cost of the first six months of FY 13-14.
- Fixed cost for FY 14-15 has been projected considering a 10% escalation over the estimated fixed cost for various stations for FY 13-14. The escalation has been considered based on the impact of new Tariff Regulations for FY 2009-14 issued by CERC for computation of tariff for Central Generating Stations.
- Variable cost for each NTPC generating stations for FY 14-15 has been projected based on the increase in the actual average variable cost per unit for the first six months of FY 13-14. For NTPC stations the variable cost has been escalated keeping in view the actual escalation on the actual variable cost of power purchase over the first six months of FY 13-14.

- The EDDD has projected other charges (tax, incentives, etc) for FY 13-14 at similar level as estimated for full year of FY 14-15.
- For nuclear plants i.e. KAPP and TAPP single part tariff with 10% escalation on the actual per unit charges for FY 13-14 have been considered for FY 14-15.
- For NTPC-SAIL Bhilai unit 1 & 2, fixed, variable and other charges have been projected for the entire FY 13-14 based on the actual cost for first six months of FY 13-14. An escalation of 10% for increase in fuel cost has been taken into consideration for projecting the power purchase cost from the said plant for FY 2014-15.
- For power purchase from renewable energy sources, Commission's approved tariff for solar and non-solar power in the Tariff Order has been taken into account for the entire period of FY 14-15.

The total power purchase cost from the various sources for FY 14-15 as projected by the Petitioner is summarized in the table below:

Table 7.8.3: Power Purchase Cost for FY 14-15 submitted by the Petitioner (Rs. Crores)

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

Source	Units Purchased (MU)	Fixed Charges	Variable Charges	Other Charges	All Charges Total	Per Unit Cost
Sources						
Power purchase from Indian E. Exchange	0.00	0.00	0.00	0.00	0.00	0.00
Short-term arrangement	0.00	0.00	0000	0.00	0000	0.00
Solar	8.00	0.00	7.20	0.00	7.20	9.00
Non Solar	48.00	0.00	19.20	0.00	19.20	4.00
Subtotal	**56.00**	**0.00**	**26.40**	**0.00**	**26.40**	**4.71**
Misc. Arrears						**-**
NTPC Rebate						**-**
Gross Power Purchase	**2366.97**	**323.73**	**510.98**	**37.10**	**871.81**	3.68
External Losses	92.31					
Total Power Purchase	**2274.66**	**323.73**	**510.98**	**37.10**	**871.81**	**3.83**

Transmission and Other Charges

The Petitioner has submitted that the transmission charges payable to PGCIL are based on the total capacity allocation in the transmission network. ED-DD has a mix of firm and infirm capacity allocation from various Central Generating Stations which is revised by the Ministry of Power at regular intervals. Therefore, considering the changing capacity allocation, the Petitioner has estimated the transmission charges for FY 13-14 based on the actual transmission charges for six months of FY 13-14 and pro-rata allocation of the same for the remaining six months.

For projecting the PGCIL transmission charges for FY 2014-15, an escalation of 7% over the estimated FY 13-14 transmission charges has been considered in view of the increase in transmission charges. Further, ED-DD has taken into account the additional capacity share in the new stations while estimating the inter-state transmission charges for the ensuing year.

Table7.8.4: Total Power Purchase Cost for FY 2014-15 as submitted by the Petitioner (Rs. Crores)

Particulars	FY 2014-15 (Projected)		
	Energy available at DD Periphery (MUs)	Total Cost (Rs. Cr)	Per Unit Cost (Rs/kWh)
Gross Power Purchase	2274.66	871.81	3.83
PGCIL charges		71.19	
Open access charges		0.58	
Other charges		4.67	
Total Power Purchase Cost (including Transmission Cost)	**2274.66**	**948.26**	**4.17**

Commission's Analysis of Power Purchase Quantum and Cost

Power Purchase Quantum and Cost for FY 2014-15

- **Central Generating Stations – National Thermal Power Corporation and Ratnagiri**

The petitioner has firm allocation in the Central Sector Generating Stations of NTPC from the following stations:

- Korba Super Thermal Power Station - I, II and III.
- Vindhyachal Super Thermal Power Station - I, II, III and IV
- Kawas Gas Power Station
- Gandhar Gas Power Station
- Sipat Super Thermal Power Station- I &II
- Ratnagiri Gas Power Station
- Mauda Super Thermal Power Station -I
- Kahalgaon Super Thermal Power Station - II (Eastern Region)

The Commission while estimating the energy availability from the above stations has considered the following assumption:

- **Allocation of Share**: The Commission has considered the firm allocation and allocation from the unallocated quota from the above stations except Kahalgaon STPS-II as per the notification of the Western Region Power Committee vide WRPC/Comml-I/6/Alloc/2013/ 2061 dated November 29' 2013. The allocation for Kahalgaon STPS-II is considered as per the notification of the Eastern Region Power Committee i.e. 1.30 MW.

- **Gross Energy Availability:** The Commission has estimated the gross energy availability from the existing NTPC stations based on the installed capacity and the average Plant Load Factor for the past three years (FY 2012-13, FY 2011-12 and FY 2010-11). The net energy sent out has been considered after considering the applicable auxiliary consumption as per the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009.

- **Availability from New Stations:** Power availability has been considered from VSTPS-IV and Mauda Super Thermal Power Station – I (MSTPS –I) as per the allocation from the WRPC dated November 29' 2013

- **Energy Available to the Petitioner:** The effective share from the stations is applied on the energy sent out to arrive at the energy available to the Petitioner from respective stations.

It is noted that CERC has come out with new regulations for the tariff period 2014-19. However, till the time of issuance of this tariff order, CERC had not come out with tariff orders of central generating stations for FY 2014-15 based on the new regulations. In the absence of such information, the Commission has considered the fixed charges as approved in the latest available tariff orders of FY 2013-14 for FY 2014-15.

- **Fixed Charges:** The Annual Fixed Charges of each station have been taken as per the latest available tariff orders of the respective stations for FY 2013-14. CERC has not yet come out with the tariff orders of central generating stations based on the new regulations and therefore, the Commission has considered the AFC charges as approved in the latest tariff orders of FY 2013-14 for FY 2014-15.

- **Variable Charges:** The Commission has considered the average variable cost for the period July 2013 to September 2013 (as per actual) for consideration of the per unit variable charges for FY 2014-15. Accordingly, the Commission approves the following procurement from the NTPC stations based on the merit order dispatch principles.

Table 7.8.5: Approved power purchase quantum from CGS stations under merit order dispatch for FY 2014-15

Sr. No.	Source	Capacity (MW)	Average PLF	Weighted Average		Gross Generation (MUs)	Auxiliary Consumption (%)	Purchase (MUs)	PGCIL Loss (MUs)	Energy Available at Periphery (MUs)
				%	MW					
1	2	3	4	5	6	7	8	9	10	11
A	**Central Sector Power Stations**									
	KORBA - III (KSTPS - VII)	*500*	87.27	1.24%	6.21	3,822.57	6.50%	44.41	*1.64*	42.77
	KSTPS	*2,100*	87.27	2.38%	50.00	16,054.80	8.50%	349.73	*12.92*	336.81
	VSTPS - IV	*500*	85.00	1.31%	6.56	3,723.00	6.50%	45.68	*1.69*	43.99
	VSTPS - II	*1,000*	91.58	0.96%	9.61	8,022.12	6.50%	72.06	*2.66*	69.39
	VSTPS -III	*1,000*	91.58	1.17%	11.71	8,022.12	6.50%	87.80	*3.24*	84.55
	VSTPS - I	*1,260*	91.58	1.09%	13.73	10,107.87	6.50%	102.95	*3.80*	99.14
	SIPAT - Stage I	*1,980*	85.00	1.33%	26.27	14,743.08	8.50%	178.95	*6.61*	172.34
	SIPAT Stage 2	*1,000*	88.37	1.04%	10.39	7,740.92	6.50%	75.21	*2.78*	72.43
	GGPP	*657*	70.51	4.76%	31.31	4,060.44	3%	187.59	*6.93*	180.66

Sr.	Source	Capacity	Avera	Weighted		Gross	Auxiliary	Purchase	PGCIL	Energy
	RGPPL	*1,967*	92.14	1.93%	37.96	15,876.00	3%	297.21	*10.98*	286.23
	*KGPP**	*656*	69.63	4.72%	30.99	4,002.54	3%	46.21	*1.71*	44.50
	*KHSTPP – II***	*1,500*	68.13	0.13%	1.95	8,952.72	6.50%	-	*0.00*	-
	*MSTPS/MSTPS IV***	*500*	85.00	1.31%	6.56	3,723.00	6.50%	-	*0.00*	-

*Partial procurement because of merit order

**Fall out of the merit order

According to the approved energy the Commission approves the following cost from the CGS stations:

Table 7.8.6: Approved Power Purchase Cost from CGS stations for FY 2014-15

Sr. No.	Source	Purchase (MUs)	Fixed Charges (Rs Crores)	Variable Charges (Ps/kWh) - Average of July, Aug and Sept 2013	Variable Charges (Rs Crores)	Total Cost (Rs Crores)
1	2	3	4	5	6	7
	Central Sector Power Stations					
	KORBA - III (KSTPS - VII)	44.41	6.80	88	3.92	**10.71**
	KSTPS	349.73	19.65	89	31.24	**50.90**
	VSTPS - IV	45.68	6.93	119	5.45	**12.38**
	VSTPS - II	72.06	4.83	125	9.04	**13.87**
	VSTPS -III	87.80	10.04	127	11.11	**21.15**
	VSTPS - I	102.95	6.74	134	13.82	**20.55**
	SIPAT - Stage I	178.95	23.64	175	31.39	**55.03**
	SIPAT Stage 2	75.21	9.74	184	13.80	**23.54**
	GGPP	187.59	24.84	252	47.24	**72.08**
	RGPPL	297.21	37.05	256	76.01	**113.06**
	KGPP	46.21	19.45	259	11.96	**31.41**
	KHSTPP - II	-	1.47	269	-	**1.47**
	MSTPS/MSTPS IV	-	8.54	279	-	**8.54**

- **Central Generating Stations – Nuclear Power Corporation of India Limited**

The petitioner has firm allocation in the Central Sector Generating Stations of NPCIL from the following stations:

- Kakrapara Atomic Power Station (KAPS)
- Tarapur Atomic Power Station (TAPS)

The Commission while estimating the energy availability from the above stations has considered the following assumptions:

- **Allocation of Share**: The Commission has considered the firm allocation and allocation from the unallocated quota from the above stations as per the notification of the Western Region Power Committee vide WRPC/Comml-I/6/Alloc/2013/2061 dated November 29' 2013.

- **Gross Energy Availability:** The Commission has estimated the gross energy availability from the existing NPCIL stations based on the installed capacity and the average Plant Load Factor for the past three years (FY 2012-13, FY 2011-12 and FY 2010-11) as recorded by CEA in its monthly generation reports. The net energy sent out is considered after reducing the auxiliary consumption.

- **Energy Available to the Petitioner:** The effective share from the stations is applied on the energy sent out to arrive at the energy available to the Petitioner from respective stations.

The Commission has considered the following assumptions to arrive at the single part tariff for the NPCIL stations during FY 2014-15:

- **Variable Charges:** The Commission has considered the average variable cost for the period July 2013 to September 2013 for consideration of the per unit variable charges for FY 2014-15.

- **Merit order Dispatch**: The Commission has considered the nuclear plants as must run and has not subjected them to merit order dispatch.

Accordingly, the Commission approves the following availability from NPCIL stations based on the merit order dispatch principles.

Table7.8.7: Approved power purchase quantum from NPCIL stations under merit order dispatch for FY 2014-15

S. No.	Source	Capacity (MW)	Average PLF	Weighted Average		Gross Generation (MUs)	Auxiliary Consumption (%)	Net Generation (MUs)	Purchase (MUs)	PGCIL Losses (MUs)	Energy Available at Periphery (MUs)
				%	MW						
	NPCIL										
1	KAPS	440	92.92	1.89%	8.30	3,581.51	10%	3,223.36	60.78	*2.25*	58.53
2	TAPS	1,080	80.49	1.24%	13.40	7,615.00	10%	6,853.50	85.00	*3.14*	81.86

According to the approved energy, the Commission has approved the following cost from the NPCIL stations:

Table 7.8.8: Approved power purchase cost for NPCIL Stations for FY 2014-15

Sr. No.	Source	Purchase (MUs)	Fixed Charges (Rs. Crores)	Variable Charges (Ps/kWh) - Average of July, Aug and Sept 2013	Variable Charges (Rs. Crores)	Total Cost (Rs. Crores)
1	2	3	4	5	6	7
A	**Central Sector Power Stations**					
	NPCIL					
	KAPS	60.78	-	221	13.41	**13.41**
	TAPS	85.00	-	280	23.83	**23.83**

➢ **NSPCL**

The petitioner has firm allocation from the following station of NSPCL

- NSPCL - Bhilai

The Commission has considered the following assumptions to arrive at the power purchase cost for FY 2014-15 from the NSPCL stations:

- **Fixed Charges:** The fixed charges have been considered as per the Petitioner's submission
- **Variable Charges:** The Commission has considered the average variable cost for the period July 2013 to September 2013 based on actual for consideration of the per unit variable charges for FY 2014-15.
- **Merit Order Dispatch**: Further, the NSPCL stations have been subjected to merit order dispatch and accordingly the power purchase quantum and variable cost has been approved. However the fixed charges have been approved for full allocation.

Accordingly, the Commission approves the following availability from NSPCL stations based on the merit order dispatch principles.

Table 7.8.9: Approved power purchase quantum and cost from NSPCL-Bhilai for FY 2014-15

Sr. No.	Source	Capacity (MW)	Average PLF	Weighted Average		Gross Generation (MUs)	Auxiliary Consumption (%)	Net Generation (MUs)	Purchase (MUs)	PGCIL Losses (MUs)	Energy Available at Periphery (MUs)
				%	MW						
1	NSPCL-Bhilai	500	91.54	18.30%	91.50	4,009.31	9.00%	3,648.47	667.67	*24.67*	643.00

Table 7.8.10: Approved power purchase cost from NSPCL-Bhilai for FY 2014-15

Sr. No.	Source	Purchase (MUs)	Fixed Charges (Rs. Crores)	Variable Charges (Ps/kWh) - Average of July, Aug and Sept 2013	Variable Charges (Rs. Crores)	Total Cost (Rs. Crores)
1	2	3	4	5	6	7
	NSPCL - Bhilai	667.67	119.94	257	171.51	**291.45**

- **Renewable Energy Obligation**

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 Commission as per its order dated January 2’ 2014 has specified the RPO obligations of the utilities, and accordingly the RPO has been considered as 3.30% for FY 2014-15; 0.6% from solar and 2.70% from non-solar sources.

The Commission for FY 2014-15 has considered that the utility would be able to meet its RPO obligations for the year through RE purchase in quantum terms; in line with the submission of the Petitioner. The same would be revised at the time of true-up based on actual purchase made.

The Petitioner has to purchase 3.30% of total energy purchase for sale to the consumers in its area as power purchase from renewable sources for FY 2014-15 including 0.60% for Solar and 2.70% for Non-Solar.

The Commission has, considered the renewable energy purchase at Rs 4.00 and Rs 9.00 per unit for non-solar and solar respectively.

Table 7.8.11: Approved power purchase quantum and cost from Renewable Energy Sources

Sr. No.	Source	Purchase (MUs)	Variable Charges (Rs Crores)	Total Cost (Rs Crores)
D	**Renewable Energy Sources**			
	(2.70% for - Non Solar)	56.26	22.51	**22.51**
	(0.60% for Solar)	12.50	11.25	**11.25**

- **Transmission Charges (PGCIL, NRLDC F&C and Reactive Energy Charges)**

The Commission has considered the PoC rates as specified by the Central Electricity Regulatory Commission vide its order L-1/44/2013-CERC dated 31.12.2013 applicable from January 2014 to March 2014 for approving the Transmission charges for FY 2014-15. In the absence of tariffs issued for the FY 2014-15, the transmission charges for usage of the PGCIL network are considered at prevailing rates and accordingly approved at **Rs 81.06 Crores**.

The petitioner also utilizes the network of OPTCL for wheeling of power scheduled from different stations. The Commission therefore approves the petitioner's estimates of **Rs 4.67 Crores** as OPTCL - Wheeling Charges, WRPC, WRTM, Congestion charges, reactive charges, reactive charges (GETCO), others, misc. incentives.

Further, the Commission also allows the Petitioner's claim of other charges for FY 2014-15 including SLDC Charges, WRLDC charges amounting to **Rs 0.58 Crores**.

Accordingly, the total transmission charges approved for FY 2014-15 is **Rs. 86.32 Crores**.

- **Power Purchase Cost approved**

For determining the power purchase cost, merit order dispatch principles have been applied. The must-run stations have been assumed at the top of the merit order and variable cost incurred for meeting the energy requirement within the state has been calculated from the plants at the top of the merit order.

In accordance with the foregoing paragraphs, the Commission approves the following Power Purchase Cost.

Table 7.8.12: Power Purchase Cost approved for FY 2014-15 after considering MOD principles

Sr. No.	Source	Energy Purchase (MUs)	Fixed Charges (Rs. Crores)	Variable Charges (Ps/kWh) - Average of July, Aug and Sept 2013	Variable Charges (Rs. Crores)	Total Cost (Rs. Crores)
1	2	3	4	5	6	7 = 4+6
A	**Renewable Energy Sources**					
	(2.70% for - Non Solar)	56.26	-	400	22.51	22.51
	(0.60% for Solar)	12.50	-	900	11.25	11.25
	Sub-Total	**68.77**	-		**33.76**	**33.76**
B	**NPCIL**					
	KAPS	60.78	-	221	13.41	13.41
	TAPS	85.00	-	280	23.83	23.83
	Sub-Total	**145.78**	-		**37.24**	**37.24**
C	**Central Sector Power Stations and NSPCL- Bhilai**					
	KORBA - III (KSTPS - VII)	44.41	6.80	88	3.92	10.71
	KSTPS	349.73	19.65	89	31.24	50.90
	VSTPS - IV	45.68	6.93	119	5.45	12.38
	VSTPS - II	72.06	4.83	125	9.04	13.87
	VSTPS -III	87.80	10.04	127	11.11	21.15
	VSTPS - I	102.95	6.74	134	13.82	20.55
	SIPAT - Stage I	178.95	23.64	175	31.39	55.03
	SIPAT Stage 2	75.21	9.74	184	13.80	23.54
	GGPP	187.59	24.84	252	47.24	72.08
	RGPPL	297.21	37.05	256	76.01	113.06
	Bhilai	667.67	119.94	257	171.51	291.45
	*KGPP**	46.21	19.45	259	11.96	31.41
	*KHSTPP – II***		1.47	269	-	1.47
	*MSTPS/MSTPS IV***		8.54	279	-	8.54
	Sub-Total	**2,155.47**	**299.65**		**426.48**	**726.13**
D	**OTHER CHARGES**					
	PGCIL Transmission Charges (POC Charges WR + ER)					81.06
	SLDC Charges, WRLDC charges					0.58

Sr. No.	Source	Energy Purchase (MUs)	Fixed Charges (Rs. Crores)	Variable Charges (Ps/kWh) - Average of July, Aug and Sept 2013	Variable Charges (Rs. Crores)	Total Cost (Rs. Crores)
1	2	3	4	5	6	7 = 4+6
	OPTCL - Wheeling Charges, WRPC, WRTM, Congestion charges, reactive charges, reactive charges (GETCO), others, misc. incentives					4.67
E	**Total**	**2,370.02**	**299.65**		**497.48**	**883.45**

* Partial availability is considered because of merit order

**Fall out of the merit order

The total power purchase approved is 2370.02 MU and power purchase cost, (including transmission charges) at Rs 883.45 Crores for FY 2014-15.

Further, any variation on account of Fuel and Power Purchase cost shall be calculated as per the formula specified by the Commission separately and any impact shall be passed directly to the consumers.

The licensee shall compute fuel and power procurement cost variations on quarterly basis and adjustment shall be made in consumer bills starting after a month following the end of the quarter based on the Fuel & Power Purchase Cost Adjustment (FPPCA) formula notified separately by the Commission as per the Regulation. For the purpose of calculation using FPPCA formula notified by the Commission, **the approved per unit cost of power purchase ($R_{Approved}$) for use in the FPPCA formula (paisa per unit) is 383 paisa per unit for FY 2014-15**. The approved per unit cost of power purchase for FY 2014-15 to be considered in the FPPCA formula excludes the transmission charges of PGCIL, SLDC charges, RLDC charges and charges for reactive energy.

7.9 Operation and Maintenance Expenses

Petitioner's Submission

The petitioner has submitted that the Operation and Maintenance expenses comprise of the following heads:

- **Employees Expenses** which includes the salaries, dearness allowances, dearness pay, other allowances and retirement benefits paid to the staff;

- **Repair and Maintenance (R&M) Expenses** which include all expenditure incurred on the maintenance and upkeep of transmission and distribution assets; and
- **Administrative and General Expenses** which include all expenditure incurred in operating a business such as telephone charges, regulatory and consultancy fees such as energy auditing and chartered accountant fees, conveyance and travel expenses, water charges etc.

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

Table 7.9.1: Operation & Maintenance Expense of previous years (Rs. Crores)

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

The total O&M expense for FY 2012-13 is Rs. 19.11 Crores as compared to Rs. 14.62 Crores in FY 2011-12, an increase of over Rs. 4.51 Crores. The increase in operation and maintenance cost in FY 12-13 is primarily on account of increase in R&M expenses during FY 12-13.

Commission's Analysis

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

Employee Expenses

Petitioner's Submission

The Employee expense estimated by the Petitioner comprise of all costs related to employees like basic salary, dearness allowances, medical cost, leave travel allowances, honorarium, etc. However the Petitioner does not maintain cost related to leave salary contribution and pension of the employee in the employee cost. Therefore, the Petitioner will claim these expenses relating to the employee cost at an appropriate time when the respective cost items become payable.

Based on the various expense head related to employee booked during six months of FY 13-14, ED-DD has estimated the total employee cost for full year of FY 13-14 as Rs. 8.98 Crores. Salary expenses for FY 14-15 is estimated based on the variation in the rate of WPI Index per annum published by the Office of Economic Adviser, Government of India.

For projecting the employee cost for FY 14-15, the Petitioner has considered an 8.94% escalation over the estimated employee cost for FY 13-14. Total employee cost of ED-DD for FY 14-15 is estimated at Rs. 9.78 Crores.

ED-DD has requested the Commission to approve the employee costs as projected.

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 & include 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 Hon'ble 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 Hon'ble 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:*

   a) *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;*

   b) *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;*

c) *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.*

As may be seen from para 6.8.1, the Commission has considered Employee Cost as Rs. 8.73 Crores for Review of ARR for FY 2013-14 for reasons explained therein. Taking Rs 8.73 Crores for FY 2013-14 and applying the escalation of 5.88%[21] Employee Cost works out to Rs. 9.24 Crores for FY 2014-15.

The Commission considers the employee cost of Rs 9.24 Crores as reasonable and approves the same for FY 2014-15.

Repair and Maintenance Expenses

Petitioner's Submission

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

The actual R&M expense for FY 2012-13 is Rs. 7.56 Crores. For FY 13-14, ED-DD has considered the R&M expense of Rs. 8.24 Crores and has projected an 8.94% increase in the R&M expense for FY 14-15.

[21] The WPI index upto February 2014 has been used as available on the website of Economic Advisor, Ministry of Commerce and Industry. Same index has been assumed for March 2014. The increase in WPI index has been considered from FY 2012-13 to FY 2013-14 to arrive at the increase in WPI of 5.88%.

The Petitioner has claimed R&M expense of Rs 8.97 Crores for FY 2014-15.

ED-DD has requested the Commission to approve the Repair & Maintenance expense without any disallowances as the same is necessary for proper maintenance and strengthening of the system and quality of supply in the region in order to ensure consumer satisfaction. Also, the price of most of the basic commodities like iron, copper, zinc and cement used in the repairs and maintenance has increased tremendously over the last 5 years.

Commission's Analysis

As may be seen from para 6.8.2, the Commission has considered R&M expenses at Rs 8.00 Crores for Review of ARR for FY 2013-14 for reasons explained therein. In line with the JERC Tariff Regulations 2009, taking Rs. 8.00 Crores for FY 2013-14 and applying escalation of 5.88%[22], the R&M expense works out at Rs 8.47 Crores for FY 2014-15.

The Commission considers the R&M expenses of Rs 8.47 Crores as reasonable and approves the same for FY 2014-15.

Administration and General Expenses

Petitioner's Submission

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

- Rent
- Rates and taxes
- Travel and conveyance expenses
- Consultancy and regulatory fees
- Energy auditing fee and consumer indexing
- Insurance and other administration expenses

[22] The WPI index upto February 2014 has been used as available on the website of Economic Advisor, Ministry of Commerce and Industry. Same index has been assumed for March 2014. The increase in WPI index has been considered from FY 2012-13 to FY 2013-14 to arrive at the increase in WPI of 5.88%.

The actual A&G expense for FY 12-13 is Rs. 3.31 Crores. For FY 13-14, ED-DD has considered the A&G expense of Rs. 3.61 Crores and has projected an 8.94% increase in the A&G expense for FY 14-15 which includes regulatory, consultancy, energy auditing and consumer indexing fees.

The Regulatory & Consultancy expenses for the FY 14-15 has been projected as per the existing agreements, contracts with the consultants and the best estimates for the future regulatory and consultancy works. For FY 14-15, total A&G expenses have been projected at Rs. 3.93 Crores.

ED-DD requests the Commission to approve the A&G costs without any disallowance.

Commission's Analysis

As may be seen from para 6.8.3, Commission has considered A&G expenses as Rs. 3.54 Crores for Review of ARR for FY 2013-14 for reasons explained therein. Taking Rs 3.54 Crores for FY 2013-14 and applying escalation of 5.88%[23], the A&G expense works out to Rs 3.75 Crores for FY 2014-15.

The Commission considers the A&G expenses of Rs 3.75 Crores as reasonable and approves the same for ARR of FY 2014-15.

Summary of Operation and Maintenance Expenses for FY 2014-15

The overall summary of O&M expenditure estimated by the petitioner vis-à-vis approved by the Commission for FY 2014-15 is given below:

Table 7.9.2: Summary of Operation & Maintenance Expenses approved for FY 2014-15 (Rs. Crores)

Sr. No.	Particulars	Petitioner Submission (FY 2014-15)	Approved (FY 2014-15)
1	Employee Expenses	9.78	9.24
2	A&G Expenses	3.93	3.75
3	R&M Expenses	8.97	8.47
4	**Sub-Total**	**22.68**	**21.46**
5	Less: Expenses Capitalized	-	
6	**Total O&M Expenses**	**22.68**	**21.46**

[23] The WPI index upto February 2014 has been used as available on the website of Economic Advisor, Ministry of Commerce and Industry. Same index has been assumed for March 2014. The increase in WPI index has been considered from FY 2012-13 to FY 2013-14 to arrive at the increase in WPI of 5.88%.

7.10 Capital Expenditure and Capitalization

Petitioner's submission

The petitioner has submitted, "Considering the increase in demand from HT & LT consumers, EDDD would be required to undertake significant capital expenditure for system augmentation and strengthening. System augmentation would not only help ED-DD in handling increased load but would also ensure better quality of supply and network reliability to the consumers. Though, EDDD T&D loss levels are very low, the capital expenditure would help in maintaining the low T&D loss levels and further reduction in the same."

The petitioner further submits that each year they draft an Annual Plan for the capital investment for new schemes and continuing schemes which it plans to incur in the ensuing year. For FY 14-15, the ED-DD has proposed a capital expenditure of Rs. 96.61 Crores under various existing and new schemes. The Draft Annual Plan is being prepared and will be submitted to the Commission shortly.

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 Petitioner has proposed the capital expenditure of Rs. 96.61 Crores for FY 2014-15, out of which the Petitioner has projected the addition of Rs. 57.59 Crores in the Gross Fixed Assets during FY 2014-15.

Commission's analysis

The Commission observes that the capital expenditure and the capitalization submitted by the petitioner for FY 2014-15 is required to maintain the reliable supply for the consumers of UT of Daman & Diu.

As per the Regulation 21, of JERC for the states 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 separately ongoing projects 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 and did not give the present status of the capital expenditure incurred/capitalized during past years. As discussed in para 5.10 of this order, for the purpose of this ARR computation, the **Commission approves the capital expenditure of Rs. 96.61 Crores and corresponding capitalization of Rs 57.59 Crores as proposed by the Petitioner for ARR of FY 2014-15.** A detailed statement of the capital expenditure incurred quarterly, the asset capitalized and added in the gross fixed assets upto 31.03.2015 on different dates during the year be provided for true-up. . **The Commission has further observed that the Petitioner has not been submitting detailed Capital Expenditure Plan since FY 2010-11. The Commission has**

viewed it seriously and directs the Petitioner to adhere to the Regulation and file detailed capital expenditure plan every year with the ARR & tariff filing.

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 and meeting the loss reduction targets.

7.11 GFA and Depreciation

Petitioner's submission

The petitioner has submitted that they had Rs. 311.45 Crores of Opening Gross Fixed Assets (GFA) in FY 13-14. ED-DD has further proposed capital expenditure of Rs. 50.00 Crores for FY 13-14.

Based on the actual capitalization of the first six months and estimated addition in GFA during the remaining six months of FY 13-14, assets amounting to Rs. 22.36 Crores have been estimated to be added in the GFA during FY 13-14.

For FY 14-15, ED-DD has proposed a capital expenditure of Rs. 96.61 Crores of which Rs. 57.59 Crores assets (including CWIP) have been estimated to be capitalized during the year.

Depreciation is charged on the basis of straight-line method, on the Gross Fixed Assets in use at the beginning of the year and addition in assets during the financial year. The depreciation is based on the original cost of the Gross Fixed Assets. ED-DD has applied the following depreciation rates as specified by CERC in the Tariff Regulations for FY 2009-14.

Table 7.11.1: Depreciation rate specified by CERC

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

Depreciation for FY 13-14 and FY 14-15 is determined by applying aforesaid category-wise assets depreciation rates on the opening balance of Gross Fixed assets and addition during the year projected for FY 13-14 and FY 14-15. ED-DD has submitted to the Commission that it has computed the depreciation based on the closing value of GFA for FY 2012-13 as given in the fixed asset register and the estimated capitalization for FY 2013-14 and FY 2014-15.

Depreciation of Rs. 17.72 Crores for FY 14-15 has been claimed by applying aforesaid category-wise assets depreciation rates on the average Gross Fixed Assets projected for FY 14-15.

Commission's Analysis

As discussed in para 5.10 of this order and as per Regulation 26 of JERC for the states of Goa and UTs (Terms and conditions for determination of Tariff), Regulation 2009 depreciation shall be computed on historical cost of the assets including additions during the year. The Commission as discussed at para 7.10 of this order has allowed the capitalization for FY 14-15 at Rs 57.59 Crores.

The 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 depreciation rates for distribution assets as specified by the CERC vide Appendix-III (Depreciation schedule of CERC (Terms and Conditions of Tariff) Regulations, 2009) have been used to calculate the depreciation. The depreciation for FY 2014-15 has been worked out at Rs. 17.72 Crores.

Table 7.11.2 : GFA & Depreciation approved for FY 2014-15 (Rs. Crores)

Sr. No.	Particulars	Petitioner Submission (FY 2014-15)	Approved (FY 2014-15)
1	Opening Value of Assets at the beginning of the year	333.82	333.87
2	Additions during the year	57.59	57.59
3	Gross Fixed Assets at the end of year	391.41	391.46
4	**Average Assets**	**362.61**	**362.66**
5	**Depreciation for the year**	**17.72**	**17.72**

Table 7.11.3 : Calculation for working out the Depreciation for FY 2014-15 (Rs. Crores)

Sr. No.	Particulars	Value of assets at the beginning of FY 2014-15	Addition during FY 2014-15	Closing balance at the end of FY 2014-15	Rate of Depreciation	Depreciation for FY 2014-15
1	Plant & Machinery	297.26	57.59	354.85	5.28%	17.22
2	Buildings	10.92	-	10.92	3.34%	0.36
3	Vehicles	0.57	-	0.57	9.50%	0.05
4	Furniture and Fixtures	0.35	-	0.35	6.33%	0.02

Sr. No.	Particulars	Value of assets at the beginning of FY 2014-15	Addition during FY 2014-15	Closing balance at the end of FY 2014-15	Rate of Depreciation	Depreciation for FY 2014-15
1	Plant & Machinery	297.26	57.59	354.85	5.28%	17.22
5	Computers and Others	1.01	-	1.01	6.33%	0.06
6	Land	23.75	-	23.75	0.00%	-
7	**Total**	**333.87**	**57.59**	**391.46**		**17.72**

The Commission considers the depreciation of Rs. 17.72 Crores as reasonable and approves the same for ARR of FY 2014-15.

7.12 Interest on Loan

Petitioner's submission

The petitioner has submitted that the entire capital expenditure of ED-DD since its inception has been funded by the Central Government through budgetary supports each year. Therefore, the department does not have any loan liabilities.

However, ED-DD is now migrating from a Government owned utility to a commercial utility under the Electricity Act, 2003 and it has come under the direction of the Joint Electricity Regulatory Commission. The Petitioner has further submitted that it has been assumed that ED-DD would work as a separate commercial utility and therefore would be utilizing the debt facilities in the coming years.

Assets capitalized during FY 13-14 and FY 14-15 have been considered based on the 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 interest amount of Rs 6.74 Crores and Rs 10.33 Crores for FY 13-14 and FY 14-15 respectively.

Commission's analysis

As per Regulation 25 of JERC (Terms and Conditions for Determination of Tariff) Regulations, 2009 lays down -

(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".

ED-DD is an integrated utility in its present form as defined in Regulation 2(9) of the JERC (Terms and Conditions for Determination of Tariff) Regulations, 2009 as the utility is not restructured and corporatized till date. Considering this as an integrated utility, it 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 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.

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 above stated regulations mandate the debt equity ratio for assets deployed post the commencement of the JERC Tariff Regulations. It is pertinent to mention here that the first application filed by the Petitioner before this Commission under the above stated regulation was for FY 2010-11, wherein the Commission had determined tariff in accordance with the JERC Tariff Regulation. The Commission has also perused the audited accounts certified by a chartered accountant submitted by the petitioner. It has been observed that the Petitioner does not have any opening loan portfolio.

As discussed in para 5.11 of this order, the normative interest under the JERC Tariff Regulations has therefore been considered on the assets created during the year FY 2010-11 onwards. The Commission has accordingly considered the opening normative loan of Rs 51.19 Crores and normative debt of 70% of addition to GFA amounting to Rs 40.31 Crores during FY 2014-15 and has calculated the normative interest as per the regulations which amount to Rs 10.10 Crores. Further, the Commission clarifies that the SBI PLR rate has now been substituted as SBI Advance Rate. The Commission has considered the SBI advance rate of 14.75%[24] for computation of the interest on the normative loan amount for ARR of FY 2014-15.

The calculation is as given below.

Table 7.12.1 : Normative Interest on Loan approved in the ARR for FY 2014-15 (Rs. Crores)

Sr. No.	Particulars	Petitioner Submission (FY 2014-15)	Approved (FY 2014-15)
1	Opening Normative Loan	52.17	51.19
2	Add: Normative Loan during the year	40.31	40.31
3	Less: Normative Repayment	4.62	5.76
4	Closing Normative Loan	87.86	85.74
5	**Average Normative Loan**	**70.01**	**68.46**
6	Rate of Interest (@SBAR rate)	14.75%	14.75%
7	**Interest on Normative Loan**	**10.33**	**10.10**

The Commission considers the normative interest on loans at Rs 10.10 Crores as reasonable and approves the same for ARR of FY 2014-15.

[24] SBI advance rate as on 07.11.2013 has been considered for the computation of the interest on the normative loan amount; Latest available SBI advance rate has been considered

7.13 Interest on Working Capital

Petitioner's submission

The petitioner has computed the Interest on Working Capital for FY 13-14 and FY 14-15 based on normative basis as per the JERC (Terms and Conditions for Determination of Tariff) Regulations, 2009.

Rate of interest of 14.75% has been considered for the interest on the working capital, being the SBI Prime Lending Rate as on 1st April of the year. This is in line with the JERC (Terms and Conditions for Determination of Tariff) Regulations, 2009 which states that "*The rate of interest on working capital shall be equal to the short term Prime Lending Rate of State Bank of India on the 1st April of the relevant financial year.*''

The normative interest on working capital for FY 14-15 has been claimed at Rs. 11.93 Crores.

Commission's analysis

The Commission has considered the approved power purchase expenses of FY 2014-15 and approved O&M expenses to work out the normative working capital required for FY 2014-15.

As per the regulation 29 of JERC tariff regulations

"

29. WORKING CAPITAL AND INTEREST RATE ON WORKING CAPITAL

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

1) *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.

2) 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."

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. However, 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 requirement and has deducted this amount from the working capital requirement considered for FY 2014-15.

The Commission had repeatedly asked the Petitioner for the split of the consumer security deposit into bank guarantee, fixed deposit and cash forms, to which the Petitioner responded stating that the same is being compiled. Even the latest submission by the Petitioner on January 28' 2014 (considered by the Commission in its analysis of this tariff order) did not consist of the required details.

In absence of the required details, the Commission has considered the security deposit amount of Rs 9.79 Crores as considered by the Commission in its tariff order dated March 22' 2013 for FY 2013-14 for the purposes of this tariff order (for FY 2014-15). The same would be revisited at the time of review/true-up based on actual data; further, **the Commission gives strict directions to the utility to provide the split of the consumer security deposit amount into bank guarantee, fixed deposit and cash forms for analysis during the review/true-up.**

Further, the Commission clarifies that the SBI PLR rate has now been substituted as SBI Advance Rate. The Commission has considered the SBI advance rate of 14.75%[25] for computation of the interest on

[25] SBI advance rate as on 07.11.2013 has been considered for the computation of the interest on the working capital; latest available SBI advance rate has been considered.

working capital for ARR of FY 2014-15. The detailed calculation of the interest on working capital is as mentioned below.

Table 7.13.1 : Interest on working capital approved in the ARR of FY 2014-15 (Rs. Crores)

S. No.	Particulars	Petitioner Submission (FY 2014-15)	Approved (FY 2014-15)
1	Power Purchase Cost for one month	79.02	73.62[26]
2	Employee Cost for one month	0.82	0.77
3	A&G Expenses for one month	0.33	0.31
4	R&M Expenses for one month	0.75	0.71
5	**Total Working Capital for one month**	**80.91**	**75.41**
6	Less: Consumer Security Deposit	-	9.79
7	**Total WC after deduction of Security Deposit from Working Capital Requirement**	**80.91**	**65.62**
8	SBAR Rate	14.75%	14.75%
9	**Interest on Working Capital**	**11.93**	**9.68**

The Commission considers Rs. 9.68 Crores as the Interest on Working Capital as reasonable and approves the same for ARR of FY 2014-15.

7.14 Interest on Security Deposit

Petitioner's submission

The petitioner has not claimed interest on security deposit for FY 2014-15.

Commission's analysis

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

[26] Amount earned through the sale of surplus power has been reduced from the approved power purchase cost to ascertain one month power purchase requirement for working capital purposes.

the 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.

In terms of the section 47 (4) of the Electricity Act, 2003 *'the distribution licensee is required to pay interest on security deposit collected from the consumers equivalent to bank rate or more as may be specified by the Commission.'*

The security deposit amount of Rs 9.79 Crores has been considered for the computation of the interest on security deposit for FY 2014-15, as discussed in the previous para 7.13 of this order.

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, the Commission directs the Petitioner to pay the interest on consumer security deposit for FY 2014-15 at the applicable bank rate to the consumers on their security deposit irrespective of the Petitioner's constraints and should explicitly mention the same as the 'Interest on security deposit for FY 2014-15' on the bills of the consumers. **Any non-compliance in this regard shall be viewed seriously by the Commission.**

The Commission has considered the bank rate of 8.75%[27] (as revised on October 29' 2013) for the calculation of the interest on security deposit for FY 2014-15.

On account of provisions mentioned in the Act and Regulation, the Commission directs the Petitioner to pay the interest on the security deposit collected from the consumers for the year irrespective of the constraints.

Table 7.14.1 : Interest on Security Deposit approved in ARR of FY 2014-15 (Rs. Crores)

S. No.	Particulars	Petitioner Submission FY 2014-15	Approved FY 2014-15
1	Opening Security Deposit	NIL	9.79
2	Add: Deposits during the Year		-
3	Less: Deposits refunded		-
4	Closing Security Deposit		9.79
5	Bank Rate		8.75%
6	**Interest on Security Deposit**	**NIL**	**0.86**

[27] Bank Rate of 8.75% as per RBI circular dated October 29' 2013

In view of the above, the Commission allows Rs. 0.86 Crores as the interest on security deposit and considered as expenditure in the ARR for FY 2014-15.

7.15 Return on Capital Base

Petitioner's submission

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

ED-DD has considered return on capital base as per the Regulation 23 of JERC (Terms and Conditions for Determination of Tariff) Regulations, 2009 and has considered Rs. 6.36 Crores as a 3% return on net block of approved assets/capitalization at the beginning of FY 2014-15 of Rs. 212.01 Crores. .

Return on capital base for ED-DD has been claimed at Rs 6.36 Crores for FY 2014-15.

Commission's analysis

ED-DD is an integrated utility in its present form as defined in Regulation 2(9) of the JERC (Terms and Conditions for Determination of Tariff) Regulations, 2009 and is entitled to return on capital base under the provisions of Schedule VI of the repealed Electricity (Supply) Act, 1948 vide Regulation 23 of JERC (Terms and Conditions for Determination of Tariff) Regulations, 2009. The basic requirement for consideration of either return on capital base or return on equity for historical assets is information on the assets category-wise and depreciation registers besides other data. It is seen that the FAR has been provided for FY 2012-13 alongside the audited accounts for the year.

As discussed in para 5.10 and para 5.14 of this order, the Commission has considered return on capital base in accordance with Regulation 23 of JERC (Terms and Conditions for Determination of Tariff) Regulations, 2009 and has considered Rs. 6.33 Crores as a 3% return on net block at the beginning of FY 2014-15.

Table 7.15.1 : Return on Capital Base approved in the ARR of FY 2014-15 (Rs. Crores)

S. No.	Particulars	Petitioner Submission FY 2014-15	Approved FY 2014-15
1	Gross block at beginning of the Year/Opening GFA	333.82	333.87
2	Less accumulated depreciation	121.80	122.97
3	**Net block at beginning of the year**	**212.01**	**210.90**
4	Less accumulated consumer contribution	-	-
5	**Net fixed assets at beginning of the year**	**212.01**	**210.90**
6	**Reasonable return @3% of NFA**	**6.36**	**6.33**

The Commission considers the Return on Capital Base of Rs. 6.33 Crores as reasonable and approves the same for ARR of FY 2014-15.

7.16 Provision for Bad and Doubtful debts

Petitioner's submission

The Petitioner has considered the provision of 0.50% of the revenue for FY 2014-15 in the revenue requirement for FY 2014-15.

Table 7.16.1: Provision for Bad & Doubtful debts as submitted by Petitioner for FY 2014-15

Provision for Bad & Doubtful Debts (Rs. Crores)	FY 14-15 Projected
Provision for Bad &Doubtful Debts as % of Receivables	0.50%
Provision for Bad & Doubtful Debts	**4.77**

Commission's analysis

As can be observed from the audited accounts, there were no bad & doubtful debts in FY 2011-12 and FY 2012-13. Further as specified in the regulation no. 28 of JERC Tariff regulations read with the format is explained below.

"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*	

Keeping in view the fact that the Petitioner did not actually write off bad and doubtful debts in the past, 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.

The Commission has considered the provision of 0.5% of the receivables for FY 2014-15 as bad and doubtful debt at Rs 4.99 Crores as reasonable and approves the same as per the regulations for ARR of FY 2014-15 subject to final adjustment in the true-up when audited accounts become available.

7.17 Non-Tariff Income

Petitioner's submission

The petitioner has submitted that the non-tariff income includes meter rent/service line rentals, recovery for theft of power/malpractices, miscellaneous charges from consumers. Other income includes Interest on Staff loans & advances, Delayed payment charges from consumers, Interest on advances to suppliers/contractors, and Miscellaneous receipts.

For estimating the non-tariff income for FY 13-14, an increase of 10% p.a. has been considered over the actual FY 12-13 non-tariff income. For projecting the non-tariff income for FY 14-15, an increase of 10% p.a. has been considered over the estimated non-tariff income for FY 13-14.

The Petitioner has claimed an amount of Rs 6.08 Crores and Rs 6.57 Crores as the non-tariff income for FY 2013-14 and FY 2014-15 respectively.

Commission's analysis

The Commission has considered the approved figure of non-tariff income for review of FY 2013-14 i.e. Rs. 6.47 Crores and has escalated the same by 5% to arrive at the approved non-tariff income for FY 2014-15 of Rs 6.79 Crores, considered reasonable and approved.

The Commission considers Non-Tariff Income of Rs. 6.79 Crores as reasonable and approves the same for ARR of FY 2014-15.

7.18 Revenue from Sale of Surplus Power

Petitioner's submission

During FY 13-14, ED-DD has estimated a surplus of 45.33 MU based on the energy available and sale to various consumer categories. ED-DD has sold surplus power during FY 12-13 at an average rate of Rs. 2.00 per unit. Revenue from surplus power available for sale during FY 13-14 and FY 14-15 has been computed at the same rate.

For FY 2014-15 as per the energy balance for the year, surplus power available for sale was 141.03 MU.

Revenue from sale of surplus power for FY 2014-15 has been claimed as Rs 28.21 Crores for the sale of 141.03 MU.

Commission's analysis

The Commission as also discussed in the section on power purchase of this chapter, has applied merit order dispatch principles in estimating the power procurement of the utility. Based on this, the Commission has only allowed power purchase as required to meet the requirement within the territory and as such, no surplus power has been considered in the ARR for sale outside the territory. The Commission, therefore, has not considered the revenue from outside sales for FY 2014-15 and the same will be considered at the time of true-up once the actual sale and revenue data becomes available. **The Commission however expects that the Licensee shall manage the surplus energy availability in a prudent manner in the overall interest of the stakeholders.**

7.19 Revenue at existing tariff for FY 2014-15

Petitioner's submission

The petitioner has submitted that the revenue from sale of power for FY 14-15 is determined based on the energy sales estimated and category-wise tariff prevalent in the UT of Daman & Diu.

Revenue from sale of power at existing tariff is estimated to be Rs. 927.87 Crores (inclusive of Fuel price surcharge of Rs. 9.92 Crores) and Rs. 954.17 Crores in FY 13-14 & FY 14-15 respectively. The estimated revenue for FY 13-14 is based on the first six months actual revenue from sale of power as per the new retail tariff notified by the Commission vide the tariff order for FY 13-14 dated March 22' 2013.

The fuel purchase adjustment surcharge approved by the Commission is also being levied to all the consumer categories except the Domestic and Agriculture consumers.
Further, ED-DD has computed the revenue for the full year of FY 14-15 based on the tariff notified by the Commission in the tariff order for FY 13-14 dated March 22' 2013.

The table below summarizes the revenue from sale of power at existing tariff for FY 14-15.

Table 7.19.1: Revenue from Sale of Power at Existing Tariff as submitted by the Petitioner for FY 2014-15 (Rs. Crores)

Revenue at Existing Tariff (Rs Crores)	FY 2014-15 Projected
Domestic	20.43
LIG	0.02
Commercial	10.43
Agriculture	0.33
LT Industry	66.43
HT/EHT Industry	852.40
Public Lighting	3.06
Public Water Works	0.73
Temp. Supply	0.34
Total Revenue from existing tariff	**954.17**

Commission's analysis

Based on the estimates of sales, consumers and connected load approved by the Commission for FY 2014-15, the Commission has arrived at the revenue from existing tariff of Rs 997.48 Crores.

Table 7.19.2: Revenue from Sale of Power at existing tariff approved by the Commission for FY 2014-15 (Rs. Crores)

S. No.	Category/Consumption Slab	FY 2014-15 Revenue at existing tariff of FY 2013-14
1	**LT-D/Domestic**	
	Up to 50 units	0.02
	51-200 units	2.25
	201-400 units	2.79
	401 units and above	17.57
	Total Domestic	**22.63**
	Low Income Group	**0.001**
2	**LT-C/Commercial**	
	0-100 units	8.74
	Beyond 100 units	18.07
	Total Commercial	**26.81**
3	**LT- Ag/Agriculture**	
	Upto 10 HP per unit	0.16
	Beyond 10 HP per unit	0.10
	Total Agriculture	**0.26**
4	**LTP Motive Power**	
	Upto 20 HP of connected load	62.92
	Above 20 HP of connected load	0.73
	Total Agriculture	**63.65**
5	**LT-PL/Public Lighting**	**2.44**
6	**LT-Public Water Works**	
	Upto 20 HP of connected load	0.17
	Above 20 HP of connected load	0.28
	Total Public Water Works	**0.44**
7	**HT Industrial**	
A	**HT (A) General**	
	0-50000	162.18
	50000-5 lakh	347.96
	Above 5 lakh	139.82
B	**HT (B) Furnace**	
	0-300 units per kVA	138.88
	301-500 units per kVA	77.01
	Above 500 units per kVA	15.38
	Total HT Industrial	**881.25**
	Total	**997.48**

7.20 Provisioning for Interest on Security Deposit

It is seen from the submissions of the Petitioner, that it has not paid the interest on the security deposit to the consumers for the previous years and accordingly the Commission has not allowed the interest on security deposit for FY 2011-12 and FY 2012-13. The Commission has not considered the payment of interest on security deposit for FY 2011-12 and FY 2012-13 in the true-up of the respective years, as actual payment was not made. Further, in the true-up for FY 2010-11, the Commission had allowed the interest on security deposit of Rs 0.34 Crores as per its order dated August 25' 2012.

The Commission has given strict directions to the utility to make payment on the interest on security deposit to the consumers. The Petitioner has submitted that it has started paying the interest on security deposit from FY 2013-14 as per its submission dated November 18' 2013.

The Commission gives strict directions to the utility to fulfill its obligation of payment of the interest on security deposit for FY 2011-12 and FY 2012-13. In the interest of the stakeholders, the Commission provisions the amount to be paid as interest on security deposit in the ARR of FY 2014-15. The computation of the same is as below.

S. No.	Description	FY 2010-11	FY 2011-12	FY 2012-13
1	Opening Security Deposit (Rs Cr)	5.61	6.28	8.03
2	Closing Security Deposit (Rs Cr)	6.28	8.03	9.79
3	Average Security Deposit (Rs Cr)	5.95	7.16	8.91
4	**Average security deposit amount considered for payment (Rs Cr)**	**5.61**	**5.95**	**7.16**
5	**Bank Rate (%age)**	**6.00%**	**6.00%**	**9.50%**
6	**Interest on Security Deposit (Rs Cr)**	**0.34**	**0.36**	**0.68**
7	**Total provisioning (Rs Cr)**		**1.04**	

Note: The Commission has already allowed Rs 0.34 Crores for FY 2010-11 as per the true-up of the year and has accordingly this amount has not been considered for provisioning in FY 2014-15

The amount of Rs 1.04 Crores is being allowed in the ARR of FY 2014-15 as provision for the interest on security deposit due to the consumers for FY 2011-12 and FY 2012-13; further adjustment would be made based on the actual payment during the true-up/review of FY 2014-15.

7.21 Aggregate Revenue Requirement and Revenue Surplus/Deficit for FY 2014-15

Petitioner's submission

The Petitioner has estimated the Aggregate Revenue Requirement for FY 2014-15 to be Rs. 1015.47 Crores.

Commission's analysis

Based on the estimates approved in the preceding sections, the aggregate revenue requirement is summarized in the table below.

Table 7.21.1 : Aggregate Revenue Requirement (ARR) approved for FY 2014-15 (Rs Crores)

Sr. No.	Particulars	Petitioner Submission (FY 2014-15)	Approved (FY 2014-15)
1	Power Purchase Cost	948.26	883.45
2	Employee costs	9.78	9.24
3	Administration and General Expenses	3.93	3.75
4	Repair and Maintenance Expenses	8.97	8.47
5	Depreciation	17.72	17.72
6	Interest and Finance charges	10.33	10.10
7	Interest on Working Capital	11.93	9.68
8	Interest on security deposit	NIL	0.86
9	Return on NFA	6.36	6.33
10	Provision for Bad Debt	4.77	4.99
11	Provision for Interest on SD	-	1.04
12	**Total Revenue Requirement**	**1,022.05**	**955.61**
13	Less: Non Tariff Income	6.57	6.79
14	**Net Revenue Requirement (12-13)**	**1,015.47**	**948.83**

The estimated gap has been mentioned in the following table:

Table 7.21.2 : Estimation of Deficit approved for FY 14-15 at existing tariff (Rs. Crores)

Sr. No.	Particulars	Petitioner Submission (FY 2014-15)	Approved (FY 2014-15)
1	**Net Revenue Requirement**	**1,015.47**	**948.83**
2	Less: Revenue from Retail Sales at Existing Tariff	954.17	997.48
3	Less: Revenue from Surplus Power Sale/UI	28.21	-
4	**Net Gap/(Surplus) at existing tariff (1-2-3)**	**33.10**	**(48.66)**
5	Gap for the previous year/ (Surplus)	(34.44)	49.41
6	**Total Gap/(Surplus) (4+5)**	**(1.34)**	**0.75**

As can be observed there is a revenue gap of **Rs 0.75 Crores** at the end of FY 2014-15, considering the estimated gap/surplus of the previous year(s) at the existing tariff levels.

Directives

8. Directives

8.1 Commission's Observation

The following are the Commission's observations on the pending compliance of directives, as mentioned in the tariff order for FY 2013-14 dated March 22' 2013.

Pending compliance of directives as per the tariff order for FY 2011-12 dated October 3' 2011 on which the Commission had given further directions in the tariff order for FY 2012-13 dated August 25' 2012

1. Management Information System

Commission's Comments

Action taken is noted. The Petitioner is directed to submit the quarterly reports in the RIMS formats specified by CERC from the implemented computerized system.

Compliance/Action Taken as per order dated March 22' 2013

Petitioner's Submission

ED-DD had submitted that RACE (Revenue Administration through Computerized Energy Billing System) is running and is being upgraded for all consumers and necessary changes in report generation are also in progress. Simultaneously, the study of preparation of report in the format of RIMS is under progress and expected to be completed in this financial year.

Commission's Comments

Action taken is noted and the Petitioner is directed to submit the status report and progress of the said facility. The submission should be ensured before the next ARR filing.

Compliance/Action Taken as per the latest submission for this tariff order

Petitioner's Submission

ED-DD has submitted that integration and validation of the reports in the RIMS format with RACE (Revenue Administration through Computerized Energy Billing System) is under progress and the report would be submitted to the Commission by the end of FY 2013-14.

Commission's Comments

The pending submission should be ensured as per the date committed by the Petitioner.

2. Billing Efficiency / Collection Efficiency

Commission's Comments

Action taken is noted and the Petitioner is directed to submit the status report and progress of the said facility.

Compliance/Action Taken as per order dated March 22' 2013

Petitioner's Submission

ED-DD had submitted that RACE is being upgraded to include other than industrial consumers and report is being validated on real time basis for correction if necessary and expected to be completed in this financial year.

Commission's Comments

Action taken is noted and submission should be ensured before the next ARR filing.

Compliance/Action Taken as per the latest submission for this tariff order

Petitioner's Submission

EDDD has submitted that the billing cycle of the entire consumer categories has been reduced to one month from two months and 100% bills are being delivered to all the consumers across the UT of Daman & Diu. Further, the final report would be submitted to the Commission by the end of FY 2013-14.

Commission's Comments

Action taken is noted and the Petitioner is directed that the status report and the progress of the same should be submitted to the Commission as per the time-frame committed by the Petitioner in its submission.

3. Collection of Arrears

Commission's Comments

Action taken is noted and the Commission appreciates that the petitioner has taken up steps for collection of arrears. The petitioner is directed to furnish details of The pending arrears opening balance, liquidation during the year, additions during the year be given as on 31st March for the years 2007, 2008, 2009, 2010, 2011 and 2012 by end October 2012.

Compliance/Action Taken as per order dated March 22' 2013

Petitioner's Submission

ED-DD had submitted that the system of billing and collection of receipts was maintained manually and records were not kept as required by the Commission. However, on implementation of RACE necessary modification has already been done to generate such type of report for industrial consumers. The total arrears at the end of FY 2011-12 were Rs 1.93 Crores. For other than industrial consumers, the same modification is being carried out and under validation and expected to be completed by the end of financial year.

Commission's Comments

Action taken is noted and the pending submission should be ensured before the next ARR filing.

Compliance/Action Taken as per the latest submission for this tariff order

Petitioner's Submission

The EDDD has submitted that the arrears for the HT industrial and LT industrial category stood at Rs. 2.59 Crores and Rs. 3.60 Crores at the end of FY 2012-13.

Commission's Comments

The submission is noted; the Petitioner is directed that the outstanding arrears must be liquidated at the earliest and quarterly progress be submitted to the Commission by 15th day of the following month.

4. Augmentation of Transmission and Distribution System

Commission's Comments

Action taken is noted. Even after 8 months report has not been submitted. The requisite suggestions of the Petitioner and the required capital expenditure of the schemes be put up before the Commission by September 30' 2012 and be included in the next ARR filing of the Petitioner for FY 2013-14.

Compliance/Action taken as per order dated March 22' 2013

Petitioner's Submission

ED-DD had submitted that the Transmission Network Analysis and Recommendation Report for ED-DD has been submitted by Techlabs, New Delhi and enclosed as an annexure.

Commission's Comments

Action taken is noted. The capital expenditure required should be put up before the next ARR & tariff filing for FY 2013-14.

Compliance/Action Taken as per the latest submission for this tariff order

Petitioner's Submission

ED-DD has submitted that following the recommendation of Techlabs, New Delhi, a few schemes were initiated by the Department to augment the transmission and distribution system. The details of the schemes are as given below.

S. No.	Name of Scheme	Estimated Amount (Rs. Cr)	Status of work
1.	Establishment of 66/11 KV 2 x 15 MVA Sub-station along with associated line at Bhimpore, Daman	9.98	Work completed
2.	Replacement of Existing ACSR Panther Conductor of 66 KV Magarwada – Kachigam, Magarwada –Varkund line by HI TASCR Conductor	3 .00	Work will be completed during FY 2013-14
3.	Establishment of 66/11 KV 2 x 15 MVA Sub-station along with associated line at Zari, Daman	11.77	Work under progress and will be completed during current FY 2013-14
4.	Augmentation of capacity of 220/66 KV 66 KV S/S at Magarwada by replacing 2x50 MVA Transformer to 1x160 MVA at Daman	3.64	Work under progress and will be completed during current FY 2013-14

The existing substation at Dalwara was overloaded; therefore a new 66/11 kVA 2x15 MVA was established at Bhimpore, Daman.

The existing 66 kV Magarwada –Kachigam line is being supplemented by the Magarwada-Varkund line by replacing the existing ACSR panther conductor by HI TASCR conductor.

The existing substation at Kachigam was overloaded; therefore a new 66/11 kVA 2x15 MVA substation is being established at Zari, Daman.

At the 220/66 KV 66 KV S/S at Magarwada, the existing 2x50 MVA transformer is being replaced by 1x160 MVA transformer to augment its capacity.

Commission's Comments

The submission of the Petitioner as regards the planned capital expenditure schemes to augment the transmission and distribution systems of the utility are noted. The Commission expects that the work on these capital schemes would be completed as per the details/time-lines mentioned by the Petitioner in its submission. The Commission further expects that the capital schemes would help bring down the T&D losses further in the utility's territory.

5. Demand Side Management and Energy Conservation

Commission's Comments

Action taken is noted. Even after 8 months as directed earlier by the Commission, the utility is still in the process of sharing the scope of work and not the result of the study. The Commission directs that the process of completion of the study be expedited and the same shall be submitted to the Commission by November 30' 2012.

Compliance/Action taken as per order dated March 22' 2013

Petitioner's Submission

ED-DD had submitted that studies are being carried out for implementation of the various Demand Side Management (DSM) activities in the UT of Daman & Diu. The final study report of the consultant on DSM implementation shall be submitted to the Commission in this financial year.

Commission's Comments

Action taken is noted. The pending submission should be made before the next ARR filing.

Compliance/Action Taken as per the latest submission for this tariff order

Petitioner's Submission

Quote 'The final study report of the consultant on DSM implementation has been enclosed along with this submission as Annexure I' **Unquote**

Commission's Comments

The Commission has noted the compliance of the directive by the Petitioner. The Commission finds that no concrete proposal as regards to the DSM implementation has been given in the report. The Commission directs the Petitioner to submit concrete proposal with specific scheme along with timeline and funding sources by September 30' 2014.

Compliance of Directives issued by the Commission in the tariff order for FY 2012-13 dated August 25' 2012

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

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

Compliance/Action Taken as per order dated March 22' 2013

Petitioner's submission

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

Commission's Comments

Action taken is noted. The Energy audit report for FY 2011-12 has been submitted by the licensee in its additional submission to the Commission on January 16' 2013.

The Petitioner is directed to submit the status report for FY 2012-13 alongwith the next year's ARR.

Compliance/Action Taken as per the latest submission for this tariff order

Petitioner's Submission

Quote 'The status report for FY 2012-13 is being enclosed along with this submission as Annexure II' **Unquote**

Commission's Comments

The Commission has noted the compliance of the directive by the Petitioner. The submission on Energy Audit report for FY 2012-13 is noted.

2. **Load Forecasting Study**

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

Compliance/Action Taken as per order dated March 22' 2013

Petitioner's submission

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

Commission's Comments

Action taken is noted and the Petitioner is directed to submit the status report and progress of the said facility.

Compliance/Action Taken as per the latest submission for this tariff order

Petitioner's Submission

Quote 'The detailed load forecasting study for short term (2-5 years), medium term (7-10 years) and long term (15-25 years) is being enclosed along with this submission as Annexure III' **Unquote**

Commission's Comments

The submission of the Petitioner is noted.

3. Online Bill Payment

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

Compliance/Action Taken as per order dated March 22' 2013

Petitioner's submission

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

Commission's Comments

Commission appreciates the efforts made by the Petitioner in this regard. The status of the said facility has not been received by the Commission. The progress of the facility of 'online bill payments' as per the earlier directions should be submitted to the Commission by September 2013.

Compliance/Action Taken as per the latest submission for this tariff order

Petitioner's Submission

ED-DD has submitted to the Commission that the facility of payment through debit/credit cards has been implemented with effect from 1st Jan'2013 for all consumer categories. Further, the Department has also come up with independent kiosks at cash collection centre on trial basis to facilitate payment of the electricity bills.

Commission's Comments

The submission of the Petitioner is noted. The Commission expects that the facility of online payment will work properly in the future.

4. **Enforcement Cell**

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

Compliance/Action Taken as per order dated March 22' 2013

Petitioner's submission

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

Commission's Comments

Action taken is noted. The Commission directs that the process of completion of the study be expedited and the same be submitted to the Commission by September 2013.

Compliance/Action Taken as per the latest submission for this tariff order

Petitioner's Submission

ED-DD has submitted to the Commission that the report is still with the vigilance department and is being compiled by them. Once it is finalized by the vigilance department and submitted to ED-DD, it will be validated and submitted to the Commission by the end of FY 2013-14.

Commission's Comments

The submission of the Petitioner is noted. The submission of the report should be ensured to as per the time-line committed by the Petitioner.

5. **Data on the consumption and load profile of Advertisement Hoardings, Sign Boards, Signage's etc.**

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

Compliance/Action Taken as per order dated March 22' 2013

Petitioner's submission

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

Commission's Comments

The Commission fully understands that as per the existing tariff schedule there is no separate category for the users of advertisement, hoardings, signboards, signage's etc. The Petitioner was directed to separately capture the data regarding consumption and the load profile of these users so that differential tariff for this category could be set.

As the directive has not been adhered to, the Commission re-directs the Petitioner to separately capture the data regarding consumption and the load profile of the users of advertisement hoardings, signboards, signage's etc. in its licensee area and submit the same to the Commission by September 2013, failing which the Commission would be forced to take serious action.

Compliance/Action Taken as per the latest submission for this tariff order

Petitioner's Submission

Quote 'The Report is being enclosed along with this submission as Annexure IV.**' Unquote**

Commission's Comments

The submission of the Petitioner is noted.

6. **Standard of Performance**

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

Compliance/Action Taken as per order dated March 22' 2013

Petitioner's submission

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

Commission's Comments

The submission of the Petitioner is noted. Timely submission as per the requirements laid down in the JERC (Standards of Performance) Regulation, 2009 should be duly adhered to. The process of developing the software for availing the data of each complaint centre and office details should be expedited so that data collection can happen in a timely manner.

Compliance/Action Taken as per the latest submission for this tariff order

Petitioner's Submission

Not submitted.

Commission's Comments

The Petitioner has not submitted the report with the ARR & tariff petition for FY 2014-15 although the Commission has observed that ED-DD has been submitting it regularly to the Commission. For the next ARR & tariff filing, the submission on the Standard of Performance should be done along with the petition.

7. Security Deposit

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

Compliance/Action Taken as per order dated March 22' 2013

Petitioner's submission

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

Commission's Comments

The submission is noted. However, the Petitioner has not indicated any time frame for conversion of security deposit as per the provisions of the Regulations. The Commission has viewed it seriously and directs the Petitioner to ensure compliance of the directive and conform compliance by the end of June.

Compliance/Action Taken as per the latest submission for this tariff order

Petitioner's Submission

ED-DD has submitted to the Commission that the Department has started to give interest on security deposit to the consumers from April 2013. Further, as per the order issued by the Commission dated 13.08.2013 on the petition seeking relaxation of Regulation 6.10 (2) of JERC (Electricity Supply Code) Regulations, 2010 to the extent of allowing payment of Security Deposit in the form of Bank Guarantee instead of Demand Draft or Banker's Cheque, the Commission has allowed security in the form of Bank Guarantee and fixed deposit for LT, HT, EHT and Micro, Small and Medium Entrepreneurs Consumers (MSME) for the existing and new connections of consumers to the respondent viz. ED-DNH. Accordingly, ED-DD has also stopped the conversion of security deposit in the form of Bank Guarantee to Demand Draft or Banker's Cheque.

Commission's Comments

The Commission has notified its 2nd Amendment JERC (Electricity Supply Code) Regulations 2010 on October 10' 2013 wherein bank guarantee has been included as a form of security deposit. Hence, this directive is dropped.

8. **Forecasting Power Requirements**

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

Compliance/Action Taken as per order dated March 22' 2013

Petitioner's submission

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

Commission's Comments

The status and the progress of the load forecasting study should be submitted to the Commission by September 2013.

Compliance/Action Taken as per the latest submission for this tariff order

Petitioner's Submission

Quote ''the status and the progress of the load forecasting study are being enclosed along with this submission as Annexure III'' **Unquote**

Commission's Comments

The submission of the Petitioner and compliance therewith is noted.

9. **Roadmap for reduction in cross-subsidy**

The petitioner is directed to propose a road map for an increase in the tariff rate which progressively reduces bring the gap between per unit tariff and the average cost of supply over a period of 5 years in two phases i.e. first 3 years from FY 2013-14, FY 2014-15 and FY 2015-16, a review thereafter and further reduction during FY 2016-17 and FY 2017-18.

Compliance/Action Taken as per order dated March 22' 2013

Petitioner's submission

Quote *'The EDDD is pursuing the matter with the Administration of the UT of Daman & Diu and a letter written to the Administration for the same is being enclosed along with this petition as Annexure V'* **Unquote**

Commission's Comments

Action taken is noted. Persistent efforts should be made by the Petitioner to formulate the proposed road map for reduction of cross-subsidy and submit the same to the Commission keeping in view the demographics and the consumer-mix of the licensee.

Compliance/Action Taken as per the latest submission for this tariff order

Petitioner's Submission

Not submitted.

Commission's Comments

The Petitioner has not submitted the road-map for reduction of cross-subsidy. The Commission condemns and has viewed it seriously; and directs the Petitioner to submit the report along with the next ARR & tariff filing failing which the Commission shall initiate action as per the Act/Regulation.

10. **Shifting of existing consumers to higher voltage** : In compliance of the Hon'ble APTEL judgment 35/ 2012, as regards the issue of shifting of existing consumers to higher voltage, the Petitioner is directed to provide the following information to the Commission by November 30' 2012.
    a) The Supporting data on the number of existing consumers at 11 kV having contracted demand above 1500 kVA
    b) Maximum contracted demand sanctioned to the existing consumers as referred in point no. 1 above
    c) Cost benefit analysis of shifting to higher voltage of the existing consumers as referred to in point no. 1 above

Compliance/Action Taken as per order dated March 22' 2013

Petitioner's submission

Quote *'The data on the number of existing consumers at 11 kV having contracted demand above 1500 kVA and the contracted demand sanctioned to the existing consumers therein is being enclosed along with this petition as Annexure VII.*

Further the EDDD is carrying out the cost benefit analysis of shifting the existing consumers at 11 kV having contracted demand above 1500 kVA to higher voltage and will submit the report on the same to the Hon'ble Commission shortly.' **Unquote**

Commission's Comments

The submission of the Petitioner is noted and the pending submission should be made to the Commission by September 2013. The Commission observes that the Petitioner has proposed the following in the tariff schedule:

''*Supply to consumers having contracted load between 100 kVA to 4000 kVA will be generally at 11 kV and for more than 4000 kVA at 66 kV. The consumer who requires load more than 25000 kVA, the voltage of supply shall be at 220 kV level.''*

The Commission has noted that the Petitioner has made the above proposal without any supporting cost-benefit analysis as directed earlier by the Commission. In absence of the same, the Commission is constrained to take a view in the matter and has decided to maintain the status-quo. Commission may take a further view once the compliance is submitted with cost-benefit analysis.

Compliance/Action Taken as per the latest submission for this tariff order

Petitioner's Submission

Quote '' the report is being enclosed along with this submission as Annexure V'' **Unquote**

Commission's Comments

The submission of the Petitioner is noted. The Petitioner has submitted the cost-benefit analysis along with the list of existing consumers at 11 kV having contracted demand above 1500 kVA. The Commission observes that the T&D losses of ED-DD for FY 2012-13 are 8.84%, as approved in this tariff order. The Commission is of the view that since the consumers at 11 kV having contracted load above 1500 kVA is very few, the T&D loss would not be affected significantly even if the consumer at 11 kV is supplied at 4000 kVA in place of the existing 1500 kVA.

The Commission, accordingly, approves the following to be included in the tariff schedule.

''Supply to consumers having contracted load between 100 KVA to 4000 KVA (including licensee common feeders and express feeders/dedicated feeders) shall generally be at 11 KV and for more than 4000 KVA up to 25000 KVA at 66 KV. The consumer who requires load more than 25000 KVA load, the supply voltage shall be at 220 KV level. However, wherever the existing feeders are required to be augmented, the Electricity Department shall carry out such augmentation by 30th September, 2014.''

Tariff Philosophy and category-wise tariffs for FY 2014-15

9. Tariff Philosophy and category-wise tariffs for FY 2014-15

9.1 Preamble

The Commission in determining the aggregate revenue requirement and retail supply tariff for the financial year 2014-15 has been guided by the provisions of the Electricity Act, 2003, the Tariff Policy, Regulations on Terms and Conditions of Tariff issued by the Hon'ble Central Electricity Regulatory Commission (CERC) and Regulations on Terms and Conditions of Tariff notified by the JERC under Section 61 of the Act which lays down the broad principles, which shall guide the determination of retail tariff.

9.2 Revenue Gap/Surplus for FY 2014-15 and Recovery

The petitioner has projected a revenue gap of Rs. 33.10 Crores for FY 2014-15 and considering the cumulative surplus of Rs 34.44 Crores for the previous years, the cumulative surplus of Rs 1.34 Crores at the end of FY 2014-15 has been projected at the existing tariffs as approved by the Commission in its tariff order dated March 22' 2013. In view of the estimated surplus at the end of FY 14-15, the Petitioner has not proposed any tariff hike for FY 14-15. The Petitioner has requested the Commission to keep the tariff unchanged for FY 14-15.

As elaborated in para 7.21 of this order, the Commission has estimated the cumulative revenue gap at the end of FY 2014-15 at Rs 0.75 Crores after considering the revenue gap/surplus created after the truing-up of ARR for FY 2012-13 and Review of ARR for FY 2013-14 (at the existing tariff).

The Commission, this time, has rationalized the tariff structure of some of the consumer categories keeping intact the average cost of supply and revenue neutrality. The Commission has not aimed at additional revenue recovery from the consumer categories; however, has altered the tariff structure to maintain revenue neutrality from the existing tariff structure. The sub-slabs in the LTP Motive Power, LT Public Water Works, HT (A) General and HT (B) Furnace have been done away with and main category structures have been retained. The details are in the tariff schedule mentioned at the end of the tariff order.

9.3 Tariff for FY 2014-15

Petitioner's submission

The Petitioner has submitted that as there is a cumulative surplus of Rs. 1.34 Crores for FY 2012-13, FY 2013-14 and FY 2014-15, the ED-DD has not proposed any tariff hike for FY 2014-15. The ED-DD has requested the Commission to approve the same retail tariff for FY 2014-15 as approved by the Commission for FY 2013-14.

The category wise existing and proposed tariff submitted by the Petitioner is as under:

Table 9.3.1: Existing and Proposed Tariff for FY 2014-15 proposed by the Petitioner

Tariff Structure	Existing (FY 2013-14)		Proposed (FY 2014-15)	
	Fixed Charges (Rs/kVA/month or Rs/HP/month or Rs/connection/month)	Energy Charges (Rs/kWh)	Fixed Charges (Rs/kVA/month or Rs/HP/month or Rs/connection/month)	Energy Charges (Rs/kWh)
Low Income Group	Rs. 10/connection /month		Rs. 10/connection /month	
LT-D/Domestic				
Ist 50 Units	-	1.20	-	1.20
51 to 200 Units	-	1.80	-	1.80
201 to 400 Units	-	2.20	-	2.20
401 units and above	-	2.55	-	2.55
LT-C/Commercial				
1st 100 Units	-	2.65	-	2.65
Beyond 100 Units	-	3.65	-	3.65
LT- Ag/ Agriculture				
Upto 10 HP per unit	-	0.70	-	0.70
Beyond 10 HP per unit	-	1.00	-	1.00
LTP Motive Power				
Upto 20 HP of Connected Load	-	3.70	-	3.70
Above 20 HP Connected Load	Rs 25.00/HP/month	3.80	Rs 25.00/HP/month	3.80
LTP Public Water Work				
Upto 20 HP of Connected Load	-	3.70	-	3.70
Above 20 HP Connected Load	Rs 25.00/HP/month	3.80	Rs 25.00/HP/month	3.80
LT-PL/Public Lighting				
Public Lighting	-	4.20	-	4.20
HT				
HTC General Industrial / Motive Power 11KV or 66KV having CMD above 100KVA				
50000 units	Rs 100.00/kVA/month	4.70	Rs 100.00/kVA/month	4.70

Tariff Structure	Existing (FY 2013-14)		Proposed (FY 2014-15)	
	Fixed Charges (Rs/kVA/month or Rs/HP/month or Rs/connection/month)	Energy Charges (Rs/kWh)	Fixed Charges (Rs/kVA/month or Rs/HP/month or Rs/connection/month)	Energy Charges (Rs/kWh)
50000 to 5 lakh units	Rs 100.00/kVA/month	4.85	Rs 100.00/kVA/month	4.85
Beyond 5 lakh units	Rs 100.00/kVA/month	5.05	Rs 100.00/kVA/month	5.05
HT Industrial(Ferro Metallurgical / Steel Melting/ Steel Rerolling Power Intensive)				
First 300 Units per KVA	Rs 550.00/kVA/month	3.85	Rs 550.00/kVA/month	3.85
Next 200 units per KVA	Rs 550.00/kVA/month	4.55	Rs 550.00/kVA/month	4.55
Above 500 units per KVA	Rs 550.00/kVA/month	4.80	Rs 550.00/kVA/month	4.80

ED-DD has requested the Commission to approve the fuel purchase adjustment formula including the “K” factor for FY 14-15 as well, which can take care of any variation in the ARR over and above the approved level by the Commission for FY 14-15.

Commission’s analysis

The Commission has determined the retail tariff for FY 2014-15 in view of the guiding principles as stated in the Electricity Act, 2003 and 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***

In view of the small cumulative revenue gap of Rs 0.75 Crores at the end of FY 2014-15 at the existing tariff levels, the Commission is of the view that additional revenue recovery from the consumer categories is not required. The Commission, this time, has rationalized the tariff structure of the different consumer categories while maintaining near revenue neutrality. The sub-slabs in the LTP Motive Power, LT Public Water Works, HT (A) General and HT (B) Furnace have been done away with and main category structures have been retained.

It has been observed that the Public hoardings and sign boards consume power during the peak hours and considerable losses for the utility. The Commission, in this Tariff Order has created a separate category to cover the consumption for the advertisements and Hoardings. This category will be applicable for supply of electricity for lighting external advertisements, external hoardings and displays at departments stores, malls, multiplexes, theatres, clubs, hotels, bus shelters, Railway/Metro Stations shall be separately metered and charged at the tariff applicable for “Advertisements and Hoardings‟ category, except such displays which are for the purpose of indicating/displaying the name and other details of the shop, commercial premises itself. Such use of electricity shall be covered under the prevailing tariff for such shops or commercial premises.

The Commission’s approved tariff for FY 2014-15 is given below.

Table 9.3.2 : Commission’s Approved Tariff for FY 2014-15

S. No.	Category/Consumption Slab	Approved Tariff for FY 2014-15			
		Fixed Charges (Rs/KVA/Month or Rs per connection/ month) or (Rs/HP/month) or part thereof	Variable Charges (Rs/KWh)	Average tariff (Rs/Unit)**	K Factor[28] for FPPCA formula for FY 2014-15
1	**LT-D/Domestic**				
	Up to 50 units	-	1.20	1.20	0.25
	51-200 units	-	1.80	1.80	0.38
	201-400 units	-	2.20	2.20	0.46
	401 units and above	-	2.55	2.55	0.53
	Low Income Group	Rs 10.00/connection/month	-	0.33	N/A
2	**LT-C/Commercial**				
	0-100 units	-	2.65	2.65	0.55
	Beyond 100 units	-	3.65	3.65	0.76
3	**LT- Ag/Agriculture**				
	Upto 10 HP per unit	-	0.70	0.70	N/A
	Beyond 10 HP per unit	-	1.00	1.00	N/A

28 FPPCA is not applicable (N/A) for the consumer categories including BPL, agriculture and temporary supply. Therefore, the K factor against these categories is shown as N/A.

S. No.	Category/Consumption Slab	Approved Tariff for FY 2014-15			
		Fixed Charges (Rs/KVA/Month or Rs per connection/ month) or (Rs/HP/month) or part thereof	Variable Charges (Rs/KWh)	Average tariff (Rs/Unit)**	K Factor[28] for FPPCA formula for FY 2014-15
4	**LTP Motive Power**				
	For the category	Rs 25.00/HP/month	3.50	3.73	0.78
5	**LT-PL/Public Lighting**	-	4.20	4.20	0.88
6	**LT-Public Water Works**				
	For the category	Rs 25.00/HP/month	3.70	3.93	0.82
7	**HT Industrial**				
A	**HT (A) General**				
	For all units	Rs 105.00/kVA/month	4.70	5.26	1.10
B	**HT (B) Furnace**				
	For all units	Rs 375.00/kVA/month	4.55	4.79	1.00
8	**Hoardings / Sign Boards**	Rs 100/kVA/month	7.00	-	2.00

** Average tariff means the average revenue realization from the category i.e. revenue/sales and is inclusive of both the fixed charges and the variable charges

9.4 Average Cost of Supply

The Commission observes that the Average Cost of Supply (ACoS) has gone up from Rs. 4.35/kWh as per trued-up ARR of FY 2012-13 to Rs. 4.55/kWh approved for FY 2014-15. The ACOS as approved in the tariff order dated March 22' 2013 for FY 2013-14 was Rs 4.37/kWh.

The Commission observes that the tariff being charged to most of the categories of consumers is below the average cost of supply. With the progressive increase in the tariff of the subsidized categories towards Average Cost of Supply, the tariff may over the years touch ACOS and the existing gap of the cross subsidy may progressively narrow down. The average tariff as a percentage of average cost of supply of Rs. 4.55/kWh approved in this tariff order for FY 2014-15 is as shown in the table below.

*Table 9.4.1 : Comparison of average revenue realization with ACOS for FY 2014-15 vis-à-vis FY 2013-14 ***

S. No.	Category/Consumption Slab	Average revenue realization for FY 2013-14(Existing tariff of FY 13-14)	Average revenue realization as a percentage of ACOS for FY 2013-14 (Existing tariff of FY 13-14)	Average revenue realization for FY 2014-15 (Approved tariff of FY 14-15)	Average revenue realization as a percentage of ACOS for FY 2014-15 (Approved tariff of FY 14-15)
1	**LT-D/Domestic**				
	Domestic category	**2.40**	**55%**	**2.40**	**53%**

S. No.	Category/Consumption Slab	Average revenue realization for FY 2013-14(Existing tariff of FY 13-14)	Average revenue realization as a percentage of ACOS for FY 2013-14 (Existing tariff of FY 13-14)	Average revenue realization for FY 2014-15 (Approved tariff of FY 14-15)	Average revenue realization as a percentage of ACOS for FY 2014-15 (Approved tariff of FY 14-15)
2	**LT-C/Commercial**				
	0-100 units				
	Beyond 100 units				
	Commercial category	**3.25**	**74%**	**3.25**	**71%**
3	**LT- Ag/Agriculture**				
	Upto 10 HP per unit				
	Beyond 10 HP per unit				
	Agriculture category	**0.79**	**18%**	**0.79**	**17%**
4	**LTP Motive Power**				
	LTP Motive Power	**3.71**	**85%**	**3.73**	**82%**
5	**LT-PL/Public Lighting**	**4.20**	**96%**	**4.20**	**92%**
6	**LT-Public Water Works**				
	LT-Public Water Works	**4.28**	**98%**	**3.93**	**86%**
7	**HT Industrial**				
A	**HT (A) General**				
	For all units	**5.14**	**118%**	**5.26**	**115%**
B	**HT (B) Furnace**				
	For all units	**5.35**	**123%**	**4.79**	**105%**

** Average Revenue Realization is defined as the revenue for the category divided by the sales for the category i.e. it is inclusive of both the fixed charges and the variable charges

9.5 Applicability of Time of Day (TOD) tariff

The Petitioner has proposed to extend the TOD tariff to all the HT consumers in the UT of Daman & Diu. The Petitioner has proposed to extend the TOD tariff to all the HT consumers in the UT of Daman & Diu. The Petitioner has proposed to extend the TOD tariff to all the HT consumers at the same tariff rates and keeping the same peak/off-peak/normal hours as approved by the Commission in its tariff order dated March 22' 2013.

The Commission is of the view that TOD tariff helps in better demand side management. The Commission in its tariff order dated March 22' 2013 had introduced TOD tariff for the HT consumers having sanctioned demand of 900 kVA and above. The Commission, this time, has decided to extend the applicability of the TOD tariff to all the HT consumers, at the same tariff rates and keeping the same peak/off-peak/normal hours as approved by the Commission in its tariff order dated March 22' 2013.

The TOD tariff for all the HT consumers should be introduced within 3 months of the issuance of this tariff order. The licensee is directed to take necessary measures and ensure appropriate technical infrastructure for implementation of TOD tariff.

For the purpose of TOD tariff, the peak/off-peak/normal hours and charges for the corresponding period shall be as under.

Time of use	Demand Charges	Energy Charges
Normal period (6:00 a.m. to 6:00 p.m)	Normal Rate	Normal rate of energy charges
Evening peak load period (6:00 p.m to 10.00 p.m)	Normal Rate	120% of normal rate of energy charges
Off-peak load period (10:00 p.m to 6:00 a.m)	Normal Rate	90% of normal rate of energy charges

9.6 Tariff Initiatives

9.6.1 Pre-paid metering

Petitioner's submission

The Petitioner has submitted the following in its petition:

Quote

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

1. Meter Rent for Pre-Paid Meters: Monthly charges for hiring of the meter and indicator where they are the property of Electricity Department, payable by the consumers shall be as follows:
   (i) Pre-Paid energy meter for AC single phase LT supply:
   Rs. 20 per meter per month

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

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

Domestic Supply:

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

Commercial Supply:

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

"

Unquote

Commission's view

The Commission accepts the proposal of the petitioner regarding optional tariff on supply through pre-paid meters as this will help the utility in advance collection of revenue and reduction of operational cost of bill distribution & meter reading. However, the Commission is of the view that pre-paid metering should not be limited to only domestic and commercial connections but should be extended to all LT connections upto 50 kW as envisaged in the JERC (Electricity Supply Code) Regulation, 2010. The Commission also understands that introduction of pre-paid metering requires empanelment of approved manufacturer of pre-paid meters adhering to the approved specification and approved software.

Hence, pre-paid metering for all LT consumers up to 50 kW load should be introduced within 3 months from issuance of this tariff order. The licensee is directed to take necessary measures and ensure appropriate technical infrastructure for implementation of pre-paid metering.

For the purpose of pre-paid metering, the Commission observes that the ACOS for FY 2014-15 is Rs 4.55/kWh and the average revenue realizations at the approved tariff as a %age of the ACOS for the Domestic, Commercial and LTP Motive Power are 53%, 71% and 82% respectively for FY 2014-15. The

Commission keeping the %age of ACOS for different consumer categories intact and further considering rebate for advance realization of revenue, the tariff inclusive of rebate is as under.

For pre-paid metered connection, the charges shall be as under:

Domestic Supply:

Description	Fixed Charge	Energy Charge (Rs./kWh)
Entire consumption	-	2.35

Commercial Supply:

Description	Fixed Charge	Energy Charge (Rs./kWh)
Entire consumption	-	3.20

LTP Motive Power Supply:

Description	Fixed Charge	Energy Charge (Rs./kWh)
Entire consumption	Rs 25.00/HP/month or part thereof	3.45

Meter Rent for Pre-Paid Meters:

Monthly charges for hiring of the Pre-Paid energy meter and indicator where they are the property of Electricity Department, payable by the consumers shall be as follows:

a. Single phase LT supply: Rs. 20 per meter per month

b. Three phase LT supply: Rs. 40 per meter per month

No pre-payment rebate is applicable on pre-paid meters as the above tariff is inclusive of pre-payment rebate.

9.6.2 Promotion of Solar Energy

Petitioner's submission

ED-DD has submitted that it has floated tenders for the installation of grid interactive Solar Photovoltaic power plants in Daman & Diu. The department proposes to install a 3 MW capacity solar plant in Diu and 1 MW capacity solar plant in Daman. Further, in order to encourage the use of solar power, the Department proposes to purchase excess power from all the consumers having grid interactive roof top solar panels at the rate of Rs 3.50/unit.

Commission's view

The Commission has taken note of the submissions of the Petitioner and directs ED-DD to come up with a separate petition for approval of tariff for purchasing excess power from consumers having grid interactive roof top solar panels. Further, separate petition should be filed for approval of tariff of solar generating plants.

9.7 Applicability of Revised Tariffs

The tariffs shall be applicable from 1st April 2014, upto the issuance of the next tariff order.

In cases, where there is a billing cycle difference for a consumer with respect to the date of applicability of the revised tariffs, then the revised tariff should be made applicable on a pro-rata basis for the consumption. The bills for the respective periods as per existing tariff and revised tariffs shall be calculated based on the pro-rata consumption (units consumed during respective period arrived at on the basis of average unit consumption per day multiplied by number of days in the respective period falling under the billing cycle).

9.8 Estimated Revenue and Surplus/Deficit at approved tariff for FY 2014-15

The estimated Revenue at approved tariff for FY 2014-15 works out to be as under.

Table 9.8.1 : Total Revenue estimated by the Commission at approved tariff for FY 14-15 (in Rs. Crores)

S. No.	Category/Consumption Slab	FY 2014-15 Revenue at approved tariff
1	**LT-D/Domestic**	
	Up to 50 units	0.02
	51-200 units	2.25
	201-400 units	2.79
	401 units and above	17.57
	Low Income Group	0.001
2	**LT-C/Commercial**	
	0-100 units	8.74
	Beyond 100 units	18.07
3	**LT- Ag/Agriculture**	
	Upto 10 HP per unit	0.16
	Beyond 10 HP per unit	0.10
4	**LTP Motive Power**	64.18

S. No.	Category/Consumption Slab	FY 2014-15 Revenue at approved tariff
5	**LT-PL/Public Lighting**	2.44
6	**LT-Public Water Works**	0.45
7	**HT Industrial**	
A	**HT (A) General**	634.70
B	**HT (B) Furnace**	247.88
	TOTAL	**999.34**

The estimated gap/surplus for FY 2014-15 from 1st April 2014 is as under.

Table 9.8.2 : Estimation of ARR Gap/(Surplus) at approved tariff for FY 2014-15 (Rs. Crores)

Sr. No.	Particulars	Approved (FY 2014-15) with tariff applicable from 1st April 2014
1	**Net Revenue Requirement**	**948.83**
2	Less: Revenue from Retail Sales at Existing Tariff	997.48
3	Less: Revenue from Surplus Power Sale/UI	-
4	**Net Gap/(Surplus)**	**(48.66)**
5	Gap for the previous year/ (Surplus)	49.41
6	Carrying Cost	-
7	**Total Gap/(Surplus) at the existing tariff**	**0.75**
8	Additional Revenue from revised tariffs	1.86
9	**Revenue Gap/(Surplus) after revised tariffs**	**(1.10)**

Open Access Charges for FY 2014-15

10. Determination of open access charges

Petitioner's Submission

The JERC (Open Access in Transmission and Distribution) Regulations 2009 and the JERC (Terms and Conditions for Determination of Tariff) Regulations 2009 have been referred to for the determination of open access charges by the Petitioner. The Petitioner has submitted the following open access charges.

1. Transmission Charges
2. Wheeling Charges
3. Cross Subsidy Charges
4. Additional Charges
5. Standby Charges
6. SLDC Operating Charges
7. Reactive Energy Charges
8. UI Charges
9. Application and Agreement Fees

Currently, transmission and distribution (T&D) functions are integrated parts of ED-DD. The technical as well financial accounts of transmission and distribution functions are not separated. For the purpose of determination of open access charges, T&D network of ED-DD is represented as follows.

Table 10.1.1: T&D network of ED-DD

Particulars	Assets	Remark
CTU	Ambheti 400/220 kV S/S, Ambheti-Magarwada 220 kV D/C transmission lines	Owner is Powergrid Corporation Limited (PGCIL)
STU	None	Transmission and Distribution functions are yet not separated.
Distribution (ED-DD)	220/66 kV Magarwada, outgoing 66 kV feeders and distribution lines and downstream network. It also includes lines connected to Vapi 66 kV (GETCO) and downstream network.	

The Petitioner has submitted that open access charges for FY 2014-15 shall be calculated based on the actual performance parameters of ED-DD for FY 2013-14 and ARR proposal for FY 2014-15.

1. Transmission Charges

The Petitioner has submitted that transmission charges are paid by all type of open access customers for use of transmission system of the STU. Transmission charges for open access customers can be represented in Rs/MW/Day or Rs/MW/Month.

The Petitioner has submitted that the as per Regulations 16(i)(ii) transmission charges shall be calculated for the immediately preceding financial year, i.e., FY 2013-14.

The Petitioner has submitted the following transmission charges:

ST RATE = 0.25 x [TSC/ AvCAP]/365
Where:
ST RATE is the rate for short-term open access user in Rs per MW per day.
"TSC" means the Annual Transmission / Distribution Charges of the transmission or distribution licensee for the immediately preceding financial year.
"Av CAP" means the average capacity in MW served by the system.
The capacity of the transmission licensee in the previous financial year and shall be the sum of the generating capacities connected to the transmission system and contracted capacities of other transactions handled by the system of the transmission licensee.

TSC for FY 2013-14 = 39.33 as per 10.1.1 in Tariff Order for FY 2013-14 for ED-DD
AvCAP = 270 MW
ST RATE = 0.25 x [39.33 x 10000000 / 270] / 365
ED-DD has proposed the following transmission charges.

Table 10.1.2: Proposed transmission charges for ED-DD for FY 2014-15

Transmission Charges for FY 2014-15	
LTOA customer (Rs/MW/day)	998
STOA customer (Rs/MW/day)	998

2. Wheeling Charges

The Petitioner has submitted the following voltage wise wheeling charges. Further, the Petitioner has submitted that as separate ARRs of Transmission and Distribution functions are not available, T&D cost has been apportioned as per the methodology adopted by the Commission for calculating open access charges in last year's tariff order. The losses at the EHT and HT level have been considered as per the Energy Audit Report submitted by M/S Cospower.

The wheeling charges proposed for FY 2014-15 are as:

Table 10.1.3: Calculation of the proposed wheeling charges for ED-DD for FY 2014-15

Particulars	UoM	S. No.	FY 2014-15
Wheeling Cost	Rs Crores	A	47.24
Wheeling Cost at EHT and HT (80%)	Rs Crores	B= A* 80%	37.79
Wheeling Cost at LT (20%)	Rs Crores	C= A* 20%	9.45
Energy input at Discom periphery	MU	D	2133.62
Wheeling Charge at EHT and HT level	Rs per unit	E= B/D*10	**0.18**
EHT and HT losses	%age	F	2.13%
EHT and HT losses	MU	G	45.45
Sales at EHT and HT level	MU	H	1670.54
Energy Input at LT level	MU	I = D-G-H	417.63
Wheeling Charge at LT level	Rs per unit	J = C/I*10	**0.23**
Sales at LT level	MU	K	265.72
LT losses	MU	L= I – K	151.91
Total losses	MU	M = G + L	197.36
	%age		9.25

The following is the proposal.

Table 10.1.4: Summary of the proposed wheeling charges for ED-DD for FY 2014-15

Wheeling Charges for FY 2014-15		
Open Access Customer	**HT and EHT**	**LT**
	Charges in paise/kWh	
LTOA	18.00	23.00
STOA	18.00	23.00

3. Cross Subsidy Surcharge

The calculation of the various components of the CSS is as:

1. Estimation of 'T'

'T' has been calculated based on actual revenue realization from HT (11 kV) and EHT (66 kV) consumers of ED-DD for FY 2013-14 for the period from April to September 2013.

Table 10.1.5: Calculation of 'T' by the Petitioner

Sr. No.	Energy Sale (kWh) (a)	Revenue Realized Rs (b)	Average Cost Rs/kWh (b)/(a)
EHT+HT	**794200621**	**4428546120**	**5.58**

'T' has been considered as 5.58 by the Petitioner.

2. Estimation of 'C'

As per ARR and Tariff Petition for FY 2014-15 Table 17, energy required at the periphery of ED-DD is 2,133.62 MU.

For determination of 'C' weighted average cost of the costliest 106.681 MUs (5% of the total MUs procured) proposed for FY 2013-14 has been calculated. 'C' has been calculated based on the actual power purchase cost for FY 2014-15.

Table 10.1.6: Calculation of 'C' by the Petitioner

Generator	MUs (a)	Total Power Purchase Cost (Rs Cr) (b)	Power Purchase Cost Rs/kWh (b)/(a)*10
NSPCL Bhilai	90.381	430.53894	4.74
MSTPS	15.85	93.3565	5.89

Weighted average cost of power purchase 'C' = Rs 4.91/kWh

3. Estimation of 'L'

Based on the Energy Audit carried out for the year 2013 by M/S Cospower Engineering, Mumbai, losses at the various voltage levels have been considered.

As per the ARR & tariff determination for ED-DD for FY 2013-14, the Commission has approved losses of 9.25%. The losses for FY 2013-14 at various voltage levels have been determined in proportion to the audited losses. The losses have been determined as a percentage of the gross energy purchased.

Table 10.1.7: Calculation of 'L' by the Petitioner

Component under consideration	% losses for FY 2012-13 (a)	% losses for FY 2013-14 (a)* 9.25/8.57
220/66 kV transformation losses	0.40	0.43
66 kV sub transmission losses	0.29	0.31
66/11 kV transformation losses	0.46	0.50
11 kV bus losses	0.43	0.46
Distribution losses	6.60	7.12
T&D losses in Kachigam N/W	0.15	0.16
T&D losses in Diu	0.24	0.26
Total losses (%)	**8.57**	**9.25**

Total applicable losses at HT and EHT level 'L' = 9.25 – 7.12 = 2.13%

4. Estimation of 'D'

Wheeling charge 'D' is as:

Table 10.1.8: 'D' as proposed by the Petitioner

S. No.	Description	EHT + HT (66 kV + 11 kV)
1.	Wheeling charge in paise/kWh	18.00

5. Calculation of 'S'

Cross subsidy surcharge for EHT and HT customers can be calculated as follows:

At 66 kV, S = 5.58 – (4.91 X (1+ 2.13/100) + 18.00/100) = 39 paise/kWh.

Under Section 9 of the Electricity Act 2003, captive power plants are entitled for open access without payment of cross subsidy surcharge, to carry their generation to the point of their own use.

The proposed cross subsidy surcharge for FY 2013-14 can be summarized as below.

Table 10.1.9: Proposed cross-subsidy surcharge for ED-DD

Cross Subsidy Surcharge for EHT and HT consumers	Paise/kWh
LTOA	39.00
STOA	39.00

4. Additional Surcharge

ED-DD has not proposed additional surcharge for LTOA/STOA customer for FY 2013-14. However, the same shall be payable if found appropriate by ED-DD with approval of the Commission.

5. SLDC Charges

As per the JERC (Open Access in Transmission and Distribution) Regulations 2009, ED-DD has proposed SLDC charges of Rs 1000/- per day payable separately by supplier as well his consumer availing open access. In case of multiple supplier, each supplier individually needs to pay Rs 1000/- per day. However, no schedule revision charges have been proposed.

6. Standby Charges

ED-DD has proposed standby power supply facilities to all the customers opting for open access. In case of any default or failure of open access power supplier, the open access customer may draw power from the existing ED-DD network with prior information of the incidence.

Accordingly, ED-DD has proposed standby tariff rates as approved by the Commission in the tariff order for Daman & Diu for FY 2013-14 for Temporary Supply for respective category of the consumer.

7. Reactive Energy Charges

The reactive energy charges have been proposed to be levied in line with the charges levied on ED-DD by WRPC.

8. UI Charges

All open access customers need to install ABT compliant meter at their drawal point. ED-DD has proposed UI settlements for intra-state open access customers to frequency based in line with the inter-state settlements of UI accounts.

9. Application and Agreement Fees

ED-DD has proposed non-refundable Application and Agreement fees of Rs 5000/- and Rs 50000/- respectively.

10. Summary of Open Access Charges

Open access charges for LTOA and STOA customers can be summarized as below.

Table 10.1.10: Summary of the proposed open access charges for ED-DD for FY 2014-15

S. No.	Category	Unit	LTOA	STOA
1.	Transmission Charges	Rs/MW/day	998	998
2.	Wheeling Charges	Paise/kWh	18.00	18.00
3.	Cross Subsidy charges	Paise/kWh	39.00	39.00
4.	Additional Charges	Rs	NIL	NIL
5.	Standby Charges	Rs/kWh	As per tariff order	
6.	SLDC operating charges	Rs	1000.00	1000.00
7.	Reactive energy charges	Rs	As per WRPC	
8.	UI charges	Rs	As per WRPC	
9.	Application Fees	Rs	5000.00	5000.00
10.	Agreement Fees	Rs	50000.00	50000.00

Commission's Analysis

The Commission in order to facilitate open access has approved the Open Access Charges for FY 2014-15.

It is seen from the Petitioner's submission that the Transmission and Distribution business has not been segregated and ED-DD continues to function as an integrated utility. The Commission has considered the fact that the expenses of the utility are consolidated and has therefore considered "NIL" transmission charges for the open access consumers in the UT.

Allocation Matrix

The Commission feels that there has to be proper bifurcation of all expenses pertaining to the Petitioner between functions of wheeling business (wire business) and retail supply business. The Commission has considered it prudent to consider the allocation matrix for bifurcation of wheeling and retail ARR as proposed in the 'STAFF PAPER ON OPERATIONALISATION OF OPEN ACCESS (OA) IN THE STATE OF GOA AND THE UTs' in September 2012. The allocation between wheeling and retail supply business for FY 2013-14 and FY 2014-15 as per the ARR approved in this order is provided in the table below:

Table 10.1.11: Allocation of ARR between Wheeling and Retail Supply

Wheeling and Retail Supply ARR (Rs. Crores) - Daman and Diu										
S.No.	Particulars	Allocation (%)		Allocation FY 2013-14			Allocation FY 2014-15			
		Wheeling	Supply	Wheeling	Supply	Total	Wheeling	Supply	Total
1	Cost of Fuel	0%	100%	-	-	-	-	-	-
2	Power Purchase Cost	0%	100%	-	791.50	791.50	-	883.45	883.45
3	Employee costs	70%	30%	6.11	2.62	8.73	6.47	2.77	9.24
4	Administration and General Expenses	90%	10%	3.19	0.35	3.54	3.37	0.37	3.75
5	Repair and Maintenance Expenses	50%	50%	4.00	4.00	8.00	4.24	4.24	8.47
6	Depreciation	90%	10%	14.05	1.56	15.61	15.95	1.77	17.72
7	Interest and Finance charges	90%	10%	5.91	0.66	6.57	9.09	1.01	10.10
8	Interest on working capital	22%	78%	1.85	6.55	8.40	2.13	7.55	9.68
9	Interest on security deposit	0%	100%	-	0.76	0.76	-	0.86	0.86
10	Return on NFA	90%	10%	5.51	0.61	6.12	5.69	0.63	6.33
11	Provision for Bad Debt	0%	100%	-	-	-	-	4.99	4.99
12	RPO provisioning to cover backlog of previous years	0%	100%	-	41.84	41.84			
13	Provision for Interest on Security Deposit	0%	100%						1.04
14	**Total Revenue Requirement**			**40.62**	**850.45**	**891.07**	**46.94**	**907.64**	**955.61**
15	Less: Non Tariff Income	0%	100%	-	6.47	6.47	-	6.79	6.79
16	Less: Revenue from Sale through UI	0%	100%	-	0.50	0.50	-	-	-
17	Less: Revenue from OA consumer	0%	100%	-	3.17	3.17	-	-	-
18	**Net Revenue Requirement (14-15-16-17)**			**40.62**	**840.31**	**880.93**	**46.94**	**900.85**	**948.83**

Voltage wise Wheeling Charges

The Petitioner has submitted that the voltage wise bifurcation of expenses and assets are not available. The Commission opines that in the absence of the details of bifurcation of assets and expenses the open access should not be restricted due to lack of information. The Commission in this regard would like to mention that the apportionment of wheeling charges has to account for losses. Therefore in the absence of the voltage wise details, the Commission has considered the bifurcation of wheeling cost based on the sales and losses at each voltage level.

The Commission has considered the voltage wise losses for FY 2012-13 as per the Energy Audit report submitted. The Commission has considered the losses at the HT and EHT level for FY 2014-15 as per the Energy Audit Report for FY 2012-13.

The total loss for FY 2014-15 has been considered as approved in this tariff order as 8.70%. The balancing loss has been considered as the loss at the LT level.

Table 10.1.12: Estimation of losses at HT and EHT

Particulars	FY 2012-13 (MU)
Gross Power Purchase (MU)	2182.39
Energy drawal at periphery (MU)	2043.54
Transmission losses	4.69
T&D losses in licensed area of ED-DD	175.83
Total Losses	180.52
220/66 kV transformation losses in Daman	8.72
66 kV sub transmission losses in Daman	6.35
66/11 kV transformation losses in Daman	8.10
11 kV bus losses in Daman	13.41
Distribution Losses in Daman	133.95
T&D losses in Diu	5.31

Note: Figures have been taken from the Energy Audit Report submitted by the Petitioner for FY 2012-13

The losses at HT and EHT level are 36.58 MU for FY 2012-13; losses as %age of the input energy for HT & EHT come to 2.27% for FY 2012-13 (Sales for HT & EHT are 1572.81 MU for FY 2012-13). Similar loss at HT and EHT has been considered for FY 2014-15; and the balancing loss has been considered as the loss at the LT level.

To arrive at the network usage, the input energy at each level has been arrived and shown in the table below.

Table 10.1.13: Determination of input energy for network usage percentage

Particulars	UoM	S. No	FY 2014-15
Total Input	MU	A	2,282.45
Input for HT and EHT	MU	B = G/(1-E)	1765.07
% to total input	%	C = B/A	77%
Losses for HT and EHT (%age of total input)	%	D= F/A	1.76%
Losses for HT and EHT (%age of HT input)	%	E =F/B	2.27%
Losses	MU	F=B - G	40.12
Sales at 11 kV and above	MU	G	1,724.95
Input for LT	MU	H =A –B	517.38
% of total input	%	I = H/A	23%
Losses at LT level (%age of LT input)	%	J = K/H	31%
Losses	MU	K = H - L	158.45
Sales at 11 kV and below	MU	L	358.93
Balance	MU		-

Accordingly the wheeling cost has been considered in the ratio of 77:23 and the wheeling charge so arrived has been shown in the table below.

Table 10.1.14: Wheeling Charges approved for FY 2014-15

Particulars	UoM	S. No	FY 2014-15
Wheeling Cost	Rs Crores	A	46.94
Wheeling Cost at EHT and HT	Rs Crores	B=A*77%	36.30
Wheeling Cost at LT	Rs Crores	C=A*23%	10.64
Energy Input at Discom Periphery	MU	D	2,282.45
Energy Input for HT and EHT	MU	E=I/(1-G)	1,765.07
Wheeling Charge at EHT and HT level	Rs per Unit	F=B/E*10	**0.21**
EHT and HT losses	%	G	2.27%
EHT and HT losses	MU	H=E-I	40.12
Sales at EHT and HT level	MU	I	1,724.95
Energy Input at LT	MU	J=D-E	517.38
Wheeling Charge at LT level	Rs per Unit	K=C/J*10	**0.21**
Sales at LT level	MU	L	358.93
LT Losses	MU	M=J-L	158.45
Total Losses	MU	N=H+M	198.57
Total Losses	%		8.70%

<u>Cross Subsidy Surcharge</u>

The cross-subsidy surcharge is based on the following formula as given in the Tariff Policy:

S = T-[C (1+L/100) +D]
Where,

S is the surcharge

T is the Tariff payable by the relevant category of consumers;

C is the Weighted average cost of power purchase of top 5% at the margin excluding liquid fuel based generation and renewable power

D is the Wheeling Charges

L is the System losses for the applicable voltage level, expressed as percentage.

The computation of each item is as below.

Table 10.1.15: Calculation of "T"

Particular	Sales (MU)	Revenue from approved tariff (Rs Cr)	Average Tariff (Rs/kWh)
HT Industrial	1724.95	882.57	5.12

Table 10.1.16: Calculation of ''C''

Station	Energy Procured (MU)	Average Rate (Rs/kWh)	Total Power Purchase cost (Rs Cr)
Bhilai	118.50	4.68	55.46

The cross subsidy surcharge based on the above formula is worked out in the table below:

Table 10.1.17: Approved Cross Subsidy Surcharge for FY 2014-15

Cross Subsidy Surcharge	UoM	HT&EHT Industry
T	Rs Per kWh	5.12
C	Rs Per kWh	4.68
D	Rs Per kWh	0.21
L	%	2.27%
Surcharge	Rs Per kWh	0.12

Additional Surcharge

In order to promote competition through open access the Commission in line with the petitioner's submission approves "Nil" Additional Surcharge.

Standby Charges

The standby charges are approved as submitted by the Petitioner. The standby charges for FY 2014-15 are approved at the same tariff as applicable for the Temporary Supply for the respective category of the consumer for FY 2014-15.

Application and Agreement Fees

The application and agreement fees are approved as submitted by the Petitioner; Rs 5000/- and Rs 50,000/- respectively.

Other Charges

The Commission has made note of the submission of the Petitioner regarding levying SLDC charges, Reactive Energy charges and UI charges. **The Commission directs the Petitioner to provide the status of implementation of SLDC in its territory along with the next ARR & tariff filing and would accordingly take a view in this regard in the next tariff order.**

11. Conclusion of Commission's order

The Commission has considered the submissions made by Electricity Department of Daman & Diu for Truing-up of Aggregate Revenue Requirement of FY 2012-13, Review of FY 2013-14 and Aggregate Revenue Requirement (ARR) and determination of retail tariff for FY 2014-15 bearing petition no. 114/2013 and has accordingly approved the Aggregate Revenue Requirement (ARR) and the tariff structure for FY 2014-15.

1. The break-up of the Aggregate Revenue Requirement approved for Electricity Department of Daman & Diu for FY 2014-15 is given below.

Sr. No.	Particulars	Approved (FY 2014-15) (Rs. Crores)
1	Power Purchase Cost	883.45
2	Employee Costs	9.24
3	Administration and General Expenses	3.75
4	Repair and Maintenance Expenses	8.47
5	Depreciation	17.72
6	Interest and Finance charges	10.10
7	Interest on working capital	9.68
8	Interest on security deposit	0.86
9	Return on NFA	6.33
10	Provision for Bad Debt	4.99
11	Provision for Interest on SD	1.04
12	**Total Revenue Requirement**	**955.61**
13	Less: Non Tariff Income	6.79
14	**Net Revenue Requirement**	**948.83**
15	Less: Revenue from Retail Sales at Existing Tariff	997.48
16	Less: Revenue from Surplus Power Sale/UI	-
17	**Net Gap/(Surplus) for the year**	**(48.66)**
18	Gap for the previous year/ (Surplus)	49.41
19	Carrying Cost	-
21	**Total Gap/(Surplus) at the existing tariff**	**0.75**
22	Additional Revenue from proposed tariffs	**1.86**
23	**Revenue Gap/(Surplus) after proposed tariffs**	**(1.10)**

2. The approved retail tariff (as given below) for FY 2014-15 shall be in accordance with the tariff schedule specified in this order.

S. No.	Category/Consumption Slab	Approved Tariff for FY 2014-15			
		Fixed Charges (Rs/KVA/Month or Rs per connection/ month) or (Rs/HP/month) or part thereof	Variable Charges (Rs/KWh)	Average tariff (Rs/Unit)**	K Factor[29] for FPPCA formula for FY 2014-15
1	**LT-D/Domestic**				
	Up to 50 units	-	1.20	1.20	0.25
	51-200 units	-	1.80	1.80	0.38
	201-400 units	-	2.20	2.20	0.46
	401 units and above	-	2.55	2.55	0.53
	Low Income Group	Rs 10.00/connection/month	-	0.33	N/A
2	**LT-C/Commercial**				
	0-100 units	-	2.65	2.65	0.55
	Beyond 100 units	-	3.65	3.65	0.76
3	**LT- Ag/Agriculture**				
	Upto 10 HP per unit	-	0.70	0.70	N/A
	Beyond 10 HP per unit	-	1.00	1.00	N/A
4	**LTP Motive Power**				
	For the category	Rs 25.00/HP/month	3.50	3.73	0.78
5	**LT-PL/Public Lighting**	-	4.20	4.20	0.88
6	**LT-Public Water Works**				
	For the category	Rs 25.00/HP/month	3.70	3.93	0.82
7	**HT Industrial**				
A	**HT (A) General**				
	For all units	Rs 105.00/kVA/month	4.70	5.26	1.10
B	**HT (B) Furnace**				
	For all units	Rs 375.00/kVA/month	4.55	4.79	1.00
8	**Hoardings / Sign Boards**	Rs 100/kVA/month	7.00	-	2.00

3. The approved tariff of FY 2014-15 shall come in force with effect from 1st April 2014 and shall remain valid till the issuance of the next tariff order. <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. The licensee will compute fuel and power procurement cost variations and adjustments shall be made in the consumer bills based on the Fuel & Power Purchase Cost Adjustment (FPPCA) formula notified by the Commission as per the Regulation. **The approved per unit cost of**

29 FPPCA is not applicable (N/A) for the consumer categories including BPL, agriculture and temporary supply. Therefore, the K factor against these categories is shown as N/A.

power purchase ($R_{approved}$) for use in the FPPCA formula (paisa per unit) is 383 paisa per unit for FY 2014-15.

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

Sd/-
(S. K. Chaturvedi)

Chairman

Certified Copy

(Anish Garg)
Secretary

Place: Gurgaon
Date: May 1' 2014

12. Tariff Schedule

General Terms and Conditions

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

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

3) Supply to consumers having contracted load between 100 KVA to 4000 KVA (including licensee common feeders and express feeders/dedicated feeders) shall generally be at 11 KV and for more than 4000 KVA up to 25000 KVA at 66 KV. The consumer who requires load more than 25000 KVA load, the supply voltage shall be at 220 KV level. However, wherever the existing feeders are required to be augmented, the Electricity Department shall carry out such augmentation by 30th September, 2014

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

   Provided that (a) if a portion of the domestic premises limited to only one room is used for running small household business having connection under domestic category, such connection shall be billed under domestic category provided that the total monthly consumption of the consumer (including consumption for above mentioned small household business) does not exceed 150 kWh.

   (b) If either more than one room or only one room having monthly consumption exceeding 150 kWh for consecutive three months is detected in the domestic premises being used for mixed purposes having domestic connection, such connection shall further be billed under commercial category until a separate connection of appropriate tariff is taken for that portion used for non-domestic purpose.

5) If connected load of a domestic category is found to be at variance from the sanctioned/contracted load as a result of replacement of appliances such as lamps, fans, fuses, switches, low voltage domestic appliances, fittings, it shall not fall under Section 126 and Section 135 of the EA 2003.

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

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

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

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

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

10) 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 paisa shall be ignored and amount of 50 paisa or more shall be rounded off to next rupee. In case of permanent disconnection, delayed payment surcharge shall be charged only upto the month of permanent disconnection.

11) **Advance Payment Rebate:** If payment is made in advance well before commencement of consumption period for which bill is prepared, a rebate @ 1% per month shall be given on the amount (excluding security deposit) which remains with the licensee at the end of the month. Such rebate, after adjusting any amount payable to the licensee, shall be credited to the account of the consumer.

12) **Prompt Payment Rebate:** If payment is made at least 7 days in advance of the due date of payment, a rebate for prompt payment @ 0.25 % of the bill amount shall be given. Those consumers having arrears shall not be entitled for such rebate.

13) **TOD tariff:**

For the purpose of TOD tariff, the peak/off-peak/normal hours and charges for the corresponding period shall be as under.

Time of use	**Demand Charges**	**Energy Charges**
Normal period (6:00 a.m. to 6:00 p.m)	Normal Rate	Normal rate of energy charges
Evening peak load period (6:00 p.m to 10.00 p.m)	Normal Rate	120% of normal rate of energy charges
Off-peak load period (10:00 p.m to 6:00 a.m)	Normal Rate	90% of normal rate of energy charges

14) The adjustment on account of Fuel and Power Purchase Cost variation shall be calculated in accordance with FPPCA formula separately notified by the Commission under the Regulation. Such charges shall be recovered / refunded in accordance with the terms and conditions specified in the FPPCA formula.

15) The values of the 'K' factor applicable for the different consumer categories for use in the FPPCA formula shall be as specified in this Tariff Order for FY 2014-15.

16) Schedule of 'Other Charges' would be as approved in this tariff order.

The detailed tariff Schedule is outlined as under:

TARIFF SCHEDULE

I. (A) Domestic Category

Applicable to private houses, hostels, hospitals run on Non-commercial lines, Charitable, Educational and Religious Institutions for light, Fans, Radios, domestic heating and other household appliances including water pumps up to 2 HP.

I. Energy Charges

Usage	Energy Charge (Ps./kWh)
0-50 units	120
51-200 units	180
201-400 units	220
401 and above	255

(B) Power Supply to Low Income Group (Up to 2x40 W bulbs only)

Power supply to low income group connections will be charged at **Rs. 10 per service connection per month**. For any unauthorized increase in the load beyond 2x40 watts, penal charges at the rate of Rs. 20 per month per point will be levied and the installation will be liable for disconnection.

II. Non-Domestic Category/Commercial

This includes all categories which are not covered by other tariff categories including Domestic Category, Low Income Group, Industrial LT, HT/EHT Category (A&B), Agriculture and Poultry, Public Lighting.

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

I. Energy Charges

Usage	Energy charge (Ps./kWh)
1-100 units	265
101 units and above	365

III. LT Industrial Category

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

1. LTP Motive Power

I. Energy Charges

Usage	Energy charge (Ps/kWh)
For all units	350

II. Fixed Charges

	Tariff (Rs/HP/month) or part thereof
For category as defined above	Rs 25.00/- per HP or part thereof

III. Power Factor Charges

Any motive power connection above 3 HP running without proper capacitors installed so as to maintain Power Factor 0.90 as per the Commission’s regulation 11/2010 shall be charged extra 2.5 % of units consumed as additional power factor charges. Payment of the power factor charge won‘t exempt the consumer from his responsibility to maintain the power factor. In case of abnormal power factor decrease, the department will give the consumer 15 days’ time to install appropriate capacitors and maintain the standard power factor. If the consumer is not able to rectify the problem within the notice time, the connection will be liable for disconnection. ED-DD reserves the right to install a suitable capacitor at its own cost and recover the cost thereof as arrears of energy charges. In case the monthly average power factor is less than 0.70 lagging, the installation is liable for disconnection after due notice.

2. LT Public Water Works

I. Energy Charges

Usage	Energy charge (Ps/kWh)
For all units	370

II. Fixed Charges

	Tariff (Rs/HP/month) or part thereof
For category as defined above	Rs 25.00/- per HP or part thereof

III. Power Factor Charges

Any connection above 3 HP running without proper capacitors installed so as to maintain Power Factor 0.90 as per the Commission's regulation 11/2010 shall be charged extra 2.5 % of units consumed as additional power factor charges. Payment of the power factor charge won't exempt the consumer from his responsibility to maintain the power factor. In case of abnormal power factor decrease, the department will give the consumer 15 days' time to install appropriate capacitors and maintain the standard power factor. If the consumer is not able to rectify the problem within the notice time, the connection will be liable for disconnection. ED-DD reserves the right to install a suitable capacitor at its own cost and recover the cost thereof as arrears of energy charges. In case the monthly average power factor is less than 0.70 lagging, the installation is liable for disconnection after due notice.

IV. HT/EHT Category

A. High Tension Consumer

Applicable to all Industrial/Motive power consumers drawing through 11 kV and 66 kV systems having contract demand of 100 kVA and above.

i. Fixed Charges (Demand Charges)

	Charges (Rs./KVA/month) or part thereof
For category as defined above	Rs 105.00/kVA/month or part thereof

ii. Energy Charges

Usage	Tariff (Ps/kWh)
For all units	470

iii. Penalty Charges: Twice the applicable charges**.**

a) Penalty charges will be levied on those units which are drawn beyond the contract demand. These units will be worked out on pro-rata basis co-relating the total consumption of the month with billing demand.

b) If Industries are overdrawing power by more than 20% of the Contract Demand, their electricity connection will be disconnected immediately.

iv. Power Factor Charges

(a)The monthly average power factor of the supply shall be maintained by the consumer not less than 0.90 (lagging). If the monthly average power factor of a consumer falls below 90% (0.9 lagging), such consumer shall pay a surcharge in addition to his normal tariff @ 1% on billed demand and energy charges for each fall of 0.01 in power factor upto 0.7(lagging)

(b) In case the monthly average power factor of the consumer is more than 95% (0.95 lagging), a power factor incentive @ 0.5% on demand and energy charges shall be given for each increase of 0.01 in power factor above 0.95 (lagging)

(c) If the average power factor falls below 0.70 (lagging) consecutively for 3 months, the licensee reserves the right to disconnect the consumer's service connection without prejudice for the levy of the surcharge.

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

v. Billing Demand

Billing demand will be the highest among the following:

(a) 100 kVA

(b) 75% of the Contract demand

(c) Actual Demand Established

B. HT Industrial (Ferro Metallurgical/ Steel Melting/ Steel Rerolling/Power Intensive)

i. Fixed Charges (Demand Charges)

	Charges (Rs./KVA/month) or part thereof
For category as defined above	Rs 375.00/- per kVA per month

ii. Energy Charges

Usage	Tariff (Ps./kWh)
For all units	455

iii. Penalty Charges Twice the applicable Charges

a) Penalty charges will be levied on those units which are drawn beyond the contract demand. These units will be worked out on pro-rata basis co–relating the total consumption of the month with billing demand.

b) If Industries are overdrawing power by more than 20% of the contract demand, their electricity connection will be disconnected immediately.

iv. Power Factor Charges

(a)The monthly average power factor of the supply shall be maintained by the consumer not less than 0.90 (lagging). If the monthly average power factor of a consumer falls below 90% (0.9 lagging), such consumer shall pay a surcharge in addition to his normal tariff @ 1% on billed demand and energy charges for each fall of 0.01 in power factor upto 0.7(lagging)

(b) In case the monthly average power factor of the consumer is more than 95% (0.95 lagging), a power factor incentive @ 0.5% on demand and energy charges shall be given for each increase of 0.01 in power factor above 0.95 (lagging)
(c) If the average power factor falls below 0.70 (lagging) consecutively for 3 months, the licensee reserves the right to disconnect the consumer's service connection without prejudice for the levy of the surcharge.

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

v. Billing Demand

Billing demand will be the highest among the following:
(a) 100 kVA
(b) 75% of the Contract demand
(c) Actual Demand Established

V. Agriculture

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

i. Energy Charges

	Tariff (Ps./kWh)
For sanctioned load up to 10 HP	70
Beyond 10 HP and upto 99 HP sanctioned load	100

ii. Power Factor Charges

Any motive power connection above 3 HP running without proper capacitors installed so as to maintain Power Factor 0.90 as per the Commission's regulation 11/2010 shall be charged extra 2.5% of units consumed as additional power factor charges. Payment of the power factor charge won't exempt the consumer from his responsibility to maintain the power factor. In case of abnormal power factor decrease, the department will give the consumer 15 days' time to install appropriate capacitors and maintain the standard power factor. If the consumer is not able to rectify the problem within the notice time, the connection will be liable for disconnection. ED-DD reserves the right to install a suitable capacitor at its own cost and recover the cost thereof as arrears of energy charges. In case the monthly average power factor is less than 0.70 lagging, the installation is liable for disconnection after due notice.

VI. Public Lighting

i. Energy Charges

Usage	Tariff (Ps./kWh)
For all units	420

VII. Hoardings/Signboards

Electricity for lighting external advertisements, external hoardings and displays at departments stores, malls , multiplexes, theatres, clubs, hotels, bus shelters, Railway Stations shall be separately metered and charged at the tariff applicable for "Advertisements and Hoardings" category, except such displays which are for the purpose of indicating / displaying the name and other details of the shop, commercial premises itself. Such use of electricity shall be covered under the prevailing tariff for such shops or commercial premises. The connection for '' Advertisements and Hoardings" category would be covered under the permanent supply of connection.

Energy Charges Paise / kWh	Fixed Charge
700	Rs 100 per kVA per Month or part thereof

VIII. Temporary Supply: Tariff for Temporary Connection shall be Fixed / Demand charges (if any) plus energy charges (for relevant slab, if any) under corresponding permanent supply category plus 50% of both.

For multi activity pursuit, applicable tariff for temporary connection shall be with reference to that of non-domestic category for permanent supply.

The Temporary Tariff are applicable for temporary period of supply up to 1 (one) month, which can be extended for another period of supply up to a maximum period of 2 years.

IX. Schedule of Other Charges

a. Meter Rent

S. No.	Meter Type	Tariff (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 consumers having connected load above 50 HP will be provided with L.T.M.D meters.

b. Reconnection Charges

S. No.	Connection Type	Tariff (in Rs.)
1	Single Phase LT	Rs 50
2	Three Phase LT	Rs 100
3	HT	Rs 1000

c. Service Connection Charges

S. No.	Connection Type	Tariff (in Rs.)
1	Single Phase LT	Rs 250
2	Three Phase LT	Rs 1000
3	HT (First 500 KVA)	Rs 10000
4	HT (Beyond 500 KVA)	Rs 1000 per 100 KVA or part thereof

d. Extra Length Charge

S. No.	Connection Type	Tariff / Meter (in Rs.)
1	Single Phase	Rs 25/meter
2	Three Phase	Rs 50/meter

Extra length Chargeable will be beyond permissible 30 meters free length from existing network for new connection for all categories except Agriculture. Free length in respect of New Agriculture consumer is 300 meters.

e. Cost of HT connection

Entire Cost of setting up HT connection would be borne by the consumer and the agreement period would be two years for the category. 15% supervision charges shall be recovered by ED-DD.

f. Service connection charges for- Under Ground Lines

(a) Single phase consumers

(i) Area outside municipal limit - Full cost plus 15% supervision charges
(ii) Area within municipal limit - Rs. 150/- plus Rs. 40/- per meter beyond 30 meters

(b) Three phase consumers
(i) Area outside municipal limit - Full cost plus 15 % supervision charges
(ii) Area within municipal limit - Rs. 550/- plus Rs. 60 /- per meter beyond 30 meters

(c) In case of all the connections (both industrial and non-industrial) U/G service cable and metering system approved by the Department will have to be provided by the consumer at his own cost.

g. Testing Fee for various Metering Equipment

S. No.	Types of Metering Equipment	Fee Per Unit (in Rs.)
1	Single Phase	100
2	Three Phase	300
3	Three Phase Tri-vector Meter (0.5 Class) Industrial LT Consumer	500
4	Three Phase Tri-vector Meter (0.5 Class) 11 kV HT Consumer	500
5	Three Phase Tri-vector Meter (0.2 Class) 66KV EHT Consumers	1000
6	Combined CTPT Unit for 11 KV Consumer	500
7	66 KV CT / PT Unit	500
8	Three Phase CT Block	300
9	CT Coil	100

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

S. No.	Types of Connection	Fee Per Test Report (in Rs.)
1	Single Phase Lighting / Domestic	10
2	Three Phase Lighting /Domestic	25
3	Single Phase Lighting / Non Domestic	50
4	Three Phase Lighting / Non Domestic	100
5	Three Phase LT Industries	250
6	Single Phase / Three phase Agriculture / Streetlight / Public Lighting & others	50
7	HT Industries upto 500 KVA	1000
8	HT Industries upto 2500 KVA	5000
9	HT Industries above 2500 KVA	10000