TARIFF ORDER

ARR and Tariff Determination

for

FY 2012-13
and
Review of FY 2009-10, ARR for FY 2010-11 and FY 2011-12

for

Electricity Department, Government of Puducherry

JOINT ELECTRICITY REGULATORY COMMISSION

for the State of Goa and Union Territories

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12th June, 2012

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List of Abbreviations

A&G	:	Administration & General Expenses
Act	:	The Electricity Act, 2003
ARR	:	Aggregate Revenue Requirement
CAGR	:	Compound Annualized Growth rate
Capex	:	Capital Expenditure
CC	:	Current Consumption
CEA	:	Central Electricity Authority
CERC	:	Central Electricity Regulatory Commission
CGS	:	Central Generating Station
COD	:	Commercial Operation Date
Commission/JERC	:	Joint Electricity Regulatory Commission for the state of Goa and Union Territories
CKt. Km	:	Circuit Kilometer
CPSU	:	Central Public Sector Undertaking
D/C	:	Double Circuit
DS	:	Domestic Supply
EA 2003	:	The Electricity Act, 2003
EDP	:	Electricity Department, Puducherry
FC	:	Fixed Charges
FPPCA	:	Fuel & Power Purchase Cost Adjustment
FY	:	Financial Year
GFA	:	Gross Fixed Assets
HP	:	Horse Power
HT	:	High Tension
JERC	:	Joint Electricity Regulatory Commission for the state of Goa and union territories
KVA	:	Kilo Volt Ampere
KWh	:	Kilo Watt Hour
LT	:	Low Tension
MU	:	Million Unit
MW	:	Mega Watt
NDS	:	Non-Domestic Supply
NFA	:	Net Fixed Assets

O&M	:	Operation & Maintenance
PGCIL	:	Power Grid Corporation of India Ltd.
PLF	:	Plant Load Factor
PX	:	Power Exchange
RoE	:	Return on Equity
RPO	:	Renewable Purchase Obligation
R&M	:	Repair & Maintenance
RE	:	Revised Estimates
REA	:	Regional Energy Accounting
RLDC	:	Regional Load Dispatch Centre
SCL	:	Sanctioned Connected Load
S/C	:	Single Circuit
SLDC	:	State Load Dispatch Centre
SOP	:	Standard of Performance
SBI PLR/SBAR	:	SBI Prime Lending Rate/State Bank Advance Rate
T&D	:	Transmission & Distribution
UI	:	Unscheduled Interchange
VAR	:	Volt Ampere Reactive
VC	:	Variable Charges

Before the

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

Gurgaon

CORAM[1]

Dr. V K Garg (Chairperson)

Petition No. 60/2011

Petition No. 58/2011

In the matter of

Petition filed by Electricity Department, Puducherry for approval of Aggregate Revenue Requirement and Tariff for FY 2012-13 ……………………………………………….Petition No. 60/2011

And

In the matter of

Petition filed by Electricity Department, Puducherry for approval of Aggregate Revenue Requirement and Tariff for FY 2011-12………………………………………………..Petition No. 58/2011

And

In the matter of

Electricity Department, Puducherry …………………………………………………………………Petitioner

[1] As per section 93 of 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 due to vacancy of the position of Hon'ble Member in the Joint Electricity Regulatory Commission for the state of Goa and the UTs, the Hon'ble Chairperson is completing the Coram.

ORDER

Date: 12th June 2012

The petitions - no. 60/2011 and no. 58/2011 have been dealt with simultaneously and are being disposed of through this common order.

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 the Union Territories of India 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 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, Puducherry, Dadra and Nagar Haveli, Daman & Diu, Lakshadweep and Puducherry) started functioning with effect from August 2008. Office of the Commission is presently located in a rented building in the district town of Gurgaon, Haryana.

1.2 JERC Tariff Regulations

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

1.3 Filing of Petition by Electricity Department of Puducherry

The Electricity Department of Government of Puducherry (hereinafter referred to as "ED Puducherry" or "EDP"), a deemed licensee under section 14 of the Electricity Act 2003, is in the business of distribution and retail supply of electricity in Puducherry, Karaikal, Yanam and Mahe regions of the Union Territory of Puducherry.

ED Puducherry has filed its petition for determination of Aggregate Revenue Requirement (ARR) & Tariff for distribution and retail sale of electricity for FY 2012-13 and Review of FY 2011-12 on 21st December, 2011.

The Commission observes that the Petitioner did not file the tariff petition for FY 2010-11. On 19th October 2010, the Commission reminded the Petitioner that the ARR & tariff petition for FY 2011-12 should be filed before the Commission by November 2010. On 9th November 2010, a reminder was sent by the Commission Secretariat to the Petitioner to file the petition for FY 2011-12. On 4th January 2011, the Commission on observing that no response from the Petitioner had been received, ordered for suo moto proceedings for the determination of tariff of the Licensee under Regulation 12(2) of the JERC Tariff Regulations.

On 9th February 2011, the suo moto hearing was held. EDP confirmed that they shall file the ARR & tariff petition for FY 2011-12 by 30th June 2011. On 14th July 2011, EDP requested for extension of time for submission of the petition by 30th September 2011. The petition for determination of ARR & Tariff for distribution and retail sale of electricity for FY 2011-12 and Review of FY 2009-10 was filed before the Commission on 29th September 2011.

While the Commission was processing the petition for FY 2011-12 for its deficiencies, the petition for ARR & tariff of FY 2012-13 was filed on 21st December 2011 and thus, the Commission decided to deal with both the petitions simultaneously. Accordingly, both the petitions were clubbed for the purpose of admission hearing, public hearing, analysis etc.

1.4 Admission of Petition

A pre-admission hearing of both the petitions was conducted on 17th February 2012. The Petitioner presented the salient features of the petitions and discussed it in detail. After due scrutiny, the petitions were admitted on 17th February 2012 subject to clarifications, if any, which would be obtained from the Petitioner from time to time. The Petitioner was directed to file information as identified during the hearing. A copy of the Admission Order dated 17th February 2012 is enclosed as **Annexure 1** to this Order.

1.5 Interaction with the Petitioner

The staff of the Commission interacted regularly with the Petitioner to seek clarifications and justification on the various issues essential for the analysis of the tariff petitions. The Commission and the Petitioner also discussed key issues related to the petitions, which included power purchase cost, estimated sales and revenue, etc. A validation session was conducted with the Petitioner during which discrepancies in the petitions and additional information required by the Commission were sought.

The Petitioner submitted its replies in response to the queries raised by the Commission, which have been considered during approval of the tariff by the Commission.

Table 1: List of Correspondence with EDP

S.No.	Date	Subject
1.	15.04.2012	Queries and additional data sought by the Commission via email dated 15th April'12

S.No.	Date	Subject
2.	17.04.2012	Additional queries sought by the Commission via email dated 17th April'12
3.	18.04.2012	Reply to the queries sought by the Commission

1.6 Public hearing process

The Commission directed the Petitioner to publish the summary of the ARR and Tariff proposals in the abridged form and manner, as approved by the Commission in accordance with section 64 of the Electricity Act 2003. Accordingly, the public notice was published by the Petitioner for inviting objections/ suggestions on its petition from different stakeholders. Details of public notice are tabulated below:

Table 2: Details of public notice published by the Petitioner

S.No.	Date	Name of newspaper	Place of circulation
1.	23.02.12	The Hindu	Puducherry, Karaikal, Yanam, Mahe
2.	23.02.12	Saskhi (Telugu)	Yanam
3.	23.02.12	The Daily Thanthi (Tamil)	Puducherry, Karaikal
4.	26.02.12	Kerala Kaumudi (Malayalam)	Mahe

Besides, the Petitioner also uploaded the public notice and the petition on its website (www.electricity.puducherry.gov.in). Interested parties / stakeholders were requested to file their objections / suggestions on the petition on or before 9th March 2012. The copies of public notices are attached as **Annexure 2** to this Order.

The Commission also published a public notice in the leading newspapers providing due intimation to stakeholders, consumers, objectors and the public at large about the public hearing by the Commission that was to be held on 15th March'12 and 16th March'12 at Karaikal and Puducherry respectively, 26th March'12 at Yanam and 3rd April'12 at Mahe. For intimation of the hearing at Karaikal and Puducherry, the public notice was published in Dinakaran and Daily Thanthi newspapers on 14th March.

Table 3: Details of public notice published by the Commission

S.No.	Date	Name of newspaper	Place of circulation
1.	14.03.12, 23.03.12	Dinakaran (Tamil)	Puducherry
2.	14.03.12,	Daily Thanthi	Karaikal, Yanam

S.No.	Date	Name of newspaper	Place of circulation
	23.03.12		
3.	23.03.12	Mathrabhumi (Tamil)	Mahe
4.	23.03.12	Andhra Jyoti (Telugu)	Kakinada, Yanam
5.	23.03.12	Vijaybhanu (Telugu)	Kakinada, Yanam
6.	23.03.12	New Indian Express (English)	Kozhikode
7.	23.03.12	The Hindu (English)	Mahe, Kozhikode
8.	24.03.12	Malayalam Manorama (Malayalam)	Mahe

The copies of public notices published by the Commission for intimation of public hearing are attached as **Annexure 3** to this Order. The public notices were also published in the newspapers on 26th March'12 and 3rd April'12 for intimation of the hearing at Yanam and Mahe.

The public hearings were held on the following dates:

15th March'12 – Karaikal
16th March'12- Puducherry
26th March'12- Yanam and
3rd April'12 - Mahe

During the public hearing, objectors were provided an opportunity to present their views on the petitions filed by the Petitioner. All those present in the hearing, irrespective of whether they had submitted a written objection or not, were given an opportunity to express their views. The Commission ascertained from the stakeholders during the hearing process that they had received replies to their written objections. Those stakeholders who did not give any prior written objections/suggestions & expressed their views, objections, suggestions during the hearing were replied verbally by the Petitioner during the hearing itself. The list of objectors is attached as **Annexure 4** to this Order. The list includes the objectors who provided their written objections; those who provided their written objections & presented them before the Commission; and objectors who did not provide any written objection or prior intimation.

The issues and concerns voiced by the stakeholders have been examined by the Commission. The major issues discussed during the public hearing, and the Commission's views on the same have been summarized in Chapter 4 of this Order.

2. Summary of the ARR and Tariff Petitions for FY 2011-12 and FY 2012-13

2.1 Introduction

ED Puducherry had filed its first petition for determination of ARR and Tariff for FY 2009-10 to the Commission on 5th October 2009 post which the Commission issued the Tariff Order on 5th February 2010 and the new tariffs were made effective two weeks thereafter.

Further, ED Puducherry filed its petition for determination of ARR & Tariff for distribution and retail sale of electricity for FY 2011-12 and Review of FY 2009-10 on 29th September 2011. By the time the tariff order could be issued for the said petition, the ARR and tariff petition for FY 2012-13 was filed along-with the review for FY 2011-12 on 21st December 2011. Accordingly, the Commission decided to accept the petition for FY 2011-12 and review of FY 2009-10 along-with the ARR and tariff determination for FY 2012-13. The petition was admitted on 17th February 2012, and in its order on admission, the Commission stated that the ARR and tariff for FY 2011-12 and review for FY 2009-10 would be carried out, as part of the Tariff Order for FY 2012-13.

2.2 Summary of the Petition for ARR & Tariff for FY 2012-13 and Review for FY 2011-12

ED Puducherry has submitted the following information pertaining to FY 2011-12 (based on unaudited accounts for the first half of the financial year) and FY 2012-13:

Table 4: Summary of the petition for ARR & tariff for FY 2012-13 and Review of FY 2011-12

Particulars	FY 2011-12 (Rs.Cr.)	FY 2012-13 (Rs.Cr.)
Cost of power purchase	997.30	997.80
Employee Costs	52.55	54.79
A&G expenses	3.92	3.91
R&M Expenses	10.34	10.77
Depreciation	25.07	33.04
Advance against Depreciation	-	-
Interest & Finance Charges	1.95	1.88
Interest on Working Capital	10.40	10.50
Provision for bad debts	-	-
Return on NFA/Equity @ 3% of NFA	12.27	14.11
Amortisation of regulatory asset proposed for previous years		57.8
ARR	**1,113.80**	**1,184.60**
Less Non tariff Income	147.10	141.05

Particulars	FY 2011-12 (Rs.Cr.)	FY 2012-13 (Rs.Cr.)
Net revenue requirement	**966.70**	**1,043.55**
Revenue from tariff	650.20	675.90
Revenue from FCA	46.40	
Revenue Gap	**270.10**	**367.65**
Revenue Gap from previous years	172.80	385.10
Cumulative Revenue Gap	**442.90**	**752.75**

Particulars	FY 2011-12	FY 2012-13
Sales (MU)	**2,317.53**	**2,414.53**
Average Cost of Supply (Rs/kWh)	**4.17**	**4.32**

In the petition, ED Puducherry has made the following prayers:

(i) Admit this petition for approval of Aggregate Revenue Requirement (ARR), Expected Revenue from Charges and revision of Tariffs

(ii) Review the actual performance of FY 2011-12, and provisionally approve the Aggregate Revenue Requirement (ARR), Expected Revenue from Charges and the gap for FY 2011-12 based on half year accounts prepared by the EDP, and projections, subject to final approval on the basis of true-up based on audited accounts

(iii) Provisionally approve the consolidated gap upto end of FY 2011-12 based on accounts prepared by the EDP, and projections, subject to final approval on the basis of true-up based on audited accounts

(iv) Approve the Aggregate Revenue Requirement (ARR), Expected Revenue from Charges and the gap for FY 2012-13

(v) Approve the proposed revision in tariff to recover the gap for FY 2012-13 and the tariff schedule

(vi) Create a regulatory asset for the consolidated gap upto end of FY 2011-12

(vii) Approve the amortization of part of the proposed regulatory asset as indicated in (vi) above to the tune of Rs. 57.8 Cr in this tariff petition.

(viii) Grant approval for the proposed charges for services

(ix) Grant any other relief as the Hon'ble Commission may consider appropriate. The Petitioner craves leave of the Hon'ble Commission to allow further submission, addition and alteration to this petition as may be necessary from time to time

(x) To pass any other Order as the Hon'ble Commission may deem fit and appropriate under the circumstances of the case and in the interest of justice.

2.3 Summary of the Petition for ARR & Tariff for FY 2011-12 and Review for FY 2009-10

The estimates for FY 2011-12 and the revised estimates for FY 2009-10 (based on the unaudited accounts) are as follows:

Table 5: Summary of the petition for ARR & tariff for FY 2011-12 and Review of FY 2009-10

Particulars	Revised ARR for FY 2009-10 (Rs Cr)	ARR for FY 2011-12 (Rs Cr)
Cost of power purchase	588.1	975.5
Employee Costs	47.5	52.6
A&G expenses	3.2	3.9
R&M Expenses	9.6	10.3
Depreciation	19.9	25.1
Advance against Depreciation	-	-
Interest & Finance Charges	1.4	2.0
Interest on Working Capital	6.6	10.2
Provision for bad debts	-	-
Return on NFA/Equity @ 3% of NFA	10	12.2
Amortisation of regulatory asset proposed for previous years	-	
ARR	**686.2**	**1,091.7**
Less Non tariff Income	59.5	143.2
Net revenue requirement	**626.7**	**948.4**
Revenue from tariff	558.5	646.4
Revenue from FCA		46.4
Revenue Gap	**68.2**	**255.6**
Gap from previous years	-	172.8
Cumulative Gap	**68.2**	**428.4**

Particulars	Revised Estimates FY 2009-10	FY 2011-12
Sales (MU)	**2161.3**	**2309.8**
Average Cost of Supply (Rs/kWh)	**2.90**	**4.11**

In this petition, ED Puducherry has prayed to the Commission:

i) Admit this petition for approval of Aggregate Revenue Requirement (ARR), Expected Revenue from Charges and revision of Tariffs

ii) Review the actual performance of FY 2009-10, and provisionally approve the Aggregate Revenue Requirement (ARR), Expected Revenue from Charges (ERC) and the gap for FY 2009-10 based on accounts prepared by the EDP, subject to final approval on the basis of true-up based on audited accounts

iii) Provisionally approve the consolidated gap upto the end of FY 2010-11 based on accounts prepared by the EDP, subject to final approval on the basis of true-up based on audited accounts

iv) Approve the Aggregate Revenue Requirement (ARR), Expected Revenue from Charges (ERC) and the gap for FY 2011-12

v) Approve the proposed revision in tariff for FY 2011-12

vi) Create a regulatory asset for the consolidated gap upto end of FY 2010-11

vii) Grant any other relief as the Hon'ble Commission may consider appropriate. The Petitioner craves leave of the Hon'ble Commission to allow further submission, addition and alteration to this petition as may be necessary from time to time

viii) To pass any other Order as the Hon'ble Commission may deem fit and appropriate under the circumstances of the case and in the interest of justice

3. Approach of the Order

3.1 Introduction

The Commission has dealt with the petitions in accordance with JERC Tariff Regulations. The Commission had set out certain directions in the Tariff Order dated 5th February 2010 for FY 2009-10 (hereinafter referred to as "Tariff Order FY 2009-10") to get the accounts prepared on commercial principles and get those audited. It is observed that the audited accounts have still not been furnished by ED Puducherry along with the petitions for FY 2011-12 and FY 2012-13. The Commission has taken note that ED, Puducherry has prepared the opening balance sheet as on 1st April, 2009, annual financial statements for the financial years 2009-10 and 2010-11 and fixed assets statement with the advice and assistance of a professional firm and is also in the process of selection of an auditor-EDP has submitted that an auditor would soon be in place and the audited accounts would be furnished as soon as the selected firm audits the same. The Commission has considered the petition with un-audited accounts for FY 2009-10, FY 2010-11 and FY 2011-12 (first half of FY 2011-12), and un-audited accounting data forms the basis of projection for FY 2012-13.

3.2 Approach for Review of ARR for FY 2009-10 and ARR for FY 2011-12[2]

The Petitioner in the petition for FY 2012-13 has requested for a review of FY 2011-12. The earlier submitted petition for ARR and tariff revision for FY 2011-12 included review of FY 2009-10. Regulation No. 8 of JERC Tariff Regulations, which sets out the basis and approach for such reviews, is reproduced below:

'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'.

[2] Also, refer to para 3.3 of this Order

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.

In line with the above, the Commission has reviewed the variations between approvals and revised estimates/pre-actuals of sale of electricity, income and expenditure for FY 2009-10 and FY 2011-12 submitted by the Petitioner and permitted necessary adjustments/ changes in cases where variations are for reasonable and justifiable reasons. The detailed analysis & treatment of each component is provided in Chapter 5 and Chapter 7 (Review for FY 2009-10 and ARR for FY 2011-12 respectively) of this Order.

At this stage, the Commission has noted that ED Puducherry did not submit any petition for ARR and tariff determination for FY 2010-11. The Commission has discussed this issue in Chapter 6 of this order.

It may be mentioned that the exercise undertaken for FY 2011-12 does not strictly amount to 'review' as no approval of ARR was given by the Commission for the reasons explained in para 1.3 of this order. Thus, this exercise amounts to approval of ARR for FY 2011-12 based on the revised estimates submitted on the basis of actual data for six months of FY 2011-12. Since this also takes care of 'review' exercise in terms of the regulations, no further review of FY 2011-12 shall be undertaken.

<u>Hon'ble APTEL Order dated 27.04.2012 and compliance thereof</u>

The Commission observes that the determination of fuel surcharge adjustment for the period from April 2010 to October 2010 amounting to Rs. 46.40 Cr has been set aside by the Hon'ble APTEL vide its order dated 27.04.2012 in Appeal No. 187/2011 and 6/2012 in the cases of M/s Chemplast Sanmar Limited and M/s Chemfab Alkalies Limited holding infirmity in the process of determination of fuel surcharge and directed the Commission to undertake an exercise afresh to determine fuel surcharge, if any, after following the procedure as per law.

The Commission in compliance of the aforesaid Hon'ble APTEL order has already commenced an exercise afresh for redetermination of fuel surcharge. Public hearing on the same has been already scheduled on 19.06.2012 & 20.6.2012 at Karaikal & Puducherry respectively. Meanwhile, the Commission has also devised a new formula, uploaded on the Commission's website, issued public notice through newspaper and has invited suggestions/comments from all stakeholders. The Commission has also conducted Public Hearings and is in the process of finalizing the revised Fuel & Power purchase cost adjustment formula, which shall be applicable prospectively i.e. from FY 2012-13 onwards.

The Commission is of the view that non-consideration of Rs. 46.40 Cr against the fuel surcharge for FY 2010-11 billed/collected in FY 2011-12 would result in additional unbearable burden on the consumers in FY 2012-13.Therefore, the Commission is of the view that the fuel surcharge charges amounting to Rs. 46.40 Cr as submitted by the petitioner prior to the Hon'ble APTEL order dated 27.04.2012 should be considered at this stage , pending outcome of the re-determination of fuel surcharge afresh. Thus, the Rs 46.40 Cr has been considered as part of the revenue for FY 2011-12.

3.3 Approach for Determination of ARR & Tariff for FY 2012-13

JERC Tariff Regulations form the primary basis for determination of ARR and Tariff for FY 2012-13, and accordingly various components of the ARR such as sales forecast, energy balance, power purchase cost, etc have been analyzed in line with these regulations. The Commission has considered the approved figures of FY 2009-10 (subject to review in this order), approved figures of FY 2010-11 and pre-actuals of FY 2011-12 to assess the projected ARR for FY 2012-13. The detailed analysis & treatment of each component is provided in Chapter 8 of this Order. The compliance of the APTEL Order dated 27.04.2012 is as discussed in para 3.2.

4. Summary of Objections received, EDP's Responses and Commission's views

4.1 General Issues & Comments

4.1.1 Stakeholders' Objections/ Comments

The general issues raised by the public during the hearings (complete list in **Annexure 4**) are summarized below:

1. Outstanding arrears to be recovered from the various categories of consumers
2. The stakeholders suggested that the utility should cut cost by adopting IT services and overall improving upon the billing and collection system.
3. Replacement of defective meters is not being undertaken by the utility resulting in high revenue losses. Further, replacement of electromechanical meters by electronic meters should be taken up seriously so as to reduce the energy losses.
4. Purchase of low quality materials by the utility
5. General deficiency in service and poor response to consumers' complaints
6. Metering of unmetered connections
7. Huge amount of theft of electricity in industries
8. High level of line losses
9. Switching time of street lights

Petitioner's submission:

1. EDP submitted that it has set up an Arrear Liquidation Committee under the Financial Controller, which is looking into the matter, and the process of reconciling the receivables from sundry debtors is under process. Once it is completed, it shall be subject to a third party audit and submitted to the Hon'ble Commission. EDP submitted that it has already finalised the appointment of the third party auditors and the process is to be completed in the next three months. It further added that it has not claimed any provision for bad debt and doubtful debts for passing through the tariff in FY 2012-13.

   EDP also highlighted that as a result of its sincere efforts, a major part of the arrears due to Government departments and local bodies have been realised through special budget allocations. Further, efforts are continuing to recover all the outstanding arrears from various consumers through regular disconnections.

2. EDP submitted that IT consultants have been appointed under the Restructured Accelerated Power Development and Reforms Programme (R-APDRP) scheme of the GoI for improving the billing and collection system by installing new hardware and software. On full implementation of the above scheme, the billing and collection would be largely improved and the deficiency in complaint handling system would also be eradicated.
3. EDP submitted that they have already initiated replacement of defective meters on continuous basis.
4. EDP submitted that certain street lights are purchased through DGS &D (Central Government stores); however action is being undertaken to ensure further quality in the procured materials.
5. EDP submitted that to improve the complaint handling system, detailed guidelines on complaint handling procedures and list of designated officers to perform the task entrusted to them have been prepared and those shall be put in a place within a month. Once this mechanism is established, arrangements would be made to publish the SOP in the newspaper, as directed by the Hon'ble Commission. Also, EDP would soon open 24x7 call centres under the R-APDRP scheme to have prompt response for the public complaints.
6. EDP submitted that metering of un-metered connections would be completed by FY2013-14, and it highlighted that the same has already been committed to the Commission.
7. EDP submitted that it is making concerted efforts to curb theft of energy in industrial units. Frequent surprise inspections are carried out by anti–theft squad and HT /LT metering sections. Energy accounting of dedicated feeders is being undertaken by the Executive Engineers (O & M) to ensure that theft of energy is avoided in high end consumer categories.
8. New schemes are proposed under R-APDRP to reduce the line losses as well as to improve revenue collection. Inspections are also being carried out to check theft/misuse of energy.
9. Instructions have been issued to all field officers concerned to ensure that the street lights are switched on & off properly.

Commission's views:

The Commission underscores that redressal of consumers' complaints and grievances is an important function and responsibility of the distribution licensee, therefore EDP must pay due attention to it. The Commission has put in place an appropriate mechanism for redressal of consumer grievances. Consumer Grievance Redressal Forums (CGRF) are functioning at various levels. Besides that, a full-time Ombudsman is also functional at the JERC office. EDP need to give due publicity to the said Forum and its redressal mechanism so that general public is made aware of the same. EDP should work towards the goal of greater consumer satisfaction, adopt a pro-active approach and settle consumers' complaints in a professional, time bound manner and should make themselves available whenever need be.

The Commission directs EDP to consider the the extension of collection time period so that the public could remit the bills during outside working hours. Also, EDP should chalk out a plan to identify defective meters area-wise and replace the same expeditiously.

The Commission also directs EDP that they should take energy audit more seriously as it is the basis of assessment of present loss level and setting out a loss reduction trajectory. The Petitioner should furnish segregation of losses into transmission and distribution losses in the first place and further segregate distribution losses into technical and commercial losses in their next petition along with a status report on energy audit and accounting

The Commission further directs EDP to create awareness among the consumers on the standards of performance notified by the Commission, and directs the Department to make arrangements to publish the Standard of Performance/Salient features of Supply Code and Distribution Code in all leading newspapers and in the local vernacular.

4.2 ARR Related

4.2.1 Hike in R&M and Employee Costs

Stakeholders Objections/Comments:

The main issue raised is the proposed hike in the R&M and employee costs sought by the Petitioner.

Petitioner's submission:

The Petitioner submitted that the reason for the increase is mainly due to the increases in maintenance necessitated in some of the EHV substations of the EDP, periodic maintenances of EDP owned buildings, increase in the maintenance costs of streetlights etc. The level of expenditure in the past has also been constrained by the availability of budget. Also, the employee costs have increased by 8%, necessitated on account of salary revisions for the ensuing year.

Commission's views:

The Commission has considered the R&M and employee costs in line with JERC Tariff Regulations. Detailed analysis is given in the chapters on Review of FY 2009-10 and ARR for FY 2010-11, ARR for FY 2011-12 and ARR for FY 2012-13 of this Order.

4.2.2 High Interest on Working Capital

Stakeholders Objections/Comments:

Stakeholders objected the high interest on working capital being claimed by the Petitioner. One of the objectors at Mahe submitted that the Petitioner is claiming an amount of Rs 12.40 Cr as interest on working capital, which is very high.

Petitioner's submission:

EDP submitted that the interest on working capital has been claimed as per the provisions of JERC Tariff Regulations at the prevailing SBI Prime Lending Rate @ 11.75% and amounts to Rs.10.45 Cr for FY 2012-13 and not Rs 12.40 Cr as claimed by the objector.

Commission's views:

The Commission appreciates the concern of the stakeholder and has noted the submissions made by the Petitioner. The Commission maintains as with other components of the ARR, interest on working capital too would be determined in accordance with the JERC Tariff Regulations.

4.2.3 High profit margin at the cost of consumers and poor service

Stakeholders Objections/Comments:

The main issue raised is that the utility is enjoying a higher profit margin despite poor service to the consumers and grievances remaining unaddressed.

Petitioner's submission:

EDP submitted that it has claimed a reasonable return @ 3% on its capital base, amounting to Rs. 14.11 Cr, as provided for in Regulation 23 of the JERC Tariff Regulations. Hence, the contention of high profit margin is unreasonable.

Commission's views:

The Commission reiterates that all elements of the ARR including the reasonable return would be determined in accordance with JERC Tariff Regulations. As regards consumer grievances, the same has been dealt with in para 4.1.1 above.

4.2.4 Provision for Bad Debts and defaulters in payments

Stakeholders Objections/Comments:

The main issue raised by the stakeholders is that the licensee has included a provision for bad debts on account of nonpayment of dues which is being unjustifiably passed on to the consumers through higher tariff.

Petitioner's submission:

EDP submitted that the cost as per the tariff petition filed by EDP does not include any write off on account of bad debt and hence the objection made is not valid. Revenue is accounted on the basis of sales and bills raised for these sales. As and when any claim is made on account of bad debt, it will be supported with adequate justification, and it is upto the Hon'ble Commission's prudence check to approve the write-off. In the context of defaulters, EDP further submitted that they have made sincere efforts in reducing the default amount from both Govt. and Pvt. Organizations.

Commission's views:

The Commission has taken cognizance of the Petitioner's submission and notes that since the Petitioner has actually not written off any bad and doubtful debts in the past, no provision for bad and doubtful debts is being considered in the ARR. However, if the Petitioner actually writes off any bad and doubtful debt, the same shall be considered at the true-up stage based on the regulations.

4.2.5 Revenue from outside sales/UI sales

Stakeholders Objections/Comments:

The main issue raised is that the utility is earning revenue from UI sales at higher per unit cost by resorting to load shedding and also at the cost of service to the common man.

Petitioner's submission:

EDP clarified that sale to common pool consumers/UI is the prescribed head as per the tariff order issued by JERC. It further submitted that the UI sale or purchase happens when deviation happens from declared schedule at EDP periphery. Variance happens when drawl is higher than schedule (UI purchase) or drawal is less than schedule (UI sale). Load shedding was done earlier only when adequate capacity was not available to meet peak demand, and system frequency constraints as well as commercial implication of overdrawl demanded it. EDP has never dropped load to realize UI sale, as the EDP's primary focus and endeavor is to provide uninterrupted power supply to all consumers in its licensed area.

Further, any revenue from UI sale is accounted as non-tariff income, which is deducted from the gross ARR to arrive at net ARR, which is the basis for average CoS and tariff setting. Any reduction in non-tariff income will lead to higher CoS and therefore, tariffs.

Commission's views:

The Commission has taken a note of the concern stated by the stakeholders regarding sale to common pool consumers/UI and submission made by the Petitioner. The same has been dealt in the appropriate sections of this order.

4.3 Tariff Related

4.3.1 General Comments

Stakeholders Objections/Comments:

The main issues raised by the public in their written submissions and during the hearings in brief are as under:

1. The overall tariff hike proposed for recovery of the revenue gap is high
2. Steep increase in the tariff for Domestic and Commercial consumers
3. Tariff rationalisation for the HT consumers
4. Tariff for agriculture not to be increased; OHOB consumers should be supplied free power
5. Some of the stakeholders requested to grant some specific subsidy in power rates on the pattern of neighboring states to rural consumers.
6. Recovery of charges for extension of supply

Petitioner's submission:

1. EDP submitted that its major expenses related to the cost of power purchase which is beyond its control.
2. EDP submitted that the per unit cost of supply arrived at from the ARR for FY 2012-13 is Rs. 4.32/kWh, which includes expenditure primarily on purchase of power, operational and maintenance expenses, return on equity and depreciation.

   As per Section 8.3 (2) of National Tariff Policy, which lays down the principles for tariff design, for achieving the objective that the tariff progressively reflects the cost of supply of electricity, tariffs shall be within ± 20% of the average cost of supply. For example, if the average cost of service is Rs.3 per unit, at the end of year, the tariff for the cross subsidized categories should not be lower than Rs. 2.40 per unit and that for any of the cross subsidizing categories should not go beyond Rs.3.60 per unit. Accordingly, the Cost of Supply of electricity being projected as Rs. 4.32 per unit at the end of the financial year 2012-13, the tariff for the cross subsidized categories cannot be fixed lower than Rs. 3.45 per unit and that for any of the cross subsidizing categories should not go beyond Rs.5.18 per unit.

The average cost of supply to be recovered from Domestic consumers works out to be Rs. 3.41/unit. The percentage recovery being only 79%. Similarly, the cost of supply of electricity to be recovered from commercial consumers works out to Rs 5.14 /unit, the percentage recovery being 119 % which is within the +/- 20% band of the average cost of supply.

3. EDP submitted that the average CoS is Rs. 4.32/kWh for FY13, whereas the average realisation from HT1 category has been set at 112%, even though policy allows recovery upto 120% of average CoS. This lower level of cross subsidization has been made considering the importance of industries to the state economy and the beneficial nature of the consumption of industries to the system. The tariff proposal is in compliance with the 20% limit as per the NTP.
4. EDP submitted that tariff has been set within the +/- 20% of average CoS, with the exception of the agriculture category. The Petitioner duly realizes that most farmers in the licensee area are poor and would not like to unduly burden them.
5. EDP submitted that there is no such provision of giving subsidy in power tariff to any consumer in the approved tariff rates by JERC. Only the government has the power to decide the quantum of subsidy and the category of consumers to be subsidized.
6. EDP submitted that the recovery of charges from prospective consumers for extension of power supply is being done as per JERC (Electric Supply Code) Regulations, 2010.

Commission's views:

The Commission has noted the suggestions of stakeholders and the clarifications furnished by the Petitioner, and it has dealt with the same in the appropriate sections of this Order.

4.3.2 Tariff for Puducherry to be based on cost of power from TNEB alone

Stakeholders Objections/Comments

The stakeholders have objected that a common tariff is being levied to the people of Puducherry rather it should be based on the grounds that the major chunk of the ARR i.e power purchase cost is being procured from TNEB for Puducherry.

Petitioner's submission:

EDP submitted that the ARR & ERC has been filed based on the total costs & revenue from electricity operations for the entire licensed area. This cannot be split merely on the basis of the fact that the licensed area is non-contiguous. For that matter, even the Puducherry geographical area is non-contiguous. The Petitioner also submitted that the availability of power from TNEB is 395 MU whereas Puducherry is the largest geographical area and load centre for EDP. Sale in Puducherry region cannot be met from 395 MU of availability alone.

Commission's views:

The Commission finds the submission of the Petitioner satisfactory. Considering the ground realities, different tariff for different regions would be an elaborate exercise and the data requirements for the same would be huge. The Commission would, therefore, like to continue with the present system for the time being.

4.3.3 Retrospective tariff increase

Stakeholders Objections/Comments

The stakeholders have objected the retrospective tariff increase.

Petitioner's submission:

Tariff increase is sought for ensuing year i.e. FY 2011-12 and FY 2012-13 as per the respective petitions.

Commission's views:

The Commission has taken due cognizance of the objections of the stakeholders. The Commission has made a prudent level of assessment of the revenue gap of the different years. The same has been dealt with in detail in Chapter 9 of this Order.

5. Review of ARR for FY 2009-10

5.1 Background

JERC Tariff Regulations provide for a review of the previous tariff order along with the next tariff order. Regulation 8 of JERC Tariff Regulations stipulate that such review would be carried out again in the nature of 'true-up' once the actual figures as per the audited accounts for the relevant year become available. Accordingly, any variation between the actuals and approved values would be taken care of at the time of true-up after prudence check.

The Commission had approved the ARR for FY 2009-10 along-with the determination of tariff as part of the Tariff Order FY 2009-10. The Petitioner had submitted its application for Review of FY 2009-10 along with ARR & Tariff Petition for FY 2011-12 on 29th September 2011. As decided by the admission order for the ARR & Tariff Petition for FY 2012-13 dated 17th February 2012, the ARR & Tariff Petition for FY 2011-12 would be taken up for consideration as part of the ARR & Tariff Petition for FY 2012-13 and accordingly the review for the year FY 2009-10 has been dealt with in this Order.

5.2 Review and Analysis of Performance for FY 2009-10

The review of performance requires assessment of quantum of energy sales and energy losses, and assessment of various cost elements viz. power purchase cost, O&M expenses, interest cost and depreciation, etc. The Commission has taken into consideration the following for Review of FY 2009-10:

i. Actual Performance in FY 2009-10 (actual un-audited[3] figures);

ii. Approved figures per Tariff Order FY 2009-10

iii. Estimates submitted by the Petitioner at the time of filing the original petition for FY 2009-10

[3] Audited Accounts for FY 2009-10 till the date of issuance of the Order have not been prepared by the Petitioner

5.3 Consumers, Connected Load and Energy Sales

Petitioner's Submission

The Petitioner has submitted actual sales for FY 2009-10 at 2161.2 MU against the earlier approved value of 2101 MU as per the Tariff Order FY 2009-10. The Petitioner submits that the value for the actual sales are based on the data collected from the 6 O&M divisions and their associated revenue departments, which performs the commercial functions of the EDP. The bulk of the increase in the total sales is on account of increased sales to domestic, agriculture and the government establishments. However, there has been a decrease in the sales compared to the approved levels by the commercial, LT industrial and HT industrial categories.

In line with the reservations expressed by the Commission in Tariff Order FY 2009-10, this time the Petitioner has conducted a physical verification of agriculture consumers and estimated sales on the basis of the following formula:

Sales = Connected Load (HP) * 0.746 * hours of operation per day (8) * no. of days of operation (270) * power factor (0.8)

The results of the physical verification exercise of agriculture consumers are as follows:

Table 6: Results of the physical verification exercise for agriculture category carried out by the Petitioner

Region	No. of consumers	Connected Load (HP)
Puducherry	6218	55, 385
Karaikal	556	3954
Yanam	35	190
Mahe	1	10
TOTAL	**6810**	**59538**

Based on this method of estimation, the sale to agricultural consumers is 76.7 MU, which is an increase of 28.7 MU over the approved sales of 48 MU to this category.

The Petitioner has requested to accept the results of the verification exercise and approve the total sales for the year at 2161.2 MU based on the actual metered sales and assessed sales to the unmetered consumers.

The Petitioner has also submitted the total no. of consumers for the year as 371,100 and the load for the LT agriculture category as 59538 HP and for the HT consumers as 402,348 kVA for FY 2009-10.

Commission's Analysis

Agriculture Category

The Petitioner has indicated that they have carried out physical verification of the actual number of agriculture consumers and load of pump set used by them. It is however seen that no assessment has been done of actual consumption by installing sample meters at different locations thereby capturing actual data which could then be used to arrive at the normative consumption of unmetered agriculture consumes. If that were done, it would have given a fair assessment of actual consumption of unmetered consumers and provided more accurate basis for the purpose of energy accounting and billing. The formula given by the Petitioner is entirely based on various assumptions and therefore does not give a reliable basis for acceptance.

The Petitioner has also indicated that the basis adopted by him is followed as in the nearby states as well. In this regard, the Commission took into account the tariff order dated 30.03.2012 passed by Tamil Nadu Electricity Regulatory Commission (TNERC) and found that consumption of un-metered agriculture consumers has been assessed at 896.08units/HP/year for 2010-11 and 951.1units/HP/year for FY2011-12 and FY 2012-13. These normative values have been arrived at by TNERC after conducting actual field studies and capturing actual consumption through installation of large number of representative meters. Thus the finding so arrived by TNERC provides a more accurate and reliable basis than the one arrived merely on the basis of various assumptions as done by the Petitioner. Since a major area of the UT of Puducherry is adjoint to Tamil Nadu state, the consumption pattern of agriculture consumers of Puducherry is not likely by to be very much different than that in Tamil Nadu. The Commission, therefore, is of the view that it would be proper and in overall interest of all stakeholders that the consumption assessed by TNERC for unmetered agriculture consumers is taken as the basis for assessing consumption of un-metered agriculture consumers in UT of Puducherry also. Accordingly, the energy supplied to this category of consumers has been arrived at by multiplying the normative consumption in kWh/HP/year with the total load in HP of the pump sets as provided by the Petitioner in the petition. The consumption norm of 896.08 units/HP/year of FY 2010-11 has been considered to be reasonable for assessing the consumption of FY 2009-10.

The Commission considers approved the agricultural sales at 53.35 MU.

OHOB consumption

As mentioned by the Petitioner, consumers under One Hut One Bulb (OHOB) category are allowed use of two 40W fluoresecent tubelights . Considering this as the basis, consumption of each consumer under OHOB category works out to be 175.2 (2x40x6x365 /1000) kWh per consumer per year taking average usage of 6 hrs per day which is considered adequate in rural areas.

The Petitioner has claimed consumption of 14.1 MUs for 41200 consumers in OHOB category, thereby giving an average consumption of 342.23 units/consumer/year which is almost twice as much as fairly assessed by the Commission. The Petitioner has not furnished any basis for arriving at the consumption assessed for such unmetered consumption.

The Commission, therefore, adopts the assessed consumption of 175.2 unit/year/ consumer arrived by the Commission as explained above. On the basis of this, the Commission approves the sales for the OHOB consumers at 7.22 MU.

Metered Sales

Metered sales being an uncontrollable factor are approved in entirety.

The Commission, therefore, approves sales of 2130.9 MUs for FY 2009-10.

The table below shows consumer category-wise sales as submitted and approved by the Commission. The OHOB sales have been clubbed within the category of 'Domestic' in the below table.

Table 7: Energy Sales approved by the Commission for review of FY 2009-10

Consumer Category	Proposed in FY 10 petition	Approved in TO 2009-10	Actuals (unaudited accounts)	Approved (Review)
	MU	MU	MU	MU
Domestic	475.3	467.0	513.2	506.3
Commercial	160.1	159.0	149.8	149.8
Agriculture	81.6	48.0	76.7	53.3
Street Lighting	17.8	18.0	16.9	16.9
LT Industrial	146.9	148.0	147.0	147.0
Temporary Supply	-	-	3.0	3.0

Consumer Category	Proposed in FY 10 petition	Approved in TO 2009-10	Actuals (unaudited accounts)	Approved (Review)
HT Industrial	1071.4	974.0	958.2	958.2
HT state and Central Govt Establishments	27.4	27.0	34.3	34.3
HT Industrial Extra High Tension	286.4	260.0	262.1	262.1
Total	**2266.9**	**2101.0**	**2161.2**	**2130.9**

5.4 Energy Losses

Petitioner's Submission

The Petitioner had proposed to achieve a T&D loss level of 14% based on the projected sales of 2267 MU and energy input of 2636 MU in the petition for FY 2009-10. The Commission in the tariff order for 2009-10 had approved T&D loss level of 14% based on the submission of the Petitioner, considering the energy sales of 2101 MU and energy input of 2443 MU.

The Petitioner submits that the actual sale for FY 2009-10 has been 2161 MU with a net energy input of 2525.7 MU to meet requirement within the territory leading to T&D loss of 14.43%. The Petitioner submits that the increase in the total quantum of sales and the adverse change in the sales mix in terms of ratio of sales to LT and HT consumers have resulted in a higher quantum of T&D losses.

Commission's analysis

The Commission in Tariff Order FY 2009-10 had approved T&D losses at 14% based on the estimates submitted by the Petitioner. The Commission had also issued direction to further reduce the T&D losses, conduct an energy audit and take steps to reduce the technical losses and control pilferage of energy. However, adequate steps in this direction have not been taken up resulting in higher T&D losses.

The Commission considers the T&D loss of 14% as approved in the Tariff Order FY 2009-10 as reasonable and approves the same for review of FY 2009-10.

Table 8: Energy losses approved by the Commission for review of FY 2009-10

Particulars	Proposed in FY 2009- 10 petition	Approved in TO 2009-10	Actuals (unaudited accounts)	Approved (Review)
Energy Losses	14%	14%	14.43%	14%

5.5 Energy Balance

Petitioner's submission

The Commission in Tariff Order FY 2009-10 had approved an energy requirement of 2443 MU based on the approved sales of 2101 MU and internal losses of 14%. The aggregate power purchase approved was 2706.2 MU based on the estimated energy availability from different generating stations and the allocated share of EDP in those stations. Further, considering the external loss level of 98.2 MU, the net energy availability was approved at 2607.92 MU. The difference between the net energy availability and the energy requirement for the territory was considered as the UI sales at 164.92 MU.

The Petitioner submits that due to higher sales and marginally higher internal losses, the actual energy requirement for the territory has been 2526 MU. The actual power purchase has been 2786 MU and due to marginally higher external losses, the actual availability at the periphery has been 2681 MU, against 2607.9 MU approved by the Commission. Based on the actuals, the UI sales have been 155.3 MU.

The Petitioner requests to consider the actuals and approve the same.

Commission's analysis

The Commission has approved the sales as explained above at 2130.97 MU, and approved the internal loss of 14% resulting in a net energy requirement of 2477.87 MU for the territory.

The Commission has allowed the sales outside the state/UI sales at 155.29 MU resulting in the net energy requirement at the periphery of 2633.16 MU.

Assuming the external losses to be reasonable, the gross energy purchase approved by the Commission is 2738.56 MU.

The table below captures the values as submitted by the Petitioner and approved by the Commission as part of the review for FY 2009-10.

Table 9: Energy Balance approved by the Commission for review of FY 2009-10

Consumer Category	Proposed in FY 10 petition	Approved in TO 2009-10	Actuals (unaudited accounts)	Approved (Review)
ENERGY REQUIREMENT				
Energy sales in the UT (MU)	2267.00	2101.00	2161.30	2130.97
Distribution losses (%)	14%	14%	14.43%	14%
Energy required for sale in the UT (MU)	2636.05	2443.02	2525.77	2477.87
Add: Sales to common pool consumers/ UI (MU)	-	164.92	155.29	155.29
Energy Requirement @ periphery (MU)	**2636.05**	**2608.00**	**2681.06**	**2633.16**
ENERGY AVAILABILITY				
Gross Energy Availability	**2756.00**	**2706.20**	**2786.40**	**2738.56**
External losses (MU)	120.00	98.20	105.40	105.40
Net Energy Availability (MU)	**2636.00**	**2608.00**	**2681.00**	**2633.16**

5.6 Power Purchase Quantum and Cost

Petitioner's submission

The Petitioner submits that due to higher sales and marginally higher energy losses of 14.43 %, the actual energy requirement at the periphery has been 2526 MU. The actual power purchase has been 2786 MU and due to marginally higher external losses, the actual availability at the periphery has been 2681 MU.

The aggregate power purchase quantum approved was 2706.2 MU based on the estimated availability of the share of EDP from different stations and other sources in the tariff order for FY 2009-10. The power purchase cost approved by the Commission was Rs 576.8 Cr based on the actual power purchase cost during the first half of the year.

The Petitioner submits that the total billed amount for FY 2009-10 is Rs 617.26 Cr. EDP has received credit notes of Rs 19.53 Cr from NLC and PGCIL, and rebates for prompt payment against invoices amounting to Rs 9.7 Cr, giving a net power purchase cost of Rs 588.1 Cr. The

Petitioner submits that the actual power purchase quantum and cost has been calculated based on the monthly bills raised by the generating stations for the entire year.

Commission's Analysis

As discussed in the section on energy balance in para 5.5, the power purchase quantum approved is 2738.56 MU. 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) resulting in the power purchase cost approved of Rs. 577.3 Cr for FY 2009-10.The additional/penal UI charges corresponding to overdrawal beyond the allowed frequency have not been considered.

Table 10: Power Purchase Quantum and Cost approved by the Commission for review of FY 2009-10

Source	Purchase (MU)	VC (Rs/Unit)	Fixed Charges (Rs Cr)	VC (Rs Cr)	Others (Rs Cr)	Total (Rs Cr)	(Rs/KWh)
NPC - Madras APS	24.70	1.92		4.70		4.70	1.90
NPC Kaiga APS Stage I	80.10	3.06		24.50		24.50	3.06
KSEB	31.20	3.30		10.30		10.30	3.30
NTPC Talcher STPS Stage II	522.70	1.09	49.50	57.00	3.9	110.50	2.11
NLC TS I Expn	114.00	1.14	11.10	13.00	1.6	25.70	2.25
NLC TS II Stage I	434.80	1.21	14.40	52.40	7.1	73.90	1.70
NLC TS II Stage II	157.90	1.21	5.10	19.00	2.6	26.70	1.69
NTPC Ramagundam STPS Stage I & II	588.5	1.31	18.9	76.90	2.8	98.60	1.68
NTPC Ramagundam STPS Stage III	160.80	1.31	13.80	21.00	1	35.70	2.22
NTPC-ER	46.2	1.67	3.3	7.70		11.00	2.38
TNEB (Pondy)	67.30	1.91		12.90		12.90	1.92
TNEB (Karaikal)	320.3	1.91		61.30		61.30	1.91

PPCL	159.56	2.08		33.13		33.13	1.60
UI	31.00	2.59		8.00		8.00	
PGCIL						50.90	
Rebate						9.70	
Power Purchase Cost	**2,738.56**		116.10	401.83	19.00	**578.23**	
Additional/Penal UI Charges						0.92	
Net Power Purchase Cost						**577.31**	

The Commission is of the view that adequate planning needs to be done by EDP, as energy availability is much higher than the energy requirement.

Table 11: Summary of Power Purchase approved by the Commission for review of FY 2009-10

Particulars	Proposed in FY 2009- 10 petition	Approved in TO 2009-10	Actuals (unaudited accounts)	Approved (Review)
Power Purchase Quantum (MU)	2756.0	2706.2	2786.4	2738.5
Power Purchase Cost (Rs Cr)	614.1	576.8	588.1	577.3

5.7 Operation and Maintenance Expenses

Operation and Maintenance (O&M) expenses comprise of three components:

- Employee cost,
- Repairs & Maintenance expenses, and
- Administrative and General Expenses.

Employee Cost

The cost of employees includes salary, dearness allowance payable to employees and other allowances such as bonus, HRA, LTC, medical reimbursement, etc.

Petitioner's submission

The Petitioner has submitted that as per the accounts prepared by EDP, the total employee cost for FY 2009-10 net of capitalization is Rs. 47.47 Cr. The Petitioner requests the Commission to approve the employee expenses at actuals of Rs 47.47 Cr against the approved sum of Rs 61.91 Cr.

Commission's analysis

As per JERC Tariff Regulations

O&M expenses as approved by the Commission for the first time for a year shall be considered as base O&M expenses for determination of O&M expenses for subsequent years;

Base O&M expenses as above shall be adjusted according to variation in the rate of WPI per annum to determine the O&M expenses for subsequent year, where WPI is the Wholesale Price Index on April 1 of the relevant year;

The Commission observes that the actual employee cost for FY 2009-10, as submitted by the Petitioner, is lower than the approved employee cost for FY 2009-10. The Commission has reviewed the employee cost approved in the Tariff Order FY 2009-10, and is of the view that Rs. 47.47 Cr shows true depiction of the employee cost incurred by EDP. The Commission therefore considers the employee cost of Rs. 47.47 Cr as reasonable and approves the same as part of the review of ARR for FY 2009-10.

Table 12: Employee expenses approved by the Commission for review of FY 2009-10

Particulars	Proposed in FY 2009- 10 petition	Approved in TO 2009-10	Actuals (unaudited accounts)	Approved (Review)
Employee Expenses (Rs.Cr.)	66.84	61.91	47.47	47.47

<u>Administrative and General Expenses</u>

The A&G expenses primarily comprise of the following components:

- Domestic Travelling Expenses, Office Expenses
- Legal, Regulatory & Consultancy Fees

- Insurance etc.

Petitioner's submission

The Petitioner submits that as per the accounts prepared by EDP, the total A&G cost for FY 2009-10 is Rs. 3.18 Cr, which is 0.57% of the total revenue for the year. The Petitioner requests the Commission to approve this amount, against the approved sum of Rs 7.28 Cr.

Commission's analysis

The Commission observes that the actual A&G expenditure for FY 2009-10, as submitted by the Petitioner, is lower than the approved A&G expense for FY 2009-10. The Commission has reviewed the A&G expense approved in the Tariff Order FY 2009-10, and is of the view that Rs. 3.18 Cr shows true depiction of the A&G expenditure incurred by EDP. The Commission, therefore, considers the A&G expenditure of Rs 3.18 Cr, as reasonable, and approves the same as part of the review for FY 2009-10.

Table 13: A&G expenses approved by the Commission for review of FY 2009-10

Particulars	Proposed in FY 2009- 10 petition	Approved in TO 2009-10	Actuals (unaudited accounts)	Approved (Review)
A&G Expenses (Rs Cr)	8.51	7.28	3.18	3.18

Repair and Maintenance Expenses

Petitioner's submission

The Petitioner submits that as per the accounts prepared by EDP, the total R&M cost for FY 2009-10 is Rs. 9.6 Cr, which is 2.2% of the average value of assets in service during the year. The Petitioner requests the Commission to approve the R&M expenses at actuals of Rs 9.6 Cr, against the approved sum of Rs 6.16 Cr as per the tariff order for FY 2009-10.

Commission's analysis

The Commission observes that the actual R&M expenditure, as submitted by the Petitioner is higher than the approved R&M expenditure for FY 2009-10. The Commission has analyzed the past trends and the R&M expense approved in Tariff Order FY 2009-10 and is of the view that the actual R&M expenditure of Rs. 9.6 Cr shows true depiction of this expenditure incurred by

EDP. The Commission, therefore, considers the R&M expenditure of Rs.9.6 Cr, as reasonable, and approves the same, as part of the review for FY 2009-10.

Table 14: R&M expenses approved by the Commission for review of FY 2009-10

Particulars	Proposed in FY 2009- 10 petition	Approved in TO 2009-10	Actuals (unaudited accounts)	Approved (Review)
R&M Expenses (Rs Cr)	6.83	6.16	9.6	9.6

<u>Summary of O&M Expenses approved as part of Review of ARR for FY 2009-10</u>

The O&M expenses as submitted by the Petitioner and approved by the Commission for FY 2009-10 are as below:

Table 15: O&M expenses approved by the Commission for review of FY 2009-10

Particulars	Proposed in FY 2009- 10 petition	Approved in TO 2009-10	Actuals (unaudited accounts)	Approved (Review)
O&M Expenses (Rs. Cr)	66.84	75.35	60.25	60.25

5.8 GFA and Depreciation

Petitioner's submission

The Commission in the tariff order for FY 2009-10, had approved depreciation of Rs 0.62 Cr against the claim of Rs 21.08 Cr by EDP. It had disallowed full depreciation in the absence of Fixed Asset Register. The Petitioner has submitted that the asset-wise details are being integrated and will be made available in the filings in future. It further submitted that the process of creation of a consolidated Fixed Asset Register is underway and it will be completed soon; in view of this the Petitioner has requested the Commission to approve the GFA and the depreciation claimed.

The Petitioner has requested to approve the depreciation amount of Rs 19.87 Cr on the opening GFA and assets capitalized during the year amounting to Rs 420.33 Cr and Rs. 31.88 Cr respectively.

Commission's analysis

GFA and Capitalisation

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 per Regulation 26 of JERC Tariff Regulations, "*depreciation shall be computed on historical cost of the* assets *including additions during the year"*. Further, Regulation 22 mandates that *"Investments made prior to and up to 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 this case, the Petitioner is unable to provide the actual value of the fixed assets. The Commission had directed in Tariff Order FY 2009-10 to provide the physical inventory of assets and construct asset /depreciation registers and file the same along with next tariff petition but the same has not been submitted till date by the Petitioner and in the absence of the same, the Commission is unable to provide any depreciation on the opening Gross Fixed Assets, as claimed by the Petitioner.

However, the Petitioner has projected the addition of assets of Rs. 31.88 Cr for the FY 2009-10. The Commission, considering the reasonableness of the expenditure approves the capitalization of Rs. 31.88 Cr for FY 2009-10. This has been considered as the closing balance of the GFA for FY 2009-10 and the same has been taken as the opening GFA approved for the subsequent year FY 2010-11.

Table 16: Gross Fixed Assets approved by the Commission for review of FY 2009-10

Particulars	Proposed in FY 2009- 10 petition	Approved in TO 2009-10	Actuals (unaudited accounts)	Approved (Review)
Opening Value of Assets at the beginning of the year (Rs.Cr)	386.30	-	420.33	-
Additions during the year(Rs.Cr)	25.96	25.96	31.88	31.88
Gross Fixed Assets at the end of year(Rs.Cr)	**412.26**	**25.96**	**452.21**	**31.88**

Depreciation

As per Regulation 26 of JERC Tariff Regulations, depreciation for the assets shall be calculated annually at the rates specified by CERC from time to time. The same have been applied on the different asset categories. Depreciation for FY 2009-10 has been worked out at Rs. 0.84 Cr on the basis of the actual capital expenditure of Rs 31.88 Cr approved as part of the review for FY 2009-10.

Table 17: Asset-wise depreciation approved by the Commission for review of FY 2009-10

Particulars	Rate of depreciation	Opening GFA	Additions during the year	Closing GFA	Depreciation
	%age	**Rs Cr**	**Rs Cr**	**Rs Cr**	**Rs Cr**
Land and land rights	0.0%	-	-	-	-
Buildings	3.3%	-	0.83	0.83	0.01
Plant and Machinery	5.3%	-	3.09	3.09	0.08
Lines and cable network	5.3%	-	26.73	26.73	0.71
Vehicles	9.5%	-	0.00	-	-
Furniture & Fixtures	6.3%	-	0.01	0.01	0.00
Office Equipment	6.3%	-	0.01	0.01	0.00
IT equipment	15.0%	-	0.12	0.12	0.01
Testing & measuring equipment	5.3%	-	1.09	1.09	0.03
SCADA center	5.3%	-	-	-	-
Total			**31.88**	**31.88**	**0.84**

Further, the Commission is of the view that –

"*Depreciation is a charge for use of assets deployed in rendering the service for which Tariff is being determined. Say total assets are Rs. 100 Cr, obsolete unusable assets are of Rs. 20 Cr plus assets written off plus assets not written off or not declared obsolete but not usable lying in store. The asset that will qualify for depreciation is only the net value which is being used to provide service to the consumer. This value will also be further adjusted for depreciation already claimed*"

The table below captures the depreciation as submitted by the Petitioner and as approved by the Commission for FY 2009-10.

Table 18: Depreciation approved by the Commission for review of FY 2009-10

Particulars	Proposed in FY 2009- 10 petition	Approved in TO 2009-10	Actuals (unaudited accounts)	Approved (Review)
Depreciation (Rs Cr)	21.08	0.62	19.87	0.84

5.9 Interest and Finance Charges

Petitioner's submission

The Petitioner submits that of the total cost of Rs. 24.26 Cr for implementation of the System Control Center of the EDP, Rs. 23.07 Cr have been accounted for as a long term liability in the form of a finance lease and interest on the outstanding amount of this liability is Rs. 1.26 Cr. Finance charges for the year amount to Rs. 0.12 Cr, resulting in total interest and finance charges of Rs 1.38 Cr. The Petitioner requests the Commission to approve the interest and finance charges for the year at Rs 1.38 Cr.

Commission's analysis

The Commission in the Tariff Order FY 2009-10 had not approved any amount towards interest and finance charges, against the claim of Rs 23.59 Cr by EDP as the claim was based on a notional loan amount. The Commission has analysed the nature of interest expenses, as submitted by the Petitioner, and considering the reasonableness of the expenditure incurred by EDP, it allows Rs. 1.38 Cr as part of the review for FY 2009-10. The Commission observes that the interest on the normative loan will be examined at the time of true-up once the audited accounts are furnished.

Table 19: Interest and Finance Charges approved by the Commission for review of FY 2009-10

Particulars	Proposed in FY 2009- 10 petition	Approved in TO 2009-10	Actuals (unaudited accounts)	Approved (Review)
Interest & Finance Charges (Rs.Cr)	23.59	NIL	1.38	1.38

5.10 Interest on Working Capital

Petitioner's submission

The Petitioner has submitted interest on working capital as per JERC Tariff Regulations. The rate of interest on working capital has been considered as SBI Prime Lending Rate which is now substituted as SBI advance rate as on 1stApril of the financial year, which was 12.25% as on 1st April 2009.

Accordingly, the Petitioner requests the Hon'ble Commission to approve interest on normative working capital at Rs. 6.61 Cr as against the Commission approved amount of Rs 6.67 Cr as in the Tariff Order FY 2009-10.

Commission's analysis

As per Regulation 29 of JERC Tariff Regulations -

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."

The Commission has considered the calculation of the different components of the working capital on the basis of the above-stipulated norms as per the values approved in the respective sections of the review for FY 2009-10. The Commission has considered the amount collected from the consumers as security deposit available with the Petitioner. Further, it is noted that the Petitioner is not paying any interest on the security deposit to the consumers. In accordance with *Clause 47(4) of the Electricity Act 2003, the distribution licenses are required to pay interest on security deposit collected from the consumers.* The security deposit available with the Petitioner has been treated as available to meet the working capital required for FY 2009-10.

The Commission had sought the details of amount of security deposit and the interest on security deposit, if any being paid to the consumers by the Petitioner as per email dated 2nd May'12, to which the Petitioner had responded by saying '*The Department has not paid interest on consumer security deposit as on date. Being a Government department the amount collected as security deposit is being deposited in the Government accounts under non-interest bearing head. Proposal has been submitted to the Government to permit opening of separate interest paying account*[4]*, so as to enable the department to pay interest on security deposits.*'

The Commission's regulation provides for collection of security deposit equivalent to 2 month/3 month average billing depending on the consumer category.

The Commission has therefore, considered the receivables equivalent to two months billing, as security deposit available with the Petitioner as a source to meet working capital requirements and has deducted this estimated amount from the working capital considered for calculation of the interest on working capital as part of the review for FY 2009-10.

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 12.25% as on 1st April 2009 for review of ARR of FY 2009-10.

The table below captures the submission of the Petitioner and that approved by the Commission.

[4] Separate accounting is effective from 1st April, 2012

Table 20: Interest on Working Capital approved by the Commission for review of FY 2009-10

Particulars (Rs Cr)	Proposed in FY 2009- 10 petition	Approved in TO 2009-10	Actuals (unaudited accounts)	Approved (Review)
Power Purchase Cost for one month		48.07	49.01	45.52
Employee Cost for one month		5.16	3.96	3.96
A&G Expenses for one month		0.51	0.25	0.27
R&M Expenses for one month		0.61	0.76	0.80
Total Working Capital for one month		**54.35**	**53.97**	**50.54**
Consumer Security Deposit amount with EDP)				93.08
Total Working Capital considered for one month	**137.53**	**54.35**	**53.97**	**(42.54)**
SBI PLR Rate	**12.25%**	**12.25%**	**12.25%**	**12.25%**
Interest on Working Capital	**16.85**	**6.66**	**6.61**	**NIL**

Since no interest on the security deposit has been paid for, it has not been considered for in the ARR of FY 2009-10.

5.11 Provision for bad and doubtful debts

Petitioner's submission

The Petitioner had projected an amount of Rs. 1.42 Cr for FY 2009-10, however in the absence of audited accounts, the Commission had approved an amount of Rs 0.55 Cr @ 0.4% of the arrears outstanding as on 31st March 2009 as provision for bad and doubtful debts

EDP has submitted that it has started the process of analyzing the sundry debtors and arrears and obtaining an age-wise breakup of the same from the revenue billing system. It is also in the process of reconciling the list of arrears with the sundry debtor balances as per the financial statements but is likely to take a significant amount of time and effort.

The Petitioner submits that since it has not been able to provide the analysis, as asked by the Commission, they are not claiming any provision for the bad and doubtful debts in the actuals of FY 2009-10 for pass through in the tariff.

Commission's analysis

As specified in Regulation 28 of JERC Tariff Regulations (to be read with the format):

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

The Commission agrees with the submission of the Petitioner and would consider the bad and doubtful debts actually written off, limited to 1% as per the regulations, only after the availability of audited accounts, which will be taken up at the time of true up of the ARR.

Table 21: Provision for bad debts approved by the Commission for review of FY 2009-10

Particulars (Rs Cr)	Proposed in FY 2009- 10 petition	Approved in TO 2009-10	Actuals (unaudited accounts)	Approved (Review)
Provision for bad and doubtful debts	1.42	0.55	Not Claimed	NIL

The Commission has not considered the provision for bad & doubtful debts for review of ARR for FY 2009-10 and maintains that it would be considered in true up as per the provisions of the regulations.

5.12 Return on Capital Base

Petitioner's Submission

In the Tariff Order FY 2009-10, the Commission had disallowed Rs. 31.53 Cr, as claimed by EDP towards its return, in the absence of asset registers and accounts. The Petitioner states that the accounting statements have now been prepared. A detailed fixed assets statement has also been prepared. The Petitioner claims a return on capital base @ 3% of the capital base amounting to Rs 9.98 Cr and requests the Commission to approve the same.

Commission's Analysis

ED Puducherry is an integrated utility in its present form as defined in Regulation 2(9) of the JERC Tariff Regulations. Accordingly, it is entitled to return on capital base, as per Regulation 23 of the said regulations. The basic requirement for consideration of either return on capital base or return on equity is the audited accounts including the statement of assets and depreciation register besides other data. ED Puducherry has not provided the required data and details to the Commission.

The Commission, as also explained in the section on 'GFA and Depreciation', has only allowed additional capitalization for the year and has disallowed opening GFA till such time the asset and depreciation registers are prepared and got audited. Since the Commission has not considered the opening GFA, return @ 3% of Net Fixed Assets at the beginning of the year cannot be allowed and may be considered at the time of true-up subject to the provisions of the regulations.

Table 22: Return on Capital Base approved by the Commission for review of FY 2009-10

Particulars	Proposed in FY 2009- 10 petition *	Approved in TO 2009-10	Actuals (unaudited accounts)	Approved (Review)
Return on Capital Base (Rs.Cr)	31.53	NIL	9.98	NIL

* Return on equity was claimed in the petition for FY 2009-10

5.13 Revenue from outside sales/UI sales

Petitioner's submission

The Petitioner has submitted that the total revenue from UI sales has been Rs 54.85 Cr with sales at 155.29 MU and average rate of sale at Rs 3.53/kWh. The Petitioner has submitted that this income should be treated under the head of 'Non Tariff Income' and should be reduced from the gross ARR to arrive at the net ARR.

Commission's analysis

The Commission has considered outside sales to be 155.29 MU as explained in para 5.5 and has considered the average rate as submitted by the Petitioner as reasonable i.e. Rs. 3.53/kWh and approves the revenue from outside/UI sales at Rs 54.85 Cr to be treated as part of the 'Non tariff Income'.

The 'revenue from outside sales' as submitted by the Petitioner and as approved by the Commission, as part of the review for FY 2009-10 is tabulated below:

Table 23: Revenue from outside sales approved by the Commission for review of FY 2009-10

Particulars	Proposed in FY 2009- 10 petition	Approved in TO 2009-10	Actuals (unaudited accounts)	Approved (Review)
Revenue UI sales (Rs.Cr.)	-	49.5	54.85	54.85

5.14 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. In the Tariff Order FY 2009-10, the Commission had approved an amount of Rs 1.77 Cr as non tariff income against the claim of Rs 3.25 Cr by EDP. The actual non tariff income for the year is Rs 4.64 Cr consisting of reactive energy charges, short term open access charges, CTU charges etc. which come under the broad head of 'non tariff income'.

The 'Revenue from UI sales' amounting to Rs 54.85 Cr has also been considered under the head of non-tariff income and EDP has requested the Commission to approve the total sum of Rs 59.49 Cr as non- tariff income.

Commission's analysis

The revenue from outside/UI sales approved by the Commission as explained in para 5.13 is Rs 54.85 Cr and considering the provisional actual non tariff income of Rs 4.64 Cr as reasonable, the total non tariff income approved for FY 2009-10 is Rs 59.49 Cr.

The non tariff income as submitted by the Petitioner and as approved by the Commission, as part of the review for FY 2009-10 is tabulated below:

Table 24: Non tariff income approved by the Commission for review of FY 2009-10

Particulars	Proposed in FY 2009- 10 petition	Approved in TO 2009-10	Actuals (unaudited accounts)	Approved (Review)
Non Tariff Income (Rs Cr)	3.25	1.77	59.49	59.49

5.15 Aggregate Revenue Requirement for FY 2009-10

Petitioner's submission

Based on the above submissions, the Petitioner requests the Commission to approve the net revenue requirement at Rs. 626.7 Cr.

Commission's analysis

The Commission has considered and approved the review of ARR for FY 2009-10 based on the items of expenditure discussed in the preceding sections and the same has been summarized in the table below. The Commission approves the ARR at Rs. 580.3 Cr for FY 2009-10.

Table 25: Aggregate revenue requirement approved by the Commission for review of FY 2009-10

Particulars (Rs Cr)	Proposed in FY 2009- 10 petition	Approved in TO 2009-10	Actuals (unaudited accounts)	Approved (Review)
Cost of power purchase	614.1	576.8	588.1	577.3
Employee Costs	66.8	61.9	47.5	47.47
A&G expenses	8.5	7.3	3.2	3.18
R&M Expenses	6.8	6.2	9.6	9.6
Depreciation	21.1	0.6	19.9	0.84
Advance against Depreciation	-	-	-	NIL
Interest & Finance Charges	23.6	-	1.38	1.38
Interest on Working Capital	16.9	6.7	6.6	0.00
Provision for bad debts	1.4	0.6	-	NIL
Return @ 3% of NFA	31.5	-	10	0
Amortisation of regulatory asset proposed for previous years	-	-	-	-
Total	**790.7**	**660.0**	**686.2**	**639.78**
Less Non tariff Income	3.3	1.8	59.5	59.49
Aggregate revenue requirement	**787.5**	**658.2**	**626.7**	**580.3**

5.16 Revenue from tariff for FY 2009-10

Petitioner's submission

The total revenue from charges for FY 2009-10 based on the provisional accounts is Rs 558.3 Cr and revenue from subsidy of Rs 0.16 Cr, giving a total of Rs 558.5 Cr.

Commission's analysis

Based on the provisional accounts, the Commission approves the 'Revenue from tariff' at Rs. 558.5 Cr subject to further consideration at the time of true-up.

Table 26: Revenue from tariff approved by the Commission for review of FY 2009-10

Particulars	Proposed in FY 2009- 10 petition	Approved in TO 2009-10	Actuals (unaudited accounts)	Approved (Review)
Revenue from tariff (Rs.Cr)	569.7	585.4	558.5	558.5

5.17 Revenue Gap for FY 2009-10

The revenue gap approved as part of the review exercise for FY 2009-10 is Rs 21.83 Cr and the table below captures the submission by the Petitioner and approval of the revenue gap by the Commission.

Table 27: Revenue Gap approved by the Commission for review of FY 2009-10

Particulars (Rs Cr)	Proposed in FY 2009- 10 petition	Approved in TO 2009-10	Actuals (unaudited accounts)	Approved (Review)
Aggregate Revenue Requirement	787.5	658.2	626.7	580.3
Revenue from tariff	569.7	585.4	558.5	558.5
Revenue Gap/(Surplus)	217.7	72.9	68.3	21.8

5.18 Average Cost of Supply for FY 2009-10

Based on the approved ARR and sales as part of the review exercise for FY 2009-10, the Average Cost of Supply (ACoS) approved is as shown below:

Table 28: Average Cost of Supply approved by the Commission for review of FY 2009-10

Particulars (Rs /kWh)	Proposed in FY 2009- 10 petition	Approved in TO 2009-10	Actuals (unaudited accounts)	Approved (Review)
Average Cost of Supply	3.47	3.13	2.90	2.72

6. Aggregate Revenue Requirement (ARR) for FY 2010-11

6.1 Background

The Petitioner did not file any petition for FY 2010-11. The Petitioner in the petition for FY 2011-12 has prayed to the Commission to provisionally approve the consolidated gap upto the end of FY 2010-11 based on the accounts prepared by EDP, subject to final approval on the basis of true-up based on the audited accounts. The petition for FY 2012-13 also has a similar submission.

The Commission has taken note of the plea of the Petitioner and has considered the approval of the revenue gap for the year based on the provisional accounts for the year.

The following sections discuss each component of the aggregate revenue requirement and the revenue gap approved for the year.

6.2 Consumers, Connected Load and Energy Sales

The Commission has considered sales of 2182.48 MU for FY 2010-11 against the 2209.3 MU submitted by the Petitioner based on provisional accounts subject to final approval at the time of true-up. The number of consumers in different consumer categories is considered as per the provisional accounts at 377,752. The connected load for the agriculture category at 59538 HP and for the HT consumers at 350,058 kVA is also considered for FY 2010-11 subject to final true-up.

For the unmetered categories - OHOB and the agriculture consumers, the Commission has followed the methodology as discussed in para 5.3 of this order. In the case of OHOB consumers, the Commission has considered the consumption norm of175.2 units/consumer/year. Based on the provisional actual numbers of the consumers for FY 2010-11, the Commission approves the sales to this category at 6.83 MU against the claim of 10.2 MU by EDP.

In the case of agriculture consumers, the Commission as also discussed in para 5.3 has considered it appropriate to take the consumption norm of 896.08 units/HP/annum for FY 2010-11 as per the TNERC tariff order dated 30th March 2012. This multiplied with the provisional connected load of 59538 HP gives the total consumption for this category at 53.35 MU.

Rest of the sales for the metered categories, have been considered to be reasonable as per the provisional actuals submitted by EDP and hence approved.

Table 29: Energy Sales approved by the Commission for FY 2010-11

Consumer Category	FY 2010-11 Actuals (unaudited accounts) MUs	FY 2010-11 Approved MUs
Domestic	518.5	515.13
Commercial	156.3	156.30
Agriculture	76.7	53.35
Street Lighting	22.1	22.10
LT Industrial	149.7	149.70
Temporary Supply	7.9	7.90
HT Industrial	1005.7	1005.70
HT state and Central Govt Establishments	34.9	34.90
HT Industrial Extra High Tension	237.4	237.40
TOTAL	**2209.3**	**2182.48**

6.3 Energy Losses

The Commission in its tariff order for FY 2009-10 had allowed T&D losses of 14% based on the estimates submitted by the Petitioner. The Commission had also issued directions to further reduce the T&D losses, conduct an energy audit and take up steps to reduce the technical losses and control pilferage of energy. However, adequate steps in this direction have not been undertaken resulting in higher T&D losses. The Petitioner as part of the tariff petition for FY 2012-13 has submitted T&D losses of 13.57% based on the provisional accounts for FY 2010-11. However, the Commission considers the T&D loss level of 13.50%, a reduction of 0.5% compared to FY 2009-10 as reasonable and approves the same for FY 2010-11.

Table 30: Energy losses approved by the Commission for FY 2010-11

Particulars	FY 2009-10 Approved (Review)	FY 2010-11 Actuals (unaudited accounts)	FY 2010-11 Approved
Energy Losses	14%	13.57%	13.5%

6.4 Energy Balance

Based on approved sales of 2182.48 MU and approved T&D losses level of 13.5%, net energy requirement of 2523.10 MU has been considered for sale to consumers in the territory.

The sales to common pool consumers/UI as submitted by the Petitioner have been considered to be reasonable and allowed at 262.40 MU.

The gross energy availability, considered allowed by the Commission is 2928.90 MU, considering external losses as submitted by the Petitioner to be reasonable.

The Commission is of the view that adequate planning needs to be done by EDP to deal with the surplus energy as energy availability is much higher than the energy requirement.

Table 31: Energy Balance approved by the Commission for FY 2010-11

	FY 2009-10	FY 2010-11	FY 2010-11
Particulars	Approved (Review)	Actuals (unaudited accounts)	Approved
ENERGY REQUIREMENT			
Energy sales in the UT	2130.97	2,209.29	2182.48
Distribution losses (%age)	14.00%	13.57%	13.50%
Energy required for the Territory (MU)	2477.87	2556.16	2523.10
Add: Sales to common pool consumers/ UI	155.29	262.4	262.40
Energy Requirement @ periphery	**2633.16**	**2818.56**	**2785.50**
ENERGY AVAILABILITY			
Gross Energy Availability	**2738.56**	**2961.6**	**2928.90**
External losses (MU)	105.00	143.4	143.40
Net Energy Availability	**2633.16**	**2818.2**	**2785.50**

6.5 Power Purchase Quantum and Cost

As discussed in the section on energy balance, the power purchase quantum approved is 2928.90 MU restricting the purchase corresponding to the sales to consumers within the territory and the outside/UI sales as per provisional actuals. Considering the merit order dispatch principles, the variable charges corresponding to the costliest source of power purchase have not been considered, thus, approving the power purchase cost at Rs 716.96 Cr. The additional/penal UI charges corresponding to overdrawal beyond the allowed frequency have not been considered.

Table 32: Power Purchase Quantum and Cost approved by the Commission for FY 2010-11

Source	Purchase (MU)	VC (Rs/ Unit)	Fixed Charges (Rs Cr)	VC (Rs Cr)	Others (Rs Cr)	Total (Rs Cr)	(Rs/KWh)
NPC Madras APS	29.4	1.79	-	5.5	0.7	6.2	2.11
NPC Kaiga APS Stage I	121.1	2.8	-	34.8	5.1	39.9	3.29
KSEB	33.4	3.36		11.2	-	11.2	3.35
NTPC Ramagundam STPS Stage III	175.4	1.1	13.7	19.3	12.2	45.2	2.58
NTPC Talcher STPS Stage II	510.4	1.11	35.2	56.9	35.3	127.4	2.50
NLC TS II Stage I&II	650.9	1.21	22.3	78.8	13.1	114.1	1.75
NTPC Ramagundam STPS Stage I & II	659.7	1.21	19.6	79.6	32.8	132	2.00
NLC TS I Expn	113.6	1.52	14.5	17.2	0.7	32.5	2.86
PPCL	150.10	1.72		21.39	24.5	45.9	2.51
NTPC-ER	54.8	1.79	3	9.8	3.8	16.6	3.03
TNEB (Pondy)	86	1.91		16.5	-	16.5	1.92
TNEB (Karaikal)	324.9	1.91		62.2	-	62.2	1.91
UI	19.2	0.7				1.3	0.68
PGCIL						61.2	
Total	**2928.90**		**108.3**	**413.19**	**128.2**	**712.1**	
Additional payment due to True-up						17.5	
Rebate						12.3	
Power Purchase Cost						**717.3**	
Additional/Penal UI Charges						0.33	
Net Power Purchase Cost						**716.96**	

Table 33: Summary of Power Purchase Quantum and Cost approved by the Commission for FY 2010-11

	FY 2009-10	FY 2010-11	FY 2010-11
Particulars	Approved (Review)	Actuals (unaudited accounts)	Approved
Power Purchase Quantum (MU)	2738.56	2961.6	2928.90
Power Purchase Cost (Rs Cr)	577.3	727.30	716.96

6.6 Operation and Maintenance Expenses

Operation and Maintenance (O&M) expenses primarily comprise of the following three components:

- Employee cost,
- Repairs & Maintenance expenses, and
- Administrative and General Expenses.

Each has been discussed separately as shown below:

Employee Cost

The Commission observes that implementation of the Sixth Pay Commission took place in FY 2009-10 and hence it has not considered this as the base year for approval of employee cost for the subsequent years. Instead, the cost incurred as per the provisional accounts for FY 2010-11 has been considered to be reasonable and allowed by the Commission.

Table 34: Employee expenses approved by the Commission for FY 2010-11

	FY 2009-10	FY 2010-11	FY 2010-11
Particulars	Approved (Review)	Actuals (unaudited accounts)	Approved
Employee expenses(Rs Cr)	47.47	49.88	49.88

Administrative and General Expenses

The Commission, considering the reasonableness of the expenditure as submitted by the Petitioner, approves the A&G expenditure at actuals of Rs 3.53 Cr for FY 2010-11.

Table 35: A&G expenses approved by the Commission for FY 2010-11

	FY 2009-10	FY 2010-11	FY 2010-11
Particulars	Approved (Review)	Actuals (unaudited accounts)	Approved
A&G Expenses (Rs Cr)	3.18	3.53	3.53

Repair and Maintenance Expenses

The Commission, considering the reasonableness of the expenditure as submitted by the Petitioner, approves the R&M expenditure at actuals of Rs 7.95 Cr for FY 2010-11.

Table 36: R&M expenses approved by the Commission for FY 2010-11

	FY 2009-10	FY 2010-11	FY 2010-11
Particulars	Approved (Review)	Actuals (unaudited accounts)	Approved
R&M Expenses (Rs Cr)	9.6	7.95	7.95

Summary of O&M Expenses approved for FY 2010-11

Table 37: O&M expenses approved by the Commission for FY 2010-11

	FY 2009-10	FY 2010-11	FY 2010-11
Particulars (Rs Cr)	Approved (Review)	Actuals (unaudited accounts)	Approved
O&M Expenses	60.25	61.36	61.36

6.7 GFA and Depreciation

GFA and Capitalisation

The Petitioner has not furnished fixed asset and depreciation registers as per the directions of the Commission in the tariff order for FY 2009-10. As also discussed in the Chapter on 'Review of ARR for FY 2009-10', the Commission is of the view that the opening value of the fixed asset register is driven by assumptions and it has accordingly disallowed the opening GFA for FY 2009-10. The proposed capitalization for the respective years, however, has been allowed by the Commission.

Continuing the same treatment, the proposed capitalization for the year FY 2010-11 is considered reasonable and the same is provisionally allowed by the Commission. The additional capitalization of Rs 50.86 Cr is allowed on the closing GFA of Rs 31.88 Cr for FY 2009-10, resulting in the closing GFA for FY 2010-11 at Rs 82.74 Cr.

Table 38: Gross Fixed Assets approved by the Commission for FY 2010-11

Particulars	Approved (Review FY 09-10)	Actuals (unaudited accounts) (FY 2010-11)	Approved (FY 2010-11)
Opening Value of Assets at the beginning of the year (Rs Cr)	-	452.19	31.88
Additions during the year (Rs Cr)	31.88	50.86	50.86
GFA at the end of year (Rs Cr)	**31.88**	**503.05**	**82.74**

Depreciation

Depreciation has been ascertained as per JERC Tariff Regulations - Regulation 26 which states that '*depreciation for the assets shall be calculated annually at the rates specified by CERC from time to time*'. These rates have been applied on the average value of each of the asset categories in place, resulting in total depreciation for the year at Rs. 3.03 Cr.

Asset wise break up of depreciation for FY 2010-11 is as shown below.

Table 39: Asset- wise breakup of depreciation for FY 2010-11

Particulars	Rate of depreciation	Opening GFA	Additions during the year	Closing GFA	Depreciation
	%age	**Rs Cr**	**Rs Cr**	**Rs Cr**	**Rs Cr**
Land and land rights	0.0%	-	-	-	-
Buildings	3.3%	0.83	1.32	2.15	0.05
Plant and Machinery	5.3%	3.09	4.93	8.02	0.29
Lines and cable network	5.3%	26.73	42.64	69.37	2.55
Vehicles	9.5%	-	0.00	-	-
Furniture & Fixtures	6.3%	0.01	0.02	0.03	0.00
Office Equipment	6.3%	0.01	0.02	0.03	0.00
IT equipment	15.0%	0.12	0.19	0.31	0.03

Testing & measuring equipment	5.3%	1.09	1.74	2.83	0.10
SCADA center	5.3%	-	-	-	-
TOTAL		**31.88**	**50.86**	**82.74**	**3.03**

The table below captures the depreciation approved by the Commission.

Table 40: Depreciation approved by the Commission for FY 2010-11

Particulars	Approved (Review FY 09-10)	Actuals (unaudited accounts)	Approved
Depreciation (Rs Cr)	0.84	22.13	3.03

6.8 Interest and Finance Charges

The Commission has analyzed the nature of the expenses (interest on lease rentals and finance charges towards opening of BGs etc.) as claimed by the Petitioner as part of the interest and finance charges and considering the reasonableness of the expenditure incurred by the Petitioner, considers them allowed for FY 2010-11. The Commission observes that the interest on the normative loan will be examined at the time of true-up once the audited accounts are furnished. The table below encapsulates the interest & finance charges approved by the Commission:

Table 41: Interest and Finance charges approved by the Commission for FY 2010-11

Particulars	Approved (Review FY 09-10)	Actuals (unaudited accounts)	Approved
Interest and Finance Charges (Rs Cr)	1.38	1.87	1.87

6.9 Interest on Working Capital

The Commission has considered the calculation of the different components of the interest on working capital as per JERC Tariff Regulations.

Further, the Commission has considered that the amount against the consumers security deposit is available with the Petitioner to meet the working capital required for FY 2010-11.

Since the utility has not furnished the quantum of security deposit available with it, the Commission has considered the receivables equivalent to two months billing in line with the Commission's regulations as security deposit available with the Petitioner as a source to meet working capital and has deducted this amount from the working capital requirement considered for calculation of the interest on working capital.

The SBI Advance Rate of 11.75% as on 1st April 2010 has been considered for the calculation of the interest on working capital. The table below shows the interest on working capital approved for FY 2010-11.

Table 42: Interest on working capital approved by the Commission for FY 2010-11

	FY 2009-10	FY 2010-11	FY 2010-11
Particulars (Rs Cr)	Approved (Review FY 09-10)	Normative WC as proposed by the Petitioner	Approved
Power Purchase Cost for one month	48.11	60.61	59.75
Employee Cost for one month	3.96	4.16	4.16
A&G Expenses for one month	0.27	0.29	0.29
R&M Expenses for one month	0.80	0.66	0.66
Total Working Capital for one month	**53.13**	**65.72**	**64.86**
Closing Security Deposit (amount already with EDP)	93.08	-	93.08
Total Working Capital considered for one month	(39.95)	**65.72**	(28.22)
SBI PLR Rate	**12.25%**	**11.75%**	**11.75%**
Interest on Working Capital	**NIL**	**7.72**	**NIL**

Since no interest on the security deposit has been paid for, it has not been considered for in the ARR of FY 2010-11.

6.10 Provision for bad and doubtful debts

The Petitioner has not claimed any provision for the bad and the doubtful debts, as the arrears are not audited and the age-wise analysis of the arrears is yet to be provided to the Commission. The Commission agrees with the submission of the Petitioner and would consider the bad and doubtful debts as per the regulations only after the availability of audited accounts.

Table 43: Provision for bad and doubtful debts approved by the Commission for FY 2010-11

Particulars	Approved (Review FY 09-10)	Actuals (unaudited accounts)	Approved
Provision for bad and doubtful debts	NIL	Not Claimed	NIL

6.11 Return on Capital Base

EDP being an integrated utility, is entitled to return on capital base as per Regulation 23 of JERC Tariff Regulations.

Table 44: Return on capital calculation by the Commission for FY 2010-11

	FY 2010-11
Particulars (Rs Cr)	Approved
Gross block at beginning of the year	31.88
Less accumulated depreciation	0.84
Less accumulated consumer contribution	-
Less opening debt	-
Net fixed assets at beginning of the year	**31.04**
Reasonable return @3% of NFA	**0.93**

Table 45: Return on capital approved by the Commission for FY 2010-11

Particulars	Approved (Review FY 09-10)	Actuals (unaudited accounts) FY 2010-11	Approved FY 2010-11
Return on Capital Base (Rs Cr)	NIL	10.99	0.93

6.12 Revenue from outside sales /UI sales

The Commission has approved the revenue from UI sales/common pool consumers for the units sold outside the U.T according to the energy balance as discussed in para 6.4. The actual realization rate of Rs 3.43/kWh for FY 2010-11 is applied on the provisional actual outside sales of 262.40MU to arrive at the revenue realization of Rs 90.11 Cr.

This has been treated as part of the non tariff income to arrive at the net ARR.

Table 46: Revenue from outside sales approved by the Commission for FY 2010-11

Particulars (Rs Cr)	Approved (Review FY 09-10)	Actuals (unaudited accounts)	Approved
Revenue outside sales/UI sales	54.85	90.11	90.11

6.13 Non-Tariff Income

The Commission has considered 'non tariff income' of Rs. 6.61 Cr per the provisional accounts for FY 2010-11. This alongwith the revenue from outside/UI sales as approved above, has been considered as the total non-tariff income.

Table 47: Non tariff income approved by the Commission for FY 2010-11

Particulars (Rs Cr)	Approved (Review FY 09-10)	Actuals (unaudited accounts)	Approved
Non Tariff Income (including revenue from outside/UI sales)	59.49	96.72	96.72

6.14 Aggregate Revenue Requirement for FY 2010-11

Based on the items of expenditure discussed in the preceding sections, the Commission approves the net revenue requirement for FY 2010-11 at Rs 687.43 Cr. The same has been summarized in the table below.

Table 48: Aggregate Revenue Requirement approved by the Commission for FY 2010-11

Particulars (Rs Cr)	Approved (Review FY 09-10)	Actuals (unaudited accounts)	Approved
Cost of power purchase	577.3	727.30	716.96
Employee Costs	47.47	49.88	49.88
A&G expenses	3.18	3.53	3.53
R&M Expenses	9.6	7.95	7.95
Depreciation	0.84	22.13	3.03
Advance against Depreciation	NIL	-	-
Interest & Finance Charges	1.38	1.87	1.87
Interest on Working Capital	0.00	7.70	-
Provision for bad debts	NIL	-	-
Return on NFA @ 3% of NFA	0	10.99	0.93
Amortisation of regulatory asset proposed for previous years	-	-	-
Total	**639.78**	**831.35**	**784.15**
Less Non tariff Income	59.49	96.72	96.72
Aggregate revenue requirement	**580.3**	**734.63**	**687.43**

6.15 Revenue from tariff for FY 2010-11

The Commission considers the revenue from tariff for FY 2010-11 at Rs 630.80 Cr on the basis of the provisional accounts subject to the true-up when audited accounts are available.

Table 49: Revenue from tariff approved by the Commission for FY 2010-11

Particulars (Rs Cr)	Approved (Review FY 09-10)	Actuals (unaudited accounts)	Approved
Revenue from tariff	558.5	630.80	630.80

6.16 Revenue Gap for FY 2010-11

The revenue gap worked out for FY 2010-11 is Rs 56.63 Cr on the basis of the aggregate revenue requirement of Rs 687.43 Cr and the revenue from tariff of Rs. 630.8 Cr.

Table 50: Revenue Gap approved by the Commission for FY 2010-11

Particulars (Rs Cr)	Approved (Review FY 09-10)	Actuals (unaudited accounts)	Approved
Aggregate Revenue Requirement	580.33	734.6	687.43
Revenue from tariff	558.5	630.80	630.80
Revenue Gap	**21.8**	**103.83**	**56.63**

6.17 Average Cost of Supply for FY 2010-11

The average cost of supply for FY 2010-11 on the basis of the approved ARR and total sale is as shown below.

Table 51: Average Cost of Supply approved by the Commission for FY 2010-11

Particulars	Approved (Review FY 09- 10)	Actuals (unaudited accounts)	Approved
Average Cost of Supply (Rs/kWh)	2.72	3.33	3.15

7. Aggregate Revenue Requirement (ARR) for FY 2011-12

7.1 Background

The petition for the determination of ARR & Tariff for FY 2011-12 was filed on 29th September 2011. The petition for the determination of ARR & Tariff for FY 2012-13 contains the revised estimates for FY 2011-12. As the petition for FY 2012-13 was submitted before issuance of the order on the petition for FY 2011-12, , the Commission has dealt with the petition for FY 2011-12 in this order on the basis of the revised estimates submitted in the FY 2012-13 petition.

The Commission has taken into consideration the following for determination of ARR for FY 2011-12:

i. ARR for FY 2009-10 as reviewed by the Commission considering actual performance in FY 2009-10 (actual un-audited Figures) subject to adjustment if any at the time of true-up

i. ARR for FY 2010-11 approved by the Commission considering actual performance in FY 2010-11 (actual unaudited figures) subject to adjustment if any at the time of true-up

ii. Revised estimates of FY 2011-12 submitted by the Petitioner in the petition for FY 2012-13 subject to adjustment if any at the time of true-up

7.2 Consumers, Connected Load and Energy Sales

Petitioner's Submission

The Petitioner has revised the sales estimates for FY 2011-12 to 2317.5 MU compared to 2309.9 MU as per the submission of the earlier petition. The first half sales for the year have been 1221.0 MU. The Petitioner has largely maintained its original projection for FY 2011-12, other than in the temporary supply wherein the projection has been revised to approximately 23 MU. In this category, the Petitioner submits that the first 6 months have already shown a sale of 9.2 MU against the earlier estimate of the Petitioner of 15 MU for the year and hence has revised the estimate to 23 MU.

The revised estimates of the number of consumers are 391,380and connected load for the LT agriculture is 59538 HP and for HT categories is 340,390 kVA respectively.

Commission's Analysis

Consumers

The Commission has analysed the 5 year CAGR for each of the consumer categories and has found the estimates of the Petitioner to be reasonable.

Table 52: Number of consumers approved by the Commission for FY 2011-12[5]

Consumer Category	Approved FY 2010-11	Estimates submitted in the FY 11-12 petition	Revised Estimates for FY 11-12	Approved FY 11-12
Domestic	275847	287899	287899	287899
Commercial	40531	41854	41854	41854
Agriculture	6810	6810	6810	6810
Street Lighting	48167	48280	48280	48280
LT Industrial	5955	6086	6086	6086
Temporary Supply	-	-	-	-
HT Industrial	394	402	403	403
HT state and Central Govt Establishments	41	42	41	41
HT Industrial Extra High Tension	7	7	7	7
TOTAL	**377752**	**391380**	**391380**	**391380**

Connected Load

The Connected Load for the agriculture category is approved as 59538 HP as per the submission of the Petitioner as per the results of the physical verification exercise carried out by it.

[5] The approved figures of FY 2010-11 shown in all subsequent tables are the approved figures for FY 2010-11 as determined in this tariff order

It is observed that the connected load for the HT 1 category has declined from 300,122 kVA in FY 2009-10 to 263,839 kVA in FY 2010-11. The Petitioner has submitted a load forecast of 245,630 kVA for FY 2011-12 and the Commission has considered this as reasonable and hence approves the same.

For the HT 2 category, the connected load is observed to increase from 11,576 kVA in 2009-10 to 13,308 kVA in 2010-11 and the Petitioner has estimated the load for FY 2011-12 as 14,265 kVA. In line with the year on year growth from 2009-10 to 2010-11 observed, the Commission considers the load estimates of the Petitioner as reasonable and hence approves the same at 14265 kVA.

For the HT3 category, the trend of the connected load is observed to have declined from 90,650 kVA in 2009-10 to 72,910 kVA in 2010-11 and the Petitioner has estimated the load for the category as 80,495 kVA. The Commission has also observed the trends of the sales in this category over the past five years and considers the submission of the Petitioner as reasonable and accordingly approves 80,495 kVA as the load for FY 2011-12.

Table 53: Connected load approved by the Commission for FY 2011-12

Consumer Category (Connected Load Units in HP/kVA)	Approved FY 2010-11	Estimates submitted in the FY 11-12 petition	Revised Estimates for FY 11-12	Approved FY 11-12
Domestic	-	-	-	-
Commercial	-	-	-	-
Agriculture (HP)	59,538	59538	59538	59538
Street Lighting	-	-	-	-
LT Industrial	-	-	-	-
Temporary Supply	-	-	-	-
HT Industrial (kVA) (HT 1)	263,839	245630	245630	245630
HT state and Central Govt Establishments (kVA) (HT 2)	13,308	14265	14265	14265
HT Industrial Extra High Tension (kVA) (HT 3)	72,910	80495	80495	80495

Energy Sales

The Commission has analysed the past trends of the sales from the year 2005-06 to 2010-11.

For the OHOB consumers, the consumption norm of 175.2 units/consumer/year is considered reasonable as explained in para 5.3, assuming 2 fluorescent tube lights each of 40 W running 6 hours per day. This taken together with the number of consumers considered for the year of 35,447 results in 6.21 MUs against the claim of 9.3 MUs of the Petitioner. The Commission considers the consumption of 6.21 MU as reasonable and approves the same.

For the agriculture category, the consumption norm of 951.1units/HP/year is considered reasonable as per the TNERC order dated 30th March 2012 for reasons explained in para 5.3.

This taken together with the connected load of 59538 HP for the agriculture category results in sale of 56.63 MU against the claim of 76.7 MU by the Petitioner. The Commission considers the consumption of 56.63 MUs as reasonable and approves the same.

It is observed that the first half actual sales for the year have already reached 1221 MU and therefore, the submission of the Petitioner is considered to be a reasonable estimate of the sales for the entire year except for unmetered categories which is revised as discussed above.

The total sales approved for the year are 2294.2 MU.

Table 54: Energy Sales approved by the Commission for FY 2011-12

Consumer Category	Approved FY 2010-11	Estimates submitted in the FY 11-12 petition	Revised Estimates for FY 11-12	Approved FY 11-12
Domestic	515.13	572.4	572.4	569.3
Commercial	156.30	172.1	172.1	172.1
Agriculture	53.35	76.7	76.7	56.6
Street Lighting	22.10	23.4	23.4	23.4
LT Industrial	149.70	160.1	160.1	160.1
Temporary Supply	7.90	15.0	22.6	22.6
HT Industrial	1005.70	1016.3	1016.3	1016.3
HT state and Central Govt Establishments	34.90	37.3	37.3	37.3
HT Industrial Extra High Tension	237.40	236.5	236.5	236.5
TOTAL	**2182.48**	**2309.8**	**2317.5**	**2294.2**

7.3 Energy Losses

Petitioner's Submission

The Petitioner submits that the actual sales for the first half of the year have been 1221 MU, with a net energy input of 1411.5 MU, showing a T&D loss of 13.50%. The Petitioner has maintained its estimate of the T&D loss for the year as 13.47% as per the earlier estimates.

Commission's analysis

The Commission has analysed the past trends of the T&D loss levels and allows the T&D loss at 13% for the year against the 13.47% as submitted by the Petitioner. The Commission has considered a reduction of 0.5% in the T&D trajectory per year starting from FY 2009-10.

Table 55: Energy losses approved by the Commission for FY 2011-12

Particulars	Approved FY 2010-11	Estimates submitted in the FY 11-12 petition	Revised Estimates FY 11-12	Approved FY 11-12
Energy Losses	13.50%	13.47%	13.47%	13%

7.4 Energy Balance

Petitioner's submission

The Petitioner submits that additional power has been allocated to EDP, however demand estimates for the year as per the revised estimates have largely remained the same, resulting in high UI sales outside the state. The sale through UI has been revised to 433.4 MU from the earlier estimate of 391.2 MU.

The net energy required at the periphery for sale within the territory is 2678.2 MU and the energy availability is 3111.7 MU (considering the external loss of 144.6 MU on the power purchase of 3256.3 MU).

Commission's analysis

The Commission has approved the sales of 2294.2 MU and internal loss of 13% resulting in a net energy requirement of 2637.06 MU at the periphery for sale within the territory.

The Commission has considered the net power purchase of 3359.99 MU as per the first half actual power purchase quantum and second half power purchase as estimated by the Commission. The detailed analysis of the power purchase from the different sources has been discussed in para 7.5 . The external losses have been approved as 148.55 MU, resulting in the net energy availability of 3211.44 MU. The difference between energy availability and the energy requirement at the periphery has been taken to be the outside sales/UI sales.

The table below captures the values as submitted by the Petitioner and that considered approved for FY 2011-12.

Table 56: Energy Balance approved by the Commission for FY 2011-12[6]

Consumer Category	Approved FY 2010-11	Estimates submitted in the FY 11-12 petition	Revised Estimates for FY 11-12	Approved FY 2011-12
ENERGY REQUIREMENT				
Energy sales in the UT	2182.48	2,309.80	2,317.53	2294.24
Distribution losses (%age)	13.50%	13.47%	13.47%	13%
Energy required for the Territory (MU)	2523.10	2669.36	2,678.30	2637.06
Add: Sales to common pool consumers/ UI	262.40	391.2	433.40	574.38
Energy Requirement @ periphery	**2785.50**	**3060.56**	**3,111.70**	**3211.44**
ENERGY AVAILABILITY				
Gross Energy Availability	2928.90	3213.2	3256.3	3359.99
External losses (MU)	143.40	142.50	144.6	148.55
Net Energy Availability	**2785.50**	**3070.7**	**3111.70**	**3211.44**

- [6] The Commission has considered the firm allocations (including unallocated quota) to the licensee for projecting the power purchase quantum and the excess units after meeting the requirement within the territory have been assumed to be sold through outside sales/UI. The availability for FY 2012-13 is higher than the estimates of the Petitioner on account of the firm allocations considered against the availability based on actuals considered by the Petitioner

7.5 Power Purchase Quantum and Cost

Petitioner's submission

The Petitioner submits that the cost of power purchase for the first half of the year has been Rs. 508.5 Cr and power purchase quantum has been 1670 MU. The Petitioner has submitted the revised estimates of the power purchase as 3256.3 MU and the power purchase cost at Rs. 997.30 Cr on the basis of H2 FY 11-12 projected and H1 FY 11-12 considered as per the actuals. The power purchase cost for the year is high on account of increased allocations, revised tariffs and arrears that have become due in this fiscal.

Commission's Analysis

The Commission has estimated the power purchase quantum and cost based on the first half actuals as submitted by the Petitioner and second half projections.
For estimating the energy availability & power purchase cost of remaining period of FY 2011-12, the following has been considered:

- The PLF/Availability as submitted by the Petitioner has been considered reasonable and assumed for projections

- The auxiliary consumption (%) has been considered as per the CERC Tariff Regulations for FY 2009-2014

- Weighted average share (including unallocated share) of the Petitioner in various generating stations as per latest revised allocation orders of Govt. of India during FY 2011-12

- PAFM monthly data has been taken as per the REA reports for the respective months of FY 2011-12.

- Latest tariff orders of CERC has been considered for estimation of fixed cost and monthly fixed cost has been calculated as per the formula mentioned in the CERC Tariff Regulations 2009-14 . For plants having been in operation for less than 10 years i.e. NLC TS II Stage II, Ramagundam STPS Stage III, Talcher STPS Stage II and Simhadri the formula for determination of monthly fixed charges has been suitably modified

- Variable Charges for the generating stations of NLC - TS II Stage I, TS II Stage II, TS I Expn and NPC plants- Madras APS and Kaiga APS Stage I have been taken as per the available latest tariff orders

- Average variable charges of the last three months of the first half of the year (September'11, August'11 and July'11) have been considered for projecting the variable charges for the remaining six months of the year for the plants whose variable charges were not available as per the tariff orders of the generating station i.e NTPC plants.

- For KSEB, the bulk supply rate has been applied and for TNEB the procurement rate of Rs 1.91/kWh as applicable

- PGCIL losses have been assumed as the past 52 week southern grid losses as per the data available on the SRLDC site

Table 57: Power Purchase Quantum approved for H2 FY 2011-12

Source	Capacity (MW)	Availability / PLF (in %)	Gross Generation (MU)	Auxiliary Consumption (%)	Net Generation (MU)	Firm allocation to EDP (%)	Purchase (MU)
Madras APS	440	53.10%	1026.15	10%	923.53	1.90	17.55
Kaiga APS Stage I	880	55.10%	2129.59	10%	1916.63	4.40	84.33
KSEB							15.10
Ramagundam STPS Stage III	500	98.10%	2154.28	6.50%	2014.25	5.40	108.77
Ramagundam STPS Stage I & II	2100	93.60%	8632.92	7.20%	8011.35	5.20	416.59
TS I Expn	420	81.50%	1503.38	9.50%	1360.56	4.20	57.14
TS II Stage I	630	80.20%	2219.10	10%	1997.19	12.30	245.65
TS II Stage II	840	83.90%	3095.31	10%	2785.78	3.80	105.86
TNEB (Pondy)							30.8
TNEB (Karaikal)							162.60
PPCL	32.5	87%	124.18	5.50%	117.35	100	117.35
Talcher STPS Stage II	2000	90.90%	7984.66	6.50%	7465.65	4.00	298.63
Simhadri	500	77.80%	1708.49	6%	1605.98	1.85	29.71
TOTAL							**1690.09**

Power Purchase Cost

For determining the power purchase cost for the second half of the year, 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. The excess units have been assumed to be sold through various short-term transactions at the average realization rate of Rs 4.5/kWh. The weighted average variable cost of plants not considered for meeting the requirement within the state has been determined to arrive at the net surplus/unit the utility would earn through short-term transactions, to be considered as the revenue from outside sales and hence part of the non-tariff income.

The Commission has analysed the price trends witnessed in the short-term market that comprises of bilateral trading and power exchanges (excluding the trends in UI prices) based on periodical reports published by the Central Electricity Regulatory Commission (CERC) in this regard. The Commission has primarily taken into account such price trends, as witnessed during FY 2010-11 and FY 2011-12. Based on this, the Commission assesses that the Petitioner shall be able to sell its surplus power at Rs. 4.5/kWh, and it accordingly reiterates that the Petitioner shall carefully plan its purchase of power, and any surplus that is left after meeting the territory's energy requirement shall be disposed off with thorough analysis of alternate options.

Fixed charges and other charges from all the generating stations (irrespective of the merit order) have been considered for arriving at the power purchase cost. The other charges as submitted by the Petitioner have been analyzed and found to be reasonable and hence approved. The other charges of Rs 10.6 Cr have been allowed for the second half of the year.

PGCIL charges have been determined on the basis of the cost incurred per unit during the first half of FY 2011-12. Rebate has been assumed at the same percentage as that during FY 2010-11.

Renewable Purchase Obligations

As per JERC (Procurement of Renewable Energy) Regulations 2010 clause 1 sub clause (1)
Each distribution licensee shall purchase electricity (in kWh) from renewable energy sources, at a defined minimum percentage of the total consumption of all the consumers in its area during a year.

The Petitioner has to purchase 2% of total power purchase for sale to the consumers in its area as power purchase from renewable sources for FY 2011-12 including 0.30% for Solar and 1.70% for Non-Solar. The Commission has observed that the Petitioner has incurred no cost towards the RPO compliance for the first half of the year; however the Commission has considered that for the second half of the year, the utility would meet its RPO targets.

The Commission has assumed that the utility would meet its RPO targets during the second half of FY 2011-12 through the purchase of REC certificates and considering the average REC price of Rs 2550 as submitted by the Petitioner as reasonable, allows the RPO cost of Rs. 6.29 Cr for FY 2011-12.

The total cost of power purchase including the PGCIL, RPO and the rebate charges for the second half of the year is Rs 393.23 Cr. This alongwith the actual power purchase cost for the first half of the year of Rs 508.5 Cr considered as reasonable and subject to further consideration at the time of true-up, results in total power purchase approved for FY 2011-12 at Rs. 901.73 Cr.

Table 58: Power Purchase Cost approved for H2 FY 2011-12

Source	Purchase (MU)	VC (Rs/ Unit)	Fixed Charges (Rs Cr)	VC (Rs Cr)	Others (Rs Cr)	Total (Rs Cr)*
Madras APS	17.55	1.79	-	3.14		3.14
Kaiga APS Stage I	84.33	2.80	-	23.57		23.57
KSEB	15.10	3.16	1.00	4.77		5.77
Ramagundam STPS Stage III	108.77	1.54	9.15	16.77		25.91
Ramagundam STPS Stage I & II	416.59	1.58	22.39	65.61		88.00
TS I Expn	57.14	1.72	7.61	9.81		17.43
TS II Stage I	245.65	1.90	13.82	46.77		60.59
TS II Stage II	105.86	1.90	6.13	20.16		26.29
TNEB (Pondy)	30.80	1.91	-	5.90		5.90
TNEB (Karaikal)	162.60	1.91	-	31.13		31.13
PPCL	117.35	1.91	20.80	9.31		30.11
Talcher STPS Stage II	298.63	2.63	22.38	-		22.38
Simhadri	29.71	2.65	5.40	-		5.40
PGCIL						39.37
RPO compliance cost						6.29
Rebate						8.65
Total Power Purchase Cost	**1690.09**		108.68	236.94	10.60	**393.23**

* The 'other charges' have been considered on lump-sum basis as submitted by the Petitioner as reasonable and hence approved. The 'Total' charges for each station are excluding the 'other charges'.

Power Purchase from Bilateral, UI, Power Exchanges and Banking arrangement

Considering the past trends, no bilateral, banking, power exchange arrangements are in place. The UI charges as per the first half provisional actuals of the year have been allowed by the Commission.

Table 59: Power purchase quantum and cost approved by the Commission for FY 2011-12

Particulars	Approved FY 10-11	Estimates submitted in the FY 11-12 petition	Revised Estimates for FY 11-12	Approved FY 2011-12
Power Purchase Quantum (MU)	2928.90	3213.20	3256.30	3359.99
Power Purchase Cost (Rs Cr)	716.96	975.50	997.30	901.73

The total power purchase for the year is Rs 901.73 Cr including the cost towards the RPO for the total quantum of purchase of 3359.99 MU.

7.6 Operation and Maintenance Expenses

The Operation and Maintenance (O&M) expenses comprising of the employee expenses, A&G expenses, R&M expenses have been discussed in the following sections.

Employee Cost

Petitioner's submission

The Petitioner has submitted the employee cost estimates at Rs 52.55 Cr, net of the capitalization of Rs. 18.04 Cr. The first half actuals as per the provisional actuals is Rs 35.80 Cr, net of capitalization of Rs 1.86 Cr.

The Petitioner submits that historically, the implementation of the capital schemes and associated capitalization picks up pace in the second half of the year. Alongwith the actual capitalization, applicable employee costs will also be capitalized.

Commission's analysis

The Commission has observed that the actuals for the year 2009-10 and 2010-11 have been Rs 47.47 Cr and Rs 49.88 Cr respectively. The Commission has noted that the arrears of the Sixth

Pay Commission were paid in the year 2009-10 and has therefore, considered the year 2010-11 as the base year of the employee expenses.

The Commission has applied the escalation factor of 8.76%[7] per annum for estimation of the increase in the employee expenses from FY 2010-11 to FY 2011-12. Capitalization of the employee expenses has been taken in the same proportion of the gross employee expenses as in the actuals of 2010-11. This results in employee expenses of Rs 54.25 Cr. The Commission has noted the submission of the Petitioner and has limited the approval of the employee expenses to Rs 52.55 Cr considering them as reasonable and hence approved. The Rs 52.55 Cr approved is net of the capitalization cost of Rs 18.04 Cr submitted by the Petitioner.

Table 60: Employee expenses approved by the Commission for FY 2011-12

Particulars	Approved FY 2010-11	Estimates submitted in the FY 11-12 petition	Revised Estimates for FY 11-12	Approved FY 11-12
Employee Expenses (Rs Cr)	49.88	52.55	52.55	52.55

Administrative and General Expenses

Petitioner's submission

The total A&G expenses estimated by the Petitioner are Rs 3.91 Cr, and the first half actuals for the year are Rs. 1.84 Cr. The Rs 3.91 Cr work out to approximately 0.6% of the value of revenue from the normal tariff for the year.

Commission's analysis

The Commission has observed that the actuals for the year 2009-10 and 2010-11 have been Rs 3.18 Cr and Rs 3.53 Cr respectively. The Commission has noted the submission of the Petitioner for the A&G expenses and considers them as reasonable and hence approved.

Table 61: A&G expenses approved by the Commission for FY 2011-12

Particulars	Approved FY 2010-11	Estimates submitted in the FY 11-12 petition	Revised Estimates for FY 11-12	Approved FY 11-12
A&G Expenses (Rs Cr)	3.53	3.91	3.91	3.91

[7] As per the latest WPI index upto March 2012 as available on the website of Economic Advisor, Ministry of Commerce and Industry

Commission considers the A&G expenses of Rs 3.91 Cr as reasonable and approves the same for FY 2011-12.

Repair and Maintenance Expenses

Petitioner's submission

The Petitioner submits that total R&M expenditure for the year is estimated at Rs. 10.34 Cr, which is 1.9% of the average value of assets in service during the year.

Commission's analysis

The Commission has observed that the actuals for the year 2009-10 and 2010-11 have been Rs 9.6 Cr and Rs 7.95 Cr respectively. Commission has considered the past year trends and has noted the submission of the Petitioner. The Commission approves the R&M expenses as submitted, considering them as reasonable for repair and maintenance expenses of the utility. The R&M expenses are also necessary in the interest of maintaining adequate infrastructure for ensuring proper Standard of Performance of the utility.

Table 62: R&M expenses approved by the Commission for FY 2011-12

Particulars	Approved FY 2010-11	Estimates submitted in the FY 11-12 petition	Revised Estimates for FY 11-12	Approved FY 11-12
R&M Expenses (Rs Cr)	7.95	10.34	10.34	10.34

Commission considers R&M expenses of Rs. 10.34 Cr as reasonable and approves the same as part of the ARR for FY 2011-12.

Summary of O&M Expenses approved for FY 2011-12

The O&M expenses as submitted and considered approved for the year 2011-12 are as below:

Table 63: O&M expenses approved by the Commission for FY 2011-12

Particulars	Approved FY 2010-11	Estimates submitted in the FY 11-12 petition	Revised Estimates for FY 11-12	Approved FY 11-12
O&M Expenses (Rs Cr)	61.36	66.80	66.80	66.80

7.7 GFA and Depreciation

Petitioner's submission

The Petitioner has requested to approve the depreciation amount of Rs 25.07 Cr on the opening GFA and capitalization considered during the year amounting to Rs 503.05 Cr and Rs. 61.64 Cr respectively.

Commission's analysis

GFA and Capitalisation

In line with the treatment of the GFA and capitalization done in the earlier chapters, the Commission considering the reasonableness of the expenditure approves the capitalization of Rs. 61.64 Cr for FY 2011-12.

Table 64: Gross Fixed Assets approved by the Commission for FY 2011-12

Particulars	Approved FY 2010-11	Estimates submitted in the FY 11-12 petition	Revised Estimates for FY 11-12	Approved FY 11-12
Opening Value of Assets at the beginning of the year (Rs Cr)	31.88	503.08	503.05	82.74
Additions during the year (Rs Cr)	50.86	61.64	61.64	61.64
Gross Fixed Assets at the end of year (Rs Cr)	**82.74**	**564.72**	**564.69**	**144.38**

Depreciation

Depreciation has been calculated as per the Regulation 26 of JERC Tariff Regulations, 2009 which specifies that depreciation for the assets shall be calculated annually at the rates specified by CERC from time to time. The same have been applied on the different asset categories to arrive at the depreciation for the year.

Table 65: Asset-wise breakup of depreciation approved by the Commission for FY 2011-12

Particulars	Rate of depreciation	Opening GFA	Additions during the year	Closing GFA	Depreciation
	%age	Rs Cr	Rs Cr	Rs Cr	Rs Cr
Land and land rights	0.0%	-	-	-	-
Buildings	3.3%	2.15	1.60	3.76	0.10
Plant and Machinery	5.3%	8.02	5.97	13.99	0.58
Lines and cable network	5.3%	69.37	51.68	121.06	5.05
Vehicles	9.5%	-	-	-	-
Furniture & Fixtures	6.3%	0.03	0.02	0.05	0.00
Office Equipment	6.3%	0.03	0.02	0.05	0.00
IT equipment	15.0%	0.31	0.23	0.54	0.06
Testing & measuring equipment	5.3%	2.83	2.11	4.94	0.21
SCADA center	5.3%	-	-	-	-
TOTAL		**82.74**	**61.64**	**144.38**	**6.00**

The table below captures the depreciation as submitted and considered approved by the Commission.

Table 66: Depreciation approved by the Commission for FY 2011-12

Particulars	Approved FY 2010-11	Estimates submitted in the FY 11-12 petition	Revised Estimates for FY 11-12	Approved FY 11-12
Depreciation (Rs Cr)	3.03	25.07	25.07	6.00

Commission considers the depreciation of Rs. 6.00 Cr as reasonable and approves the same as part of the ARR for FY 2011-12.

7.8 Interest and Finance Charges

Petitioner's submission

The Petitioner has estimated the expenditure under this head of Rs 1.95 Cr and submits that as per the first half actuals the expenses under this head are Rs. 0.48 Cr.

Commission's analysis

The Commission has analysed the nature of the expenses as submitted by the Petitioner as part of the interest and finance charges and considering them as reasonable, approves them for FY 2011-12. The Commission observes that the interest on the normative loan will be examined at the time of true-up once the audited accounts are furnished.

Table 67: Interest and Finance Charges approved by the Commission for FY 2011-12

Particulars	Approved FY 2010-11	Estimates submitted in the FY 11-12 petition	Revised Estimates for FY 11-12	Approved FY 11-12
Interest & Finance Charges (Rs Cr)	1.87	1.95	1.95	1.95

The Commission considers interest and finance charges of Rs 1.95 Cr as reasonable and approves the same for ARR of FY 2011-12.

7.9 Interest on Working Capital

Petitioner's submission

The Petitioner has submitted interest on working capital as per the JERC Tariff Regulations. The rate of interest on working capital has been considered as 11.75%.

The Petitioner requests the Hon'ble Commission to approve Interest on normative working capital at Rs. 10.42 Cr. The Petitioner submits that the high cost of power purchase has resulted in high interest on working capital of Rs 10.42 Cr as against the actuals of Rs 7.70 Cr for FY 2010-11.

Commission's analysis

The Commission has considered the calculation of the different components of the interest on working capital as per the JERC Tariff Regulations. The Commission has considered that the amount collected from the consumers as security deposit is available with the Petitioner and has treated this as available to meet part of working capital requirement for FY 2011-12.

In line with the treatment of the working capital done in the previous chapters, the Commission has considered the receivables equivalent to two months billing, as security deposit available with the Petitioner, as a source to meet working capital requirements and has deducted this amount from the working capital considered for calculation of the interest on working capital for FY 2011-12.

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 13%[8] as on 1st April 2011 for the calculation of the interest on working capital.

Table 68: Interest on working capital approved by the Commission for FY 2011-12

Particulars (Rs Cr)	Approved FY 2010-11	Estimates submitted in the FY 11-12 petition	Revised Estimates FY 11-12	Approved FY 11-12
Power Purchase Cost for one month	59.75	81.22	83.11	75.14
Employee Cost for one month	4.16	4.38	4.38	4.38
A&G Expenses for one month	0.29	0.29	0.32	0.33
R&M Expenses for one month	0.66	0.78	0.86	0.86
Total Working Capital for one month	**64.86**	**86.67**	**88.67**	**80.71**
Closing Security Deposit (amount already with EDP)	93.08	-	-	105.13
Total Working Capital considered for one month	(28.22)	86.67	88.67	(24.42)
SBI PLR Rate	**11.75%**	**11.75%**	**11.75%**	**13.00%**
Interest on Working Capital	**NIL**	**10.18**	**10.40**	**NIL**

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

The Commission approves the Interest on Working Capital as NIL as part of the ARR for FY 2011-12.

Since no interest on the security deposit has been paid for, it has not been considered for in the ARR of FY 2011-12.

7.10 Provision for bad and doubtful debts

Petitioner's submission

The Petitioner submits that the process of reconciling the list of arrears with the sundry debtor balances as per the financial statements is underway, but is likely to take a significant amount of time and effort, they are not claiming any provision for the bad and doubtful debts in the ARR of FY 2011-12 for pass through in tariff to the consumers.

Commission's analysis

The Commission agrees with the submission of the Petitioner and would consider the bad and doubtful debts only after availability of audited accounts, which will be taken up at the time of true up of ARR, in line with JERC Tariff Regulations.

Table 69: Provision for bad debts approved by the Commission for FY 2011-12

Particulars	Approved FY 2010-11	Estimates submitted in the FY 11-12 petition	Revised Estimates FY 11-12	Approved FY 11-12
Provision for bad and doubtful debts	NIL	Not claimed	Not claimed	NIL

7.11 Return on Capital Base

Petitioner's Submission

The Petitioner has submitted a return on capital base @3 % on the net capital base at the beginning of the year of Rs. 408.92 Cr at Rs 12.27 Cr and requests the Commission to approve the same.

Commission's Analysis

EDP being an integrated utility is entitled to return on capital base as per Regulation 23 of JERC Tariff Regulations.

The return on capital base as per the provisions of the regulations is as below.

Table 70: Return on Capital Base approved by the Commission for FY 2011-12

	FY 2011-12
Particulars (Rs Cr)	Approved
Gross block at beginning of the year	82.74
Less accumulated depreciation	3.87
Less accumulated consumer contribution	-
Less opening debt	-
Net fixed assets at beginning of the year	**78.87**
Reasonable return @3% of NFA	**2.37**

The Return on Capital Base as claimed and approved for the year is tabulated below.

Table 71: Return on capital base approved by the Commission for FY 2011-12

Particulars	Approved FY 2010-11	Estimates submitted in the FY 11-12 petition	Revised Estimates FY 11-12	Approved FY 11-12
Return on Capital Base (Rs Cr)	0.93	12.21	12.27	2.37

7.12 Revenue and Profit from outside sales /UI sales

Petitioner's submission

The Petitioner has estimated the total revenue from UI sales of Rs 138.1 Cr from the total UI sales of 433.4 MU. The Petitioner submits that the UI sales for the first half of the year have been 185.8 MU and revenue from UI sales has been Rs 52.1 Cr.

The Petitioner has submitted that this income should be treated under the head of 'Non Tariff Income' and should be reduced from the gross ARR to arrive at the net ARR.

Commission's analysis

The Commission has considered the first half actual data as submitted by the Petitioner as reasonable and for the second half of the year, as discussed in para 7.5 the excess sales outside the state are assumed to be sold through the short term transactions not limited to UI.

The Commission has assumed that the energy surplus after meeting the energy requirement within the territory is sold to the common pool consumers/UI (through various short-term transactions) at the average realization rate of Rs 4.5/kWh as also discussed in an earlier section of this order – para 7.5. The Commission as per the merit order dispatch considerations, has considered the weighted average variable cost of plants not considered for meeting the requirement within the territory at Rs 2.51/kWh. The difference between the realization and the cost incurred has been taken to be the net profit per unit. The same has been applied on the units sold outside the state to arrive at the revenue earned from various short-term transactions i.e banking, bilateral, power exchanges, UI etc.

The excess sales have been assumed to earn a net surplus of Rs 1.99/kWh during the second half of the year. This result in the net profit earned from outside sales of Rs 75.79Cr during the second half of the year. This together with the first half actuals, results in the revenue earned from outside sales at Rs. 130.07 Cr.

This income is treated as part of the 'Non Tariff Income' and reduced from the gross ARR to arrive at the aggregate revenue requirement.

Table 72: Revenue and profit from outside sales approved by the Commission for FY 2011-12

Particulars (Rs Cr)	Approved FY 2010-11	Estimates submitted in the FY 11-12 petition	Revised Estimates FY 11-12	Approved FY 11-12
Revenue and profit from outside sales	90.11	136.25	138.10	130.07

7.13 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 other income under this head as per the revised estimates is Rs 9 Cr, and adding the 'revenue from UI sales' under this head gives the total non tariff income of Rs. 147.10 Cr.

Commission's analysis

The 'other income' as submitted by the Petitioner is considered reasonable and hence approved. This together with the 'Revenue from outside sales /UI sales' approved above gives total approved sum of Rs 139.07 Cr under the head of 'Non Tariff Income'.

Table 73: Non tariff income approved by the Commission for FY 2011-12

Particulars (Rs Cr)	Approved FY 2010-11	Estimates submitted in the FY 11-12 petition	Revised Estimates for FY 11-12	Approved FY 11-12
Non Tariff Income (including revenue and profit from UI sales)	96.72	143.25	147.10	139.07

7.14 Aggregate Revenue Requirement for FY 2011-12

Petitioner's submission

The Petitioner has submitted the net revenue requirement for the year 2011-12 as Rs 966.7 Cr based on the items of expenditure discussed above. This is the revised estimate against the earlier submitted estimate of Rs 948.4 Cr by the Petitioner.

Commission's analysis

Based on the items of expenditure discussed in the preceding sections, the Commission approves the net revenue requirement for FY 2011-12 at Rs 839.78 Cr. The same has been summarized in the table below.

Table 74: Aggregate Revenue Requirement approved by the Commission for FY 2011-12

Particulars (Rs Cr)	Approved FY 2010-11	Estimates submitted in the FY 11-12 petition	Revised Estimates for FY 11-12	Approved FY 11-12
Cost of power purchase	716.96	975.50	997.30	901.73
Employee Costs	49.88	52.55	52.55	52.55
A&G expenses	3.53	3.91	3.91	3.91
R&M Expenses	7.95	10.34	10.34	10.34
Depreciation	3.03	25.07	25.07	6.00
Advance against Depreciation	-	-	-	-
Interest & Finance Charges	1.87	1.95	1.95	1.95
Interest on Working Capital	-	10.18	10.40	-
Provision for bad debts	-	-	-	-
Return on NFA @ 3% of NFA	0.93	12.21	12.27	2.37
Amortisation of regulatory asset proposed for previous years	-	-	-	-
Total	**784.15**	**1,091.71**	**1,113.79**	**978.85**
Less Non tariff Income	96.72	143.25	147.10	139.07
Aggregate revenue requirement	**687.43**	**948.46**	**966.69**	**839.78**

7.15 Revenue from existing tariff

Petitioner's submission

The Petitioner has submitted the revised estimates of the revenue from tariff of Rs. 650.2 Cr and has considered additional revenue of Rs. 46.4 Cr towards recovery of fuel charges, giving the total expected revenue from charges of Rs. 696.6 Cr.

Commission's analysis

Based on the estimates of sales, consumers and connected load approved by the Commission, the Commission has arrived at the revenue from existing tariff of Rs 646.11Cr. The slab wise consumers, sales and the connected load have been pro-rated as per the provisional actual available data of FY 2010-11. The FCA adjustment charges, as submitted by the Petitioner amounting to Rs 46.40 Cr have also been considered by the Commission, resulting in the total revenue of Rs 692.51 Cr.

Hon'ble APTEL order dated 27.04.2012 and compliance thereof

The Commission observes that the determination of fuel surcharge adjustment for the period from April 2010 to October 2010 amounting to Rs. 46.40 Cr has been set aside by the Hon'ble APTEL vide its order dated 27.04.2012 in Appeal No. 187/2011 and 6/2012 in the cases of M/s Chemplast Sanmar Limited and M/s Chemfab Alkalies Limited due to infirmity in the process of determination of fuel surcharge and directed the Commission to undertake an exercise afresh to determine fuel surcharge, if any, after following the procedure as per law.

The Commission in compliance of the aforesaid Hon'ble APTEL order has already commenced an exercise afresh for redetermination of fuel surcharge. Public hearing on the same has been already scheduled on 19.06.2012 & 20.6.2012 at Karaikal & Puducherry respectively. Meanwhile, the Commission has also devised a new formula, uploaded on the Commission's website, issued public notice through newspaper and has invited suggestions/comments from all stakeholders. The Commission has also conducted Public Hearings and is in the process of finalizing the revised Fuel & Power purchase cost adjustment formula, which shall be applicable prospectively i.e. from FY 2012-13 onwards.

The Commission is of the view that non-consideration of Rs. 46.40 Crs against the fuel surcharge for FY 2010-11 billed/collected in FY 2011-12 would result in additional unbearable burden on the consumers in FY 2012-13.Therefore, the Commission is of the view that the fuel surcharge charges amounting to Rs. 46.40 Cr as submitted by the petitioner prior to the Hon'ble APTEL order dated 27.04.2012 should be considered at this stage , pending outcome of the re-determination of fuel surcharge afresh.

Thus, the Commission has decided to carry forward the entire estimated revenue gap of FY 2011-12 along with the gap arrived for FY 2009-10, FY 2010-11 and unbridged gap of FY 2012-13 as total regulatory asset and amortize the same considering the outcome of the re-determination of the fuel surcharge for FY 2010-11 over the next 3 years commencing FY 2013-14 in line with the JERC Tariff Regulations.

Table 75: Revenue from tariff approved by the Commission for FY 2011-12

Particulars	Approved FY 2010-11	Estimates submitted in the FY 11-12 petition	Revised Estimates for FY 11-12	Approved FY 11-12
Revenue from tariff (Rs Cr)	630.8	692.8	696.6	692.51

7.16 Revenue Gap for FY 2011-12

The revenue gap approved for the year is Rs 147.27 Cr on the basis of the approved net revenue requirement of Rs 839.78 Cr and the revenue from tariff of Rs. 692.51 Cr for FY 2011-12.

Table 76: Revenue Gap approved by the Commission for FY 2011-12

Particulars (Rs Cr)	Approved FY 2010-11	Estimates submitted in the FY 11-12 petition	Revised Estimates for FY 11-12	Approved FY 11-12
Net Revenue Requirement	687.43	948.46	966.69	839.78
Revenue from tariff	630.80	692.8	696.6	692.51
Revenue Gap	**56.63**	**255.66**	**270.09**	**147.27**

7.17 Average Cost of Supply for FY 2011-12

The average cost of supply approved for FY 2011-12 is as shown below.

Table 77: Average Cost of Supply approved by the Commission for FY 2011-12

Particulars (Rs /kWh)	Approved FY 2010-11	Estimates submitted in the FY 11-12 petition	Revised Estimates for FY 11-12	Approved FY 11-12
Average Cost of Supply	3.15	4.11	4.17	3.66

8. Aggregate Revenue Requirement (ARR) for FY 2012-13

8.1 Background

The petition for the determination of ARR & Tariff for FY 2012-13 contains the revised estimates for FY 2011-12 and the estimates for FY 2012-13.

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

ii. ARR for FY 2009-10 as reviewed by the Commission considering actual performance in FY 2009-10 (Actual un-audited Figures) subject to adjustment if any at the time of true-up

iii. ARR for FY 2010-11 approved by the Commission considering actual performance in FY 2010-11 (Actual unaudited figures) subject to adjustment if any at the time of true-up

iv. ARR for FY 2011-12 approved by the Commission considering revised estimates for FY 2011-12 submitted by the Petitioner alongwith the petition for FY 2012-13 and H1 actuals of FY 2011-12 subject to adjustment if any at the time of true-up

8.2 Consumers, Connected Load and Energy Sales

Petitioner's Submission

The Petitioner has applied the 6 year CAGR to the consumer and the sales numbers for the FY 2011-12 to project the sales for FY 2012-13, other than the LT agriculture and the temporary supply connections and the HT categories.

The sales for the agriculture category, largely unmetered have been determined on the basis of the 1289 units/HP/annum assumption on the basis of the physical verification exercise going on; final study results of which are expected by the year 2013-14.

In the case of the temporary supply, by and large the trends of the previous years have been used to forecast the sales for the year 2012-13.

Growth rates of HT categories are minimal, and have been considered on the basis of the actual data for the first six months of FY 2011-12 and the past year trends.

The total sales estimated for the year are 2414.5 MU and the total consumer base of 406,515. The connected load for the agriculture category is 59538 HP and for the HT categories is estimated at 345,252 kVA.

Commission's Analysis

Consumers

The number of consumers for the year has been approved considering a 5 year CAGR (from the year 2005-06 to 2010-11) for the respective consumer categories on the approved values of 2011-12, with the exception of the HT 1, HT 2, HT 3 and the street lighting categories. In cases where the 5 year CAGR was negative, a zero growth has been assumed for the consumer class.

For the HT 1, HT 2 and HT 3 categories, the submission of the Petitioner is considered reasonable and hence approved for the year 2012-13. In the case of street lighting category, the past trends have been analysed and the submission of the Petitioner is considered reasonable.

Growth rate for the consumer categories considered is tabulated below.

Table 78: Growth rates for consumers as considered by the Commission for FY 2012-13

Consumer Category	Growth Rates FY 12-13
Domestic	4.35%
Commercial	3.08%
Agriculture	0.00%
LT Industrial	2.04%
Temporary Supply	-
HT Industrial	1.08%

Table 79: Number of consumers approved by the Commission for FY 2012-13

Consumer Category	Approved for the year FY 2011-12	Estimates submitted in the FY 12 -13 petition	Approved FY 12-13
Domestic	287899	300439	300432

Commercial	41854	43156	43144
Agriculture	6810	6810	6810
Street Lighting	48280	49438	49438
LT Industrial	6086	6212	6210
Temporary Supply	-	-	-
HT Industrial	403	412	412
HT state and Central Govt Establishments	41	41	41
HT Industrial Extra High Tension	7	7	7
TOTAL	**391380**	**406515**	**406494**

Connected Load

The Connected Load for the agriculture category is approved as 59538 HP as per the submission of the Petitioner as considered reasonable and hence approved for the consumer class.

It is observed that the connected load for the HT 1 category has declined from 300,122 kVA in the year 2009-10 to 263,839 kVA in 2010-11. The Petitioner has submitted a load forecast of 250492 kVA for the year 2012-13 and the Commission has considered this as reasonable and hence approves the same.

For the HT 2 category, the connected load is observed to increase from 11,576 kVA in 2009-10 to 13,308 kVA in 2010-11 and the Petitioner has estimated the load for the year 2011-12 and 2012-13 at 14,265 kVA. In line with the year on year growth from 2009-10 to 2010-11 observed, the Commission considers the load estimates of the Petitioner as reasonable and hence approves the same at 14265 kVA.

For the HT3 category, the trend of the connected load is observed to have declined from 90,650 kVA in 2009-10 to 72,910 kVA in 2010-11. The Petitioner has submitted the connected load estimates for this category at 80,495 kVA for FY 2011-12 and FY 2012-13. The Commission has also observed the trends of the sales in this category over the past five years and basis that has assumed a growth of 0% in the connected load of the HT 3 category from the year 2011-12 and accordingly approves 80,495 kVA as the load for the year 2012-13.

Table 80: Connected Load approved by the Commission for FY 2012-13

Consumer Category (Connected Load Units in HP/kVA)	Approved for the year FY 2011-12	Estimates submitted in the FY 12 -13 petition	Approved FY 12-13
Domestic	-	-	-
Commercial	-	-	-
Agriculture (HP)	59538	59538	59538
Street Lighting	-	-	-
LT Industrial	-	-	-
Temporary Supply	-	-	-
HT Industrial (kVA) (HT 1)	245630	250492	250492
HT state and Central Govt Establishments(kVA)(HT 2)	14265	14265	14265
HT Industrial Extra High Tension (kVA) (HT 3)	80495	80495	80495

<u>Energy Sales</u>

The Commission has analysed the past trends of the sales from the year 2005-06 to 2010-11. The 5 year CAGR (from 2005-06 to 2010-11) has been applied on the approved sales for the year 2011-12 to arrive at the approved sales for the year 2012-13; with the exception of the temporary supply and the unmetered category. The modified 5 year CAGR has been considered i.e. in case the CAGR is negative, then zero growth is assumed for the consumer class.

For the OHOB consumers, the consumption norm of 175.2 units/consumer/year is considered reasonable as explained in para 5.3, assuming 2 fluorescent tube lights each of 40 W running 6 hours per day. This taken together with the number of consumers considered for the year of 35,447 results in 6.21 MUs against the claim of 9.3 MUs of the Petitioner. The Commission considers the consumption of 6.21 MU as reasonable and approves the same. The OHOB sales have been clubbed in the category of 'Domestic' in Table 82.

For the agriculture category, the consumption norm of 951.1units/HP/year is considered reasonable as per the TNERC order dated 30th March 2012 for reasons explained in para 5.3.

Sales have been projected on the connected load of 59538 HP to arrive at the sales of 56.63 MU. The Commission considers the consumption of 56.63 MUs as reasonable and approves the same.

For the temporary supply, the Commission has considered the past growth rate in the category from 3 MU in 2009-10 to 8 MU in 2010-11 and has found the submission of the Petitioner as reasonable and hence approves the same at 25 MU for year 2012-13.

The total sales approved for the year are 2387.6 MU. The growth rates assumed for the different consumer categories are as below:

Table 81: Growth rates for energy sales as considered by the Commission for FY 2012-13

Consumer Category	Growth Rates FY 12-13 Petitioner	Growth Rates FY 12-13 Commission
Domestic *	10%	9.72%
Commercial	7%	6.89%
Street Lighting	11%	11.20%
LT Industrial	6%	5.6%
HT Industrial	1%	1.08%
HT state and Central Govt Establishments	7%	6.90%
HT Industrial Extra High Tension	0%	0.00%

*Growth rates for Domestic category are excluding the OHOB category

The sales approved for the respective consumer categories are as below.

Table 82: Energy Sales approved by the Commission for FY 2012-13

Consumer Category	Approved for the year FY 2011-12 (MU)	Estimates submitted in the FY 12 -13 petition (MU)	Approved FY 12-13 (MU)
Domestic	569.3	629.0	623.2
Commercial	172.1	185.0	184.0
Agriculture	56.6	76.7	56.63
Street Lighting	23.4	26.0	26.0
LT Industrial	160.1	169.0	169.1
Temporary Supply	22.6	25.0	25.0
HT Industrial	1016.3	1027.0	1027.3

HT state and Central Govt Establishments	37.3	40.0	39.9
HT Industrial Extra High Tension	236.5	236.0	236.5
TOTAL	**2294.2**	**2414.53**	**2387.6**

8.3 Energy Losses

Petitioner's Submission

The Petitioner has estimated the T&D loss for the year 2011-12 as 13.47% and considering a marginal reduction for the year 2012-13 as 13.35%. The Petitioner submits that as EDP operates a relatively smaller area, the reduction in losses becomes progressively difficult and the utility has an adverse LT: HT sales mix.

Commission's analysis

The Commission has analyzed the past trends of the T&D loss levels and allows the T&D loss at 12.5% for the year against the 13.35% as submitted by the Petitioner. The Commission has considered a reduction of 0.5% per year in the T&D loss reduction trajectory since FY 2009-10.

Table 83: Energy losses approved by the Commission for FY 2012-13

Particulars	Approved for the year FY 11-12	Estimates submitted in the FY 12 -13 petition	Approved FY 12-13
Energy Losses	13%	13.35%	12.50%

8.4 Energy Balance

Petitioner's submission

The Petitioner submits that considering the internal losses of 13.35%, the energy requirement for the sale within the territory is 2786.53 MU. The sale through UI has been estimated at 398.9 MU.

The energy availability at the periphery has been estimated at 3185.6 MU based on the expected availability from the different sources of power, considering the external loss of 148.9 MU on the gross power purchase of 3334.5 MU.

Commission's analysis

Based on the approved sales of 2387.56 MU and internal losses of 12.50%, the energy requirement for sale within the territory is approved at 2728.64 MU.

The Commission has considered the net power purchase of 3345.09 MU as per the projections of the Commission. The detailed analysis of the power purchase from the different sources has been discussed in para 8.5. The external losses have been approved as 149.90 MU, resulting in the net energy availability of 3195.19 MU. The difference between energy availability and the energy requirement at the periphery to meet demand within the territory has been taken to be the outside sales/UI.

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

Table 84: Energy balance approved by the Commission for FY 2012-13

Consumer Category	Approved for the year FY 2011-12	Estimates submitted in the FY 12 -13 petition	Approved FY 12-13
ENERGY REQUIREMENT			
Energy sales in the UT	2294.24	2,414.53	2387.56
Distribution losses (%age)	13.00%	13.35%	12.50%
Energy required for the Territory (MU)	2637.06	2,786.53	2728.64
Add: Sales to common pool consumers/ UI	574.38	398.90	466.55
Energy Requirement @ periphery	**3211.44**	**3,185.43**	**3195.19**
ENERGY AVAILABILITY			
Gross Energy Availability	3359.99	3334.5	3345.09
External losses (MU)	148.55	148.9	149.90
Net Energy Availability	**3211.44**	**3185.60**	**3195.19**

8.5 Power Purchase Quantum and Cost

Petitioner's submission

The Petitioner submits that the cost of power purchase for the year is Rs. 997.8 Cr and power purchase quantum has been 3334.5 MU. The power purchase cost for the year is high on account of increased allocations, revised tariffs and arrears that have become due in this fiscal.

Commission's Analysis

The Commission has estimated the power purchase quantum and cost based on the following assumptions:
For estimating the energy availability & power purchase cost for FY 2012-13, the following has been considered:

- The PLF/Availability as submitted by the Petitioner has been considered reasonable and assumed for projections

- The auxiliary consumption (%) has been considered as per the CERC Tariff Regulations for FY 2009-2014

- Weighted average share (including unallocated share) of the Petitioner in various generating stations as per latest revised allocation orders of Govt. of India during FY 2011-12

- PAFM monthly data has been assumed equal to the corresponding month of FY 2011-12 as per the REA reports of the corresponding month

- Latest tariff orders of CERC have been considered for estimation of fixed cost and monthly fixed cost has been calculated as per the formula of the CERC Tariff Regulations 2009-14. For plants having been in operation for less than 10 years i.e. NLC TS II Stage II, Ramagundam STPS Stage III, Talcher STPS Stage II and Simhadri the formula for determination of monthly fixed charges has been suitably modified

- Variable Charges for the generating stations of NLC - TS II Stage I, TS II Stage II, TS I Expn and NPC plants- Madras APS and Kaiga APS Stage I have been taken as per the available latest tariff orders

- Average variable charges of the last three months of the first half of the year (September'11, August'11 and July'11) have been considered for projecting the variable charges for the remaining six months of the year for the plants whose variable charges were not available as per the tariff orders of the generating station i.e the NTPC plants.
- For KSEB, the bulk supply rate has been applied and for TNEB the procurement rate of Rs 1.91/kWh as applicable
- PGCIL losses have been assumed as the past 52 week southern grid losses as per the data available on the SRLDC site

Table 85: Power Purchase Quantum approved by the Commission for FY 2012-13

Source	Capacity (MW)	Availability / PLF (in %)	Gross Generation (MU)	Auxiliary Consumption (%)	Net Generation (MU)	Firm allocation to EDP (%)	Purchase (MU)
NPC-Madras APS	440	53.10%	2046.69	10%	1842.02	1.86	34.20
NPC-Kaiga APS Stage I	880	55.10%	4247.55	10%	3822.79	4.22	161.45
KSEB							32.9
NTPC-Ramagundam STPS Stage III	500	96.55%	4228.89	6.50%	3954.01	5.20	205.61
NTPC-Ramagundam STPS Stage I & II	2100	93.70%	17237.05	7.20%	15995.98	4.92	787.00
NLC-TS I Expn	420	81.75%	3007.75	9.50%	2722.01	4.08	110.97
PPCL	32.5	87%	247.689	5.50%	234.07	100	234.07
TNEB (Pondy)							73.8
TNEB (Karaikal)							326.8
NLC-TS II Stage I	630	81.60%	4503.34	10%	4053.01	12.18	493.52
NLC-TS II Stage II	840	83.45%	6140.58	10%	5526.53	3.62	200.06
NTPC-Talcher STPS Stage II	2000	90.45%	15846.84	6.50%	14816.80	3.83	567.48
NTPC-Simhadri	500	77.80%	3407.64	6%	3203.18	3.66	117.24
TOTAL							**3,345.09**

<u>Power Purchase Cost</u>

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. The excess units have been assumed to be sold through various short-term transactions at the average realization rate of Rs 4.5/kWh for reasons explained in para 7.5 of this order. The weighted average cost of plants not considered for meeting the requirement within the state has been determined to arrive at the net surplus /unit the utility would earn through short-term transactions, to be considered as the revenue from outside sales and hence part of the non-tariff income.

Fixed Charges and Other Charges from all the generating stations (irrespective of the merit order) have been considered for arriving at the power purchase cost. The other charges as submitted by the Petitioner have been analysed. The PPCL 'other charges' as projected by the Petitioner of Rs 11.8 Cr have not been considered and have been taken as per the latest tariff order of PPCL for FY 2012-13 issued by JERC. Rest of the 'other charges' as submitted by the Petitioner for the various generating stations have been found to be reasonable and hence approved at Rs 26.98 Cr.

PGCIL charges have been determined on the basis of the cost incurred per unit during the first half of FY 2011-12. Rebate charges have been assumed at the same percentage as that during FY 2010-11.

Renewable Purchase Obligations

As per JERC (Procurement of Renewable Energy) Regulations 2010 clause 1 sub clause (1)
Each distribution licensee shall purchase electricity (in kWh) from renewable energy sources, at a defined minimum percentage of the total consumption of all the consumers in its area during a year.

The Petitioner has to purchase 3% of total energy purchase for sale to the consumers in its area as power purchase from renewable sources for FY 2012-13 including 0.40% for Solar and 2.60% for Non-Solar. The Commission has assumed that the utility would meet its RPO targets during the year through purchase of REC certificates.

The Commission has assumed the average REC price of Rs 2550 as submitted by the Petitioner as reasonable and allows the RPO cost at Rs. 20.87 Cr for the year.

Power Purchased from Bilateral, UI, Power Exchanges and Banking arrangement

Considering the past trends, no bilateral, banking, power exchange arrangements are in place. The UI purchase has not been considered by the Commission.

The total cost of power purchase including the PGCIL, RPO and the rebate charges for FY 2012-13 is Rs 868.02 Cr for the total quantum of power purchase of 3345.09 MU.

Table 86: Power Purchase Cost Charges approved by the Commission for FY 2012-13

Source	Purchase (MU)	VC (Rs/ Unit)	Fixed Charges (Rs Cr)	VC (Rs Cr)	Others (Rs Cr)	Total (Rs Cr)	(Rs/KWh)
NPC-Madras APS	34.20	1.79	-	6.13	0.10	6.23	1.82
NPC-Kaiga APS Stage I	161.45	2.80	-	45.13	10.70	55.83	3.46
KSEB	32.90	3.16	2.00	10.40	0.10	12.50	3.80
NTPC-Ramagundam STPS Stage III	205.61	1.54	17.86	31.70	1.10	50.66	2.46
NTPC-Ramagundam STPS Stage I & II	787.00	1.58	43.98	123.95	4.50	172.44	2.19
NLC-TS I Expn	110.97	1.73	15.52	19.20	0.70	35.42	3.19
PPCL	234.07	1.91	26.71	44.71	1.00	72.42	3.09
TNEB (Pondy)	73.80	1.91	-	14.13	-	14.13	1.91
TNEB (Karaikal)	326.80	1.91	-	62.56	-	62.56	1.91
NLC-TS II Stage I	493.52	1.92	31.33	94.71	2.88	128.91	2.61
NLC-TS II Stage II	200.06	1.92	11.80	38.39	1.20	51.40	2.57
NTPC-Talcher STPS Stage II	567.48	2.63	42.81	54.21	3.70	100.72	1.77
NTPC-Simhadri	117.24	2.65	20.79		1.00	21.79	1.86
PGCIL						77.92	
RPO compliance cost						20.87	
Rebate						15.75	
Total Power Purchase Cost	**3345.09**		212.80	545.20	26.98	**868.02**	

Table 87: Summary of power purchase quantum and cost approved by the Commission for FY 2012-13*

Particulars	Approved for the year FY 2011-12	Estimates submitted in the FY 12 -13 petition	Approved FY 2012-13
Power Purchase Quantum (MU)	3359.99	3334.50	3345.09
Power Purchase Cost (Rs Cr)	901.73	997.80	868.02

* Power purchase cost of FY 2011-12 includes H1 actuals of FY 2011-12 whereas the cost for FY 2012-13 is based on the estimates of merit order considerations resulting in higher cost of power purchase for FY 2011-12

8.6 Operation and Maintenance Expenses

The Operation and Maintenance (O&M) expenses comprising of the employee expenses, A&G expenses, R&M expenses have been discussed in the following sections.

Employee Cost

Petitioner's submission

The Petitioner has submitted the employee cost estimates at Rs 54.79 Cr, net of the capitalization of Rs. 21.09 Cr.

Commission's analysis

The Commission has considered the employee expenses in line with the JERC Tariff Regulations, limited to the expenses as estimated by the Petitioner.

The approved expenses of FY 2011-12 have been escalated by the WPI factor of 8.76%[9] to arrive at the expenses for FY 2012-13. The capitalization of the employee expenses has been taken in the same proportion of the gross employee expenses as in the actuals of 2010-11. However, the Commission has limited the approval of the employee expenses to Rs 54.79 Cr, net of the capitalization of Rs 21.09 Cr as submitted by the Petitioner as reasonable and hence approved.

Table 88: Employee expenses approved by the Commission for FY 2012-13

Particulars (Rs Cr)	Approved for the year FY 2011-12	Estimates submitted in the FY 12 -13 petition	Approved FY 12-13
Employee Expenses	52.55	54.79	54.79

Commission considers the employee expenses of Rs. 54.79 Cr as reasonable and approves the same for FY 2012-13.

Administrative and General Expenses

Petitioner's submission

The total A&G expenses estimated by the Petitioner are Rs 3.91 Cr based on the past trends.

[9] Latest WPI index upto March 2012 has been used as available on the website of Economic Advisor, Ministry of Commerce and Industry

Commission's analysis

The approved expenses of FY 2011-12 have been escalated by the WPI factor of 8.76% to arrive at the expenses for FY 2012-13 limited to the submission of the Petitioner, as considered reasonable and hence approved.

Table 89: A&G expenses approved by the Commission for FY 2012-13

Particulars (Rs Cr)	Approved for the year FY 2011-12	Estimates submitted in the FY 12 -13 petition	Approved FY 12-13
A&G Expenses	3.91	3.91	3.91

Commission considers the A&G expenses of Rs 3.91 Cr as reasonable and approves the same for FY 2012-13.

Repair and Maintenance Expenses

Petitioner's submission

The Petitioner submits that total R&M expenditure for the year is estimated as Rs. 10.77 Cr, a marginal increase over the revised estimates for the year 2011-12 of Rs. 10.34 Cr.

Commission's analysis

The Commission has analysed the past trends of the R&M expenses, and has found the submission of the Petitioner as reasonable and hence approved for FY 2012-13. 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 utility.

Table 90: R&M expenses approved by the Commission for FY 2012-13

Particulars (Rs Cr)	Approved for the year FY 2011-12	Estimates submitted in the FY 12 -13 petition	Approved FY 12-13
R&M Expenses	10.34	10.77	10.77

Commission considers R&M expenses of Rs. 10.77 Cr as reasonable and approves the same for FY 2012-13.

<u>Summary of O&M Expenses approved for FY 2012-13</u>

The O&M expenses as submitted and approved for the year 2012-13 are as below:

Table 91: O&M expenses approved by the Commission for FY 2012-13

Particulars (Rs Cr)	Approved for the year FY 2011-12	Estimates submitted in the FY 12 -13 petition	Approved FY 12-13
O&M Expenses	**66.80**	**69.47**	**69.47**

8.7 GFA and Depreciation

Petitioner's submission

The Petitioner has requested to approve the depreciation amount of Rs 33.04 Cr on the opening GFA and capitalization considered during the year amounting to Rs 564.69 Cr and Rs. 66.36 Cr respectively.

Commission's analysis

<u>GFA and Capitalisation</u>

In line with the treatment of the GFA and capitalization done in the earlier chapters, the Commission considering the reasonableness of the expenditure approves the capitalization of Rs. 66.36 Cr for FY 2012-13.

Table 92: Gross Fixed Assets approved by the Commission for FY 2012-13

Particulars (Rs Cr)	Approved for the year FY 2011-12	Estimates submitted in the FY 12 -13 petition	Approved FY 12-13
Opening Value of Assets at the beginning of the year	82.74	564.69	144.38
Additions during the year	61.64	66.36	66.36
Gross Fixed Assets at the end of year	**144.38**	**631.05**	**210.74**

Depreciation

Depreciation has been calculated as per the Regulation 26 of JERC Tariff Regulations which specifies that depreciation for the assets shall be calculated annually at the rates specified by CERC from time to time. The same have been applied on the different asset categories.

Table 93: Asset –wise breakup of depreciation approved by the Commission for FY 2012-13

Particulars	Rate of depreciation	Opening GFA	Additions during the year	Closing GFA	Depreciation
	%age	Rs Cr	Rs Cr	Rs Cr	Rs Cr
Land and land rights	0.0%	-	-	-	-
Buildings	3.3%	3.76	1.73	5.49	0.15
Plant and Machinery	5.3%	13.99	6.43	20.43	0.91
Lines and cable network	5.3%	121.06	55.64	176.70	7.89
Vehicles	9.5%	-	-	-	-
Furniture & Fixtures	6.3%	0.05	0.02	0.07	0.00
Office Equipment	6.3%	0.05	0.02	0.07	0.00
IT equipment	15.0%	0.54	0.25	0.79	0.10
Testing & measuring equipment	5.3%	4.94	2.27	7.21	0.32
SCADA center	5.3%	-	-	-	-
TOTAL		**144.38**	**66.36**	**210.74**	**9.38**

The table below captures the depreciation as submitted and considered approved by the Commission.

Table 94: Depreciation approved by the Commission for FY 2012-13

Particulars (Rs Cr)	Approved for the year FY 2011-12	Estimates submitted in the FY 12 -13 petition	Approved FY 12-13
Depreciation	6.00	33.04	9.38

Commission considers the depreciation of Rs. 9.38 Cr as reasonable and approves the same for FY 2012-13.

8.8 Interest and Finance Charges

Petitioner's submission

The Petitioner has estimated the expenditure under this head of Rs 1.88 Cr.

Commission's analysis

The Commission has analyzed the nature of the expenses as submitted by the Petitioner as part of the interest and finance charges and considering the reasonableness of the expenditure incurred by the utility, considers them allowed for FY 2012-13. The Commission observes that the interest on the normative loan will be examined at the time of true-up once the audited accounts are furnished.

Table 95: Interest and Finance Charges approved by the Commission for FY 2012-13

Particulars (Rs Cr)	Approved for the year FY 2011-12	Estimates submitted in the FY 12 -13 petition	Approved FY 12-13
Interest & Finance Charges	1.95	1.88	1.88

8.9 Interest on Working Capital and Interest on Consumer Security Deposit

Petitioner's submission

The Petitioner has submitted interest on working capital as per the JERC Tariff Regulations. The rate of interest on working capital has been considered as 11.75%.

The Petitioner requests the Commission to approve interest on normative working capital at Rs. 10.45 Cr.

Commission's analysis

The Commission has considered the calculation of the different components of the interest on working capital as per Regulation 29 of the JERC Tariff Regulations.

Commission has considered the amount collected from the consumers as security deposit available with the Petitioner and has treated this as available to meet part of working capital requirement for FY 2012-13, assuming this amount equivalent to two months billing.

The Commission has considered the SBI advance rate of 14.75%[10] as per the latest available SBI Advance rate for the calculation of the interest on working capital.

Table 96: Interest on working capital approved by the Commission for FY 2012-13

Particulars (Rs Cr)	Approved for the year FY 2011-12	Estimates submitted in the FY 12 -13 petition	Approved FY 12-13
Power Purchase Cost for one month	75.14	83.15	72.34
Employee Cost for one month	4.38	4.57	4.57
A&G Expenses for one month	0.33	0.33	0.33
R&M Expenses for one month	0.86	0.90	0.90
Total Working Capital for one month	**80.71**	**88.95**	**78.12**
Closing Security Deposit (amount already with EDP)	105.13	-	107.68
Total Working Capital considered for one month	(24.42)	88.95	(29.56)
SBI PLR Rate	**13.00%**	**11.75%**	**14.75%**
Interest on Working Capital	**NIL**	**10.50**	**NIL**

The Commission allows the interest of Rs 10.23 Cr, on the assessed security deposit of Rs 107.68 Cr at the bank rate of 9.50%, to be recovered as part of the ARR and to be paid to the consumers effective 1st April 2012.

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

8.10 Provision for bad and doubtful debts

Petitioner's submission

The Petitioner submits that the process of reconciling the list of arrears with the sundry debtor balances as per the financial statements is underway, but is likely to take a significant amount of time and effort, they are not claiming any provision for the bad and doubtful debts in the ARR of FY 2012-13 for pass through in tariff to the consumers.

Commission's analysis

The Commission agrees with the submission of the Petitioner and would consider the bad and doubtful debts only after availability of audited accounts, which will be taken up at the time of true up of ARR, in line with the JERC Tariff Regulations.

Table 97: Provision for bad debts approved by the Commission for FY 2012-13

Particulars	Approved for the year FY 2011-12	Estimates submitted in the FY 12 -13 petition	Approved FY 12-13
Provision for bad and doubtful debts	NIL	Not claimed	NIL

8.11 Return on capital base

Petitioner's Submission

The Petitioner has submitted a return on capital base @3 % on the net capital base at the beginning of the year of Rs. 470.33 Cr of Rs 14.11 Cr and requests the Commission to approve the same.

Commission's Analysis

EDP being an integrated utility is entitled to return on capital base as per Regulation 23 of JERC Tariff Regulations. The return on capital base as per the provisions of the regulations is as shown below.

Table 98: Return on capital base approved by the Commission for FY 2012-13

Particulars (Rs Cr)	Approved FY 2012-13
Gross block at beginning of the year	144.38
Less accumulated depreciation	**9.87**
Less accumulated consumer contribution	-
Less opening debt	-
Net fixed assets at beginning of the year	**134.51**
Reasonable return @3% of NFA	**4.04**

Table 99: Return on capital base approved by the Commission for FY 2012-13

Particulars (Rs Cr)	Approved for the year FY 2011-12	Estimates submitted in the FY 12 -13 petition	Approved FY 12-13
Return on Capital Base	2.37	14.11	4.04

8.12 Profit earned from outside sales/UI sales

Petitioner's submission

The Petitioner has estimated the total revenue from UI sales of Rs 132.05 Cr from the total UI sales outside the state at an average rate of Rs 3.48/kWh. The Petitioner has submitted that this income should be treated under the head of 'Non Tariff Income' and should be reduced from the gross ARR to arrive at the net ARR.

Commission's analysis

The Commission has assumed that the energy surplus after meeting the energy requirement within the territory is sold to the common pool consumers/UI (through various short-term transactions) at the average realization rate of Rs 4.5/kWh. The Commission as per the merit order dispatch considerations, has considered the weighted average variable cost of plants not considered for meeting the requirement within the territory at Rs 2.64/kWh. The difference between the realization and the cost incurred has been taken to be the net surplus per unit. The same has been applied on the energy sold outside the state as per para 8.4 to arrive at the profit earned from outside sales through various short-term transactions i.e banking, bilateral, power exchanges, UI etc.

Table 100: Profit earned from outside sales approved by the Commission for FY 2012-13

Particulars (Rs Cr)	Approved for the year FY 2011-12	Estimates submitted in the FY 12 -13 petition	Approved FY 12-13
Profit earned from outside sales	130.07	132.05	86.94

8.13 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 other income under this head as per the revised estimates is Rs 9 Cr, and adding the 'revenue from UI sales' under this head gives the total non tariff income of Rs. 141.05 Cr.

Commission's analysis

The Commission has found the submission of the Petitioner under the head of 'other income' as reasonable and approves the same at Rs 9 Cr. This together with the ' Profit earned from outside sales' approved above gives total approved sum of Rs. 95.94 Cr under the head of 'Non Tariff Income'.

Table 101: Non tariff income approved by the Commission for FY 2012-13

Particulars (Rs Cr)	Approved for the year FY 2011-12	Estimates submitted in the FY 12 -13 petition	Approved FY 12-13
Non Tariff Income (including profit earned from outside sales)	139.07	141.05	95.94

8.14 Aggregate Revenue Requirement for FY 2012-13

Petitioner's submission

The Petitioner has submitted the net revenue requirement for FY 2012-13 as Rs 1043.55 Cr based on the items of expenditure discussed above.

Commission's analysis

Based on the items of expenditure discussed in the preceding sections, the Commission approves the aggregate revenue requirement for FY 2012-13 at Rs 867.08 Cr. The same has been summarized in the table below.

Table 102: Aggregate Revenue Requirement approved by the Commission for FY 2012-13

Particulars (Rs Cr)	Approved for the year FY 2011-12	Estimates submitted in the FY 12 -13 petition	Approved FY 12-13
Cost of power purchase	901.73	997.80	868.02
Employee Costs	52.55	54.79	54.79
A&G expenses	3.91	3.91	3.91
R&M Expenses	10.34	10.77	10.77
Depreciation	6.00	33.04	9.38
Advance against Depreciation	-	-	-
Interest & Finance Charges	1.95	1.88	1.88
Interest on Working Capital + Int on CSD	-	10.50	10.23
Provision for bad debts	-	-	-
Return on NFA @ 3% of NFA	2.37	14.11	4.04
Amortisation of regulatory asset proposed for previous years	-	57.8	-
Total	**978.85**	**1,184.60**	**963.02**
Less Non tariff Income	139.07	141.05	95.94
Aggregate revenue requirement	**839.78**	**1,043.55**	**867.08**

8.15 Revenue from existing tariff

Petitioner's submission

The Petitioner has submitted the estimates of the revenue from tariff of Rs. 675.9 Cr.

Commission's analysis

Based on the estimates of sales, consumers and connected load approved by the Commission, the Commission has arrived at the revenue from existing tariff of Rs. 665.27 Cr. The slab wise consumers, sales and the connected load have been pro-rated as per the provisional actual available data of FY 2010-11.

Table 103: Revenue from existing tariff approved by the Commission for FY 2012-13

Particulars (Rs Cr)	Approved for the year FY 2011-12	Estimates submitted in the FY 12 -13 petition	Approved FY 12-13
Revenue from tariff	692.51	675.90	665.27

8.16 Revenue Gap at existing tariff for FY 2012-13

The revenue gap approved for the year is Rs 201.81 Cr on the basis of the approved net revenue requirement of Rs 867.08Cr and the revenue from existing tariff of Rs. 665.27 Cr for FY 2012-13.

Table 104: Revenue Gap at existing tariff approved by the Commission for FY 2012-13

Particulars (Rs Cr)	Approved for the year FY 2011-12	Estimates submitted in the FY 12 -13 petition	Approved FY 12-13
Net Revenue Requirement	839.78	1,043.55	867.08
Revenue from tariff	692.51	675.90	665.27
Revenue Gap	**147.27**	**367.65**	**201.81**

8.17 Average Cost of Supply at existing tariff for FY 2012-13

The average cost of supply approved for FY 2012-13 is as shown below.

Table 105: Average Cost of Supply at existing tariff approved by the Commission for FY 2012-13

Particulars (Rs /kWh)	Approved for the year FY 2011-12	Estimates submitted in the FY 12 -13 petition	Approved FY 12-13
Average Cost of Supply	3.66	4.32	3.63

9. Tariff Principles and Design

9.1 Preamble

It may be mentioned that the Tariff Policy has stipulated fixation of tariff for various consumer categories in such a way that eventually tariff is within the range of +/- 20% of the average cost of supply. This reduction in cross subsidy was required to be achieved progressively over a period of 5 years to avoid tariff shocks.

It is a known fact that like in many other states, consumer tariffs have not kept pace with the rising cost of supply over the years with the result that gap between ARR and revenue billed has widened over the years and a large quantum remains unbridged.

While the Commission has endeavored to generally bring the tariff within the +/- 20% of the average CoS as per the tariff policy, there are certain categories which are outside the range, primarily due to the reason that their existing tariff are way outside the range. The Commission has worked towards avoidance of the tariff shock. Further, some categories of consumers such as OHOB and agriculture who were paying abysmally low tariffs continue to remain at less than 50% of the ACOS despite the tariff increase.

The Commission in determining the revenue requirement of the Petitioner for FY 2012-13 and the retail supply tariff has been guided by the provisions of the Electricity Act, 2003 and the Tariff Policy. Section 61 of the Act lays down the broad principles, which shall guide determination of retail tariff.

Keeping view of the above, the Commission has designed the tariff for different categories of consumers as brought out subsequently.

9.2 Tariff Determination

Petitioner's submission

The Petitioner's proposal for category wise existing and proposed tariff are given below:

Table 106: Existing and proposed tariff by the Petitioner for FY 2012-13

Category/Consumption Slab	Existing Tariff-FY 12 (in Rs.)		Category/Consumption Slab	Proposed Tariff-FY 13 (in Rs.)	
	Fixed Charges	Variable Charges		Fixed Charges	Variable Charges
	Rs per month per connection/ kW/kVA/HP	**Rs/KWh**		**Rs per month per connection/ kW/kVA/HP**	**Rs/KWh**
Domestic			**Domestic**		
0 - 100	-	0.60	0 - 50	20.00	1.50
101 - 200	-	0.90	51-150	20.00	2.30
201 - 300	-	1.65	151-250	20.00	4.00
>300	-	2.00	251-350	20.00	4.50
OHOB	15.00	-	351-500	20.00	5.00
Total			>500	20.00	5.20
			OHOB	50.00	0.00
			Total		
Commercial			**Commercial**		
0 - 100	25.00	2.15	0 - 100	30.00	4.20
101 - 250	25.00	3.15	101 - 250	30.00	4.60
> 250	25.00	3.65	250-500	30.00	5.00
Total			> 500	30.00	5.2
			Total		
Agriculture*			**Agriculture***		
Small farmers	25.00	-	Small farmers	75.00	0.0
Other farmers	100.00	-	Other farmers	200.00	0.0
Total			**Total**		
Public lighting			**Public lighting**		
Total	-	2.90	**Total**	0.00	4.3
LT Industrial			**LT Industrial**		
0 - 1000	25.00	2.60	0 - 1000	25.00	3.9
> 1000	25.00	2.80	> 1000	25.00	4.2
Water tank	25.00	2.90	Water tank	25.00	4.3
Total			**Total**		
Temporary supply - LT			**Temporary supply - LT**		
Total	-	5.00	**Total**	0.00	8.25
Total LT			**Total LT**		

HT 1 Industrial			**HT 1 Industrial & Commercial**		
(A) - CD < 2000			(A) - CD < 2000		
0 - 100000	155.00	2.95	0 - 100000	210	4.1
>100000	155.00	3.10	>100000	210	4.2
(B) - 2000 < CD < 5000			(B) - 2000 < CD < 5000		
>0	160.00	3.15	>0	210	4.25
Total			(C)		
			>0	210	4.4
			Total		
HT 2 - Government & water tank			**HT 2 - Government & water tank**		
Total	190.00	2.85	Total	200	4.2
HT 3 - EHT			**HT 3 - EHT**		
Total	160.00	3.15	Total	190	4.1

* Units of FC for agriculture category is Rs/HP/annum

Commission's analysis

Commission has determined the retail tariff for FY 2012-13 in view of the guiding principles as stated in the Electricity Act, 2003 and Tariff Policy and keeping in view the suggestions/objections of the stakeholders in this regard. Based on the approved Aggregate Revenue Requirement for FY 2012-13 and expected revenue from existing tariff, revenue gap of Rs 201.81 Cr has been estimated. The Commission is of the view that leaving this gap unbridged would deteriorate the financial health of licensee.

The Commission is also concerned about the issues raised by various objectors regarding assessment of T&D losses, Demand side Management, energy efficiency etc. where the distribution licensee has to take adequate steps to bring in improvement. Commission directs the Petitioner to introduce effective control measures to ensure the reduction of T&D Losses, demand side management.

Keeping in view the existing tariff and the tariff hike proposed by the Petitioner, Commission has determined tariff for FY 2012-13 to be charged from the consumers. While doing so, the Commission has appropriately fixed tariff to ensure that the increase in tariff of low consuming consumers does not cause a tariff shock to them.

Table 107: Tariff approved by the Commission for FY 2012-13

S.No.	Category/Consumption Slab/month	Approved Tariff for FY 2012-13 (in Rs.)	
		Fixed Charges	Energy/Variable Charges
		Rs per month per connection/kVA/HP	Rs/KWh
1	**Domestic**		
	OHOB	20.00	-
	0 – 100	10.00	0.60
	101 – 200	10.00	0.95
	201 – 300	15.00	1.80
	>300	15.00	2.35
2	**Commercial**		
	0 – 100	30.00	2.50
	101 – 250	30.00	3.70
	> 250	30.00	4.30
3	**Agriculture Services**		
	Agriculture*		
	Small farmers	50.00	-
	Other farmers	200.00	-
	Cottage Industries/Horticulture/Poultry Farms		
	0 – 100	10	0.60
	101 – 200	10	0.95
	201 – 300	15	1.80
	>300	15	2.35
4	**Public lighting**	-	3.50
5	**LT Industrial**		
	0 – 1000	30.00	3.40
	> 1000	30.00	3.65
	Water tank	30.00	3.80
6	**Temporary supply – LT**	0.00	6.00/7.50
7	**HT 1 Industrial and Commercial**		
	Industrial		
(a)	Contracted maximum demand upto 2000 kVA		
	0 – 100000	180.00	3.50
	>100000	180.00	3.65
(b)	Contracted maximum demand greater than 2000 kVA and upto	190.00	3.80

S.No.	Category/Consumption Slab/month	Approved Tariff for FY 2012-13 (in Rs.)	
		Fixed Charges	Energy/Variable Charges
	5000 kVA		
	Commercial		
c)	Contracted maximum demand upto 5000 kVA	190.00	4.00
8	**HT 2 - Government & water tank**	220.00	3.40
9	**HT 3 - EHT**	180.00	3.65

*** Fixed Charges for agriculture are in Rs/HP/annum**

9.3 Average Cost of Supply

The Commission observes that the approved Average Cost of Supply (ACoS) has gone up from Rs 3.13/kWh in FY 2009-10 to Rs 3.63 /kWh in FY 2012-13. The Petitioner has sought tariff increase of approximately 54 % in FY 2012-13. The Commission is of the view that the approved increase in revenue realization of 16.08% for FY 2012-13 is reasonable and justifiable since no tariff revision has taken place since FY 2009-10 and had the revisions in tariff been sought by the Petitioner for FY 2010-11 and FY 2011-12 in time, the accumulated revenue gap would have been much less than what it is today.

The Commission observes that the tariff being charged to most of the categories of consumers is below average cost of supply. The Commission has attempted to reduce the cross-subsidy in the consumer categories in this order, by rationalising the tariff for subsidised categories and suitably adjusting the tariff for subsidising categories, vis-à-vis the prevailing average cost of supply, while at the same time, trying to ensure that there is no tariff shock to any consumer category. With the progressive increase in the tariff of the subsidized categories towards ACOS @ 10-15% per year; the tariff may over the years touch ACOS and the burden of the cross subsidy may progressively come down.

The average tariff as a percentage of average cost of supply approved in this tariff order for FY 2012-13 is as shown in the table below.

Table 108: Approved tariff as a percentage of ACOS by the Commission for FY 2012-13*

Category/Consumption Slab	Avg Revenue Realisation (Rs/kWh)	ACOS	%age of ACoS
Domestic	1.23	3.63	34%
Commercial	3.90	3.63	107%
Agriculture	0.20	3.63	5%
Public lighting	3.5	3.63	96%
LT Industrial	3.65	3.63	100%
Temporary supply - LT	6.00	3.63	165%
HT 1 Industrial and Commercial	4.26	3.63	117%
HT 2 - Government & water tank	4.34	3.63	120%
HT 3 - EHT	4.39	3.63	121%

*The average revenue realizations are at the new tariff applicable from 1st June 2012

9.4 Revenue Surplus/Deficit at revised tariff for FY 2012-13

The revised tariff shall be effective from 1st June 2012 and shall remain valid till revised through a separate order. The revenue at revised tariff for FY 2012-13 works out as under:

Table 109: Revenue at revised tariff approved by the Commission for FY 2012-13

Category/Consumption Slab	Consumers	Sales [MU]	Contract demand / connected load [kVA/ HP]	TOTAL (Rs Cr)
Domestic	300432	623	-	75.28
Commercial	43144	184	-	69.89
Agriculture	6810	57	59538	1.02
Public lighting	49438	26	-	8.85
LT Industrial	6210	169	-	59.24
Temporary supply - LT	-	25	-	14.58
HT 1 Industrial and Commercial	412	1027	250492	425.10
HT 2 - Government & water tank	41	40	14265	16.87
HT 3 - EHT	7	237	80495	101.42
Total	**406494**	**2388**		**772.24***

*** Note: For working out expected revenue for FY 2012-13, tariff at existing old rate for 2 months and tariff at revised rate for 10 months (applicable from 1st June'12) has been considered.**

Table 110: Revenue surplus/deficit approved by the Commission for FY 2012-13

Sr. No.	Particulars	Approved by the Commission (FY 2012-13) (Rs Cr)
1	**Aggregate Revenue Requirement**	**867.08**
2	Gap of the previous years	225.73
3	Total Revenue Requirement (1+2)	1092.81
4	**Revenue at existing tariff**	**665.27**
5	**Total Gap (3-4) at existing tariff**	**427.54**
	(a) Gap for FY 2009-10 – Rs 21.83 Cr	
	(b) Gap for FY 2010-11 – Rs 56.63 Cr	
	(c) Gap for FY 2011-12 – Rs 147.27 Cr	
	(d) Gap for FY 2012-13 – Rs 201.81 Cr	
6	**Revenue expected at revised tariff**	**772.24**
7	**Net Gap/(Surplus) after considering the impact of revised tariff (3-6)**	**320.56**

9.5 Creation of Regulatory Asset

Based on the data submitted by the Petitioner, its analysis by the Commission and followed by the Commission's decision, gap/surplus between the aggregates revenue requirement and revenue billed / recognized has been determined by the Commission for FY 2009-10, FY 2010-11 and FY 2011-12.[11]

The accumulated revenue gap approved by the Commission is Rs 320.56 Cr from FY 2009-10 to FY 2012-13. The reasons for this huge cumulative revenue gap are partly the non-filing of the tariff petition for FY 2010-11 and late filing for FY 2011-12 and filing of FY 2012-13 before FY 2011-12 was finalized. The clubbing of FY 2011-12 and FY 2012-13 further delayed the processing of the petitions.

[11] Refer to para 7.15 for compliance of the APTEL order dated 27.04.2012 and the treatment of the FCA adjustment charges from the period April to October 2010

The Commission is of the view that creation of regulatory asset is unavoidable in view of the accumulation of the revenue gap from the period FY 2009-10 to FY 2012-13 due to load growth, increase in power purchase costs, and increase in other costs and no tariff revision since FY 2009-10.

The Commission has approved the average increase in revenue realization of 16.08 % during FY 2012-13. The tariff hike has been approved to minimize the revenue gap of EDP. Any further increase in tariff would have caused undue hardship to the consumers. The gap for FY 2012-13 alongwith the approved revenue gap of the previous years from FY 2009-10 to FY 2011-12 of Rs 320.56 Cr is considered as Regulatory Asset to be amortized in the subsequent years. The option to liquidate the whole revenue gap would result in huge tariff increases for each of the consumer categories, which may not be in the best interest of the consumers and the licensee.

The regulatory asset calculated in this Order is an estimate because the provisions for the FY 2012-13 are based on estimates. Even, the expenses and revenue for FY 2011-12 are based on estimates as only the first half actuals are available. The exact regulatory asset would be known after redetermination of fuel surcharge for FY 2010-11 in compliance with APTEL's order (as discussed earlier in this order), when the true-up of the respective years is undertaken.

In line with the JERC Tariff Regulations, the proposed regulatory asset would be amortised over a period of three years starting from FY 2013-14.

10. Directives

While examining the information submitted by the Petitioner in the proposed ARR and Tariff Petition for FY 2012-13, it is observed that the directives issued in Tariff Order for FY 2009-10, as also mentioned below, have not been fully complied with by the Petitioner.

Directives issued by the Commission in Tariff Order for FY 2009-10

1. Annual Statement of Accounts

Electricity Department Puducherry has not prepared accounts for the electricity business separately. As electricity business comes under the preview of Electricity Act, 2003, the accounts pertaining to electricity are required to be prepared separately and got audited.

Compliance/Action Taken

EDP has filed the tariff petition for FY 2011-12 & FY 2012-13 along-with un-audited financial statements for the FY 2009-10 & FY 2010-11 as well as first half of FY 2011-12 engaging M/s Deloitte as consultant. Further, EDP has appointed M/s Basha & Narasimhan, Chennai to audit the financial statements of the Department. On completion of the third party audit, EDP would file the true-up petition for FY 2009-10.

Commission's Comments

The Commission has noted the action taken so far, but it is still not as per the direction given in the Tariff Order FY 2009-10. It is directed that the accounts of the licensee need to be prepared on commercial principles for regulated business of electricity as per regulatory requirement by 30th September, 2012.

2. Preparation of Asset and Depreciation Register

EDP was directed to prepare Asset and Depreciation Register function wise and asset classification wise.

Compliance/Action Taken

EDP has prepared Asset & Depreciation registers with the help of the Consultant M/s Deloitte and the same would be audited by the third party audit as per the regulation.

Commission's Comments

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

3. Accounting of security deposits etc. under appropriate head of accounts

EDP has combined the security deposits, meter security deposits and consumer contribution for service lines from the consumers under one account head. EDP was directed to separate these components and account them separately under relevant heads of account.

Compliance/Action Taken

The Government of Puducherry has approved to have a separate Head of Account for the consumers deposit. The Government has also agreed to provide interest on such deposits. Separate accounting is effective from 1st April'2012.

Commission's Comments

The action taken is noted. The Commission, however, would like to make it clear that the Petitioner has no choice as far as the payment of interest on consumer security deposit is concerned. The EA Act 2003 itself mandates such payment. The Petitioner is ,therefore, directed to pay interest on the consumer security deposits with effect from 1st April 2012 to the consumers at the bank rate (presently @9.5% p.a.)

4. Energy Audit and T&D Losses

EDP had projected the T&D losses at 14% for the FY 2009-10. The Commission had observed that this loss level for a small distribution system is high and there is scope for reduction of losses. EDP was directed to get its distribution system studied by a third party with the approval of the Commission so that appropriate loss reduction trajectory could be fixed.

EDP was also directed to get an energy audit conducted by a third party at 11 kV feeder and distribution transformer levels to identify the high loss areas and undertake steps to reduce the technical losses and control pilferage of energy.

It was directed that the Petitioner shall furnish six monthly energy audit reports to the Commission as required under Regulation 15(4) of the Draft Regulations.

Compliance/Action Taken

Based on the directives of the JERC, EDP had invited EOI for engagement of consultant to perform T&D study and prepare a DPR for system Improvement works for R-APDRP Project area and non-Project area separately. M/s Power Research Development Consultant, Bangalore had been shortlisted after due tender evaluation process at a cost of Rs. 86 lakhs.

A petition seeking approval of JERC to engage the consultant was filed on 30.8.2011 vide petition No.44/2011 by the Petitioner. During the hearing of the above petition on 3/11/2011,the Hon'ble Commission has directed EDP to get the proposal vetted from PFC in respect of possible duplication of expenditure with R-APDRP Part-A and revise the proposal accordingly .

EDP has taken-up the issue with PFC on 30-11-2011, and PFC has stated on 12-12-2011 that it does not vet the scope of work of the T&D consultant. However, EDP on its own has prepared the DPR for Part-B for Puducherry town and submitted to PFC on 12/3/2012.

Commission's Comments

Action taken so far is noted. The Petitioner is directed to furnish segregation of losses into transmission, distribution and commercial losses separately in their next petition along with a status report on energy accounting and T&D losses.

As regards transmission and distribution losses, the Commission had allowed 14% losses for FY 2009-10 in the Tariff Order for FY 2009-10. Taking FY 2009-10 as the base year with 14% T&D losses, the Commission has followed a progressive reduction of 0.5% every year i.e. 13.5% for FY 2010-11, 13% for FY 2011-12 and 12.5% for FY 2012-13.

The Commission would like further reduction in losses. The pace of reduction could be expedited as the Petitioner is implementing R-APDRP Scheme which would help bring down losses at a faster rate. The Commission would like the Petitioner to prepare a loss reduction road map for bringing down losses to 10% level and submit to the Commission by 31st October 2012. Loss reduction trajectory for subsequent years shall be approved by the Commission on receipt and acceptance of the loss reduction road map.

In order to understand the actual functioning of any organisation, proper accounting and periodic audit is much needed. This is more relevant in the electricity sector where the commodity is in form of electrons and invisible to eye. Unfortunately, this is one aspect – which is most neglected in the sector. For any improvement to take place, it is essential that first we assess the factual position as it stands today. This can only be done by proper accounting of energy input-and output at each voltage level, accounting at feeder level and at the DTR level. For such an accounting to happen, it is necessary to install correct meters at all pre-identified locations and extracting data periodically. Analysis of such data would give actual level of losses, technical as well as commercial such as not taking meter reading, not raising bills, pilferage / un-authorized use of electricity, etc.

The action plan should be submitted to the Commission by 31st October 2012.

5. Estimation of the consumption by agriculture pump-sets

EDP was directed to furnish the basis for arriving at the estimated consumption of agriculture consumers. EDP was directed to furnish the actual connected load of agriculture consumers.

Compliance/Action Taken

A detailed study has been conducted at the field-level to ascertain the working conditions of the irrigation pump-sets along with estimation of the connected load. The details of the study are enumerated in the Tariff Petition for FY 2011-12 at Annexure-I Page-64.

Commission's Comments

While the Petitioner has submitted the number of consumers and estimation of the connected load but the basis for arriving at the normative consumption is unacceptable as the same is not based on actual field data. The Petitioner is directed to install meters at DTRs (atleast 10% in FY 2012-13) and provide data of actual energy consumption per HP of consumers fed from such representative DTRs.

6. Management Information System

ED Puducherry was directed to undertake steps to build credible & accurate and verifiable data base and management information system (MIS) to meet the requirements for filing ARR & Tariff Petition as per the regulatory requirements of the Commission & CERC (RIMS)and also to suit the Multi Year Tariff framework.

Compliance/Action Taken

The MIS Scheme is being implemented through R-APDRP and the same is under progress.

Commission's Comments

Petitioner is directed to submit quarterly progress report and the final completion date of the implementation plan of the MIS.

7. Metering of consumer installations / replacement of non-functional or defective Meters

Under Section 55 (1) of Electricity Act 2003, no licensee shall supply electricity after expiry of 2 years from the appointed date except through installation of correct meter in accordance with the regulation to be made in this behalf by the authority. Accordingly, metering is required to be done in line with CEA (installation and operation of meters) Regulations 2006 to all consumers.

ED, Puducherry was directed in Tariff Order FY 2009-10 to provide meters to consumers such as one hut one bulb, agriculture etc. who are not metered for supply of electricity presently. The number of consumers should be metered to record energy consumption correctly.

EDP had been directed to furnish the status of metering and action plan for the same before 30th June 2010.

Compliance/Action Taken

The work of providing energy meters to the agricultural and OHOB is under progress and the same would be completed by the end of FY 2013-14.

Commission's Comments

Even after 2 years, the petitioner has not given the status of the defective meters installed in this category of consumers. Procurement process to install meters should be expedited and action plan to install these meters be given by 30th September 2012.

8. Billing and Collection Efficiency

ED, Puducherry was directed to initiate measures to improve billing efficiency in respect of metered services and enhance collection efficiency to hundred percent in a time bound manner.

Compliance/Action Taken

The billing & collection efficiency will improve on full completion of R-APDRP scheme, which is under progress and is targeted to be completed by March 2013.

Commission's Comments

The Commission is not satisfied with the reply of the Petitioner. The collection efficiency in ED Puducherry has been 85.70% for FY 2009-10, it is 93.80% for FY 2010-11 based on provisional accounts and 93.80% and 96% as projected by EDP for FY 2011-12 and FY 2012-13 respectively.

ED, Puducherry is directed to further improve the collection efficiency and submit an action plan on the steps taken by 30th September 2012.

9. Collection of arrears

ED, Puducherry was directed to provide age-wise analysis before the next ARR and initiate measures to liquidate the arrears by 31st December 2010.

Compliance/Action Taken

The age-wise arrears of defaulting consumers having arrears above Rs. 50,000/- has been furnished vide reply to JERC queries vide Lr.No.2845/ED/SE-I/Tech-I/2011-12 dt.12-12-2011. The copy of the same has been furnished to the Commission. The analysis has been made for the past 4 years and an amount of Rs. 54 Cr. has been collected.

Commission's Comments

The action taken so far has been notedbut the Commission is not satisfied with the same. However, the Petitioner is directed to get its accounts audited so that the receivables may be audited. They are also directed to prepare an action plan for the liquidation of the arrears and submit to the Commission by 31st October 2012.

10. Load Shedding and ensuring proper service to the consumers

EDP was directed to minimize load shedding. If there are any constraints in the system such as overloading of lines or power transformers, a detailed project report should be prepared immediately to improve the system.

EDP was directed to do system strengthening wherever required to enhance the quality of supply. EDP shall establish Consumer Service Centers wherever required to attend to consumer complaints promptly on interruptions of power supply, billing etc. in order to improve service levels to consumers.

Compliance/Action Taken

At present there is no scheduled load shedding in the U.T of Puducherry. A customer care center is also being established under the R-APDRP scheme.

Commission's Comments

The Commission directs the Petitioner to establish customer care center at all the four locations i.e. Karaikal, Puducherry, Yanam and Mahe.

11. Demand Side Management and Energy Conservation

Demand Side Management and Energy Conservation are very important areas, which should be in focus in ED Puducherry particularly in context of Peak load. EDP was directed to examine the feasibility of introducing ToD tariff to the consumers and undertake other measures to reallocate and rationalize demand and conserve energy.

Compliance/Action Taken

Time of Day (ToD) tariff would be introduced in the coming years to encourage consumers for reducing their peak demand. The Bachat Lamp Yojana (BLY) scheme is being introduced with the support of BEE.

Commission's Comments

Action taken is noted. ED Puducherry is directed to conduct a detailed study on demand side management and energy conservation through an external accredited agency for efficient use of electricity by various means.

EDP should take further steps to develop and promote energy efficient technologies in line with the guidelines issued by the BEE. BEE, an autonomous body of MOP is taking several steps to make it mandatory to use 5-star equipments such as Refrigerators, AC, Tubelights, lights, distribution transformers upto 200KVA etc. The same should be implemented by the utility in a phased manner and an action plan for the same be furnished by 30th September 2012.

12. Organising Mahe, Karaikal, Puducherry and Yanam regions as cost centers

EDP was directed to organize the four regions of the distribution wing as cost centers and they shall be accountable for (i) energy accounting (ii) metering (iii) meter reading, billing and revenue collection.

EDP was directed to draw an action plan to organize the region-wise cost centers to make them accountable for their performance and submit to the Commission by 30th September 2010.

Compliance/ Action Taken

At present revenue accounts are being maintained separately for the outlying regions. Energy accounting is also separate for all the regions.

However, maintaining a separate region-wise cost center is not economical as the regions are smaller.

Commission's Comments

The submission is noted.

13. Pilferage of Energy

The Commission in its last tariff order had said that illegal connections need to be revoked, check on meter tampering is required and steps to reduce AT&C losses need to be undertaken. An action plan in this regard had to be furnished.

Compliance/Action Taken

A fully functional anti power theft squad is routinely checking for pilferages. As directed by the Hon'ble Commission during the public hearing, a quarterly report would be furnished to the Commission in this matter.

Commission's Comments

The Commission is not satisfied with the reply of the Petitioner. The Commission observes that the locals of all the four regions strongly protested against the inadequacy of the anti-theft measures and directs the Petitioner to submit quarterly reports on the action taken and the revenue loss reduced. The first quarterly report should be submitted by 30th September 2012.

14. Developing each Regional System as a standalone system

The Commission had directed that a study shall be conducted by EDP on feasibility of operation of the four territories namely Yanam, Mahe, Karaikal and Puducherry as standalone systems with their own tariff and submitted to the Commission by 31st December 2010.

Compliance/Action Taken

EDP submitted that it is not economical to have regional stand-alone system as Mahe and Yanam region are small. Mahe region energy consumption is only 1.5% of total energy sales and Yanam region is only 4% and Karaikal region is only 18%.

Commission's Comments

The submission of the Petitioner is noted.

15. Employee Cost/Manpower Study

EDP was directed to analyse its employee strength and their relative deployment, and rationalize their requirement to reduce its manpower and related costs.

A report on the same had to be submitted to the Commission before November 2010.

Compliance/Action Taken

During the FY 2009-10, the employee cost has been shown as Rs. 67 Cr but the actual employee cost is Rs. 47.47 Cr as per the review of FY 2009-10. EDP has not considered the capitalization of employee cost while filing the petition. The employee cost for the petition filed for FY 2011-12 is Rs.49.89 Cr, and the projected employee cost for FY 2012-13 is Rs.54.80 Cr which is on the lower side when compared with other utility(ies).

Commission's Comments

The submission of the Petitioner is noted.

The Commission has analysed the trends of the number of employees/1000 consumers since the year 2009-10. The ratio has been 6.22 and 6.10 for FY 2009-10 and FY 2010-11 based on the provisional actuals. Based on the estimates for the year 2011-12 and 2012-13, this ratio is 6.06 and 5.05. Considering an all India average number of employee per thousand consumers is 0.40[12] as per the annual plan of FY 2011-12 published by the Planning Commission in October 2011; it can be construed that the Electricity Department, Puducherry is overstaffed.

Also, in FY 2009-10 one employee was catering to 161 consumers, in FY 2010-11 it was 164 consumers/employee, for FY 2011-12 it is 165 consumers/employee and for FY 2012-13 it is estimated to be 177 consumers/employee.

[12] Annexure 4.20 of Annual Report on the working of State Power Utilities & Electricity Departments published by Planning Commission, Government of India in October 2011.

The deployment of employees for catering to the number of consumers is improving; however the Commission is not satisfied with the progress of the same. The Commission again directs the utility to have a look at its employee strength, its relative deployment and rationalize the staff requirement and the related costs. The excess manpower needs to be pruned and put to more efficient use such as improvement in customer services etc.

A detailed manpower study should be conducted and submitted to the Commission by 30th November 2012.

16. Establishment of Forum for Redressal of Grievances of Consumers

EDP was directed to intimate the action taken in the establishment of the Forum for Redressal of Grievances of Consumers before 31st March 2010. It was directed to operationalise the CGRF and publicize its address and contact numbers through bills and various other means.

Compliance/Action Taken

The Government of Puducherry had constituted the Consumer Grievances Redressal forum for the Union Territory of Puducherry vide G.O.Ms. No. 20, dated 07/05/2010. The Consumer Grievances Redressal forum commenced its functioning with effect from 24/05/2010. Regular disposal of consumer grievances is being ensured and quarterly reports are being submitted to the Commission.

Commission's Comments

The compliance is noted.

17. Adjustment of interest on the required fixed deposit made by the consumer towards monthly electricity charges

EDP was directed to examine whether the consumers whose monthly bill is Rs 500 per month and above can deposit the required amount as fixed deposit so that the interest against this deposit can be adjusted towards the monthly electricity charges to be paid by that consumer.

A report in this regard had to be submitted to the Commission before June 2010.

Compliance/Action Taken

Earlier, a similar scheme was introduced by EDP vide G.O Ms.No.2 dt. 21.01.1997, Annexure-II, and the response from the consumers was very poor as only very few consumers responded to the scheme. Since the scheme lacked public interest, the scheme was withdrawn during the year 2009-10 itself.

Commission's Comments

The submission of the Petitioner is noted.

New Directives

The Commission issues further new directives to EDP within the parameters of Section 61 of the Electricity Act, 2003 which stipulates that the Commission shall be guided by the factors which would encourage competition, efficiency, economical usage of resources, grid performance and optimum investment in specifying the terms and conditions for determination of tariff. Therefore, to ensure proper accounting, audit and efficient performance to optimize resource use, the Commission issues the following new directives:

1. **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 the Commission along with the next tariff petition.

2. **Interest on Security Deposit**
   U/S 47(4) of the Electricity Act 2003, the distribution licensee shall pay interest on security deposit collected from the consumers, equivalent to the bank rate or more as may be specified by the Commission.
   The Commission's regulations provide for the basis of calculation of security deposit to be collected from the different categories of consumers, which ranges from 2 months to 3 months of average past consumption.
   ED Puducherry is directed to intimate the Commission the amount of security deposit collected from the consumers as on 31.3.2012 by 30th September 2012. In this regard, the EDP is directed to segregate the amount of the security deposits, meter security deposits and consumer contribution for service lines from the consumers under separate heads of accounts as a first step if currently being accounted under one account head.

The Petitioner is directed to pay interest on consumer security deposit at the applicable bank rate (presently at 9.5% per annum).

3. Bill Payment:

The facility of online payments should be introduced. The Petitioner is directed to introduce multiple payment gateways/agencies for online collection and action plan for the implementation of the above program be submitted within three months. In addition, the payment hours should be extended/alternative options explored so that the consumers can make the payment outside the working hours. The bill delivery mechanism should be tuned to provide 15 days time to the consumer to make the payment as per the regulations of the Commission.

4. Rural Electrification:

The Petitioner is directed to submit the status of rural electrification in their area along with the detailed plan for rural electrification with the timeline proposed to achieve the complete electrification of rural area. The same should be furnished by 31st October 2012.

5. Capital expenditure:

The Commission directs the utility to furnish the capital expenditure plan of the utility prior to filing the petition for the respective year. The capex for FY 2013-14 as part of the petition for the respective year would not be considered without the prior approval of the Commission.

The capex plan should clearly highlight the cost benefit analysis of each of the schemes envisaged for the year. Benefits accruing to the consumers out of the schemes should be clearly brought out.

The Commission also directs the utility to furnish a certificate to the Commission showing how the capital expenditure of the previous years has benefited the consumers.

6. Gross Fixed Assets

The Petitioner is directed to provide the break-up of the Gross Fixed Assets which are being put to active use by the utility. A detailed break-up of the GFA should be provided to the Commission along with the next year's petition.

7. 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 consequently.

8. **Voltage wise Categorisation:**

   There should be two major categorizations LT and HT based on voltage of supply. Within each voltage class, sub-categorisation should be according to use by different consumer categories. This should be proposed in next ARR i.e. voltagewise, consumerwise and category wise.

9. **Data on the consumption and load profile of Advertisement Hoardings, Sign boards, Signages etc.**

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

10. **Supply of energy to agriculture consumers**

The Petitioner has mentioned in the petition that no connection is given without a meter. It is, however, seen that the meters have not been used either for working out consumption or for billing. It is not understood what purpose such meters serve when the same are not used. It may be mentioned that the cost of meters is borne by consumers directly or indirectly. So while the consumers have been burdened with the cost, no benefit is being derived from such assets.

Although the Petitioner has not offered any explanation in this regard, one of the possibilities could be that the meters may not be in proper working condition. Also, there could be the issue of reading such meters periodically, say once in 3-4 months, which are located in remote rural areas.

While the Commission is of the view that it is the responsibility of the licensee to ensure proper up keep of meters as well as periodic meter reading, the Commission recognizes that it is not as easy as it appears to be. In some other states, a very large number of agriculture consumers were provided with individual meters but the same had to the removed in a short time due to the fact that either the meters became unfunctional or were tampered thus not allowing to record actual consumption. Keeping the ground realities in view, the Commission directs the Petitioner to come up with a viable scheme, keeping the provisions of the Electricity Act as well as their practical difficulties in view, to suggest billing of such consumers on the basis of actual consumption and not on the basis of present practice of billing on assessed consumption. One option could be to provide meters on distribution transformers coupled with the consumer indexing. Thus the actual consumption recorded by the DTR meters and apportioning the total consumption in the ratio of load (in terms of horse-power) of individual consumers could be the basis for billing. This would alleviate the need to maintain and read large number of individual meters at consumer premises and would also satisfy the legal requirement of supply through a correct meter as provided in the Electricity Act 2003.

The Commission directs the Petitioner to prepare a proper scheme and submit to the Commission by 30th September 2012.

11. Assessment of the open access consumers

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

12. Connected Load/Contract Demand based fixed charges for LT Industrial and Commercial categories

The Petitioner should furnish the connected load/contract demand data for the LT Industrial and Commercial categories and propose tariff based on connected load/contract demand to the Commission in the next tariff proposal.
The Fixed Charges for the LT industrial and Commercial (greater than 20 kW) should be based on connected load/contract demand.

13. True-up Petition for the respective years

The Petitioner is directed to file ‘true-up’ for FY 2009-10, FY 2010-11 and FY 2011-12 and ‘Review’ for FY 2012-13 alongwith the petition for ARR and tariff determination for FY 2013-14.

14. Short-term procurement of power by the licensee

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

11. CONCLUSION OF COMMISSION'S ORDER

Having considered the Petitions of Electricity Department of UT Puducherry for approval of Aggregate Revenue Requirement (ARR) and determination of retail tariffs for supply of energy, the Commission approves the Aggregate Revenue Requirement (ARR) and the revised tariff schedule for ED Puducherry.

1. The break-up of the Aggregate Revenue Requirement approved for ED Puducherry for FY 2012-13 is given below.

Particulars	Approved by the Commission (FY 2012-13) (Rs. Cr)
Cost of power purchase	868.02
Employee Costs	54.79
A&G expenses	3.91
R&M Expenses	10.77
Depreciation	9.38
Advance against Depreciation	-
Interest & Finance Charges	1.88
Interest on Working Capital + Int on CSD	10.23
Provision for bad debts	-
Return on NFA @ 3% of NFA	4.04
Amortisation of regulatory asset proposed for previous years	
Total	**963.02**
Less Non tariff Income	95.94
Aggregate revenue requirement	**867.08**
Revenue at revised tariff	**772.24**
Revenue Gap for FY 2012-13	**94.83**

2. The Commission approves the ARR for FY 2009-10 (Review) at Rs 580.33 Cr, ARR for FY 2010-11 at Rs 687.43 Cr and ARR for FY 2011-12 at Rs 839.78 Cr. The Commission also approves cumulative revenue gap of Rs 320.56 Cr upto FY 2012-13 and has treated the same as regulatory asset to be amortised over a period of three years commencing FY 2013-14.

3. The approved retail tariff (as given below) shall be in accordance with the tariff schedule specified in this order. [13]

[13] For approved tariff as %age of ACOS refer to Table 108

S.No.	Category/Consumption Slab/month	Approved Tariff for FY 2012-13 (in Rs.)	
		Fixed Charges	Variable Charges
		Rs per month per connection/kVA/HP	Rs/KWh
1	**Domestic**		
	OHOB	20.00	-
	0 - 100	10.00	0.60
	101 - 200	10.00	0.95
	201 - 300	15.00	1.80
	>300	15.00	2.35
2	**Commercial**		
	0 - 100	30.00	2.50
	101 - 250	30.00	3.70
	> 250	30.00	4.30
3	**Agriculture Services**		
	Agriculture*		
	Small farmers	50.00	-
	Other farmers	200.00	-
	Cottage Industries/Horticulture/Poultry Farms		
	0 – 100	10	0.60
	101 – 200	10	0.95
	201 – 300	15	1.80
	>300	15	2.35
4	**Public lighting**	-	3.50
5	**LT Industrial**		
	0 - 1000	30.00	3.40
	> 1000	30.00	3.65
	Water tank	30.00	3.80
6	**Temporary supply - LT**	0.00	6.00/7.50
7	**HT 1 Industrial and Commercial**		
	Industrial		
(a)	Contracted maximum demand upto 2000 kVA		
	0 - 100000	180.00	3.50
	>100000	180.00	3.65
(b)	Contracted maximum demand greater than 2000 kVA and upto	190.00	3.80

	5000 kVA		
	Commercial		
c)	Contracted maximum demand upto 5000 kVA	190.00	4.00
8	**HT 2 - Government & water tank**	220.00	3.40
9	**HT 3 - EHT**	180.00	3.65

*** Fixed Charges for agriculture are in Rs/HP/annum**

4. The approved tariff shall come in force with effect from 1st June 2012 and shall remain valid till 31st March 2013. <u>All existing provisions which are not modified by this order shall continue to be in force. 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>

5. The licensee will compute fuel and power procurement cost variations and adjustments shall be made in consumer bills based on the Fuel & Power Purchase Cost Adjustment (FPPCA) formula/regulations being separately notified by the Commission. For the purpose of calculation using FPPCA formula to be notified by the Commission separately, **the approved per unit cost of power purchase ($R_{approved}$) for use in the FPPCA formula (paisa per unit) is 329 paisa per unit for FY 2012-13**.

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

Sd/-
(Dr. V K Garg)
Chairman

Place: Gurgaon
Date: 12th June, 2012

12. Tariff Schedule

TARIFF FOR SUPPLY OF ELECTRICITY AT LOW TENSION AND HIGH TENSION

GENERAL

1. The tariff indicated in this tariff schedule are the tariff rates payable by the consumers of Union Territory of Puducherry.

2. These tariffs are exclusive of electricity duty, tax on sale of electricity, taxes and other charges levied by the Government or other competent authorities from time to time.

3. All these tariffs for power supply are applicable to single point of supply.

4. The power supplied to a consumer shall be utilized only for the purpose for which supply is taken and as provided for in the tariff.

5. The adjustment on account of Fuel and Power Purchase Cost variation shall be calculated in accordance with the FPPCA formula to be separately notified by the Commission. Such charges shall be recovered/paid in accordance with the terms and conditions specified.

6. Power Factor Incentive

The monthly average power factor of the plant and apparatus installed by the consumer should be maintained at better than 90% lagging. The monthly average power factor shall mean the ratio expressed as percentage of total kWh to total kVAh supplied during the month. The ratio shall be rounded up to two figures.

In case the monthly average power factor rises above 95%, the consumer shall get a rebate of 1% on billed energy charges for each 1% increase in power factor above 95%.

A. LOW TENSION SUPPLY

Domestic Purposes

1.0 Domestic Purposes (A2)

1.1 This tariff is applicable to services for lights, fans, Air-conditioning, Heating and other small domestic appliances etc used for:

a) Genuine domestic purposes including common services for stair-case, lifts, water tanks in the purely domestic apartments.

b) Supply to actual places of public worship such as temples, mosques, churches etc.

c) Ashrams and Mutts, Non-commercial orphanage homes and old people homes run by religious and charitable institutions, social welfare and voluntary organisations.

d) Youth hostels, Harijan hostels, Rehabilitation Centres, Anganwadies and Balwadies run by Social Welfare Department.

e) For own residences where one room is set apart for the purpose of consultation by doctors, lawyers, engineers, architects and auditors.

f) To handloom in residence of handloom weavers (regardless of the fact whether outside labour is employed or not) and to handloom in sheds erected.

g) To the residences where supply from a house is extended to tailoring shops, job typing, document writing, laundry pressing, and small caterers set up in the verandah of the house with small lighting load only (one tube light only).

1.2 The charges for domestic service are as indicated in the table below:

Consumption range	**Fixed Charges Rs/connection/month**	**Energy charge Rs./KWh**
0-100 units per month	10	0.60
101-200 units per month	10	0.95
201-300 units per month	15	1.80
Above 300 units per month	15	2.35

The method of billing of charges shall be as explained below.

(a) Say units billed in a month are 80 units. Then the fixed charges will be Rs 10/month and energy charges Rs 48 (80 units X Rs 0.60 /unit)

(b) In case the units billed are 275, then the fixed charges will be Rs 15/month and energy charges will be Rs 290 (100 units X 0.60 + 100 units X 0.95 + 75 units X 1.80)

2.0 HUT SERVICES (A3)

2.1 For supply to bonafide hut services with only two numbers of 40 W Florescent Tube lights.

2.2 The charges for hut service (OBOH) are as indicated in Table below:

Description	Fixed charges
Hut Services	Rs 20 per connection per month

NOTE:

1. Hut is defined as a living place not exceeding 300 sq. ft. or 27.87 sq.m. with mud wall/brick wall or thatched wall and thatched roof only. Hut does not include farm huts. If any of the conditions is changed at a later stage, this concessional supply will be discontinued and the consumer will have to take metered supply.

2. The tariff under this item is also applicable for houses constructed for economically weaker sections under the "Chief Minister's 5000 houses programme" and houses constructed by the District Rural Development Agency under Indira Awaas Yojana and by the Adi Dravidar Welfare Department having a living space not exceeding 300 sq. ft. or 27.87 sq.

3. The consumer under this category should use only two numbers of 40 watts florescent tube lights. He should not use bulbs/tube lights of higher wattage or connect any other electrical equipment/ appliances other than those mentioned above. Supply from such services should not be tapped for any other purposes including functions, public meetings and also for neighboring huts. If at any time, any unauthorized load or extension, use of higher wattage bulbs or use of service for other purposes is detected, the service will be disconnected forthwith.

3.0 COMMERCIAL (A1)

3.1 This tariff is for Lights and combined installation of lights and fans, mixed loads of lights and power, heating and air-conditioning applicable to:

a) Non-domestic and non-industrial consumers, trade and commercial premises.

b) Educational institutions, hostels, public libraries.

c) Hotels, Restaurants, Boarding and Lodging Homes

d) Hospitals, Private clinics, Nursing Homes, Diagnostic Centres, X-ray Units etc.

e) IT related development Centres and Service centres.

f) Common services for Stair-case, lifts, water tanks etc in the purely commercial / combination of commercial and domestic.

3.2 The charges are as indicated in the table below:

Consumption range	Fixed Charges Rs/connection/month	Energy charge Rs./KWh
0-100 units per month	30	2.50
101-250 units per month	30	3.70
Above 250 units per month	30	4.30

Note: The method of calculation of charges shall be same as explained in para 1.2 above

4.0 AGRICULTURE SERVICES (D)

Agriculture/Cottage Industries etc.

4.1 Agriculture (D1)

For supply to bonafide Agricultural Services with a connected load of not less than 3 HP per service.

Description	Fixed Charges
Small Farmers	Rs 50 per HP per annum

Other Farmers	Rs 200 per HP per annum Plus Service Charges Rs 225 per service per annum

NOTE:

1. Electricity will be supplied under the tariff category “Small farmers” to those consumers whose families are solely dependent on the income derived from their agricultural land holding, which should not exceed two and half acres of wet land or five acres of dry land. A certificate to this effect from Revenue authority shall be produced. "Small farmer means a person whose total holding, whether as owner, tenant or mortgaged with possession or partly in one capacity and partly in another, does not exceed two-and-a half acres of wet lands or five acres of dry land. In computing the extent of land held by a person who holds both wet and dry lands, two acres of dry land shall be taken as equivalent to one acre of wet land.

2. The above concession will be withdrawn if resale of energy or unauthorized load / extension or use for other purpose is detected by the Department.

3. Agricultural power loads below 3 H.P. will be charged under Tariff Category A1. A bonafide farmer may use his motor in the Agricultural Service for allied agricultural purposes such as sugarcane crushing, thrashing etc. with the prior approval of concerned Executive Engineer (Operation & Maintenance), Electricity Department.

4. Power supply to Farm Houses shall be metered separately and charged under domestic tariff (A2).

Payment of Tariff Charges by Agriculture Consumers

1. The Tariff shall be collected in three equal installments payable in April, August and December in each year. The installments shall be payable before the 15th of the respective months. The service charges of Rs 225 per annum shall also be collected in three installments of Rs. 75, Rs. 75 and Rs. 75 along with installment of fixed charges in April, August and December months.
2. For new service, the first installment shall be proportionate to the number of whole months remaining till the month in which the first installment is due. Fraction of a month shall be reckoned as a whole month.

4.2 Cottage Industries / Horticulture / Poultry Farms (D2)

It is applicable to bonafide cottage industries, horticultural nurseries including plant tissue culture media and bona fide poultry farms.

The charges are as indicated in the table below:

Consumption range	Fixed Charges Rs/connection/month	Energy charge Rs./KWh
0-100 units per month	10	0.60
101-200 units per month	10	0.95
201-300 units per month	15	1.80
Above 300 units per month	15	2.35

Note:

(a) Cottage industries

The following conditions should be satisfied in order that an industry may be classified as a bona fide cottage industry:

(1) It should be conducted entirely within the home, the home being deemed to be permanent residence of the proprietor.
(2) The industry shall not cause any residence to constitute a factory within the meaning of the Factories Act, 1948.
(3) Not more than two persons outside the immediate family of the proprietor shall be employed in the factory.
(4) It should be certified by the Director of Industries that the industry for which power is used is a cottage industry.
(5) The produce is not purely utilized mainly for the domestic consumption of the proprietor but should also be available for sale to the public.

(b) Poultry farms

The following conditions should be satisfied in order that the service may be classified as a bona fide poultry farm.

(1) The capacity of the farm shall be a minimum of 100 birds and maximum of 5,000 birds (both layer and broiler birds).
(2) The application of the beneficiary seeking such concession shall be verified and recommended by the Animal Husbandry Department.

(c) Horticultural

(1) The applications of the beneficiary seeking such concession shall be verified and recommended by the Director, Agriculture Department.

5.0 Public Lighting

5.1 The tariff for public lighting shall be as follows:

Description	Energy charge Rs/KWh
Public Lighting	3.50

5.2 This tariff will also apply to public lighting in markets, bus stands, traffic signals, high mast lights on public ways, public parks, public lighting in notified industrial estates.

6.0 Industrial (C)

6.1 LT Industrial (C1)

Applicable to low tension industrial consumers including lighting in the industrial services except those mentioned in Tariff `C2' category.

6.2 The charges are as indicated in the table below.

Consumption range	Fixed Charges Rs/connection/month	Energy charge Rs/KWh
Upto 1000 units per month	30.00	3.40
Above 1000 units per month	30.00	3.65

6.3 LT Industrial (C2)

Applicable to water tanks including lighting in the premises maintained by State Government Departments / Undertakings and Local Bodies.

The energy charges are as indicated in the table below.

Description	Fixed Charges Rs/connection/month	Energy charge Rs/KWh
Water Tank C2 Entire Consumption	30.00	3.80

<u>LT Supply Limit for all LT categories</u>

For single phase connection, the connected load shall not exceed 4 kW, and for 3 phase connection, the connected load shall not exceed 130 HP or 97 kW

B. HIGH TENSION SUPPLY

7.0 High Tension – I

7.1 High Tension I (a)

Applicable to industrial establishments, registered under Factories Act with Contracted Maximum demand upto 2000 kVA.

High Tension I (b)

Applicable to industrial establishments, registered under Factories Act with Contracted Maximum demand of greater than 2000 kVA & upto 5000 kVA

High Tension I (c)

For Commercial Establishments including Laboratories, Hotels, Marriage Halls, Cinema Theatres, Private educational Institutions, Private Hospitals, shopping Malls, Telephone exchanges, broadcasting companies, IT companies with contracted maximum demand upto 5000 kVA.

7.2 The Demand and the Energy Charges are as indicated in the table below:

Description	Charges
HT (I) (a) For contract demand upto 2000 kVA	
Fixed (Demand) Charges	Rs 180 per kVA per month
Energy Charges	
(i) Upto 100000 units	Rs 3.50/kWh
(ii) Above 100000 units	Rs 3.65 /kWh
HT (I) (b) For contract demand greater than 2000 kVA and upto 5000 kVA	
Fixed (Demand) Charges	Rs 190 per kVA per month
Energy Charges	Rs 3.80/kWh
HT (I) (c) For contract demand upto 5000 kVA	
Fixed (Demand) Charges	Rs 190 per kVA per month
Energy Charges	Rs 4.00/kWh

7.3 The billing 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 will be billed at double the normal rate. Similarly, energy consumption corresponding to excess demand shall also be billed at double the normal energy rate.

Explanation:

Assuming the contract demand as 100 kVA, maximum demand at 120 kVA and total energy consumption as 12000 units, then the consumption corresponding to the contract demand will be 10,000 units (12000 X 100/ 120) and consumption corresponding to the excess demand will be 2000 units. This excess demand of 20 kVA and excess consumption of 2000 units will be billed at twice the respective normal rate. E.g. in case of HT(I) (b) category, excess demand and consumption will be billed at the rate of Rs 380 per kVA per month and Rs 7.60/kWh respectively.

8.0 High Tension – II

8.1 Applicable to State and Central Government establishments of non-industrial and non-commercial nature.

8.2 The fixed/demand charges and energy charges are as indicated in the table below.

Description	Charges
Fixed (Demand) Charges	Rs 220 per kVA per month
Energy Charges	Rs 3.40/kWh

8.3 The billing shall be 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 will be billed at double the normal rate. Similarly, energy consumption corresponding to excess demand shall also be billed at double the normal energy rate. Refer para 7.3 for illustration.

9.0 High Tension – III

9.1 Applicable to all types of industries supplied at 110 KV or 132 KV as the case may be.

9.2 The demand and energy charges are as indicated in the table below:

Description	Charges
Fixed (Demand) Charges	Rs 180 per kVA per month
Energy Charges	Rs 3.65/kWh

9.3 The billing shall be 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 will be billed at double the normal rate. Similarly, energy consumption corresponding to excess demand shall also be billed at double the normal energy rate. Refer para 7.3 for illustration.

Supply Voltage for all HT categories

The supply voltage for HT consumers upto 5000 kVA will be 33 kV, 22 kV or 11 kV as the case may be. New High Tension consumers who want to avail a contract demand above 5000 KVA or existing High Tension consumers who want to enhance their demand beyond total contract demand of 5000 kVA should avail power at 110 KV or 132 KV as the case may be.

C. TEMPORARY SUPPLY

10. The tariff applicable and minimum charges for the temporary supply of energy will be as follows:

S.No.	Category	Tariff Applicable	Minimum Charges
(a)	Lights or combined installation of lights and fans, motive power, heating and others	Entire Consumption: Rs 6.00/kWh	Rs 200 per connection per month or part thereof
(b)	Special Illumination	Entire Consumption: Rs 7.50/kWh	Rs 500 per connection per month or part thereof
(c)	Construction and testing purpose for load exceeding 130 HP or 97 kW	Entire Consumption: Rs 6.00/kWh	Rs 500 per connection per month or part thereof

NOTE:

(1) The rate for Special illumination shall apply to weddings, garden-parties and other Private/Government functions when the illumination is obtained through bulbs fastened in other surfaces of wall of buildings, on trees and poles inside the compound and in pandal etc., outside the main building.

(2) In cases where such Special illumination is done in the existing regular services the energy utilized for such illumination shall be metered separately and the consumption will be charged under Special illumination charge as levied under temporary supply.

(3) Wherever such Special illumination is done unauthorisedly, a penal charge of Rs. 500 for service shall be levied in addition to the existing tariff of the installation.

(4) Other conditions for connection of line and service connection charges, dismantling, security deposit etc. will be as per the rules now in force.

(5) For supply required at short notice that is within three days from the date of application for temporary service connections, an urgency charge of Rs. 50 shall be paid along with other normal tariff charges.