

**TRIPURA ELECTRICITY REGULATORY COMMISSION**



**Tariff Order:**

Truing up from FY 2005-06 to FY 2010-11 and  
Aggregate Revenue Requirement for FY 2012 – 13

For

**Tripura State Electricity Corporation Limited**

**Case No. 1 of 2012**

**28<sup>th</sup> March 2012**



**TRIPURA ELECTRICITY REGULATORY COMMISSION  
(TERC)**

**AGARTALA**

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## ABBREVIATIONS

A&G	Administration and General
Act	Electricity Act 2003
APM	Administered Price Mechanism
APTEL	Appellate Tribunal of Electricity
ARR	Aggregate Revenue Requirement
BADP	Border Area Development Program
BGTPP	Baramura Gas Thermal Power Plant
BPL	Below Poverty Line
CAGR	Compounded Annual Growth Rate
CEA	Central Electricity Authority
CERC	Central Electricity Regulatory Commission
CGS	Central Generating Stations
Ckt. km	Circuit Kilometer
CPI	Consumer Price Index
FOR	Forum of Regulators
FPA	Fuel Price Adjustment
FPPCA	Fuel and Power Purchase Cost Adjustment
FY	Financial Year
GAIL	Gas Authority of India Limited
GFA	Gross Fixed Asset
GHEP	Gomuti Hydro-electric Project
GoT	Government of Tripura
HT	High Tension
ISGS	Inter-State Generating stations
kCal	Kilo calorie
kV	Kilo Volt
LT	Low Tension
MAT	Minimum Alternate Tax
MMSCMD	Million Metric Standard Cubic Metre per Day
MoP&NG	Ministry of Petroleum and Natural Gas
MU	Million Unit
MW	Mega Watt
NEC	North Eastern Council
NEEPCO	North Eastern Electrical Power Corporation
NEP	National Electricity Policy
NHPC	National Hydro Power Corporation
NLCPR	Non Lapsable Central Pool of Resources
NTI	Non Tariff Income
O&M	Operation and Maintenance
ONGCL	ONGC Limited
PGCIL	Power Grid Corporation of India Limited
PMGY	Pradhan Mantri Grameen Yojana
R&M	Repair and Maintenance
R-APDRP	Restructured Accelerated Power Development and Reform Programme
RGVY	Rajiv Gandhi Grameen Vidyutikaran Yojana
RGTPP	Rokhia Gas Thermal Power Plant
Rs.	Rupees
SPA	Special Plan Assistance
T&D	Transmission and Distribution
TERC	Tripura Electricity Regulatory Commission
TSECL	Tripura State Electricity Regulatory Commission
US \$	United State Dollar
VAT	Value Added Tax
WBSEDCL	West Bengal State Electricity Distribution Company Limited



**TRIPURA ELECTRICITY REGULATORY COMMISSION AT AGARTALA**

**No. F.24/TERC/ 773**

**Dated: March 28, 2012**

**Petition No.: 01/2012**

Before the Tripura Electricity Regulatory Commission  
Vidyut Bhawan, Banamalipur, Bhutoria,  
Agartala – 799001 (Tripura)

**In the matter of.....**

Determination of ARR (Aggregate Revenue Requirement) and Truing up of ARR w.e.f FY 2007-08 to FY 2010-11 and tariff determination for FY 2012-13 as admissible under TERC Regulation No. F.17/TERC/04 dated 11.1.2005, read with Chapter IV (Tariff) of TERC Regulation No. 17/TERC/2004/34 dated 11.1.2005 for supply of electricity in the state of Tripura by the Tripura State Electricity Corporation Limited (TSECL).

by

**Tripura State Electricity Regulatory Commission (TSECL) .....Petitioner**

Bidyut Bhavan, North Banamalipur  
Agartala, Tripura, Pin: 799001

# **ORDER**

The Commission in exercise of Powers vested in it under Section 62(1) (d) read with Section 64(3) (a) of the Electricity Act, 2003 and TERC Tariff Regulations 2004 and all other power conferred the Tripura Electricity Regulatory Commission after thorough examination of Petition submitted by the Petitioner (TSECL) and all documents and records as submitted and all oral submission by the Petitioner and submission made orally and in writing during public hearing and all objections submitted by the objectors, replies thereof from the Licensee, and other submission made by the representatives presented and in consultation with the State Advisory Committee or otherwise information received and after due consideration of the consumers interest and after consideration of the sustainability of the utility, and applying mind minutely the Commission passes the Order and directives as detailed in the respective chapters and hereafter. The Tariff Order will be effective from 1<sup>st</sup> April, 2012 and remain valid till 31<sup>st</sup> March, 2013 or directed otherwise.

1. The licensee must submit to before the Commission within 90 days
  - (a) Audited accounts for FY 2009-10 and FY 2010-11
  - (b) Capital expenditure plan for FY 2012-13
  - (c) Energy audit reports
  - (d) Details of metering status
  - (e) Details of interest on security deposits refundable to the consumers
  - (f) Action plan for reduction of T&D losses
2. Function wise assets and depreciation registers including asset-wise classification duly audited with 180 days to the Commission.
3. The licensee must submit a list of defaulting consumers not paying the electricity bill for more than 60 days involving amount more than Rs. 25,000 (Rupees twenty five thousand) only under intimation to concerned departments. Action Plan for collection of past arrears must be submitted within 180 days to the Commission.
4. Action Plan for “On-line Payment” and “Payment to the Bank” of the electricity bills within 180 days to the Commission.
5. It is also directed that in the matter of applicable tariff, if State Government directs provision of any subsidy in respect of particular category of consumer or sector of

consumer, the same has to be acted upon by the licensee and action taken as provision of the Electricity Act, 2003.

6. The Licensee must keep record of application of service connection disposal status and ensure quickest disposal of the same (30 days from the date of receipt of application for the first time), unless exempted.
7. All the un-metered Kutir Jyoti connections should be regularized by installing proper meters by the end of FY 2012-13. The defective meters should be replaced in phase wise manner and should be completed by FY 2012-13.

That the Aggregate Revenue Requirement for FY 2012-13 for Tripura State Electricity Corporation Limited having its area of supply for intra-state consumers with the State of Tripura and other inter-state buyers is approved for Rs. 543.66 Crore. The Revenue Gap of the Licensee is approved at Rs. 50.12 Crore. Accordingly, the Commission approved an average tariff increase of 17%.

The Tariff Schedule for various consumer categories and terms and conditions as provided in Annexure I and Annexure II of the Tariff Order. The tariff will be effective from 1<sup>st</sup> April, 2012 to 31<sup>st</sup> March, 2013 or directed otherwise.

The Licensee shall issue public notification of the approved Tariff Schedule and other directions etc. in three (3) languages i.e. Bengali, English and Kokborok. The approved Tariff Schedule should be available with all the sub-division, division, circle and corporate offices. This disposes of Petition no. AGM/C&SO/TC/101/ARR-2011-12 of 20<sup>th</sup> January 2012.

Sd/-  
M.R. Karmakar  
(Chairman, TERC)

# 1. Background and Brief History

## 1.1 Background

The Tripura State Electricity Corporation Limited (hereinafter referred to as 'TSECL' or the 'petitioner' or the "utility") has filed its petition on 20<sup>th</sup> January 2012 as per Section 62 of the Electricity Act, 2003, read with the Tripura Electricity Regulatory Commission (Tariff Regulation 2004), Tripura Electricity Regulatory Commission (Tariff Procedure) Regulation 2004 and Tripura Electricity Regulatory Commission (Conduct of Business) Regulation 2004 (hereinafter referred to as Tariff Regulations, 2004), for trueing up from FY 2007-08 to FY 2010-11 and Aggregate Revenue Requirement (ARR) for FY 2012-13 and determination of Tariff for FY 2012-13 thereof.

The Commission admitted the petition on 31<sup>st</sup> January, 2012.

## 1.2 Tripura State Electricity Corporation Limited (TSECL)

Tripura State Electricity Corporation Limited (TSECL) has been created from the erstwhile Department of Power, Government of Tripura and started its operation from January 1<sup>st</sup> 2005. TSECL is the sole electricity utility in Tripura responsible for generation, transmission and distribution of electricity in the state.

The Government of Tripura (GoT) vide notification dated July 24<sup>th</sup> 2007, notified the final opening balance of the assets of TSECL with effect from January 01<sup>st</sup> 2005. As per this notification of Government of Tripura, Rs. 636.35 Crore worth of Fixed Assets and Rs. 18.39 of worth of current assets (after netting off current liabilities of Rs. 44.17 Crore) transferred to TSECL from the erstwhile Department of Power, GoT. Authorised Capital of TSECL increased from Rs. 10.00 Crore to Rs. 120.00 Crore. TSECL increased its issued, subscribed and paid-up share capital from Rs. 9.55 Crore to Rs. 109.29 Crore for consideration of other than cash by way of conversion of capital reserve amounting to Rs. 9.50 Crore and conversion of Department of Power loan amounting to Rs. 90.24 Crore.

## 1.3 Tripura Electricity Regulatory Commission

The Tripura Electricity Regulatory Commission (hereinafter referred to as "TERC" or "Commission") was created under the Electricity Act, 2003 and vide Government

Notification No.F.1 (17)/ Commr/Power/2003(P-1) dated 24<sup>th</sup> April 2004. The notification came in the Government of Tripura's Gazette (Extra –Ordinary) on 26<sup>th</sup> May 2004. Accordingly, the Tripura Electricity Regulatory Commission (TERC) established on 31<sup>st</sup> May 2004 as a statutory body and as one man Commission under Electricity Act. 2003. In addition, the Commission, a quasi-judicial body, with effect from 10<sup>th</sup> June 2003 has come under the purview of the Electricity Act, 2003.

### **1.3.1 Functions of the Commission**

Major functions of the Commission are as follows:

1. Determination of tariff for generation, supply, transmission and wheeling of electricity, wholesale ,bulk or retail, as the case may be ,within the State;
2. Regulate electricity purchase and procurement process of distribution licensees including the price at which electricity shall be procured from the generation companies or licensees or from other sources through power purchase agreements for supply of power within the state;
3. Facilitate intra – state transmission and wheeling of electricity;
4. Issuance of licenses to persons seeking to act as transmission licensees, distribution licensees and electricity traders with respect their operations within the State;
5. Promote cogeneration and generation of electricity from renewable source of energy by providing suitable measures for connectivity with the grid and sale of electricity to any person, and also specify, for purchase of Electricity from such sources, a percentage of the total consumption of Electricity in the area of a distribution Licensee;
6. Adjudication upon the disputes between the Licensees and generating companies and to refer any dispute for arbitration ;
7. Levying fees for the purposes of the Electricity Act 2003;
8. Determination of specification of State Grid Code;
9. Enforcement of standards with respect to quality, continuity and reliability of service by Licensees;
10. Fixation the trading margin in the intra-State trading of Electricity, if considered necessary;
11. Discharge of other functions as may be assigned to it under the Electricity Act 2003;
12. Advice the State Government on all or any of the following matters such as:

- Promotion of competition, efficiency and economy in activities of the Electricity industry;
- Promotion of Investment in Electricity Industry;
- Re-organization and restructuring of Electricity Industry in the State;
- Matters concerning generation, transmission, distribution and trading of Electricity or any other matter referred to the State Commission by the State Government.
- Maintaining transparency and observant of the National Electricity Policy (NEP), National Electricity Plan and National Tariff Policy (NTP).

### **1.3.2 Regulations notified by the Commission**

The following Regulations have been notified by the Commission:

1. State Electricity Grid Code Regulations, 2010
2. Terms and Condition of Open Access Regulations, 2010
3. Renewable Purchase Obligation and its compliance Regulations, 2009
4. Demand Side Management Regulations, 2010
5. Procurement of Energy from Renewable Sources Regulations, 2010
6. Compliance Audit Regulations, 2010
7. Conduct of Business Regulations, 2004
8. Standard of Performance Regulations, 2004
9. Regulation for Tariff Procedure, 2004
10. Electricity Supply Code Regulations, 2004
11. Tariff Procedure Regulations, 2004
12. Consumer Grievance Redressal Forum & Appointment of Ombudsman Regulations, 2005
13. Grant of Licensing and Terms and Conditions of Licence Regulations, 2005
14. Terms and Condition of Consultants Regulations, 2005
15. Miscellaneous Provisions Relating to Petitions Fees Regulations, 2005
16. Miscellaneous Provision Regulations, 2005
17. State Advisory Committee Regulations
18. Regulation on Co-Generation and Generation of Electricity from Renewable Source of Energy, Regulations, 2009



#### **1.4 First Tariff Order of the Commission**

The Tripura State Electricity Corporation Limited had filed its first tariff petition for the FY 2005-06 in accordance with the Tripura Electricity Regulatory Commission (Tariff Regulations 2004). The Commission, in exercise of the powers vested under Sections 61, 62 and 64 of the Electricity Act, 2003 carried out a detailed review of petition submitted by TSECL.

Due to lack of clarity on the transfer scheme of the licensee, absence audited accounts, accurate database and cost benefit analysis of various business processes, the Commission had not been able to review the actual performance of TSECL. However, the Commission has examined the Petition and other submission made by the TSECL and solicited views of the public representatives on the Petition submitted by TSECL. After a thorough examination of the Petition and Public comments and suggestions, the Commission issued its first Tariff Order on 24<sup>th</sup> June 2005.

#### **1.5 Second Tariff Order of the Commission**

TSECL had filed its second tariff petition for the FY 2006-07 on August 4<sup>th</sup> 2006 in accordance with the Section 62 of the Electricity Act, 2003 and Tripura Electricity Regulatory Commission (Tariff Regulation 2004). The Commission, in exercise of the powers vested under Sections 61, 62 and 64 of the Electricity Act, 2003 issued its second Tariff Order on September 14<sup>th</sup> 2006.

From FY 2007-08 to FY 2010-11 TSECL had not submitted any ARR Petition despite several reminders from the Commission. In FY 2010-11, TSECL has submitted a Petition for Fuel & Power Purchase Cost Adjustment (FPPCA) for approval of adjustment of cost against increase of fuel (gas) cost for its own generation at Rukhia and Baramura power stations and cost incurred for procurement of power from the Central Generating Stations (CGSs). The Commission after due examination of the Petition and considering all the aspects on this matter, issued FPPCA Order on 13<sup>th</sup> September 2010. The Commission subsequently issued amendment order on 22<sup>nd</sup> September 2010 after allowing subsidy to some categories of consumer.

#### **1.6 Admission of Current Petition and Public Hearing Process**

TSECL submitted the petition for 'truing up' for the period FY 2007-08 to FY 2010-11 and the determination of Aggregate Revenue Requirement (ARR) for FY 2012-13 on

20<sup>th</sup> January 2012. The Commission admitted the petition (Case No.1 of 2012) on 31<sup>st</sup> January 2012.

In accordance with Section 64 of the Electricity Act, 2003, the Commission has directed TSECL to publish its application in the abridged form to ensure public participation. The Commission, subsequently has published the Notice for Public Hearing in the following newspapers on 23<sup>rd</sup> February 2012.

1. Dainik Sambad (Bengali)
2. Daily Desher Katha(Bengali)
3. Tripura Darpan (Bengali)
4. Syandan (Bengali)
5. Ajker Fariad (Bengali)
6. Aajkal Tripura (Bengali)
7. Pratibadi Kalam (Bengali)
8. Sakal Bela (Bengali)
9. Chini Kok (Kokbarak)
10. Tripura Observer (English)
11. Tripura Times (English)
12. Dainik Ganadut (Bengali)

The petitioner also placed the public notice and the petition on the website ([www.tsecl.com](http://www.tsecl.com)) for inviting objections and suggestions on its petition.

The interested parties/stakeholders were asked to file their objections / suggestions on the petition on or before 29<sup>th</sup> February 2012.

The TSECL/Commission received the objections / suggestions from five consumers / consumer's representatives. The Commission examined the objections received from the objectors and fixed the date for public hearing on 7<sup>th</sup> March 2012. Subsequently, communication sent to these objectors to take part in the public hearing process for presenting their views in person before the Commission. The public hearing was conducted at Commission's Office in Agartala on 7<sup>th</sup> March 2012.

The following consumers / consumer's representatives, filed their objections in response to the Public Notice.

**Table 1-1: List of consumers filed objections on the TSECL Petition**

Sl. No	Name and address
1.	Professor, Mihir Deb, North of TRTC UCO Bank, Agartala
2.	Shri Dulal Das, Member, Steering Committee, Tripura Pradesh Trinamool Congress Committee
3.	Shri Subrata Chakraborty, Member, State Organization Committee (SUCI)
4.	Shri Bimal Chandra Choudhury, Opposite Press Club, J.B. Road, Agartala
5.	Shri Ashok Kumar Baidya, Post Office – Teliamura, Khowai, Tripura - 799205

A note on the main issues raised by the objectors in their written submissions and also in the public hearing in respect of the petition, along with the response of TSECL and the Commission's views are briefly given in Chapter 3.

### 1.7 Interaction with the Petitioner

It may be mentioned for the sake of clarity, that the term "Commission" in most of the cases refers to the Staff of the Commission and the Consultants appointed by the Commission for carrying out the due diligence on the petition filed by the petitioner, obtaining and analysing information/clarifications received from the petitioner and submitting all issues for consideration by the Commission.

For this purpose, the Staff of the Commission and Consultants held discussions with the petitioner, obtained information/clarifications wherever required and undertook technical validation with regard to the information provided.

The Commission conducted detailed scrutiny of the petition submitted by the petitioner and observed certain deficiencies. Accordingly, deficiency letters were issued to the petitioner from time to time. Further, the Commission directed for additional information/clarifications from the petitioner as and when required. The petitioner submitted the additional information through various letters, as listed in the table 1-2.

The Commission interacted regularly with the petitioner to seek clarifications and justifications on various issues essential for the analysis of the petition. The Commission also conducted multiple validation sessions with the petitioner during which discrepancies in the petition were discussed. Subsequently, the petitioner submitted replies to the issues raised in these sessions.

The petitioner submitted its replies, as shown below, in response to the queries raised by the Commission, which have been considered for approval of the ARR of the petitioner:

**Table 1-2: List of Correspondence with TSECL**

Sl. No	Date	Letter No.	Subject
1.	1 <sup>st</sup> February, 2012	No. F.AGM/C&SO/178	Admission hearing
2.	10 <sup>th</sup> February, 2012	No. F.AGM/C&SO/282	Furnishing additional data for evaluation of your ARR and True-up petition
3.	17 <sup>th</sup> February 2012	No. F.AGM/C&SO/312	Furnishing additional data for evaluation of your ARR and True-up Petition
4.	6 <sup>th</sup> March, 2012	No. AGM/C&SO/TC/101	Furnishing additional data for evaluation of your ARR and True-up Petition
5.	7 <sup>th</sup> March, 2012	No. F.AGM/C&SO/457	Tariff Petition and supply of information thereof
6.	19 <sup>th</sup> March. 2012	No. F.AGM/C&SO/101/562	Information in connection of T&D losses
7.	24 <sup>th</sup> March, 2012	No. AGM/C&SO/TC/101/593-94	Submission of tariff petition for determination of Aggregate Revenue Requirement of TSECL from FY 2007-08 to FY 2012-13 including truing-up of FY 2007-08 to FY 2010-11 and submission of additional information

## 1.8 Approach of this Order

### 1.8.1 Truing-up for FY 2007-08 and FY 2008-09

The TSECL has approached the Commission for 'truing up' for the period FY 2007-08 and FY 2008-09. The petitioner has submitted its audited accounts for FY 2007-08 and FY 2008-09 along with the petition. The figures reflected in the audited accounts for FY 2007-08 and FY 2008-09 have formed the basis for approval of truing-up for FY 2007-08 and FY 2008-09.

### 1.8.2 Truing-up for FY 2009-10 and FY 2010-11

The petitioner has submitted its truing-up petition for FY 2009-10 and FY 2010-11 based on the provisional accounts for FY 2009-10 and FY 2010-11. The Commission has directed the petitioner to submit the audited accounts for FY 2009-10 and FY 2010-11 by March 15, 2012. However, the petitioner has failed to submit the audited accounts for FY 2009-10 and FY 2010-11 till the time issuance of this Tariff Order. In this absence of audited accounts, the Commission has considered the provisional accounts of the petitioner for FY 2009-10 and FY 2010-11 for truing-up. The Commission may re-visit the approvals given in this Order, when the audited accounts for FY 2009-10 and FY 2010-11 will be made available to the Commission.

### **1.8.3 Truing-up for FY 2005-06 and FY 2006-07**

The truing-up exercise for FY 2005-06 and FY 2006-07 was not carried out at time of issuance of the previous two Tariff Orders due to absence of audited accounts. Further, the petitioner had not submitted any truing-up and ARR petition after issuance of Tariff Order for FY 2006-07.

The petitioner in its present petition has not filed for the truing-up for FY 2005-06 and FY 2006-07. As the audited accounts for FY 2005-06 and FY 2006-07 are now available, the Commission has decided to undertake the truing-up for FY 2005-06 and FY 2006-07 on suo-moto basis under Section 3 of the Tripura Electricity Regulatory Commission (Tariff Regulations 2004) and Section 25(1) of Tripura Electricity Regulatory Commission (Conduct of Business Rule 2004).

Section 3: "Procedure for calculation of expected revenue" of the Tripura Electricity Regulatory Commission (Tariff Regulations 2004) states that:

*The Commission reserves the right suo-moto to ask the Generating Companies and Licensees to file such an application for variation in tariff and other charges which should be filed as per Tripura Electricity Regulatory Commission (Conduct of Business Rule 2004).*

Section 25(1) of Tripura Electricity Regulatory Commission (Conduct of Business Rule 2004) states that:

*The Commission may initiate any proceedings suo-moto or on a petition filed by any affected person. The petition so filed shall become a part of proceedings.*

### **1.8.4 ARR for FY 2012-13**

While considering the ARR for the FY 2012-13, the Commission's approach has been guided by the following principles:

1. Parameter such as fuel purchase cost is based on the approved generation from the power plants. Estimation of power purchase cost is based on the allocation of the state from the Central Generating Stations (CGS). Energy sales to the intra-state and inter-state is based on the actual trends observed in the last five years.

2. Parameters such as Operation and Maintenance (O&M) and other expenses have been approved on the actual performance observed in the previous five years.

## **1.9 State Advisory Committee**

The State Advisory Committee constituted by the Commission discussed the True-up and ARR Petition of TSECL in a meeting convened for the purpose on 15<sup>th</sup> February 2012 at the Commission's Office.

The Commission has, thus, taken the necessary steps to ensure that the due process, as contemplated under the Act and Regulations framed by the Commission are followed and adequate opportunity given to all stakeholders in presenting their views.

## **1.10 Contents of this Order**

This order is divided into eight chapters, as under:

1. The **First Chapter** provides a background of the petitioner, the petition and public hearing process and the approach adopted for this order.
2. The **Second Chapter** contains an overview of the power sector in Tripura.
3. The **Third Chapter** contains a summary of TSECL's Truing-up and ARR petition.
4. The **Fourth Chapter** provides a brief account of the public hearing process, including the objections raised by various stakeholders, TSECL's response and the Commission's views on the same.
5. The **Fifth Chapter** deals with the 'Truing up' for the period FY 2005-06 to FY 2010-11.
6. The **Sixth Chapter** deals with Annual Revenue Requirement (ARR) for FY 2012-13.
7. The **Seventh Chapter** deals with Commission's observations and directives.
8. The **Eight Chapter** deals with Tariff Philosophy and Tariff approved by the Commission.

## 2. Power sector overview of Tripura

### 2.1 Generation overview

Plant-wise generation capacity of Tripura is presented in the following table.

**Table 2-1: Generation overview of Tripura**

Generation stations	Unit	Capacity (MW)
Gomuti Hydro-electric Project (GHEP)	Unit-I	5
	Unit-II	5
	Unit -III	5
	<b>Sub-total</b>	<b>15</b>
Baramura Gas Thermal Power Plant (BGTPP)	Unit-I	5
	Unit-II	5
	Unit -III	6.5
	Unit-IV	21
	Unit-V	21
	<b>Sub-total</b>	<b>58.5</b>
Rokhia Gas Thermal Power Plant (RGTPP)	Unit-I	8
	Unit-II	8
	Unit -III	8
	Unit-IV	8
	Unit-V	8
	Unit-VI	8
	Unit-VII	21
	Unit-VIII	21
	<b>Sub-total</b>	<b>90</b>
Diesel generation units		<b>5.85</b>
<b>Total</b>		<b>169.35</b>

- Unit V and VI of RGTPP have been under forced shutdown and needs major maintenance and overhauling.
- Unit I, II and III of BGTPP have been retired as they have lived their normal life and further life extension deemed un-economical.
- Unit I and II of RGTPP have also retired as they have lived their normal life.
- Only 1 MW out of 5.85 MW of the Diesel Generation Units is in operation and operated intermittently for meeting emergency power requirements only.
- 50% of the installed capacity of unit IV and V of BGTPP has been allocated to Manipur and Mizoram.
- 50% of the installed capacity of unit V and VI of RGTPP has been allocated to Mizoram.

In the context of the above the around 132 MW of generation capacity is currently in operation in Tripura.

## 2.2 Transmission overview

TSECL operates and maintains 424.35 Circuit Kilometer (Ckt. km) of 132 kV and 380.2 Circuit Kilometer of 66 kV lines to evacuate power from various generating stations. Besides, TSECL owns more than 1500 Ckt. km of 33 kV and above lines by the end of FY 2010-11. The state system is connected to Inter-state Transmission system (ISTS) through (2 x 132 kV R C Nagar- Agartala S/c), 132 kV Kumarghat-P.K.Bari S/c line, 132 kV Dharmanagar – Dullavcherra S/c.

Due to transformation & transmission bottlenecks, the state couldn't draw its full share of power from the Inter-State Generating stations (ISGS) during the peak hours.

## 2.3 Distribution overview

Peak demand of Tripura is around 230 MW and faces a peak demand deficit of 65 MW, including share from the ISGS of 90 MW. TSECL operates and maintains 16500 ckt km of Low Tension (LT) lines (<11 kV) and 8900 ckt km of 11 kV lines approximately by end of FY 2010-11. Distribution Transformer capacity of the state by the end of FY 2010-11 was 704.77 MVA. Distribution network in the state of Tripura is tabulated below.

**Table 2-2: Year-wise distribution network of Tripura**

Distribution network	FY 2007-08	FY 2008-09	FY 2009-10	FY 2010-11
33 kV (Ckt km)	567.2	589.00	627.4	721.27
11 kV (Ckt km)	7970.54	8315.18	8539.18	8914.65
LT line (Ckt-km)	13450.84	15264.05	15692.05	16474.38
Distribution Transformer capacity (MVA)	588.92	637.36	675.1	704.77

Per capita electricity consumption in Tripura is 256<sup>1</sup> units per year. Majority of consumption of electricity in Tripura is in the Domestic and Commercial consumer categories.

The following table showing the category wise number of consumers in the last four years in Tripura.

<sup>1</sup> Not 335 as mentioned by the Petitioner in the Tariff Petition



**Table 2-3: Year-wise consumers in Tripura**

(Nos.)

<b>Consumer categories</b>	<b>FY 2007-08</b>	<b>FY 2008-09</b>	<b>FY 2009-10</b>	<b>FY 2010-11</b>
Kutirjyoti	54967	52056	50707	53230
Domestic	274828	300824	338714	354990
Commercial	34887	36858	39137	40662
Industries ( LT &HT)	3708	3759	4019	4126
Bulk Supply	300	386	542	553
Tea garden	18	11	16	16
Public water works & lighting	5022	5715	7078	7146
<b>Total</b>	<b>373730</b>	<b>399609</b>	<b>440213</b>	<b>460723</b>

### 3. Summary of True-up from FY 2007-08 to FY 2010-11 and ARR Petition for FY 2012-13

#### 3.1 True-up for the period FY 2007-08 to FY 2010-11

The Tripura State Electricity Corporation Limited (TSECL) has submitted the petition seeking approval for Truing-up from FY 2007-08 to FY 2010-11 and Aggregate Revenue Requirement (ARR) and determination of retail supply tariff for the period FY 2012-13 on 20<sup>th</sup> January 2012.

The details of expenses under various components of Truing-up are given in the Table below:

**Table 3-1: True-up Petition of TSECL from FY 2007-08 to FY 2010-11 (as submitted)**

(Rs. Crore)					
Sl. No.	Particulars	FY 2007-08	FY 2008-09	FY 2009-10	FY 2010-11
<b>A. Expenditure</b>					
1	Fuel Cost	54.42	72.74	70.66	163.04
2	Power Purchase	101.35	137.70	113.10	139.00
3	O&M expenses	78.50	82.36	95.23	106.81
4	Finance charges	0.00	0.29	0.09	0.04
5	Interest on Consumers security deposits	0.22	0.38	0.23	0.15
6	Interest on loan	0.00	0.04	0.00	0.00
7	Bad Debt	0.00	0.42	0.00	0.00
8	Depreciation	27.71	28.59	25.32	24.31
9	Other Expenses	0.34	0.34	0.34	0.13
10	Income Tax	1.93	1.94	1.82	0.00
11	<b>Sub-total (1 to 10)</b>	<b>264.47</b>	<b>324.79</b>	<b>306.79</b>	<b>433.47</b>
<b>Revenue</b>					
12	Revenue from sale of power	263.69	357.79	276.87	328.18
13	Non-Tariff Income	18.83	37.09	38.46	30.91
14	Revenue from subsidy and grants	24.00	25.00	28.00	19.76
15	<b>Total revenue (12 to 14)</b>	<b>306.52</b>	<b>419.88</b>	<b>343.34</b>	<b>378.85</b>
16	Clear Profit and losses (15- 11)	42.05	95.10	36.55	-54.62
17	Reasonable Return	17.06	17.14	16.14	16.52
18	Revenue Gap and Surplus (16- 17)	24.99	77.96	20.41	-71.14
19	Difference to be passed on to consumers (=18/2)	12.49	38.98	10.21	-35.57
20	Difference to be retained by TSECL (=18/2)	12.49	38.98	10.21	-35.57
21	Total Difference to be passed on to consumers based on true-up of FY 07-08 to FY 10-11 (sum of row 19)				26.11

TSECL has proposed to pass-on Rs. 26.11 Crore to the consumers for determination of tariff for FY 2012-13.

### 3.2 ARR for FY 2011-12 and FY 2012-13

The following table presents the summary of the ARR Petition submitted by TSECL for FY 2011-12 and FY 2012-13.

**Table 3-2: ARR for FY 2011-12 to FY 2012-13**

(Rs. Crore)			
Sl. No.	Particulars	FY 2011-12	FY 2012-13
1	Fuel cost	188.05	196.34
2	Power purchase cost	187.82	251.22
3	Operation and Maintenance expenses	113.85	121.17
3.1	Employee cost	85.45	90.57
3.2	Repairs and maintenance	18.47	20.37
3.3	Administration and general expenses	9.93	10.23
4	Other interest and finance charges	0.35	0.35
5	Depreciation	95.19	52.19
6	Provision for Bad Debt	0.00	0.87
7	Reasonable return	30.44	36.64
<b>8</b>	<b>Sub-total (1 to 7)</b>	<b>615.70</b>	<b>658.77</b>
8	Less: Non-Tariff Income	29.80	26.90
<b>9</b>	<b>Aggregate Revenue Requirement (ARR)</b>	<b>585.90</b>	<b>631.87</b>

### 3.3 Estimated Revenue Gap for FY 2012-13

The estimated revenue gap for FY 2011-12 and FY 2012-13 at existing tariff projected by the petitioner are shown in Table 3-3 below.

**Table 3-3: Revenue gap for FY 2011-12 to FY 2012-13**

( Rs. Crore)			
Sl. No.	Particulars	FY 2011-12	FY 2012-13
1.	Total Aggregate Revenue Requirement	585.90	631.87
2.	Revenue from intra state sale	256.34	288.79
3.	Revenue from interstate sale	102.58	172.32
4.	Revenue from Grant and Subsidy	134.22	0.00
5.	<b>Total revenue including subsidy (2 to 4)</b>	<b>493.14</b>	<b>461.12</b>
6.	<b>(Gap) / Surplus (1-5)</b>	<b>(92.76)</b>	<b>(170.76)</b>
7.	<b>Total revenue gap for FY 2011-12 and FY 2012-13</b>		<b>(263.52)</b>
8.	Revenue gap to be covered from the profit pass on to the consumers (refer to point no. 21 of Table 3-		26.11

Sl. No.	Particulars	FY 2011-12	FY 2012-13
	1)		
9.	Revenue gap to be covered from the revised tariff for FY 2012-13		(237.41)

### 3.4 TSECL's request to the Commission:

TSECL has requested the Commission for approval of the ARR and tariff proposal as submitted in the petition or pass such order/orders as are deemed fit and proper on the facts and circumstances of the tariff petition.

## 4. Objections raised by various customers/ objectors, TSECL's response and the Commission's views

In response to the public notice inviting objections/suggestions of the stakeholders on the petition, five consumers/consumer representatives filed their objections and suggestions in writing. The objections /suggestions, the responses and submissions of the petitioner thereof along with the views of the Commission are indicated below. Submissions and responses, pertaining to specific and detailed aspects of tariff, have been taken into account in the formulation of an equitable tariff, balancing the interests of various stakeholders, though, those might not find place in this chapter.

**Objection 1:** Professor Mihir Deb has highlighted that in item no. 19, column no. 5 of table 6-17 (page 55 of the ARR Petition) has shown a revenue gap of Rs. 23740.60 Lakh arrived after adding row no. 17 and 18 as mentioned in the table. In row no. 17, there is a figure of Rs. -17,075.84 Crore and in row no. 18 there is no. figure. How the figure of Rs. 23,740.60 Lakh has been arrived.

**Response of the Petitioner:** The figure shown in row 19 as Rs. 23740.60 Lakh has been calculated by adding all the entries/figures shown in row 17 and row 18 (i.e. – Rs. 23,740 lakh = Rs. -9,275.76 lakh-Rs.17,075 lakh + Rs. 2,610.86 lakh). The total revenue income deficit proposed to be recovered in FY 2012-13 is equal to the sum of the revenue income deficit coming from the ARR of FY 2011-12 and FY 2012-13 (Rs. 9,275.76 lakh and Rs. 17,075.84 lakh shown in row 17) adjusted from the surplus coming as a result of the truing-up of FY 2007-08 to FY 2010-11 (Rs. 2,610.86 lakh shown in row 18).

**Commission's View:** *Petitioner's representation of profit/loss by adding column 17 and 18 was confusing. However, the Commission agrees with clarification given by the petitioner in response to the query raised by the objector. The summation of profit & loss during FY 2010-11, FY 2011-12 and FY 2012-13 amounting to Rs. 23,740.60 Lakh has been reflected by the petitioner in row 19.*

**Objection 2:** Professor Mihir Deb has raised the issue that in item no. 20, column no. 5 of table 6-17 (page 55 of the ARR Petition) increase in annual revenue has

shown as 48.65%. However, proposed increase in consumer tariff is much higher.

For example,

If the monthly consumption of a consumer is 195 units:

The existing rate, the consumer pays

(a) Energy charges for 195 units @ Rs. 2.60/unit	=	Rs. 507.00
(b) FPPCA for 195 units @ Rs. 1.40/unit	=	Rs. 273.00
(c) At the existing rate total charge for 195 unit (a+b)	=	Rs. 780.00

At the proposed telescopic rates for 195 units (50+100+45) units, the consumer pays

(a) For first 50 units @ Rs. 4.01/unit	=	Rs. 200.50
(b) For next 100 units @ Rs. 7.20/unit	=	Rs. 720.00
(c) For next 45 units @ Rs. 9.63/unit	=	Rs. 433.35
(d) At the proposed rate total charge for 195 units (a+b+c)	=	Rs.1354.00

Therefore increase in consumer's energy charge for =  $(1354-780) = \text{Rs. } 574$

Rate of increase as result of the proposed tariff =  $(574/780) = 73.54\%$

**Response of the petitioner:** It has been projected that the ARR of TSECL will increase by 48.65% in FY 2012-13 as compared to the projected total revenue at existing tariff. But the total revenue of TSECL is met by income from power sale in Tripura, income from inter-state sale of power and the subsidy received from the State Government. The retail supply tariff has been currently projected assuming no income from subsidy and assuming that the per unit income from trading/inter-state sales shall be the same as achieved during current year. Based on these assumptions, total projected increase in revenue has to be realized from the income from sale of power in Tripura. Because of this, the proposed retail supply tariff rates coming higher than the percentage increase of total revenue, as pointed by the objector.

**Commission's View:** *The objector's view and response of the petitioner are noted by the Commission. To determine the proposed consumer tariff rates, the Commission will review all the possible revenue sources of the petitioner and accordingly design the new retail tariff for the intra-state consumers. The rate of increase of 73.54% as calculated by the objector and subsequent clarifications by TSECL is noted by the Commission and will give due attention.*

**Objection 3:** Professor Mihir Deb has suggested that tariff slab for urban domestic consumers to be followed in line with West Bengal State Electricity Distribution Company Limited.

Tariff structures proposed by the petitioner and corresponding rates for the urban domestic consumers are as follows:

**Table 4-1: Proposed tariff structure for urban domestic consumers submitted by TSECL**

Slabs	Monthly consumption (units)	Rs./unit
Slab 1	0-50	Rs. 4.01
Slab 2	51-150	Rs. 7.20
Slab 3	151-300	Rs. 9.63
Slab 4	Above 300	Rs. 11.04

Most of the domestic consumers consume 75 units per month. The proposed slabs should be better as followed by the West Bengal State Electricity Distribution Company Limited (WBSEDCL), which is presented below:

**Table 4-2: Tariff structure for urban domestic consumers of WBSEDCL**

Slabs	Monthly consumption (units)	Rs./unit
Slab 1	0-75	Rs. 4.00
Slab 2	76-150	Rs. 6.00
Slab 3	151-300	Rs. 8.00
Slab 4	Above 300	Rs. 10.00

**Response of the Petitioner:** It has been suggested to revise the lowest consumption slab for domestic urban consumers to be 0-75 units (monthly consumption) instead of the proposed slab of 0-50 units, in alignment with the slab of WBSEDCL. It may be noted here that the slab structure of 0-75 units in WBSEDCL is base on quarterly consumption and not on the monthly consumption. As such, the corresponding monthly slab for WBSEDCL shall be 0-25 units and not 0-75 units, as suggested by the objector. The slab limit for below poverty line (BPL) consumers has been specified as 30 units per month in National Electricity Policy (NEP). The average consumption of a low consuming domestic urban consumers shall be more than the limit mentioned under NEP for BPL consumers. As such, the lowest monthly

slab for urban domestic consumers has been kept as 0-50 units. Since, the tariff for lowest slab is very low and is meant for very poor consumers (having income around the BPL limit), it would be unfair to extend the benefit of lowest slab to consumers having average monthly consumption of more than 50 units.

**Commission's View:**

*The Commission is agreed with the clarification submitted by the petitioner.*

**Objection 4:** Shri Dulal Das has raised that increase in Tariff in FY 2010-11 as FPPCA is not justified.

**Response of the Petitioner:** The FPPCA order dated 13<sup>th</sup> September 2010 was passed to allow TSECL to recover the increase of uncontrollable expenditure of gas price, incurred due to the increase of natural gas price notified by the Central Government and imposed on TSECL with effect from July 2010. As such, the expenses on account of increase in gas price (by more than 117%) were uncontrollable on part of TSECL and as such the FPPCA order was justified and legal.

**Commission's View:** *The Commission is of the same view with the replies furnished by the petitioner. FPPCA i.e. fuel adjustment is mandatory as per TERC's Regulations and as per the Electricity Act, 2003, which is followed in all the States in India. In Tripura state 93% of the generation of power is from natural gas and recovery of the excess cost as fuel cost from the consumers is obvious. Henceforth, the recovery of fuel cost as FPPCA shall be levied on monthly or quarterly basis after the FPPCA formula for which Regulations has been framed and waited for Gazetted Notification.*

**Objection 5:** Shri Dulal Das has also raised that despite financial losses, last year how the petitioner has deposited Rs. 25 Crore as dividend to the Government of Tripura.

**Response of the Petitioner:** TSECL had booked financial profits from FY 2006-07 to FY 2009-10 because of the revenue generated from the surplus power sold/traded to outside states during that time. It is important to note that TSECL was able to make profits during these years because of good return/income earned on the



surplus power sale to outside states, which overcompensated inadequate tariff during that period. As such, TSECL also paid some portion of the profits as dividends to the State Government. However, from FY 2010-11, the financial position of TSECL has changed due to increase in various cost elements (power purchase, fuel purchase, employee cost etc.) and as such, TSECL booked financial losses of around Rs. 96 Crore in FY 2010-11. The trend of losses is expected to continue in the current FY 2011-12, which is eroding the accumulated reserves upto to FY 2009-10. If the tariff is not revised as proposed for FY 2012-13, the financial health of the utility will deteriorate further affecting the day to day operations of the utility.

**Commission's View:** *The objection and the response are noted. As per TERC Regulations 2004, clear profits from the generation, transmission and distribution businesses to be shared with the consumers in the proportion of 60% for generation, 60% for Transmission and 50% for distribution. Accordingly, the petitioner has proposed to share Rs. 26.11 Crore with the consumers after adjusting losses projected to be incurred during FY 2011-12. The Commission will carry out a detail analysis of the profit and loss and balance sheets of the petitioner before determining the actual revenue gap of the petitioner for FY 2011-12 and FY 2012-13.*

**Objection 6:** Shri Dulal Das and Shri Subrata Chakraborty have suggested that the Corporation should reduce the high level of transmission and distribution losses.

**Response of the Petitioner:** TSECL has been taking several steps to reduce the transmission and distribution losses and results are manifested in the decreasing trend of T&D losses. TSECL has been able to reduce its T&D losses from around 38% to 31% in the past 4 years. Further, TSECL has proposed a target of T&D loss of 28% in FY 2012-13 in the ARR Petition. This is much lower than the national average of T&D loss of around 35%. The reduction target of 15% cannot be achieved in a couple of years and has to be gradually achieved through a loss reduction trajectory as per the provisions of National Tariff Policy.

**Commission's View:** *It is the interest of the all the stakeholders that the TSECL should reduce the T&D losses at the optimum level. The petitioner hereby directed to take necessary actions to reduce the T&D losses on urgent basis and submit a detailed trajectory on this regard to the Commission by 30<sup>th</sup> June 2012. The petitioner needs to submit loss reduction milestones in the next 5 years.*

**Objection 7:** Shri Dulal Das has objected that TSECL is involved in many corrupt practices. For instance purchase of sub-standard quality of Electronic Meters from a black listed company with ulterior motive.

**Response of the Petitioner:** TSECL procured Electronic Meters conforming to Indian Standard – 13779 read with Central Electricity Authority, Ministry of Power issued guidelines in order to have quality and standard product in respect of measurement of Electrical Energy at consumers end. The entire procurement process was done in a transparent manner i.e. wide circulation of bid in local and national newspaper including publication in relevant web site. Moreover, the meter was tested in the Government of India approved National Laboratory before selection of L1 bidder and the despatch clearance of meter was provided after routine/acceptance test as per India Standard at manufacturer end. Therefore, there was no ulterior motive on the part of TSECL rather TSECL complied all rules and regulations in force during procurement of Electric Meters from the qualified/eligible bidder.

**Commission's View:** *The Commission has noted the objection of the objector and reply of the petitioner. TSECL should follow transparent bidding process in all the procurement process.*

**Objection 8:** Shri Subrata Chakraborty and Shri Ashok Baidya have highlighted that TSECL has not taken proper step to disconnect the un-authorized connections to prevent theft of electricity.

**Response of the Petitioner:** In order to stop un-authorized use and theft of energy, TSECL regularly conducts vigilance raids, removes illegal hooklines and converts the same to authorized connections. TSECL has also set up 8 special courts to expedite the case of unauthorized use and theft of energy as per relevant provisions of Electricity Act 2003. Because of these efforts, the T&D losses have reduced in the last 4-5 years.

**Commission's View:** *The views of the objector is not correct. The hooking of theft cases prevailing all over India and T&D losses is few of the states are in the range of 56% to 67% even with stringent step adopted by the licensees. TSECL's reply in the above context found in order.*

*The petitioner should follow a practice of publishing monthly bulletin on the newspaper on the number of theft cases found and fund realized from them.*

**Objection 8:** Shri Subrata Chakraborty has suggested withdrawal of fixed charges from retail tariff.

**Response of the Petitioner:** The levy of fixed charges is in accordance with relevant provisions of National Tariff Policy and is essential to recover the fixed expenditure incurred by the utility in generation, transmission and distribution of power. The fixed expenditure are those expenses which are independent from the units of electricity generated/supplied to the consumers and are incurred for building, operating, maintaining and strengthening of electrical system like R&M expenses, employee expenses, depreciation, interest on long term loans etc. It may be noted that currently, only a small part of the total fixed expenditure is recovered through fixed charges from the consumers and in future, the same should be gradually increased. If fixed charges are withdrawn, the energy charges would have to be accordingly increased for recovery of approved ARR. This would be unfair and unjustified for consumers having a high load factor and utilizing their contracted load fully to consume more units of electricity as compared to a consumer with the same contracted load but lower load factor. As such, TSECL strongly objects the suggestion of withdrawal of fixed charges.

**Commission's View:** *The fixed charges are levied from the consumers for recovery of certain costs which are fixed in nature. For example, when a consumer is connected with the distribution network, the distribution licensee has to allocate certain capacity of the distribution network for supply of electricity to the consumers. Besides, some expenses such as meter reading, billing and network maintenance are fixed in nature and the utility has to incur these expenses irrespective of the electricity consumption of the consumer.*

*Section 45 (3) of the Electricity Act 2003 also provides for levy of fixed charges from the consumers. Section 45(3) of the Electricity Act 2003 states that*

*“The charges for electricity supplied by a distribution licensee may include (a) a fixed charge in addition to the charge for the actual electricity supplied;”*

*The Commission would also like to point out that if the fixed charges are removed, the energy charges would be increased to recover the revenue gap of the utility. Therefore, it is immaterial whether only energy charge is levied from the consumers or energy charge and fixed charge is levied, the ARR would have to be recovered from the consumers.*

*In the view of the above, the Commission has decided to continue with the system of levying fixed charges as usual.*

**Objection 9:** Shri Subrata Chakraborty objector has suggested withdrawal of meter rent.

**Response of the Petitioner:** The cost of meter has to be recovered from the consumers, either in form of meter rent or through the electricity tariff. Currently, the revenue earned from meter rent is booked under “Non Tariff Income (NTI)”, which is deducted from the total expenditure to arrive at the ARR which is recovered through the electricity tariff (fixed and energy charges). If meter rent is withdrawn, the electricity charges would increase to recover the cost of meter through the revenue from sale of power. As such, the recovery through meter rent is a better method because the cost incurred on account of a particular consumer is recovered directly from the same consumer and not shared by other consumers through electricity tariff.

**Commission’s View:** *It is an affordable option for the consumers to pay the cost of the meter by way of monthly meter rent. Therefore, the Commission has decided to continue with monthly meter rent system.*

**Objection 10:** Shri Subrata Chakraborty has suggested that TSECL should give full benefit of slabs to the consumers.

**Response of the Petitioner:** At present in Tripura, the slab wise tariff structure is non-telescopic in nature, which means that the total consumption of a consumer is charged on the applicable highest slab tariff instead of the consumption being incrementally charged from the lowest slab to the higher consumption slabs. TSECL has already proposed in the submitted petition to shift from the present non-telescopic structure.

**Commission's View:** *The Commission has noted the views of the objector and petitioner. While designing the tariff structure, the Commission will take into account the views of the consumer and petitioner on this issue.*

*However, TSECL vide letter dated 24<sup>th</sup> March, has again appealed before the Commission for the retention of non-telescopic structure for FY 2012-13.*

**Objection 11:** Shri Bimal Chanrdra Choudhury has suggested to install same type of electronic meters for different consumers for billing purposes.

**Response of the Petitioner:** TSECL is following the CEA metering Regulations 2005 and the applicable BIS Standards for installations and operation of consumer meters.

**Commission's View:** *The Commission has noted the suggestion of the objector as well as the response of the petitioner. The Commission is agreed with suggestion of objector to install same type of electronic meters to maintain parity will all consumers.*

**Objection 12:** Shri Ashok Baidya has suggested to impose restriction on the BPL and Kutir Jyoti consumers to reduce electricity theft as per the guidelines of RGGVY.

**Response of the Petitioner:** Around 34% of Kutir Jyoti connections are currently metered and efforts are on to complete the metering for all connections for proper energy accounting. All new connections including special drive connections to BPL families are now being extended with meters. TSECL is purchasing new meters for metering all such consumers so that the consumption of these consumers can be monitored and actions can be taken accordingly.

**Commission's View:** *The petitioner should complete metering of all the remaining Kutir Jyoti connections at the earliest. The petitioner should also make sure that all the new Kutir Jyoti connection should have proper meters. The Commission hereby directs the petitioner to submit the metering status of Kutir Jyoti connections in every quarter. Likewise, metering of un-metered connection may also pursue simultaneously.*

**Objection 13:** Shri Ashok Baidya has suggested that TSECL should collect the outstanding electricity bills.

**Response of the Petitioner:** TSECL is taking various steps for collection of outstanding electric bills like timely disconnection of defaulters, regulation follow-up with Government departments for realization of outstanding bills, informing the consumers about the default amount, door to door collection etc. It is important to note here that for tariff calculation purpose, revenue assessed/billed has been considered instead of revenue realized/collected and only a small amount of arrears are recovered through tariff (as provision for bad debts) which are very old and it is practically impossible to recover them.

**Commission's View:** *In the ARR the billed amount has been considered and non-realized amount not pass on to the consumers. The Commission has observed that the collection efficiency of the petitioner has drastically reduced from 96% from FY 2009-10 to 89% in the current financial year. The petitioner should adopt all the necessary steps to collect all the outstanding bills for improvement of its financial health.*

**Objection 14:** Shri Ashok Baidya has suggested that to stop load shedding, TSECL should increase generation of power

**Response of the Petitioner:** At present, TSECL face deficit of power during peak hours because of constraints in the inter-state transmission network in the north eastern region, which is owned by PGCIL. After the commissioning of new plants in Rokhia (21 MW expected in July 2012), Pallatana and Monarchak, the power supply position in Tripura will improve significantly.

**Commission's View:** *At present, Tripura is not getting its full allocation of power from the inter-state power generating station due to constraints in the inter-state transmission lines, which could otherwise utilized for meeting the peak hour deficit in the state. The upcoming power plants in the state such as Rokhia, Pallatana and Monarchak will bring down the peak hour deficit to some extent. In this regard, the Commission would like to point out that for meeting the peak hour demand by increasing the generating capacity is not a cost effective solutions. A substantial investment would be required for commissioning and O&M of these plants.*

*Further, considering the growth in demand for electricity in the state, the Commission views that increase of generation capacity to meet the peak hour gap is not the only solution. Saving of energy and demand side management will be a cost effective mechanism for this purpose. Prudent use of electricity and usage of CFLs will bring down the per capita electricity consumption as well as electricity bills of the consumers. The petitioner should aggressively promote the energy saving measures in all the consumer categories. The energy conversation cell under TSECL should take appropriate action on this regard.*

*Another cost effective solutions for saving of electricity is to bring down the high level of T&D losses. A substantial quantum of energy can be saved by reducing the T&D losses. Steps to be followed also discussed in the above sections.*

## 5. Truing up for the period FY 2005-06 to FY 2010-11

The first four sections will outline the truing-up process followed by the Commission for the period FY 2007-08 to FY 2010-11. In this chapter, the Commission has also outlined the suo-moto proceedings for truing-up of ARR for FY 2005-06 & FY 2006-09. Previously this exercise could not be carried out due to absence of audited accounts for FY 2005-06 and non-submission of tariff petition by the petitioner post issuance of tariff order for FY 2006-07. Since, the audited accounts of FY 2005-06 and FY 2006-07 is available with the Commission now, the Commission has decided to initiate suo-moto for truing-up of ARR for FY 2005-06 and FY 2006-07.

### 5.1 Truing-up for FY 2007-08

#### 5.1.1 Energy sales

##### Petitioner's submission

The petitioner has submitted the category-wise actual intra-state energy sales for FY 2007-08, which is shown in the table below:

**Table 5-1: Category-wise intra-state energy sales from FY 2007-08**  
(MU)

Consumer Categories	FY 2007 -08
Kutir Jyoti	9.67
Domestic	210.45
Commercial	40.63
Industries ( LT &HT)	21.05
Bulk Supply	37.99
Tea garden	0.39
Public Water works & Lighting	77.63
<b>Total (intra-state) sale</b>	<b>397.81</b>

##### Commission's Analysis

The Commission has scrutinized the total intra-state sales data from the audited accounts for FY 2007-08. The intra-state quantum of energy sales as per the audited accounts of FY 2007-08 has shown as 397.81 MU.

**Accordingly, the Commission approves the intra-state sales at 397.81 MU in the truing-up for FY 2007-08.**



### 5.1.2 Own generation

#### Petitioner's submission

The petitioner has submitted that actual gross generation in FY 2007-08 was 620.23 MU. Auxiliary consumption and net generation were 9.12 MU and 611.11 MU respectively.

#### Commission's Analysis

Based on the audited accounts of the petitioner, the Commission approves the actual gross generation of 620.23 MU, auxiliary consumption of 9.12 MU and net generation of 611.11 MU for FY 2007-08.

Summary of approved generation of TSECL for FY 2007-08 is as follows:

**Table 5-2: Approved summary of generation of TSECL plants for FY 2007-08**

Particulars	Unit	FY 2007 -08		
		As per petition	As per audited accounts	Approved by the Commission
<b>RGTPP</b>				
Gross Generation	MU	424.63	424.63	424.63
Auxiliary Consumption	%	1.50%	1.50%	1.50%
Auxiliary Consumption	MU	6.37	6.37	6.37
Net Generation	MU	418.26	418.26	418.26
<b>BGTPP</b>				
Gross Generation	MU	159.23	159.23	159.23
Auxiliary Consumption	%	1.50%	1.50%	1.50%
Auxiliary Consumption	MU	2.39	2.39	2.39
Net Generation	MU	156.84	156.84	156.84
<b>GHTPP</b>				
Gross Generation	MU	36.37	36.37	36.37
Auxiliary Consumption	%	1.00%	1.00%	1.00%
Auxiliary Consumption	MU	0.36	0.36	0.36
Net Generation	MU	36.01	36.01	36.01
<b>Total Gross Generation</b>	<b>MU</b>	<b>620.23</b>	<b>620.23</b>	<b>620.23</b>
<b>Total auxiliary consumption</b>	<b>MU</b>	<b>9.12</b>	<b>9.12</b>	<b>9.12</b>
<b>Total Net Generation</b>	<b>MU</b>	<b>611.11</b>	<b>611.11</b>	<b>611.11</b>

### 5.1.3 Power Purchase

#### Petitioner's submission

The petitioner has submitted that gross energy purchase quantum of 511.51 MU for FY 2007-08. The following table shows the actual power purchase quantum of TSECL for FY 2007-08.

**Table 5-3: Power purchase quantum for FY 2007-08**

(MU)

Particulars	FY 2007 -08
NEEPCO	441.03
NHPC	70.48
<b>Total</b>	<b>511.51</b>

**Commission's Analysis**

After reviewing the audited accounts of the petitioner for FY 2007-08, **the Commission accordingly approves the actual power purchase quantum of 511.51 MU in the truing-up for FY 2007-08.**

**5.1.4 Energy balance****Petitioner's submission**

Based on the energy sales, own generation and power purchase for FY 2007-08, the petitioner has submitted the following energy balance for FY 2007-08.

**Table 5-4: Energy balance of TSECL for FY 2007-08**

(MU)

Energy balance	FY 2007 -08
Own Generation (net)	611.10
Power Purchase	511.51
<b>Total energy available</b>	<b>1122.61</b>
Inter-state sales	462.42
Intra-state energy sales	397.81
Total losses	262.38
T&D losses (%)	37.57%

**Commission's Analysis**

The Petitioner has submitted the overall T&D losses of 37.57% during FY 2007-08. According to the actual generation, power purchase, intra-state and inter-state sales figures as shown in the audited accounts for FY 2007-08, the energy balance of the petitioner has been approved as detailed in the following table.

**Table 5-5: Approved energy balance of TSECL for FY 2007-08**

(MU)

Energy balance	FY 2007 -08		
	As per petition	As per audited accounts	Approved by the Commission
Own Generation (net)	611.10	611.10	611.10
Power Purchase	511.51	511.51	511.51

Energy balance	FY 2007 -08		
	As per petition	As per audited accounts	Approved by the Commission
<b>Total energy available</b>	<b>1122.61</b>	<b>1122.61</b>	<b>1122.61</b>
Inter-state sales	462.42	462.42	462.42
Intra-state energy sales	397.81	397.81	397.81
Total losses	262.38	262.38	262.38
T&D losses (%)	37.57%	37.57%	37.57%

### 5.1.5 Fuel Purchase cost

#### Petitioner's submission

The petitioner has incurred Rs. 54.42 Crore towards procurement of natural gas in FY 2007-08. Actual quantum of fuel purchase, average rate of gas and fuel cost incurred by the petitioner for FY2007-08 is presented in table 5-6:

**Table 5-6: Fuel purchase cost incurred by TSECL for FY 2007-08**

Particulars	FY 2007-08		
	Fuel Quantity (MMSCM)	Average Rate (Rs./1000 SCM)	Total Cost (Rs. Crore)
Rokhia	185.11	2128.21	39.40
Baramura	70.59	2128.21	15.02
<b>Total</b>	<b>255.70</b>		<b>54.42</b>

#### Commission's Analysis

The Commission reviewed total fuel cost incurred by the petitioner for FY 2007-08 and also verified the same from the audited accounts of FY 2007-08. Schedule 15 of the audited account has shown fuel cost at Rs. 39.74 Crore and Rs. 14.68 Crore respectively for Rakhia and Baramura. The Commission accordingly considered these figures in the truing-up of fuel cost for FY 2007-08.

**Table 5-7: Approved fuel purchase cost of TSECL for FY 2007-08**

(Rs. Crore)

Particulars	FY 2007-08		
	As per petition	As per audited accounts	Approved by the Commission
Rokhia	39.40	39.74	39.74
Baramura	15.02	14.68	14.68
<b>Total</b>	<b>54.42</b>	<b>54.42</b>	<b>54.42</b>

**The Commission, accordingly approves fuel purchase cost at Rs. 54.42 Crore in the truing-up for FY 2007-08.**

### 5.1.6 Power purchase cost

#### Petitioner's submission

The petitioner has allotted share for Central Sector Generating Stations (CGSs) of NEEPCO and NHPC. The petitioner has purchased 511.51 MU in FY 2007-08 from the CGSs. The following table summarises the quantum of power purchase cost, per unit cost and power purchase cost claimed by the petitioner for FY 2007-08.

**Table 5-8: Power purchase cost claimed by TSECL in the truing-up for FY 2007-08**

Particulars	FY 2007-08		
	Power Purchase (MU)	(Rs./ unit)	Total (Rs. Crore)
NHPC	70.48	1.18	8.32
NEEPCO	441.03	1.72	75.79
PGCIL		0.34	17.24
<b>Total</b>	<b>511.51</b>		<b>101.35</b>

#### Commission's Analysis

The Commission has examined the total actual power purchase cost from the audited accounts for FY 2007-08. The Commission has considered the total power purchase cost incurred by the petitioner as per audited accounts for FY 2007-08. The power purchase cost as per the audited accounts for FY 2007-08 has shown at Rs. 101.35 Crore.

**Accordingly, the Commission approves the power purchase cost at Rs. 101.35 Crore in the truing-up for FY 2007-08.**

### 5.1.7 Operation and Maintenance (O&M) expenses

#### Petitioner's submission

The TSECL has claimed Rs. 78.50 Crore towards actual O&M expenses in the truing up for FY 2007-08. Details of the O&M expenses are summarised in the table below:

**Table 5-9: O&M expenses claimed in the truing-up for FY 2007-08**

(Rs. Crore)

Particulars	FY 2007 – 08
Employee expenses	55.08
Repair and Maintenance	15.43
Administrative and General expenses	7.99
<b>Total</b>	<b>78.50</b>

Component-wise O&M expenses are discussed in the subsequent paragraphs.

#### **5.1.7.1 Employee cost**

The TSECL has claimed Rs. 55.08 Crore towards employee cost in the truing up for FY 2007-08.

##### **Commission's Analysis**

The Commission has examined the actual employee cost from the audited accounts for FY 2007-08, which shows of Rs. 55.08 Crore. **The Commission, accordingly, approves the employee cost at of Rs. 55.08 Crore in the truing-up for FY 2007-08.**

#### **5.1.7.2 Repairs & Maintenance (R&M) Expenses**

##### **Petitioner's submission**

The TSECL has claimed Rs. 15.43 Crore towards R&M expenses in the truing up for FY 2007-08.

##### **Commission's Analysis**

As per the audited accounts for FY 2007-08, the actual R&M expenses incurred by the petitioner were Rs. 15.43 Crore.

**The Commission accordingly, approves the R&M expenses at Rs. 15.43 Crore in the truing-up for FY 2007-08.**

#### **5.1.7.3 Administration & General (A&G) expenses**

##### **Petitioner's submission**

The TSECL has claimed Rs. 7.99 Crore towards A&G expenses in the truing up for FY 2007-08.

##### **Commission's Analysis**

The Commission has observed from the audited accounts that a sales tax penalty amount to Rs. 0.34 was paid during FY 2007-08. The Commission accordingly disallow this expense from the total A&G expenses claimed by the TSECL as per the Section 5. (III). (d) of the TERC (Tariff Regulations 2004).

**The Commission, accordingly, approves the A&G expenses at Rs. 7.65 Crore in the truing up for FY 2007-08.**

Total O&M expenses for FY 2007-08 approved by the Commission is presented in the following table.

**Table 5-10: O&M expenses approved by the Commission for FY 2007-08**

(Rs. Crore)

Particulars	FY 2007 -08		
	As per petition	As per audited accounts	Approved by the Commission
Employee expenses	55.08	55.07	55.07
R&M expenses	15.43	15.43	15.43
A&G expenses	7.99	7.65	7.65
<b>Total</b>	<b>78.50</b>	<b>78.15</b>	<b>78.15</b>

**The Commission accordingly, approves the O&M expenses at Rs. 78.15 Crore in the truing up for FY 2007-08.**

#### 5.1.8 Depreciation

The TSECL has claimed Rs. 27.71 Crore towards depreciation in the truing up for FY 2007-08. The TSECL has considered that the depreciation rate as per the Companies Act 1956 and computed the depreciation as detailed in the table below:

**Table 5-11: Depreciation claimed by TSECL for FY 2007-08**

(Rs. Crore)

Particulars	FY 2007 -08
Depreciation on total gross asset base (A)	34.44
Depreciation on assets created through government grants and consumer contributions (B)	6.73
Net depreciation to be recovered through tariff (A-B)	27.71

#### Petitioner's submission

The petitioner has submitted that the depreciation charges booked in the account statements have been calculated on the total asset base as shown in the first row (A) of the above table. For computation of depreciation on assets created through government grants and consumer contribution (B), average depreciation rate has been considered on the total value of assets created through grants and consumer contributions.

### **Commission's Analysis**

The information relating to the capital expenditure provided by the petitioner in the petition does not provide the necessary information in a clear and unambiguous manner for the Commission to consider it for necessary decision making. The Commission vide letter dated 2<sup>nd</sup> March 2012 has sought information regarding the capital expenditure that has been undertaken during the year including details like the total value of the scheme, the capital expenditure done till the beginning of the year, capital expenditure incurred during the year, the corresponding capitalization against these schemes and the closing work in progress in respect of schemes which have not been capitalised. Further, the Commission had also sought details of the source of funds (viz. government grants, equity and loan) utilised for these capital expenditure in the past. The petitioner in its reply has submitted that TSECL does not have the proper records of fixed assets and are unable to submit such kind of information to the Commission. In the absence of such information, it was very difficult for the Commission to determine the actual level of depreciation of the petitioner for FY 2007-08. However, for truing-up exercise for FY 2007-08, the Commission has provisionally approved the depreciation as claimed by the petitioner. The Commission will re-visit this approval given in this Order in the next Tariff Order subject to the information provided by the TSECL.

**The Commission, accordingly, provisionally approves the depreciation at Rs. 27.71 Crore in the truing up for FY 2007-08.**

#### **5.1.9 Other expenses**

##### **Petitioner's submission**

The petitioner has claimed Rs. 0.34 Crore towards written down of up-gradation and modernization work in the truing up for FY 2007-08.

##### **Commission's Analysis**

The Commission after reviewing the annual accounts of FY 2007-08, **approves the other expenses at Rs. 0.34 Crore in the truing up for FY 2007-08.**

#### **5.1.10 Interest on consumer security deposit**

The petitioner has claimed a sum of Rs. 0.22 Crore towards payment of interest on consumer security deposit in the truing up for FY 2007-08.

#### **Petitioner's submission**

The petitioner has submitted that under the head of Interest and Financial Charges a provision has been made towards payment on interest on consumer security deposit and requested the Commission to consider Rs. 0.22 Crore for the same in the truing up for FY 2007-08.

#### **Commission's Analysis**

The Commission observed that the amount claimed by the petitioner towards payment for interest on consumer security deposit was not paid in actuals to the consumers in FY 2007-08. The Commission has verified that no interest on consumer security deposit has been paid from the audited accounts for FY 2007-08 as submitted by TSECL.

**The Commission, accordingly, approves the interest on consumer security deposit as nil in the truing up for FY 2007-08.**

#### **5.1.11 Bad debt**

Schedule 18 of the audited accounts for FY 2007-08 has shown a figure of Rs. 0.42 towards bad debt.

#### **Commission's Analysis**

Bad debt is an allowable expenditure under TERC (Tariff Regulations 2004). The Commission accordingly approves Rs. 0.42 Crore as bad debt in the truing-up for FY 2007-08. The Commission also verified the bad debt amount from the audited accounts and found that the petitioner has written-off amount of in FY 2007-08.

**The Commission approves the bad debt at Rs. 0.42 Crore in the truing up for FY 2007-08.**

#### **5.1.12 Reasonable return**

TSECL has claimed Rs. 17.06 Crore towards return on equity in the truing up for FY 2007-08.

#### **Petitioner's submission**

The petitioner has submitted that TSECL has computed the reasonable return as per



Clause 2 of Schedule 2 of the TERC Tariff Regulations 2004, which states that

*“the reasonable return for this purpose means 4% above the RBI rate or 2% above the PLR rate of State Bank of India or average of any other three approved Nationalized Bank whichever is higher and calculated on the subscribed and paid up equity capital which shall also include Share Premium Balance for this purpose but shall not include Bonus Shares or Shares issued other than for cash.”*

To calculate the normative reasonable rate of return from FY 2007-08 to FY 2010-11, the petitioner has considered the year wise average lending rates of RBI, SBI and 3 other nationalized banks i.e. Bank of India, Union Bank, Allahabad Bank. The reasonable rate of return calculated by the petitioner is tabulated below:

**Table 5-12: Calculation rate of return by TSECL**

SI. No.	Particulars	FY 2007-08	FY 2008-09	FY 2009-10	FY 2010-11
A	Average Lending Rate of Reserve Bank of India	7.75%	7.41%	4.76%	5.87%
B	Average Prime Lending Rate of State Bank of India	12.69%	12.76%	11.84%	12.23%
C	Average Prime Lending Rate of 3 other nationalized banks in India	13.17%	13.25%	12.33%	12.50%
D	Normative rate of return for generation and distribution (=Maximum(5%+A, 3%+B,C))	15.69%	15.76%	14.84%	15.23%
E	Normative rate of return for transmission (=Maximum(4%+A, 2%+B,C))	14.69%	14.76%	13.84%	14.23%

The petitioner has further submitted that to calculate the reasonable return for generation, transmission and distribution business, the total paid-up equity capital for TSECL has segregated into paid-up equity for generation, transmission and distribution in the ratio of total net asset base for generation, transmission and distribution business. The details of computation of return on equity are as given in the Table below:

**Table 5-13: Reasonable Return claimed by TSECL**

Particulars	FY 2007-08	FY 2008-09	FY 2009-10	FY 2010-11
Average paid-up capital for the Year (=(Opening + Closing)/2)	109.29	109.29	109.29	109.29
Average Paid-up Capital for Generation business (RoR)	32.08	31.87	31.60	36.44
	15.69%	15.76%	14.84%	15.23%

Particulars	FY 2007-08	FY 2008-09	FY 2009-10	FY 2010-11
Average Paid-up Capital for Transmission business (RoR)	7.97 14.69%	7.91 14.76%	8.48 13.84%	12.21 14.23%
Average Paid-up Capital for Distribution business (RoR)	69.24 15.69%	69.51 15.76%	69.21 14.84%	60.65 15.23%
Total Reasonable Return as per Regulations (sum of (RoR*average equity) for G,T,D)	17.06	17.14	16.14	16.52

### Commission's analysis

As per the audited accounts for FY 2007-08, average equity of TSECL was Rs. 106.29 Crore. While calculating the reasonable return the petitioner has followed the approach as mentioned in TERC Tariff Regulations 2004.

**The Commission, accordingly approves the reasonable return at Rs. 17.06 Crore in the truing up for FY 2007-08.**

#### 5.1.13 Income Tax

The petitioner has claimed a sum of Rs. 1.93 Crore towards income tax in the truing up for FY 2007-08.

#### Petitioner's submission

TSECL has applied the MAT rate of 11.30% on the reasonable return of Rs. 17.06 Crore, which comes to Rs. 1.93 Crore. The Petitioner has paid actual tax for FY 2007-08 was Rs. 7.40 Crore. The petitioner has requested to consider the minimum of the above two amounts.

#### Commission's Analysis

The Commission has verified the actual tax paid from the annual audited accounts and income tax claimed by the petitioner. **Accordingly, the Commission approves income tax at Rs. 1.93 Crore in the truing up for FY 2007-08.**

#### 5.1.14 Non-tariff income

#### Petitioner's submission

The TSECL has furnished the actual non-tariff income at Rs. 18.83 Crore in the truing up for FY 2007-08.

### Commission's Analysis

The Commission verified and found that the actual 'other income' in Schedule 14 is Rs. 18.83 Crore (excluding grant from the Department of Power, Government of Tripura), as per the audited accounts for FY 2007-08.

**The Commission, accordingly, approves the non-tariff income at Rs. 18.83 Crore in the truing up for FY 2007-08.**

#### 5.1.15 Revenue earned

The TSECL has furnished the revenue at Rs. 287.68 Crore (excluding non-tariff income) in the truing up for FY 2007-08, as detailed in the table below:

**Table 5-14: Revenue claimed in the truing up for FY 2007-08**

(Rs. Crore)

Particulars	FY 2007-08
Revenue from intra-state sale of power	104.76
Revenue from inter-state sale of power	158.92
Revenue from subsidies and grants	24.00
<b>Total revenue</b>	<b>287.68</b>

### Commission's Analysis

The Commission has verified the total revenue for FY 2007-08 from the audited accounts. The actual revenue is Rs. 288.65 Crore including revenue subsidy.

**Table 5-15: Revenue approved in the truing up for FY 2007-08**

(Rs. Crore)

Particulars	FY 2007-08		
	As per petition	As per audited accounts	Approved by the Commission
Revenue from intra-state sale of power	104.76	105.73	105.73
Revenue from inter-state sale of power	158.92	158.92	158.92
Revenue from subsidies and grants	24.00	24.00	24.00
<b>Total revenue</b>	<b>287.68</b>	<b>288.65</b>	<b>288.65</b>

**The Commission, accordingly, approves the total revenue at Rs. 288.65 Crore in the truing up for FY 2007-08.**

#### 5.1.16 True-up of ARR and sharing of profit & losses for FY 2007-08

Based on the truing up exercise undertaken for the FY 2007-08, the revised ARR and the resultant profit/losses for the year are as shown in the table below:

**Table 5-16: True-up of ARR the truing up and profit & losses for FY 2007-08**

(Rs. Crore)

Particulars	FY 2007-08	
	As per petitioner submission	Approved by the Commission
Fuel cost	54.42	54.42
Power Purchase Cost	101.35	101.35
O&M Expense	78.50	78.15
Depreciation	27.71	27.71
Other expenses	0.34	0.34
Interest on consumer security deposit	0.22	0.00
Bad Debt	0.00	0.42
Income Tax	1.93	1.93
Less: Non-Tariff Income	18.83	18.83
<b>Total ARR</b>	<b>245.64</b>	<b>245.49</b>
Revenue from intra-state sale	104.76	105.73
Revenue from inter-state sale	158.92	158.92
Revenue from subsidy and grants	24.00	24.00
<b>Total Revenue</b>	<b>287.68</b>	<b>288.65</b>
<b>Clear Profit/(losses)</b>	<b>42.05</b>	<b>43.16</b>
Reasonable (Permissible) Return	17.06	17.06
<b>Amount to be shared between TSECL and the consumers</b>	<b>24.98</b>	<b>26.10</b>

It can be seen from the above, the clear profit for FY 2007- 08 is Rs. 43.16 Crore based on the approved expenses and revenue as against Rs. 42.05 Crore proposed by the petitioner.

Section 4 of Schedule I of the TERC Regulations provides that the difference between "Clear Profit" and "Permissible Return" will be dealt in the following manner:

*50% share will be retained by the Licensee and the balance 50% will go to the consumer account and will be taken into consideration while fixing at FPPCA for the relevant or subsequent years or tariff for the subsequent years.*

According to the aforesaid provisions in the TERC Tariff Regulations, **the approved amount of Rs. 26.10 Crore will be distributed between the licensee and the consumers in the ratio of 50:50 for determination of tariff for FY 2012-13.**

## 5.2 Truing-up for FY 2008-09

### 5.2.1 Energy sales

#### Petitioner's submission

The petitioner has submitted the category-wise actual intra-state energy sales for FY 2008-09. The actual intra-state energy sales during FY 2008-09 is presented in the table below:

**Table 5-17: Category-wise intra-state energy sales from FY 2008-09**  
(MU)

Energy Sold	FY 2008 -09
Kutir Jyoti	10.96
Domestic	230.89
Commercial	41.02
Industries ( LT &HT)	31.80
Bulk Supply	44.81
Tea garden	0.44
Public Water works & Lighting	90.94
<b>Total (intra-state) sale</b>	<b>450.85</b>

#### Commission's Analysis

The Commission has verified the overall actual intra-state sales data from the audited accounts for FY 2008-09. The intra-state quantum of energy sales as per the audited accounts of FY 2008-09 was 450.85 MU.

**Accordingly, the Commission approves the intra-state sales at 450.85 MU in the true-up for FY 2008-09.**

### 5.2.2 Own generation

#### Petitioner's submission

The petitioner has submitted that actual gross generation in FY 2008-09 from its three power plants was 658.62 MU. Auxiliary consumption and net generation were 9.63 MU and 648.97 MU respectively.

#### Commission's Analysis

Based on the audited accounts of FY 2008-09, **the Commission approves the actual gross generation of 658.62 MU, auxiliary consumption of 9.63 MU and net generation of 648.99 MU for FY 2008-09.** Summary of approved generation of TSECL's plants for FY 2008-09 is tabulated below:

**Table 5-18: Approved summary of generation of TSECL plants for FY 2008-09**

Particulars	Units	FY 2008 -09		
		As per petition	As per audited accounts	Approved by the Commission
<b>RGTPP</b>				
Gross Generation	MU	449.15	449.15	449.15
Auxiliary Consumption	%	6.74	6.74	6.74
Auxiliary Consumption	MU	442.41	442.41	442.41
Net Generation	MU	449.15	449.15	449.15
<b>BGTPP</b>				
Gross Generation	MU	159.34	159.34	159.34
Auxiliary Consumption	%	1.50%	1.50%	1.50%
Auxiliary Consumption	MU	2.39	2.39	2.39
Net Generation	MU	156.94	156.94	156.94
<b>GHTPP</b>				
Gross Generation	MU	50.13	50.13	50.13
Auxiliary Consumption	%	1.00%	1.00%	1.00%
Auxiliary Consumption	MU	0.50	0.50	0.50
Net Generation	MU	49.62	49.62	49.62
<b>Total Gross Generation</b>	<b>MU</b>	<b>658.62</b>	<b>658.62</b>	<b>658.62</b>
<b>Total auxiliary consumption</b>	<b>MU</b>	<b>9.63</b>	<b>9.63</b>	<b>9.63</b>
<b>Total Net Generation</b>	<b>MU</b>	<b>648.99</b>	<b>648.99</b>	<b>648.99</b>

### 5.2.3 Power Purchase

#### Petitioner's submission

The petitioner has submitted that gross energy purchase quantum of 495.30 MU for FY 2008-09. The following table shows the actual power purchase quantum of TSECL for FY 2008-09.

**Table 5-19: Power purchase quantum for FY 2008-09**  
(MU)

Particulars	FY 2008 -09
NEEPCO	437.07
NHPC	58.24
<b>Total</b>	<b>495.30</b>

#### Commission's Analysis

The Commission after reviewing the annual accounts of the petitioner from FY 2008-09 as well as power purchase bills of NEEPCO and NHPC, **approves the actual power purchase quantum of 495.30 MU in the truing-up for FY 2008-09.**

### 5.2.4 Energy balance

#### Petitioner's submission

Based on the energy sales, own generation and power purchase for FY 2008-09, the petitioner has submitted the following energy balance for FY 2008-09.

**Table 5-20: Energy balance claimed by TSECL in the truing-up for FY 2008-09**  
(MU)

Particulars	FY 2008 -09
Own Generation (net)	648.99
Power Purchase	495.30
<b>Total energy available</b>	<b>1144.30</b>
Inter-state sales	418.05
Intra-state energy sales	450.85
Total losses	275.40
T&D losses (%)	35.96%

### Commission's Analysis

The Petitioner has submitted the overall T&D losses of 35.96% during FY 2008-09. The Commission has analysed the energy balance submitted by the petitioner based on the actual quantum of generation, power purchase, sales and T&D losses as shown in the audited accounts of the petitioner. The energy balance approved for FY 2008-09 in accordance with the audited accounts of the petitioner, is tabulated hereunder:

**Table 5-21: Approved energy balance of TSECL for FY 2008-09**

Particulars	FY 2008 -09		
	As per petition	As per audited accounts	Approved by the Commission
Own Generation (net)	648.99	648.99	648.99
Power Purchase	495.30	495.30	495.30
<b>Total energy available</b>	<b>1144.30</b>	<b>1144.30</b>	<b>1144.30</b>
Inter-state sales	418.05	418.05	418.05
Intra-state energy sales	450.85	450.85	450.85
Total losses	275.40	275.40	275.40
T&D losses (%)	35.96%	35.96%	35.96%

### 5.2.5 Fuel Purchase cost

#### Petitioner's submission

The petitioner has incurred Rs. 72.74 Crore towards procurement of natural gas in FY 2008-09. Actual quantum of fuel purchase, average rate of gas and fuel cost incurred by the petitioner for FY 2008-09 is presented in the table below:

**Table 5-22: Fuel purchase cost incurred by TSECL for FY 2008-09**

Particulars	FY 2008-09		
	Fuel Quantity (MMSCM)	Average Rate (Rs./1000 SCM)	Total Cost (Rs. Crore)
Rokhia (GAIL)	203.28	2630.88	53.48
Rokhia (ONGCL)	2.87	4751.18	1.37
Baramura (GAIL)	70.10	2552.71	17.90
<b>Total</b>	<b>276.26</b>		<b>72.74</b>

**Commission's Analysis**

The Commission examined the total fuel cost incurred by the petitioner in the audited accounts of FY 2008-09. The Commission has observed minor variations in the fuel purchase cost incurred for Rokhia and Baramura. However, total fuel purchase cost submitted by the petitioner is matching with the audited accounts for FY 2008-09. The Commission approves the fuel purchase cost of the petitioner as per the audited accounts for FY 2008-09, which is tabulated below.

**Table 5-23: Approved fuel purchase cost of TSECL for FY 2008-09**

(Rs. Crore)

Particulars	FY 2008-09		
	As per petition	As per audited accounts	Approved by the Commission
Rokhia	54.85	57.85	57.85
Baramura	17.90	14.90	14.90
<b>Total</b>	<b>72.74</b>	<b>72.74</b>	<b>72.74</b>

**The Commission approves fuel purchase cost at Rs. 72.74 Crore in the truing-up for FY 2008-09.**

**5.2.6 Power purchase cost****Petitioner's submission**

Total units purchased by the petitioner in FY 2008-09 were 495.31 MU. The following table shows the quantum of power purchase cost, per unit cost and power purchase cost incurred by the petitioner in FY 2008-09.

**Table 5-24: Power purchase cost of TSECL in FY 2008-09**

Particulars	FY 2008-09		
	Power Purchase (MU)	(Rs./ unit)	Total in Rs. Crore
NHPC	437.07	1.30	7.56
NEEPCO	58.24	2.47	107.87



Particulars	FY 2008-09		
	Power Purchase (MU)	(Rs./ unit)	Total in Rs. Crore
PGCIL		0.41	20.48
NTPC (arrears)			1.78
<b>Total</b>	<b>495.31</b>		<b>137.70</b>

The petitioner has submitted that in FY 2008-09 the petitioner has paid Rs. 1.78 Crore to NTPC towards payment of arrears bills for the power procured in FY 2006-07.

### Commission's Analysis

The Commission has examined the total actual quantum of power purchased and the power purchase cost incurred for FY 2008-09 in the annual audited accounts. The power purchase cost as per the audited accounts for FY 2008-09 was Rs. 137.70 Crore.

**Accordingly, the Commission approves the power purchase cost of Rs. 137.70 Crore in the truing-up for FY 2008-09.**

## 5.2.7 O&M expenses

### Petitioner's submission

TSECL has claimed Rs. 82.36 Crore towards actual O&M expenses in the truing up for FY 2008-09. Details of the O&M expenses are given in the table below:

**Table 5-25: O&M expenses claimed by TSECL for FY 2008-09**  
(Rs. Crore)

Particulars	FY 2008 – 09
Employee expenses	58.36
R&M Expenses	15.92
A&G expenses	8.08
<b>Total</b>	<b>82.36</b>

Component-wise O&M expenses are discussed in the subsequent paragraphs.

### 5.2.7.1 Employee cost

The TSECL has claimed Rs. 58.36 Crore towards employee cost in the truing up for FY 2008-09.

### **Commission's Analysis**

The Commission has examined the actual employee cost from the audited accounts for FY 2008-09. The Commission found that the actual employee expenses as per the audited accounts were Rs. 58.32 Crore. **The Commission accordingly approves the employee cost at of Rs. 58.32 Crore in the truing-up for FY 2008-09.**

#### **5.2.7.2 R&M Expenses**

##### **Petitioner's submission**

The TSECL has claimed Rs. 15.92 Crore towards R&M expenses in the truing up for FY 2008-09.

##### **Commission's Analysis**

As per the audited accounts for FY 2008-09, the actual R&M expenses incurred by the petitioner were Rs. 15.92 Crore.

**The Commission approves the R&M expenses at Rs. 15.92 Crore in the truing-up for FY 2008-09.**

#### **5.2.7.3 A&G expenses**

##### **Petitioner's submission**

The TSECL has claimed Rs. 8.08 Crore towards A&G expenses in the truing up for FY 2008-09.

##### **Commission's Analysis**

As per the audited accounts for FY 2008-09 total O&M expenses of the petitioner was Rs. 8.11 Crore. The Commission has observed from the audited accounts that a sales tax penalty amount to Rs. 1.11 Crore paid during FY 2007-08. The Commission accordingly disallow this expense as per the Section 5. (III). (d) of the TERC (Tariff Regulations 2004).

**The Commission, accordingly, approves the A&G expenses at Rs. 7.00 Crore in the truing up for FY 2007-08.**

Total O&M expenses for FY 2008-09 approved by the Commission is presented in the following table.

**Table 5-26: O&M expenses approved by the Commission for FY 2008-09**  
(Rs. Crore)

Particulars	FY 2008 – 09		
	As per petition	As per audited accounts	Approved by the Commission
Employee expenses	58.36	58.32	58.32
R&M expenses	15.92	15.92	15.92
A&G expenses	8.08	7.00	7.00
<b>Total</b>	<b>82.36</b>	<b>81.24</b>	<b>81.24</b>

**The Commission approves the O&M expenses at Rs. 81.24 Crore in the truing up for FY 2008-09.**

## 5.2.8 Depreciation

### Petitioner's submission

The TSECL has claimed Rs. 28.59 Crore towards depreciation in the truing up for FY 2008-09. The TSECL has computed the depreciation for FY 2008-09 as detailed in the table below:

**Table 5-27: Depreciation claimed by TSECL for FY 2008-09**

(Rs. Crore)

Particulars	FY 2008 – 09
Depreciation on total gross asset base (A)	37.78
Depreciation on assets created through government grants and consumer contributions (B)	9.19
Net depreciation to be recovered through tariff (A-B)	28.59

### Commission's Analysis

The Commission has reviewed the depreciation claim of the petitioner for FY 2008-09. The Commission provisionally approves the depreciation of Rs. 28.59 Crore by following the same approach adopted for truing up of depreciation of FY 2007-08.

**The Commission, accordingly, provisionally approves the depreciation at Rs. 28.59 Crore in the truing up for FY 2008-09.**

## 5.2.9 Other expenses

### Petitioner's submission

The petitioner has claimed Rs. 0.34 Crore towards other expenses in the truing up for FY 2008-09.

#### **Commission's Analysis**

The Commission has reviewed the audited accounts for FY 2008-09 and found that as per schedule 12 an expense amounting to Rs. 0.34 Crore was written-off against repair and modernization work. **The Commission accordingly, approves the other expenses at Rs. 0.34 Crore in the truing up for FY 2008-09.**

#### **5.2.10 Interest on consumer security deposit**

The petitioner has claimed a sum of Rs. 0.38 Crore towards payment of interest on consumer security deposit in the truing up for FY 2008-09.

#### **Petitioner's submission**

The petitioner has submitted that under the head of Interest and Financial Charges a provision has been made towards payment on interest on consumer security deposit and requested the Commission to consider Rs. 0.38 Crore for the same in the truing up for FY 2008-09.

#### **Commission's Analysis**

The Commission has observed that the amount claimed by the petitioner towards payment for interest on consumer security deposit was not paid in actuals to the consumers in FY 2008-09. The Commission has verified that no interest on consumer security deposit has been paid as per the audited accounts for FY 2008-09 as submitted by the petitioner.

**The Commission, accordingly, approves the interest on consumer security deposit as nil in the truing up for FY 2008-09.**

#### **5.2.11 Bad Debt**

#### **Petitioner's submission**

The petitioner has claimed Rs. 0.42 Crore as Bad Debt for FY 2008-09.

#### **Commission's Analysis**

After reviewing the audited account for FY 2008-09, the Commission found no bad debt was written-off during FY 2008-09 and accordingly disallow this expenditure.

**The Commission, accordingly, approves the Bad Debt at nil in the truing up for FY 2008-09.**

#### **5.2.12 Interest Cost on Long-term Capital Loans**

##### **Petitioner's submission**

The petitioner has submitted that under the head of Interest and Financial Charges a provision has been made towards payment on long term loans and requested the Commission to consider Rs. 0.04 Crore for the same in the truing up for FY 2008-09.

##### **Commission's Analysis**

The Commission has verified the interest and finance charges paid by the petitioner from the audited accounts for FY 2008-09 as submitted by the petitioner.

**The Commission, accordingly, approves the interest on long-term loans at Rs. 0.04 Crore in the truing up for FY 2008-09.**

#### **5.2.13 Other Finance charges**

##### **Petitioner's submission**

The petitioner has claimed a sum of Rs. 0.29 Crore towards payment of other Finance Charges for FY 2008-09.

##### **Commission's Analysis**

The Commission has verified the interest and finance charges paid by the petitioner 09 from the audited accounts for FY 2008-09 as submitted by the petitioner.

**The Commission, accordingly, approves other finance charges at Rs. 0.29 Crore in the truing up for FY 2008-09.**

#### **5.2.14 Reasonable return**

TSECL has claimed Rs. 17.14 Crore towards reasonable return on equity in the truing up for FY 2008-09.

##### **Commission's analysis**

The Commission approves the reasonable return of equity for the petitioner for FY 2008-09 by following the same approach adopted for FY 2007-08.

**The Commission, accordingly approves the reasonable return at Rs. 17.14 Crore in the truing up for FY 2008-09.**

#### **5.2.15 Income Tax**

The petitioner has claimed a sum of Rs. 1.94 Crore towards income tax in the truing up for FY 2008-09.

##### **Petitioner's submission**

TSECL has applied the MAT rate of 11.30% on the reasonable return of Rs. 17.14 Crore, which comes to Rs. 1.94 Crore. Total tax paid by the Petitioner in FY 2008-09 was Rs. 9.50 Crore. The petitioner has requested to consider the minimum of the above two amounts.

##### **Commission's Analysis**

The Commission approves the reasonable return of equity for the petitioner for FY 2008-09 by following the same approach adopted for truing up of FY 2007-08.

**The Commission, accordingly approves the income tax at Rs. 17.14 Crore in the truing up for FY 2008-09.**

#### **5.2.16 Non-tariff income**

##### **Petitioner's submission**

The TSECL has claimed the actual non-tariff income at Rs. 37.09 Crore in the truing up for FY 2008-09.

##### **Commission's Analysis**

The Commission verified and found that the actual 'other income' in Schedule 14 is Rs. 37.09 Crore (excluding grant from the Department of Power, Government of Tripura), as per the audited accounts for FY 2008-09.

**The Commission, accordingly, approves the non-tariff income at Rs. 37.09 Crore in the truing up for FY 2008-09.**

### 5.2.17 Revenue earned

The TSECL has furnished the revenue at Rs. 383.24 Crore (excluding non-tariff income) in the truing up for FY 2008-09, as detailed in the table below:

**Table 5-28: Revenue claimed in the truing up for FY 2008-09**

Particulars	(Rs. Crore)	
	FY 2008-09	
Revenue from intra-state sale of power	119.78	
Revenue from inter-state sale of power	238.46	
Revenue from subsidies and grants	25.00	
<b>Total revenue</b>	<b>383.24</b>	

### Commission's Analysis

The Commission has observed that the actual revenue booked under the head intra state sale of power in the audited accounts for FY 2008-09 was Rs. 112.42 Crore as against Rs. 119.78 claimed by the petitioner. The Commission vide letter dated January 27, 2012 has asked the petitioner to provide a clarification on the deviation between the two figures. The petitioner vide letter dated January 31, 2012 has stated that the deviation between the two figures is due to the fact that the account statements has not been prepared on the revenue accrued from sale of power to government departments and public sector units and the same has been recognized on cash basis in the year of actual realization. For ARR calculation, the revenue from intra-state has been calculated based on the category wise revenue assessed/accrued from sale of power to different categories. In view of the above explanation provided by the petitioner, the Commission approves the revenue from intra-state sale of power.

The Commission has noted from the audited accounts of FY 2008-09 that an amount of Rs. 0.34 Crore has shown as income towards past period adjustment. For truing-up for FY 2008-09, the Commission has considered this past period adjustment of Rs. 0.34 Crore as income of the petitioner.

**Table 5-29: Revenue approved in the truing up for FY 2008-09**

Particulars	(Rs. Crore)	
	FY 2008-09	
	As per petition	Approved by the Commission
Revenue from intra-state sale of power	119.78	119.78
Revenue from inter-state sale of power	238.46	238.46
Revenue from subsidies and grants	25.00	25.00

Particulars	FY 2008-09	
	As per petition	Approved by the Commission
Past period adjustment	0.00	0.34
<b>Total revenue</b>	<b>383.24</b>	<b>383.58</b>

The Commission, accordingly, approves the total revenue at Rs. 383.58 Crore in the truing up for FY 2008-09.

#### 5.2.18 True-up of ARR and sharing of profit & losses for FY 2008-09

Based on the truing up exercise undertaken for the FY 2008-09, the revised ARR and the resultant profit/losses for the year are as shown in the table below:

Table 5-30: True-up of ARR the truing up and profit & losses for FY 2008-09

(Rs. Crore)

Particulars	FY 2008-09	
	As per petitioner submission	Approved by the Commission
Fuel cost	72.74	72.74
Power Purchase Cost	137.70	137.70
O&M Expense	82.36	81.24
Depreciation	28.59	28.59
Interest on long-term capital loans	0.04	0.04
Other expenses	0.34	0.34
Interest on consumer security deposit	0.38	0.00
Other Finance charges	0.29	0.29
Bad Debt	0.42	0.00
Income Tax	1.94	1.94
Less: Non-Tariff Income	37.09	37.09
<b>Total ARR</b>	<b>287.71</b>	<b>285.79</b>
<b>Revenue</b>		
Revenue from intra-state sale	119.78	119.79
Revenue from inter-state sale	238.46	238.46
Past period adjustment	0.00	0.34
Revenue from subsidy and grants	25.00	25.00
<b>Total Revenue</b>	<b>383.24</b>	<b>383.59</b>
<b>Clear Profit/(losses)</b>	<b>95.54</b>	<b>97.80</b>
Reasonable (permissible) return	17.14	17.14
<b>Amount to be shared between TSECL and the consumers</b>	<b>78.40</b>	<b>80.66</b>

It can be seen from the above, the clear profit for FY 2008 - 09 is Rs. 97.80 Crore based on the approved expenses and revenue as against Rs. 95.54 Crore proposed by the petitioner.



As per TERC Tariff Regulations 2004, 50% of the difference between “Clear Profit” and “Permissible Return” will be retained by the Licensee and the balance 50% will go to the consumer account. Accordingly, 50% of approved amount of Rs. 80.66 Crore will be passed on to the consumers for calculation of tariff for FY 2012-13.

### 5.3 Truing-up for FY 2009-10

The petitioner has submitted its truing-up petition for FY 2009-10 and FY 2010-11 based on the provisional accounts for FY 2009-10 and FY 2010-11. The Commission has directed the petitioner to submit the audited accounts for FY 2009-10 and FY 2010-11 by 15<sup>th</sup> March, 2012. However, the petitioner has failed to submit the audited accounts for FY 2009-10 and FY 2010-11 till the time of issuance of this Tariff Order. In this absence of audited accounts, the Commission has considered the un-audited but provisional accounts of the petitioner for FY 2009-10 and FY 2010-11 to determine the ARR for FY 2012-13 as well as truing up of FY 2009-10 and FY 2010-11. The Commission may re-visit the approvals given in this Order, when the audited accounts for FY 2009-10 and FY 2010-11 will be made available to the Commission.

#### 5.3.1 Energy sales

##### Petitioner’s submission

The petitioner has submitted the category-wise actual intra-state energy sales for FY 2009-10 was 494.56 MU. The actual intra-state energy sales in FY 2009-10 is presented in the Table below:

**Table 5-31: Category-wise intra-state energy sales from FY 2009-10**  
(MU)

Energy Sold	FY 2009 -10
Kutir Jyoti	12.03
Domestic	250.21
Commercial	46.65
Industries ( LT &HT)	30.21
Bulk Supply	46.44
Tea garden	0.48
Public water works & lighting	108.55
<b>Total (intra-state) sale</b>	<b>494.56</b>

##### Commission’s Analysis

The Commission has verified the overall actual intra-state sales data provided by the TSECL with the provisional accounts for FY 2009-10. The intra-state quantum of energy sales as per the provisional accounts of FY 2009-10 was 494.56 MU.

**Accordingly, the Commission approves the intra-state sales of 494.56 MU, for FY 2009-10.**

### **5.3.2 Own generation**

#### **Petitioner's submission**

The petitioner has submitted that actual gross generation in FY 2009-10 from its three power plants was 658.35 MU. Auxiliary consumption and net generation in FY 2009-10 were 9.65 MU and 648.70 MU respectively.

#### **Commission's Analysis**

Based on the provisional accounts of FY 2009-10, **the Commission approves the actual gross generation at 658.35 MU, auxiliary consumption at 9.65 MU and net generation at 648.70 MU for FY 2009-10.**

### **5.3.3 Power Purchase**

#### **Petitioner's submission**

The petitioner has submitted that gross energy purchase quantum of 421.61 MU for FY 2009-10. The following table shows the actual power purchase quantum of TSECL for FY 2009-10.

**Table 5-32: Power purchase quantum claimed for FY 2009-10**

(MU)

<b>Particulars</b>	<b>FY 2009 – 10</b>
NEEPCO	377.23
NHPC	44.39
<b>Total</b>	<b>421.61</b>

#### **Commission's Analysis**

The Commission after reviewing the provisional accounts of the petitioner for FY 2009-10 as well as power purchase bills of NEEPCO and NHPC, **approves the power purchase quantum of 421.61 MU for FY 2009-10.**

### 5.3.4 Energy balance

#### Petitioner's submission

Based on the energy sales, own generation and power purchase for FY 2009-10, the petitioner has submitted the following energy balance for FY 2009-10.

**Table 5-33: Energy balance of TSECL for FY 2009-10**

(MU)

Particulars	FY 2009 – 10
Own Generation (net)	648.70
Power Purchase	421.61
<b>Energy availability</b>	<b>1070.32</b>
Inter-state sales	311.42
Intra-state energy sales	494.56
Total losses	264.33
T&D losses (%)	33.16%

#### Commission's Analysis

The Petitioner has submitted the overall T&D losses of 33.16% during FY 2009-10. The Commission has analysed the energy balance submitted by the petitioner based on the actual quantum of generation, power purchase, sales and T&D losses as shown in the adopted accounts for FY 2009-10. The energy balance approved for FY 2009-10 in accordance with the provisional accounts of the petitioner, is tabulated hereunder:

**Table 5-34: Approved energy balance of TSECL for FY 2009-10**

(MU)

Particulars	FY 2009 – 10		
	As per petition	As per provisional accounts	Approved by the Commission
Own Generation (net)	648.70	648.70	648.70
Power Purchase	421.61	421.61	421.61
<b>Energy availability</b>	<b>1070.32</b>	<b>1070.32</b>	<b>1070.32</b>
Inter-state sales	311.42	311.42	311.42
Intra-state energy sales	494.56	494.56	494.56
Total losses	264.33	264.33	264.33
T&D losses (%)	33.16%	33.16%	33.16%

### 5.3.5 Fuel Purchase cost

#### Petitioner's submission

The petitioner has incurred Rs. 70.66 Crore towards procurement of natural gas in FY 2009-10. Actual quantum of fuel purchase, average rate of gas and fuel cost incurred by the petitioner for FY2009-10 is shown in the table below:

**Table 5-35: Fuel purchase cost incurred by TSECL for FY 2009-10**

Particulars	FY 2009-10		
	Fuel Quantity (MMSCM)	Average Rate (Rs./1000 SCM)	Total Cost (Rs. Crore)
Rokhia (GAIL)	202.52	2238.51	45.33
Rokhia (ONGCL)	22.57	4471.53	9.96
Baramura (GAIL)	73.65	2086.53	15.37
<b>Total</b>	<b>298.44</b>		<b>70.66</b>

#### Commission's Analysis

The Commission examined the total fuel cost incurred by the petitioner in the provisional accounts of FY 2009-10. The Commission has observed minor variations in the fuel purchase cost incurred for Rokhia and Baramura. However, total fuel purchase cost submitted by the petitioner is matching with the provisional accounts for FY 2009-10. The Commission approves the fuel purchase cost of the petitioner as per the provisional accounts for FY 2009-10, which is tabulated below.

**Table 5-36: Approved fuel purchase cost of TSECL for FY 2009-10**

(Rs. Crore)

Particulars	FY 2009-10		
	As per petition	As per provisional accounts	Approved by the Commission
Rokhia	55.29	55.93	55.93
Baramura	15.37	14.73	14.73
<b>Total</b>	<b>70.66</b>	<b>70.66</b>	<b>70.66</b>

**The Commission approves fuel purchase cost at Rs. 70.66 Crore in the truing-up for FY 2009-10.**

### 5.3.6 Power purchase cost

#### Petitioner's submission

Total units purchased by the petitioner in FY 2009-10 were 495.31 MU. The following table shows the quantum of power purchase cost, per unit cost and power purchase

cost incurred by the petitioner in FY 2009-10.

**Table 5-37: Power purchase cost of TSECL in FY 2009-10**

Particulars	FY 2009-10		
	Power Purchase (MU)	(Rs./ unit)	Total in Rs. Crore
NHPC	44.39	1.69	7.48
NEEPCO	377.23	2.28	85.89
PGCIL		0.44	18.50
NTPC (arrears)			1.24
<b>Total</b>	<b>421.62</b>		<b>113.10</b>

The petitioner has submitted that in FY 2009-10 the petitioner has paid Rs. 1.24 Crore to NTPC towards payment of arrears bills for the power procured in FY 2006-07.

#### **Commission's Analysis**

The Commission has examined the total actual quantum of power purchased and the power purchase cost incurred for FY 2009-10 in the provisional accounts. The power purchase cost as per the provisional accounts for FY 2009-10 was Rs. 113.10 Crore.

**Accordingly, the Commission approves the power purchase cost of Rs. 113.10 Crore in the truing-up for FY 2009-10.**

#### **5.3.7 O&M expenses**

##### **Petitioner's submission**

TSECL has claimed Rs. 95.23 Crore towards actual O&M expenses in the truing up for FY 2009-10. Details of the O&M expenses are given in the table below:

**Table 5-38: O&M expenses claimed by TSECL for FY 2009-10**  
(Rs. Crore)

Particulars	FY 2009 – 10
Employee expenses	71.48
R&M expenses	15.71
A&G expenses	8.04
<b>Total</b>	<b>95.23</b>

Component-wise O&M expenses are discussed in the following paragraphs.

#### **5.3.7.1 Employee cost**

The TSECL has claimed Rs. 71.48 Crore towards employee cost in the truing up for FY 2009-10.

##### **Commission's Analysis**

The Commission has examined the actual employee cost claimed by the TSECL with the provisional accounts for FY 2009-10. The Commission found that the actual employee expenses as per the provisional accounts were Rs. 71.45 Crore. **The Commission accordingly approves the employee cost at of Rs. 71.45 Crore in the truing-up for FY 2009-10.**

#### **5.3.7.2 R&M Expenses**

##### **Petitioner's submission**

The TSECL has claimed Rs. 15.71 Crore towards R&M expenses in the truing up for FY 2009-10.

##### **Commission's Analysis**

As per the provisional accounts for FY 2009-10, the actual R&M expenses incurred by the petitioner were Rs. 15.71 Crore.

**The Commission approves the R&M expenses at Rs. 15.71 Crore in the truing-up for FY 2009-10.**

#### **5.3.7.3 A&G expenses**

##### **Petitioner's submission**

The TSECL has claimed Rs. 8.04 Crore towards A&G expenses in the truing up for FY 2009-10.

##### **Commission's Analysis**

As per the provisional accounts for FY 2009-10, actual A&G expenses were Rs. 8.04 Crore. **The Commission, accordingly, approves the A&G expenses at Rs. 8.04 Crore in the truing up for FY 2009-10.**

Total O&M expenses for FY 2009-10 approved by the Commission is presented in the following table.

**Table 5-39: O&M expenses approved by the Commission for FY 2009-10**

(Rs. Crore)

Particulars	FY 2009 – 10		
	As per petition	As per provisional accounts	Approved by the Commission
Employee expenses	71.48	71.45	71.45
R&M expenses	15.71	15.71	15.71
A&G expenses	8.04	8.04	8.04
<b>Total</b>	<b>95.23</b>	<b>95.20</b>	<b>95.20</b>

**The Commission approves the O&M expenses at Rs. 95.20 Crore in the truing up for FY 2009-10.**

### 5.3.8 Depreciation

#### Petitioner's submission

The TSECL has claimed Rs. 25.32 Crore towards depreciation in the truing up for FY 2009-10. The TSECL has computed the depreciation for FY 2009-10 as detailed in the table below:

**Table 5-40: Depreciation claimed by TSECL for FY 2009-10**

(Rs. Crore)

Particulars	FY 2009 – 10
Depreciation on total gross asset base	39.17
Depreciation on assets created through government grants and consumer contributions	13.84
Net depreciation to be recovered through tariff	25.32

#### Commission's Analysis

The Commission has reviewed the depreciation claim of the petitioner for FY 2009-10. The Commission provisionally approves the depreciation of Rs. 25.32 Crore by following the same approach adopted during the true up of FY 2007-08.

**The Commission, accordingly, provisionally approves the depreciation at Rs. 25.32 Crore in the truing up for FY 2009-10.**

### 5.3.9 Other expenses

#### Petitioner's submission

The petitioner has claimed Rs. 0.34 Crore towards other expenses in the truing up for FY 2009-10.

### **Commission's Analysis**

The Commission has reviewed the provisional accounts for FY 2009-10 and found that as per schedule 12 an expense amounting to Rs. 0.34 Crore was written-off against repair and modernization work. **Accordingly, the Commission approves the other expenses at Rs. 0.34 Crore in the truing up for FY 2009-10.**

#### **5.3.10 Interest on consumer security deposit**

The petitioner has claimed a sum of Rs. 0.23 Crore towards payment of interest on consumer security deposit in the truing up for FY 2009-10.

#### **Petitioner's submission**

The petitioner has submitted that under the head of Interest and Financial Charges a provision has been made towards payment on interest on consumer security deposit and requested the Commission to consider Rs. 0.23 Crore for the same in the truing up for FY 2009-10.

#### **Commission's Analysis**

The Commission has observed that the amount claimed by the petitioner towards payment for interest on consumer security deposit was never actually paid to the consumers in FY 2009-10. The Commission has also verified that no interest on consumer security deposit has been paid with reference to the provisional accounts for FY 2009-10 as submitted by the petitioner.

**The Commission, accordingly, approves the interest on consumer security deposit as nil in the truing up for FY 2009-10.**

#### **5.3.11 Other Finance charges**

#### **Petitioner's submission**

The petitioner has claimed a sum of Rs. 0.09 Crore towards payment of other Finance Charges in the truing up for FY 2009-10.

#### **Commission's Analysis**

**The Commission, accordingly, approves other finance charges at Rs. 0.09 Crore in the truing up for FY 2009-10.**



### **5.3.12 Reasonable return**

TSECL has claimed Rs. 16.13 Crore towards reasonable return on equity in the truing up for FY 2009-10.

#### **Commission's analysis**

The Commission approves the reasonable return of equity for the petitioner for FY 2009-10 by following the same approach adopted during the true up for FY 2007-08.

**The Commission approves the reasonable return at Rs. 16.13 Crore in the truing up for FY 2009-10.**

### **5.3.13 Income Tax**

The petitioner has claimed a sum of Rs. 1.82 Crore towards income tax in the truing up for FY 2009-10.

#### **Petitioner's submission**

TSECL has applied the MAT rate of 11.30% on the reasonable return of Rs. 16.14 Crore, which comes to Rs. 1.82 Crore. Total tax paid by the Petitioner in FY 2009-10 was Rs. 3.50 Crore. The petitioner has requested to consider the minimum of the above two amounts.

#### **Commission's Analysis**

The Commission has verified the actual tax paid from the annual audited accounts and income tax amount claimed by the petitioner. **Accordingly, the Commission approves income tax at Rs. 1.82 Crore in the truing up for FY 2009-10.**

### **5.3.14 Non-tariff income**

#### **Petitioner's submission**

The TSECL has claimed the actual non-tariff income at Rs. 38.46 Crore in the truing up for FY 2009-10.

#### **Commission's Analysis**

The Commission verified and found that the actual 'other income' in Schedule 14 of the provisional accounts of the petitioner is Rs. 38.46 Crore (excluding grant from the

Department of Power, Government of Tripura).

**The Commission, accordingly, approves the non-tariff income at Rs. 38.46 Crore in the truing up for FY 2009-10.**

### 5.3.15 Revenue from sale of power

The TSECL has furnished the revenue at Rs. 304.87 Crore (excluding non-tariff income) in the truing up for FY 2009-10, as detailed in the table below:

**Table 5-41: Revenue claimed in the truing up for FY 2009-10**

(Rs. Crore)

Particulars	FY 2009-10
Revenue from intra-state sale of power	140.68
Revenue from inter-state sale of power	136.19
Revenue from subsidies and grants	28.00
<b>Total revenue</b>	<b>304.87</b>

### Commission's Analysis

The Commission has observed that the actual revenue booked in the provisional accounts for FY 2009-10 against the intra-state sale of power was Rs. 137.50 Crore as against Rs. 140.68 claimed by the petitioner. The Commission vide letter dated January 27, 2012 has asked the petitioner to provide a detailed explanation on the deviation between the two figures. The petitioner vide letter dated January 31, 2012 has stated that the deviation between the two figures is due to the fact that the account statements has not been prepared on the revenue accrued from sale of power to Government departments and Public Sector Units and the same has been recognized on cash basis in the year of actual realization. For ARR calculation, the revenue from intra-state has been calculated based on the category wise revenue assessed/accrued from sale of power to different categories. In view of the above explanation provided by the petitioner, the Commission approves the revenue from intra-state sale of power.

**Table 5-42: Revenue approved in the truing up for FY 2009-10**

(Rs. Crore)

Particulars	FY 2009-10	
	As per petition	Approved by the Commission
Revenue from intra-state sale of power	140.68	140.68
Revenue from inter-state sale of power	136.19	136.19
Revenue from subsidies and grants	28.00	28.00
<b>Total revenue</b>	<b>304.87</b>	<b>304.87</b>

**The Commission, accordingly, approves the total revenue at Rs. 304.87 Crore in the truing up for FY 2009-10.**

### 5.3.16 True-up of ARR and sharing of profit & losses for FY 2009-10

Based on the truing up exercise undertaken for the FY 2009-10, the revised ARR and the resultant profit/losses for the year are as shown in the table below:

**Table 5-43: True-up of ARR the truing up and profit & losses for FY 2009-10**

(Rs. Crore)

Particulars	FY 2009-10	
	As per petition	Approved by the Commission
Fuel cost	70.66	70.66
Power Purchase Cost	113.10	113.10
O&M Expense	95.23	95.2
Depreciation	25.32	25.32
Other expenses	0.34	0.34
Interest on consumer security deposit	0.23	0.00
Other Finance charges	0.09	0.09
Income Tax	1.82	1.82
Less: Non-Tariff Income	38.46	38.46
<b>Total ARR</b>	<b>268.34</b>	<b>268.07</b>
Revenue from intra-state sale	140.68	140.68
Revenue from inter-state sale	136.19	136.19
Revenue from subsidy and grants	28.00	28.00
<b>Total Revenue</b>	<b>304.87</b>	<b>304.87</b>
<b>Clear Profit/(losses)</b>	<b>36.54</b>	<b>36.80</b>
Reasonable (permissible) Return	16.13	16.13
<b>Amount to be shared between TSECL and the consumers</b>	<b>20.41</b>	<b>20.41</b>

It can be seen from the above, the clear profit for FY 2009 – 10 is Rs. 36.80 Crore based on the approved expenses and revenue as against Rs. 36.54 Crore proposed by the petitioner.

As per TERC Tariff Regulations 2004, 50% of the difference between “Clear Profit” and “Permissible Return” will be retained by the Licensee and the balance 50% will go to the consumer account. Accordingly, 50% of approved amount of Rs. 20.66 Crore will be passed on to the consumers for calculation of tariff for FY 2012-13.

## 5.4 Truing-up for FY 2010-11

### 5.4.1 Energy sales

#### Petitioner's submission

As per the petitioner submission category-wise actual intra-state energy sales for FY 2010-11 was 568.83 MU. The actual intra-state energy sales in FY 2009-10 is presented in the Table below:

**Table 5-44: Category-wise intra-state energy sales from FY 2009-10**  
(MU)

Energy Sold	FY 2009 -10
Kutir Jyoti	18.02
Domestic	290.80
Commercial	54.23
Industries ( LT &HT)	30.76
Bulk Supply	60.74
Tea garden	0.55
Public Water works & Lighting	113.74
<b>Total (intra-state) sale</b>	<b>568.83</b>

#### Commission's Analysis

The Commission has verified the overall actual intra-state sales data provided by the TSECL from the provisional accounts for FY 2010-11. The intra-state quantum of energy sales as per the provisional accounts of FY 2010-11 was 568.83 MU.

**Accordingly, the Commission approves the intra-state sales of 568.83 MU, for FY 2010-11.**

### 5.4.2 Own generation

#### Petitioner's submission

The petitioner has submitted that actual gross generation in FY 2010-11 was 772.13 MU. Auxiliary consumption and net generation in FY 2009-10 were 7.57 MU and 764.56 MU respectively.

#### Commission's Analysis

Based on the provisional accounts of FY 2010-11, **the Commission approves the actual gross generation at 772.13 MU, auxiliary consumption at 11.34 MU and net generation at 760.80 MU for FY 2010-11.**

### Commission's Analysis

Based on the provisional accounts of FY 2010-11, **the Commission approves the actual gross generation at 772.13 MU, auxiliary consumption at 11.34 MU and net generation at 760.80 MU for FY 2010-11.**

#### 5.4.3 Power Purchase

##### Petitioner's submission

The petitioner has submitted that gross energy purchase quantum of 484.06 MU for FY 2010-11. The following table shows the actual power purchase quantum claimed by TSECL for FY 2010-11.

**Table 5-45: Power purchase quantum for FY 2010-11**  
(MU)

Particulars	FY 2010 – 11
NEEPCO	413.86
NHPC	70.20
<b>Total</b>	<b>484.06</b>

##### Commission's Analysis

The Commission after reviewing the provisional accounts of the petitioner for FY 2010-11 as well as power purchase bills of NEEPCO and NHPC, **approves power purchase quantum of 484.06 MU for FY 2010-11.**

#### 5.4.4 Energy balance

##### Petitioner's submission

Based on the energy sales, own generation and power purchase for FY 2010-11, the petitioner has submitted the following energy balance for FY 2010-11.

**Table 5-46: Energy balance of TSECL for FY 2010-11**

(MU)

Particulars	FY 2010 – 11
Own Generation (net)	764.56
Power Purchase	484.06
<b>Total energy available</b>	<b>1248.62</b>
Inter-state sales	404.54
Intra-state energy sales	568.84
Total losses	275.24
T&D losses (%)	30.82%

### Commission's Analysis

The Petitioner has submitted the overall T&D losses of 30.82% during FY 2010-11. The Commission has analysed the energy balance submitted by the petitioner based on the actual quantum of generation, power purchase, sales and T&D losses as shown in the provisional accounts for FY 2010-11. The energy balance approved for FY 2010-11 in accordance with the provisional accounts of the petitioner, is tabulated hereunder:

**Table 5-47: Approved energy balance of TSECL for FY 2010-11**

(MU)

Particulars	FY 2010 – 11		
	As per petition	As per provisional accounts	Approved by the Commission
Own Generation (net)	764.56	764.56	764.56
Power Purchase	484.06	484.06	484.06
<b>Total energy available</b>	<b>1248.62</b>	<b>1248.62</b>	<b>1248.62</b>
Inter-state sales	404.54	404.54	404.54
Intra-state energy sales	568.84	568.84	568.84
Total losses	275.24	275.24	275.24
T&D losses (%)	30.82%	30.82%	30.82%

#### 5.4.5 Fuel Purchase cost

##### Petitioner's submission

The petitioner has incurred Rs. 163.04 Crore towards procurement of natural gas during FY 2010-11.

The petitioner further submitted that the applicable APM rates were revised by MoP&NG on 31.05.2010, to US \$ 2.52/mmbtu (equivalent to US \$ 100/ 1000 SCM or Rs. 5000/1000 SCM at exchange rate of Rs.50/US \$ and at calorific value of 10,000 kCal) exclusive of marketing margin, applicable VAT rate and fixed transportation charges. The new rates were applicable from July' 2010 onwards. The equivalent rates at calorific value of 8250 kCal/SCM and exchange rate of Rs. 50/ US \$ would be Rs.4125/1000 SCM exclusive of marketing margin of Rs.200/1000 SCM, applicable VAT and fixed transportation charges. Hence, the total charges inclusive of marketing margin and VAT@12.5% would work out to be Rs. 4865/1000 SCM at 8250 kCal and exchange rate of Rs. 50/ US \$.

Actual quantum of fuel purchase, average rate of gas and fuel cost incurred by the petitioner for FY2010-11 is shown in following the table:

**Table 5-48: Fuel purchase cost incurred by TSECL for FY 2010-11**

Particulars	FY 2010-11		
	Fuel Quantity (MMSCM)	Average Rate (Rs./1000 SCM)	Total Cost (Rs. Crore)
Rokhia (GAIL)	183.21	4805.87	88.05
Rokhia (ONGCL)	24.01	7198.01	17.28
Baramura (GAIL)	64.06	4648..23	29.77
Baramura (ONGCL)	38.92	7175.83	27.93
<b>Total</b>	<b>310.82</b>		<b>163.04</b>

### Commission's Analysis

The Commission examined the total fuel cost incurred by the petitioner from the provisional accounts of FY 2010-11 furnished by the TSECL. The Commission has observed minor variations in the fuel purchase cost incurred for Rokhia and Baramura. However, total fuel purchase cost submitted by the petitioner is matching with the provisional accounts for FY 2010-11. The Commission approves the fuel purchase cost of the petitioner as per the provisional accounts for FY 2010-11, which is tabulated below.

**Table 5-49: Approved fuel purchase cost of TSECL for FY 2010-11**

(Rs. Crore)

Particulars	FY 2010-11		
	As per petition	As per provisional accounts	Approved by the Commission
Rokhia	105.33	103.96	103.96
Baramura	57.70	59.07	59.07
<b>Total</b>	<b>163.04</b>	<b>163.04</b>	<b>163.04</b>

**The Commission accordingly, approves fuel purchase cost amounting to Rs. 163.04 Crore for FY 2010-11.**

#### 5.4.6 Power purchase cost

##### Petitioner's submission

The following table shows the quantum of power purchase cost, per unit cost and power purchase cost incurred by the petitioner in FY 2010-11.

**Table 5-50: Power purchase cost of TSECL in FY 2010-11**

Particulars	FY 2010-11		
	Power Purchase (MU)	(Rs./ unit)	Total in Rs. Crore
NHPC	413.86	1.80	12.62
NEEPCO	70.20	2.35	97.21
PGCIL		0.60	29.17
<b>Total</b>	<b>484.06</b>		<b>139.00</b>

**Commission's Analysis**

The Commission has verified the total actual quantum of power purchased and the power purchase cost incurred during FY 2010-11 from the provisional accounts. The power purchase cost as per the provisional accounts for FY 2010-11 was Rs. 139.00 Crore.

**Accordingly, the Commission approves the power purchase cost of Rs. 139.00 Crore in the truing-up for FY 2010-11.**

**5.4.7 O&M expenses****Petitioner's submission**

TSECL has claimed Rs. 106.81 Crore towards actual O&M expenses in the truing up for FY 2010-11. Details of the O&M expenses are given in the table below:

**Table 5-51: O&M expenses claimed by TSECL for FY 2010-11**  
(Rs. Crore)

Particulars	FY 2010 – 11
Employee expenses	80.60
Repair and Maintenance	16.57
Administrative and General expenses	9.64
<b>Total</b>	<b>106.81</b>

Component-wise O&M expenses are discussed in the subsequent paragraphs.

**5.4.7.1 Employee cost**

The TSECL has claimed Rs. 80.60 Crore towards employee cost in the truing up for FY 2010-11.

**Commission's Analysis**

The Commission has examined the actual employee cost claimed by the TSECL with



the provisional accounts for FY 2010-11. **The Commission accordingly approves the employee cost at of Rs. 80.60 Crore in the truing-up for FY 2010-11.**

#### 5.4.7.2 R&M Expenses

##### Petitioner's submission

The TSECL has claimed Rs. 16.57 Crore towards R&M expenses in the truing up for FY 2010-11.

##### Commission's Analysis

As per the provisional accounts for FY 2010-11, the actual R&M expenses incurred by the petitioner were Rs. 16.57 Crore.

**The Commission accordingly, approves the R&M expenses at Rs. 16.57 Crore for FY 2010-11.**

#### 5.4.7.3 A&G expenses

##### Petitioner's submission

The TSECL has claimed Rs. 9.64 Crore towards A&G expenses in the truing up for FY 2010-11.

##### Commission's Analysis

As per the provisional accounts for FY 2010-11, actual A&G expenses were Rs. 9.64 Crore. **The Commission, accordingly, approves the A&G expenses at Rs. 9.64 Crore in the truing up for FY 2010-11.**

Total O&M expenses for FY 2010-11 approved by the Commission is presented in the following table.

**Table 5-52: O&M expenses approved by the Commission for FY 2010-11**

(Rs. Crore)

Particulars	FY 2010 – 11		
	As per petition	As per provisional accounts	Approved by the Commission
Employee expenses	80.60	80.60	80.60
R&M Expenses	16.57	16.57	16.57
A&G Expenses	9.64	9.64	9.64
<b>Total</b>	<b>106.81</b>	<b>106.81</b>	<b>106.81</b>

**The Commission approves the O&M expenses at Rs. 106.81 Crore in the truing up for FY 2010-11.**

#### 5.4.8 Depreciation

##### Petitioner's submission

The TSECL has claimed Rs. 24.31 Crore towards depreciation in the truing up for FY 2010-11. The TSECL has computed the depreciation for FY 2010-11 as detailed in the table below:

**Table 5-53: Depreciation claimed by TSECL for FY 2010-11**

Particulars	(Rs. Crore)	
	FY 2010 – 11	
Depreciation on total gross asset base (A)	42.43	
Depreciation on assets created through government grants and consumer contributions (B)	18.12	
Net depreciation to be recovered through tariff (A-B)	24.31	

##### Commission's Analysis

The Commission has reviewed the depreciation claim of the petitioner for FY 2010-11. The Commission provisionally approves the depreciation of Rs. 24.31 Crore by following the same approach adopted during the true up for FY 2007-08.

**The Commission, accordingly, provisionally approves the depreciation at Rs. 24.31 Crore in the truing up for FY 2010-11.**

#### 5.4.9 Other expenses

##### Petitioner's submission

The petitioner has claimed Rs. 0.13 Crore towards other expenses in the truing up for FY 2010-11.

##### Commission's Analysis

**Accordingly, the Commission approves the other expenses at Rs. 0.13 Crore in the truing up for FY 2010-11.**

#### 5.4.10 Interest on consumer security deposit

The petitioner has claimed a sum of Rs. 0.15 Crore towards payment of interest on consumer security deposit in the truing up for FY 2010-11.

##### Petitioner's submission

The petitioner has submitted that under the head of Interest and Financial Charges a provision has been made towards payment on interest on consumer security deposit and requested the Commission to consider Rs. 0.15 Crore for the same in the truing up for FY 2010-11.

#### **Commission's Analysis**

The Commission has observed that the amount claimed by the petitioner towards payment for interest on consumer security deposit was not paid in actuals to the consumers in FY 2010-11. The Commission has also verified that no interest on consumer security deposit has been paid as per the provisional accounts for FY 2010-11 as submitted by the petitioner.

**The Commission, accordingly, approves the interest on consumer security deposit as nil in the truing up for FY 2010-11.**

#### **5.4.11 Other Finance charges**

##### **Petitioner's submission**

The petitioner has claimed a sum of Rs. 0.04 Crore towards payment of other Finance Charges in the truing up for FY 2010-11.

##### **Commission's Analysis**

Based on the provisional accounts for FY 2010-11, **the Commission, accordingly, approves the other finance charges at Rs. 0.04 Crore in the truing up for FY 2010-11.**

#### **5.4.12 Reasonable return**

TSECL has claimed Rs. 16.52 Crore towards reasonable return on equity in the truing up for FY 2010-11.

##### **Commission's analysis**

The Commission approves the reasonable return of equity for the petitioner for FY 2010-11 by following the same approach adopted during the true up for FY 2007-08.

**The Commission approves the reasonable return at Rs. 16.52 Crore in the truing up for FY 2010-11.**

#### 5.4.13 Non-tariff income

##### Petitioner's submission

The TSECL has claimed the actual non-tariff income at Rs. 30.91 Crore in the truing up for FY 2010-11.

##### Commission's Analysis

The Commission verified and found that the actual 'other income' in Schedule 14 of the provisional accounts of the petitioner is Rs. 30.91 Crore (excluding grant from the Department of Power, Government of Tripura).

**The Commission, accordingly, approves the non-tariff income at Rs. 30.91 Crore in the truing up for FY 2010-11.**

#### 5.4.14 Revenue earned for FY 2010-11

The TSECL has furnished the revenue at Rs. 347.94 Crore (excluding non-tariff income) in the truing up for FY 2010-11, as detailed in the table below:

**Table 5-54: Revenue claimed in the truing up for FY 2010-11**

Particulars	(Rs. Crore)	
	FY 2010-11	
Revenue from intra-state sale of power	211.45	
Revenue from inter-state sale of power	116.73	
Revenue from subsidies and grants	19.76	
<b>Total revenue</b>	<b>347.94</b>	

##### Commission's Analysis

The Commission has observed that the actual revenue booked in the provisional accounts for FY 2010-11 against the intra-state sale of power was Rs. 189.21 Crore as against Rs. 211.45 claimed by the petitioner. The Commission vide letter dated January 27, 2012 has asked the petitioner to provide a clarification on the deviation between the two figures. The petitioner vide letter dated January 31, 2012 has stated that the deviation between the two figures is due to the fact that the account statements has not been prepared on the revenue accrued from sale of power to government departments and public sector units and the same has been recognized on cash basis in the year of actual realization. For ARR calculation, the revenue from intra-state has been calculated based on the category wise revenue assessed/accrued from sale of power to different categories. In view of the above

explanation provided by the petitioner, the Commission approves the revenue from intra-state sale of power.

**Table 5-55: Revenue approved in the truing up for FY 2010-11**

(Rs. Crore)

Particulars	FY 2009-10	
	As per petitioner submission	Approved by the Commission
Revenue from intra-state sale of power	211.45	211.45
Revenue from inter-state sale of power	116.73	116.73
Revenue from subsidies and grants	19.76	19.76
<b>Total revenue</b>	<b>347.94</b>	<b>347.94</b>

The Commission, accordingly, approves the total revenue at Rs. 347.94 Crore in the truing up for FY 2010-11.

#### 5.4.15 True-up of ARR and sharing of profit & losses for FY 2010-11

Based on the truing up exercise undertaken for the FY 2010-11, the revised ARR and the resultant profit/losses for the year are as shown in the table below:

**Table 5-56: True-up of ARR the truing up and profit & losses for FY 2010-11**

(Rs. Crore)

Particulars	FY 2010-11	
	As per petitioner submission	Approved by the Commission
Fuel cost	163.04	163.04
Power Purchase Cost	139.00	139.00
O&M Expense	106.81	106.81
Depreciation	24.31	24.31
Other expenses	0.13	0.13
Interest on consumer security deposit	0.15	0.00
Other Finance charges	0.04	0.04
Less: Non-Tariff Income	30.91	30.91
<b>Total ARR</b>	<b>402.57</b>	<b>402.42</b>
Revenue from intra-state sale	211.45	211.45
Revenue from inter-state sale	116.73	116.73
Revenue from subsidy and grants	19.76	19.76
<b>Total Revenue</b>	<b>347.94</b>	<b>347.94</b>
<b>Clear Profit/(losses)</b>	<b>(54.63)</b>	<b>(54.46)</b>
Less: Return on Equity	16.52	16.52
<b>Amount to be shared between TSECL and the consumers</b>	<b>(71.15)</b>	<b>(70.98)</b>

It can be seen from the above, that losses amounting to Rs. 70.98 Crore to be shared between TSECL and the consumers based on the approved expenses and revenue for FY 2010-11 as against Rs. 71.15 Crore losses proposed by the petitioner.

As per TERC Tariff Regulations 2004, 50% of the approved loss amount of Rs. 70.98 Crore will be passed on to the consumers for determination of tariff for FY 2012-13.

## 5.5 Truing-up for FY 2005-06

The Commission has initiated the suo-moto proceedings for truing-up of ARR for FY 2005-06. Previously this exercise could not be carried out due to absence of audited accounts for FY 2005-06 and non-submission of any tariff petition by the petitioner post issuance of tariff order for FY 2006-07.

Since, the audited accounts of FY 2005-06 is available with the Commission now, the Commission has decided to initiate suo-moto for truing-up of ARR for FY 2005-06. The following section presents the truing-up of expenses and revenue of the petitioner for FY 2005-06.

### 5.5.1 ARR and revenue approved by the Commission for FY 2005-06

Total ARR and revenue approved by the Commission for FY 2005-06 is mentioned in the following table.

**Table 5-57: ARR and revenue approved by the Commission vide Tariff Order for FY 2005-06**

Particulars	(Rs. Crore)
	FY 2005-06 Approved by the Commission
Fuel cost	44.93
Power Purchase Cost	118.44
O&M Expense	65.12
Depreciation	20.00
Other expenses	0.00
Interest Cost on Long-term Capital Loans	6.72
Reasonable return	1.00
Non-Tariff Income	4.62
<b>Total ARR</b>	<b>251.59</b>
Revenue from intra-state sale*	103.45
Revenue from inter-state sale	108.14
Revenue from subsidy and grants	40.00
<b>Total Revenue</b>	<b>251.59</b>
<b>Clear Profit</b>	<b>0.00</b>

\* The Commission had considered the difference of the ARR of Rs. 251.59 and revenue for other inter-state sale and revenue subsidy and grants as the revenue from intra-state sale for calculation of tariff

### 5.5.2 ARR and revenue earned as per the audited accounts for FY 2005-06

The following table presents the truing-up of ARR and revenue earned as per the audited accounts for FY 2005-06.

**Table 5-58: Truing –up of expenses approved for FY 2005-06**

(Rs. Crore)

Particulars	FY 2005-06		
	Approved by the Commission in T.O. for FY 2005-06	As per audited account of FY 2005-06	Approved by the Commission in the Truing-up for FY 2005-06
Fuel cost	44.93	43.59	43.59
Power Purchase Cost	118.44	117.01	117.01
O&M Expense	65.12	63.53	63.53
Depreciation	20.00	20.00	20.00
Interest Cost on Long-term Capital Loans	6.72	0.00	0.00
Other expenses	0.00	0.09	0.09
Reasonable return	1.00	1.48	1.48
Less: Non-Tariff Income	4.62	3.68	3.68
<b>Total ARR</b>	<b>251.59</b>	<b>242.02</b>	<b>242.02</b>
Revenue from intra-state sale	103.45	86.67	86.67
Revenue from inter-state sale	108.14	124.42	124.42
Revenue from subsidy and grants	40.00	45.56	45.56
<b>Total Revenue</b>	<b>251.59</b>	<b>256.65</b>	<b>256.65</b>
<b>Clear Profit/(losses)</b>	<b>0.00</b>	<b>14.63</b>	<b>14.63</b>
<b>Amount to be shared between TSECL and the consumers</b>		<b>14.63</b>	<b>14.63</b>

It can be seen that the Commission has considered the actual figures from the audited accounts for FY 2005-06, except for the following:

Due to lack of segregated data such as opening assets, capitalization during year and closing balance of fixed assets in terms of grant and non-grant components, the Commission has considered the approved figure of depreciation of Rs. 20 Crore.

The Commission approves reasonable return on equity of Rs. 1.48 at the rate of 15.50% as against the approved figure of Rs. 1 Crore

It can be seen from the above, the clear profit for FY 2005 – 06 is Rs. 14.63 Crore. As per TERC Tariff Regulations 2004, 50% of the approved amount of Rs. 14.63 Crore will be distributed to the consumers for calculation of tariff for FY 2012-13.

## 5.6 Truing-up for FY 2006-07

Total ARR and revenue submitted by the petitioner for FY 2006-07 is mentioned in the following table.

**Table 5-59: ARR and revenue approved by the Commission in the Tariff Order for FY 2006-07**

(Rs. Crore)

Particulars	FY 2006-07
	Approved by the Commission
Fuel cost	45.59
Power Purchase Cost	123.96
O&M Expense	74.30
Depreciation	20.00
Interest Cost on Long-term Capital Loans	5.83
Other expenses	0.00
Bad Debt	0.82
Reasonable return	0.00
Less: Non-Tariff Income	1.35
<b>Total ARR</b>	<b>269.15</b>
Revenue from intra-state sale	149.29
Revenue from inter-state sale	119.86
Revenue from subsidy and grants	0.00
<b>Total Revenue</b>	<b>269.15</b>

### 5.6.1 ARR and revenue earned as per the audited accounts for FY 2006-07

The following table presents the truing-up of ARR and revenue earned as per the audited accounts for FY 2006-07.

**Table 5-60: Truing –up of expenses approved for FY 2006-07**

(Rs. Crore)

Particulars	FY 2006-07		
	Approved by the petitioner for FY 2006-07	As per audited account of FY 2006-07	Approved by the Commission in the Truing-up for FY 2006-07
Fuel cost	45.59	52.87	52.87
Power Purchase Cost	123.96	114.25	114.25
O&M Expense	74.30	62.17	62.17



Particulars	FY 2006-07		
	Approved by the petitioner for FY 2006-07	As per audited account of FY 2006-07	Approved by the Commission in the Truing-up for FY 2006-07
Depreciation	20.00	20.00	20.00
Interest Cost on Long-term Capital Loans	5.83	0.00	0.00
Other expenses	0.00	0.34	0.34
Bad Debt	0.82	0.00	0.00
Reasonable return	0.00	1.48	1.48
Less: Non-Tariff Income	1.35	9.95	9.95
<b>Total ARR</b>	<b>269.15</b>	<b>241.15</b>	<b>241.15</b>
Revenue from intra-state sale	149.29	96.95	96.95
Revenue from inter-state sale	119.86	137.98	137.98
Revenue from subsidy and grants	0.00	22.00	22.00
Past period adjustment	0.00	2.21	2.21
<b>Total Revenue</b>	<b>269.15</b>	<b>259.14</b>	<b>259.14</b>
<b>Clear Profit/(losses)</b>	<b>0.00</b>	<b>17.99</b>	<b>17.99</b>
<b>Amount to be shared between TSECL and the consumers</b>		<b>17.99</b>	<b>17.99</b>

It can be seen that the Commission has considered the actual figures from the audited accounts for FY 2006-07, except for the following:

Due to lack of segregated data such as opening assets, capitalization during year and closing balance of fixed assets in terms of grant and non-grant components, the Commission has considered the approved figure of depreciation of Rs. 20 Crore.

In Tariff Order for FY 2006-07, the Commission has not allowed any reasonable return due to absence of audited accounts for FY 2006-07. Since, the audited accounts for FY 2006-07 is now available with the Commission, the Commission approves reasonable return on equity of Rs. 1.48 at the rate of 15.50% as against the approved figure of nil.

It can be seen from the above, the clear profit for FY 2006 – 07 is Rs. 17.99 Crore. As per TERC Tariff Regulations 2004, 50% of the approved amount of Rs. 17.99 Crore will be distributed to the consumers for calculation of tariff for FY 2012-13.

## 5.7 Treatment of profit and losses

### Petitioner's submission

The petitioner in its true-up petition from FY 2007-08 to FY 2010-11 has proposed to pass-on Rs. 26.11 Crore to the consumers i.e. 50 % of the total gain of Rs. 52.62 Crore from FY 2007-08 to FY 2010-11 for determination tariff for FY 2012-13

### Commission's Analysis

The following table presents the treatment of profit and losses approved by the Commission from FY 2005-06 to FY 2010-11.

**Table 5-61: Treatment of Profit & losses from FY 2005-06 to FY 2010-11 as approved by the Commission**

(Rs. Crore)

Particulars	FY 2005-06	FY 2006-07	FY 2007-08	FY 2008-09	FY 2009-10	FY 2010-11
	(1)	(2)	(3)	(4)	(5)	(6)
Clear Profit/(losses)	14.63	17.99	26.10	80.65	20.66	(70.98)
Total gain from FY 2007-08 to FY 2010-11 (sum of column 1 to 6)						89.05
Pass on to the consumers @ 50% for calculation of tariff for FY 2012-13						44.52

Based on the calculation of profit and losses by the Commission from FY 2005-06 to FY 2010-11, **the Commission now approves to pass on Rs. 44.52 to the consumers for calculation of tariff for FY 2012-13.**

## 6. Aggregate Revenue Requirement (ARR) for the FY 2012-13

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This chapter deals with determination of Aggregate Revenue Requirement (ARR) for FY 2012-13.

### 6.1 Energy Sales

Proper estimation of category-wise energy sales for the ARR period is essential to arrive at the quantum of power to be purchased and the likely revenue by sale of energy.

This section covers in detail the energy sales projected by the petitioner in its ARR Petition for FY 2011-12 and FY 2012-13 and the approach followed by the Commission for approval of the energy sales.

#### 6.1.1 Consumer categories

At present TSECL serves over five lakhs consumers within its license area and the consumers are broadly categorised as under:

- Kutir Jyoti (BPL)
- Domestic
- Commercial
- Industries (LT &HT)
- Bulk Supply
- Tea, coffee & rubber garden
- Public utility (Water Works, Irrigation, Public Lighting)
- Special Public Utility

#### 6.1.2 Overall approach to sales projections

TSECL has projected the energy sales for the FY 2012-13, considering the actual sales for the FY 2010-11 as a base year. TSECL has stated that methodology adopted for projection of energy sales is based on the compounded annual growth rate (CAGR) during the past 3 years.

Where the past data is reasonably correct and the patterns are well established, the methodology based on past data is a well established method for energy sales forecast. Therefore, Commission accepts the methodology adopted by the petitioner for FY 2012-12.

### 6.1.3 Category-wise projected energy sales for FY 2011-12 and FY 2012-13

The petitioner has furnished the category-wise intra-state sales over the last 5 years (FY 2006-07 to FY 2010-11) based on the actual and projected the sales for the period FY 2011-12 to FY 2012-13. Category-wise sales over the last 3 years as furnished by the TSECL are shown in the Table below:

**Table 6-1: Past data on category-wise energy sales**

(MU)

Consumer category	FY 2008-09	FY 2009-10	FY 2010-11
Kutir Jyoti	10.96	12.03	18.02
Domestic	230.89	250.21	290.80
Commercial	41.02	46.65	54.23
Industries (LT &HT)	31.80	30.21	30.76
Bulk Supply	44.81	46.44	60.74
Tea, coffee & rubber garden	0.44	0.48	0.55
Public Water works &Lighting	90.94	108.55	113.74
<b>Total intra-state sale</b>	<b>450.85</b>	<b>494.56</b>	<b>568.83</b>

The Commission has observed the mismatch in the consumer category wise sales data for FY 2010-11 given in the ARR petition and category wise and slab-wise figures shown in Annexure 9.9 of the petition submitted by TSECL. The Commission has observed a substantial increase in the Kutir Jyoti category as well as in the bulk supply over the previous year's figures. In view of that, the Commission has considered the actual energy sales figures for FY 2010-11 shown in Annexure 9.9 for projection of intra-state energy sales for ensuing years. Category wise actual energy sales considered by the Commission for FY 2010-11 is summarised in the table below:

**Table 6-2: Past data on category-wise energy sales considered by the Commission**

(MU)

Consumer category	FY 2008-09	FY 2009-10	FY 2010-11		
			As per petition	As per Annexure 9.9 of the petition	Considered by the Commission for future sales projections
Kutir Jyoti	10.96	12.03	18.02	14.40	14.40
Domestic	230.89	250.21	290.80	299.32	299.32

Consumer category	FY 2008-09	FY 2009-10	FY 2010-11		
			As per petition	As per Annexure 9.9 of the petition	Considered by the Commission for future sales projections
Commercial	41.02	46.65	54.23	60.91	60.91
Industries (LT &HT)	31.80	30.21	30.76	41.28	41.28
Bulk Supply	44.81	46.44	60.74	56.92	56.92
Tea, coffee & rubber garden	0.44	0.48	0.55	0.99	0.99
Public Water works & Lighting	90.94	108.55	113.74	95.01	95.01
<b>Total (intra-state) sale</b>	<b>450.85</b>	<b>494.56</b>	<b>568.83</b>	<b>568.83</b>	<b>568.83</b>

**Table 6-3: Category-wise growth rates of energy sales considered by the petitioner**  
(%)

Consumer category	Last 3 Year CAGR
Kutir Jyoti	23%
Domestic	11%
Commercial	10%
Industries ( LT &HT)	13%
Bulk Supply	17%
Tea, coffee & rubber garden	12%
Public Water works & Lighting	14%
<b>Total intra-state sale</b>	<b>13%</b>

#### 6.1.4 Category-wise projected energy sales

##### Petitioner's submission

Based on the growth rates of energy sales given in Table 6-2 above, the petitioner has projected category-wise energy sales for FY 2011-12 and FY 2012-13, as given in the Table below.

**Table 6-4: Category-wise energy sales projected for FY2011-12 and FY 2012-13**

(MU)

Consumer category	FY 2011-12	FY 2012-13
Kutir Jyoti	22.15	27.19
Domestic	323.56	359.45
Commercial	59.65	65.50
Industries ( LT &HT)	34.87	39.47
Bulk Supply	70.95	82.75
Tea, coffee & rubber garden	0.62	0.69
Public Water works & Lighting	129.05	146.19
Special category	0.00	0.00
<b>Total intra-state</b>	<b>640.85</b>	<b>721.24</b>

### **Commission's Analysis**

The Commission has undertaken a detailed analysis of the sales projected by the petitioner. The Commission analyzed the CAGR growth witnessed for different lengths of time (3 years and 4 years) in energy sales and computed the energy sales for all categories.

For approval of consumer category-wise sales, the Commission has analysed the details furnished by TSECL and has observed wherever the average has seemed unreasonable or unsustainable, the growth factors have been adjusted by the Commission to arrive at more realistic projections.

For estimating consumer category wise energy sales for FY 2011-12, the actual energy sales for FY 2010-11 has taken as the base i.e. the CAGR of the last three years is applied over the actual energy sales for FY 2010-11.

The Commission approves sales to each consumer category as detailed as follows:

#### **(a) Kutir Jyoti**

The energy sales to the Kutir Jyoti category have witnessed a growth rate of 14% over the last three years. However, the Commission feels that there will be increase in sales under this category. The number of Kutir Jyoti connections would likely to increase substantially in FY 2012-13 due to implementation of RGGVY schemes in the state. Therefore, a much higher energy sales in this category is considered reasonable.

Considering the growth witnessed in the number connections, the Commission approves the energy sales to the Kutir Jyoti category at 26 MU for FY 2012-13.

#### **(b) Domestic**

Domestic is the main consumption category in Tripura, contributing about 50% of total energy sales in the State. TSECL has projected energy sales of 359.45 MUs for this category in FY 2012-13. Energy sales in this category has growing at a CAGR of 12% over the last four (4) years.

Based on the above, the Commission has estimated an increase in sales to this category at the rate of 12% (i.e. CAGR from FY 2007-08 to FY 2010-11) for FY 2011-12 over the actual sales for FY 2010-11. For FY 2012-13, the Commission has considered an increase of 12% over the energy sales estimated for FY 2011-12 for approving the energy sales for the domestic category for FY 2012-13.

**The Commission accordingly, approves the energy sales to the domestic category at 377.59 MU for FY 2012-13 as against sales of 359.45 MU projected by TSECL.**

**(c) Commercial**

TSECL has projected energy sales of 65.50 MU for the commercial category for FY 2012-13 at a CAGR of 10%. The growth of energy sales in commercial category has been 14% over the last four (4) years and 11% in the last 3 years.

Commission has considered the CAGR of last four (4) years (from FY 2007-08 to FY 2010-11) for approving the energy sales for FY 2012-13 for this category.

**The Commission accordingly, approves the energy sales to the commercial category at 77.17 MU for FY 2012-13 as against the sales of 65.50 MU projected by TSECL.**

**(d) Industries (HT&LT)**

TSECL has projected the energy sales of this category at 39.47 MU for FY 2012-13 at a three (3) year CAGR of 13%.

Commission has analysed the past trends growth rate in this category and has found it is reasonable to assume the four (4) year (FY 2007-08 to FY 2010-11) CAGR of 14% for approving the energy sales for FY 2012-13 for this category.

**The Commission accordingly, approves the energy sales to industries (HT&LT) at 53.63 MU for FY 2012-13 as against the projected sales of 39.47 MU projected by the petitioner.**

**(e) Bulk Supply**

TSECL has projected the energy sales of this category at 82.75 MU for FY 2012-13 at a 3-year CAGR of 17%.

The Commission has observed that energy sales in this category have been growing at a higher rate in the last few years. The Commission has considered a four (4) year (FY 2007-08 to FY 2010-11) CAGR of 20% for approving the energy sales for this category for FY 2012-13.

**Accordingly, the Commission approves the energy sales to bulk supply category at 85.38 MU for FY 2012-13 as against the projected sales of 82.75 MU projected by TSECL.**

**(f) Tea, coffee & rubber garden**

TSECL has projected energy sales of this category at 0.69 MU for FY 2012-13 at a 3-year CAGR of 12%.

However, the actual sales to this category of consumers in FY 2010-11 was 0.99 MU. The Commission finds there is no reason to reduce the energy sales in this category for FY 2012-13.

**The Commission, accordingly approves the energy sales to this category at 1.24 MU at a CAGR of 12% (as observed from FY 2006-07 to FY 2009-10) for FY 2012-13.**

**(g) Public utility (Water Works, Irrigation, Public Lighting)**

TSECL has projected the energy sales under this category at 146.19 MU for FY 2012-13 at a CAGR of 14% based on the consumption pattern in this category for the last three years.

The Commission has observed huge variations in sales growth over the last 4 years in this category, especially in the Public Utility (Nagar Panchayat/ Municipality) slab. The petitioner has shown energy sales in this slab as 22.10 MU and 44.05 MU for FY 2010-11 and FY 2011-12 respectively i.e. increase of close to 100% from FY 2009-10 to FY 2010-11. The Commission has observed that the energy sales to this will



not be as high as projected by the petitioner. While approving the sales for this slab, the Commission has decided to reduce the energy sales projections submitted by TSECL for FY 2012-13.

**The Commission, accordingly approves the energy sales to public water works & lighting category at 100.15 MU for FY 2012-13.**

**(h) Special Public Utility**

TSECL has not projected any energy sales under this category. Energy consumption under this category is very limited. The Commission approves energy sales to Special Public Utility at 0.23 MU for FY 2012-13.

**6.1.5 Category-wise energy sales approved for FY 2012-13**

The category wise energy sales for FY 2012-13 as discussed above and approved by the Commission in various consumer categories are given in the following table.

**Table 6-5: Category-wise energy sales approved for FY 2012-13** (MU)

Consumer category	FY 2011-12		FY 2012-13	
	As per petition	Revised estimate	As per petition	Approved by the Commission
Kutir Jyoti	22.15	16.45	27.19	26.00
Domestic	323.56	342.11	359.45	377.59
Commercial	59.65	69.72	65.50	77.17
Industries ( LT &HT)	34.87	47.05	39.47	53.63
Bulk Supply	70.95	71.16	82.75	85.38
Tea, coffee & rubber garden	0.62	1.11	0.69	1.24
Public Water works &Lighting	129.05	85.73	146.19	100.15
Special Category	0.00	0.00	0.00	0.23
<b>Total intra-state sale</b>	<b>640.85</b>	<b>633.33</b>	<b>721.24</b>	<b>721.39</b>

**6.2 Own generation**

TSECL owns and operates two natural gas based thermal power plants and one hydro power station. Total installed capacity of the three power plants is 169.35 MW, out of which 132 MW is currently available for generation of power.

### Petitioner's submission

The petitioner has submitted that projected gross generation for FY 2011-12 and FY 2012-13 as 829.49 MU and 858.97 MU respectively. The petitioner has projected auxiliary consumption in the tune of 12.20 MU and 12.64 MU respectively for FY 2011-12 and FY 2012-13. Therefore, net generation projected by TSECL for FY 2011-12 and FY 2012-13 is 81.73 MU and 84.63 MU. Total generation net quantum projected by TSECL for FY 2011-12 and FY 2012-13 is presented in the following table.

**Table 6-6: Net generation quantum projected for FY 2011-12 and FY 2012-13**

(MU)

Particulars	Units	FY 2011-12	FY 2012-13
<b>RGTPP</b>			
Installed Capacity	MW	74	74
PLF	%	67.28	67.28
Auxiliary Consumption	%	1.50	1.50
Net Generation at state bus	MU	429.61	429.61
<b>New unit at RGTPP</b>			
Installed Capacity	MW	-	5*
PLF	%	-	90%
Auxiliary Consumption	%	-	1.50
Net Generation at state bus	MU	-	29.04
<b>BGTPP</b>			
Installed Capacity	MW	42	42
PLF	%	93.53	93.53
Auxiliary Consumption	%	1.50	1.50
Net Generation at state bus	MU	338.95	338.95
<b>GHEP</b>			
Installed Capacity	MW	15	15
PLF	%	37.46	37.36
Auxiliary Consumption	%	1.0	1.0
Net Generation at state bus	MU	48.73	49.73

\* Projected from July 2012

TSECL has considered a capacity addition of 21 MW unit to be commissioned in month of July 2012 at RGTPP generation station and subsequently two old 8 MW units will be de-commissioned resulting in additional generation capacity of 5 MW. The petitioner further submitted that no additional gas will be required to operate 21 MW plant at RGTPP, since the new plant will consume same quantum of gas as currently used.

### Commission's Analysis

To approve the generation quantum of TSECL, the Commission has adopted the following approach.

- For BGTPP, PLF and auxiliary consumption have been considered as per the CERC norms.
- For RGTPP, auxiliary consumption has been considered as per the CERC norm and PLF has considered as actual considering the vintage profile of the plant.
- For GHEP, PLF and auxiliary consumption have been considered as per actual.

As regard to new capacity addition at Rokhia, the Commission has enquired the actual progress of work at the plant site and found that the work for the new plant is yet to take-off and the new unit is not expected to be commissioned by the end of FY 2012-13. Hence, the Commission considered the existing two 8 MW units at Rokhia for projection of generation quantum of TSECL for FY 2011-12 and FY 2012-13. Total generation from the TSECL's plant projected by the Commission is given below.

**Table 6-7: Net generation quantum approved for FY 2011-12 and FY 2012-13**  
(MU)

Particulars	Units	FY 2011-12	FY 2012-13
		Revised estimate	Approved by the Commission
<b>RGTPP</b>			
Installed Capacity	MW	74.00	74.00
PLF	%	67.28	67.28
Auxiliary Consumption	%	1.00	1.00
Gross Generation	MU	436.14	436.14
Auxiliary Consumption	MU	4.36	4.36
Net Generation	MU	431.77	431.77
<b>BGTPP</b>			
Installed Capacity	MW	42.00	42.00
PLF	%	85.00	85.00
Auxiliary Consumption	%	1.00	1.00
Gross Generation	MU	312.73	312.73
Auxiliary Consumption	MU	3.13	3.13
Net Generation	MU	309.60	309.60
<b>GHEP</b>			
Installed Capacity	MW	15.00	15.00
PLF	%	37.46	37.36
Auxiliary Consumption	%	1.00	1.00
Gross Generation	MU	49.22	49.22
Auxiliary Consumption	MU	0.49	0.49
Net Generation	MU	48.73	48.73
<b>Total Gross Generation</b>	<b>MU</b>	<b>798.09</b>	<b>798.09</b>
<b>Total Auxiliary Consumption</b>	<b>MU</b>	<b>7.98</b>	<b>7.98</b>
<b>Total Net Generation</b>	<b>MU</b>	<b>790.11</b>	<b>790.11</b>

**The Commission, accordingly approves gross generation of 798.09 MU, auxiliary consumption of 7.98 MU and net generation of 790.11 MU for FY 2012-13.**

### **6.3 Power purchase**

TSECL has projected power purchase quantum of 466.99 MU and 779.89 MU respectively for FY 2011-12 and FY 2012-13.

#### **Petitioner’s submission**

As per the petitioner’s submission the power will be procured from the following CGSs during FY 2011-12 and FY 2012-13.

**Table 6-8: Power purchase projected for FY 2011-12 and FY 2012-13**  
(MU)

<b>Source</b>	<b>FY 2011-12</b>	<b>FY 2012-13</b>
NEEPCO	409.38	409.38
NHPC	57.61	57.6
OTPC Pallatana	-	312.90
<b>Total</b>	<b>466.99</b>	<b>779.89</b>

The petitioner has projected additional procurement of power of 312.90 MU from September 2012 from OTPC Pallatana. As per the petitioner’s submission the total allocation of the petitioner from this new plant is 98.00 MW out of the total installed capacity (unit 1) of 363.30 MW i.e. 26.97%. The plant will initially operate at 65% PLF.

#### **Commission’s Analysis**

While estimating the power purchase quantum of the TSECL for FY 2011-12, the Commission has considered the actual power purchased by TSECL from April 2011 to December 2011 and also verified the same from the energy bills of NEEPCO and NHPC. To determine the power purchase quantum for the remaining three months i.e. from January 2012 to March 2012, Commission has considered the actual power purchased for the past 9 months and proportionately projected the same for the remaining three months.

The power purchase quantum through NEEPCO and NHPC plants for FY 2012-13 has been kept at the same level of FY 2011-12 by the Commission.

The Commission has reviewed the actual progress of work of the OTPC Pallatana from the site location and found that the said plant is most likely to start its commercial operation from December 2012. Therefore, the Commission considers power purchase from OTPC Pallatana plant for four months as against seven months projected by the petitioner. Power purchase quantum approved by the Commission for FY 2012-13 is given in the table below:

**Table 6-9: Power purchase approved for FY 2012-13**

(MU)

Source	FY 2011-12		FY 2012-13	
	As per petition	Revised estimate	As per petition	Approved by the Commission
NEEPCO	409.38	413.19	409.38	413.19
NHPC	57.61	70.87	57.61	70.87
OTPC Pallatana	-	-	312.90	179.44
<b>Total</b>	<b>466.99</b>	<b>484.06</b>	<b>779.89</b>	<b>663.49</b>

The Commission, accordingly approves power purchase of 663.49 MU for FY 2012-13.

#### 6.4 Energy balance

TSECL has projected energy requirement as per its sale and availability as detailed in Table below.

**Table 6-10: Energy balance projected for FY 2011-12 and FY 2012-13**

(MU)

Particulars	Calculation	FY 2011-12	FY 2012-13
<b>Own Generation (MUs)</b>			
Rokhia	A	436.15	465.64
Baramura	B	344.12	344.12
Gumti	C	49.22	49.22
<b>Auxiliary Consumption</b>	$D=1.5\% *(A+B)$ $+1\% *C$	12.2	12.64
<b>Energy Sent Out</b>	$E=(A+B+C)-D$	817.29	846.33
<b>Purchased Energy Input (MUs)</b>	$F=G+H+I$	466.99	779.89
NEEPCO	G	409.38	409.38
NHPC	H	57.61	57.61
OTPC Pallatana	I	-	312.9
<b>Total Energy Available at State Bus for Supply (MUs)</b>	$J=E+F*(1-0.045)$	1,263.27	1,591.13
Units Sold to consumer (MUs)	K	640.85	721.98

Particulars	Calculation	FY 2011-12	FY 2012-13
<b>T&amp;D losses (MUs)</b>	L	29.50%	28.00%
<b>Total Energy required at State Bus for Intra-state Supply (MUs)</b>	$M=K/(1+L)$	909	1,002.75
Units sold to Manipur & Mizoram (MUs)	N	169.48	169.48
Units sold in Trading/UI (MUs)	$O=J-M-N$	184.79	418.9

### Commission's Analysis

The Commission has analysed the energy requirement as per sale and availability of power and accordingly calculated the energy balance for FY 2011-12 and FY 2012-13, which is shown in the table below.

**Table 6-11: Energy balance approved for FY 2012-13**

Energy Balance	(MU)		
	FY10-11 Actual	FY11-12 Revised Estimate	FY12-13 Approved
Sales	568.84	633.30	721.39
Add: Losses	253.46	242.63	240.46
<b>T&amp;D Losses</b>	<b>30.82%</b>	<b>27.70%</b>	<b>25.00%</b>
Energy Required at TSECL's periphery	822.30	875.94	961.86
Energy Available	1,226.84	1,252.38	1,423.75
Own Generation	764.56	790.11	790.11
Power Purchase*	462.28	462.28	633.64
Surplus energy sales to other states	404.55	376.45	461.89

\* Figures arrived after deducting interstate transmission losses of 21.78 MU and 29.86 MU for FY 2011-12 and FY 2012-13 respectively

In the Tariff Petition for FY 2005-06, the petitioner had projected the T&D loss level at 23% for FY 2010-11. The Commission has observed that actual T&D losses of TSECL were 37.57%, 35.96%, 33.16% and 30.82% for FY 2007-08, FY 2008-09, FY 2009-10 and FY 2010-11 respectively. In the truing-up from FY 2007-08 to FY 2010-11, the Commission has approved the actual T&D losses of the petitioner, which are much higher than projected earlier. However, the Commission has considered the T&D loss level of 27.71% for FY 2011-12 for computation of FPPCA charges last year. Accordingly, the Commission has fixed the T&D losses for FY 2011-12 at 27.70%. For FY 2012-13 the Commission has approved T&D loss level at 25% against 28% projected by the petitioner as the Commission feels that there is a significant scope to reduce the T&D losses.

Since Commission has to determine tariffs in a transparent manner, it is only to be expected that it will not be inclined to pass on all the problems and inefficiencies of TSECL to the consumers by simply increasing the tariffs. Commission is, therefore, likely to fix tariffs by assuming some efficiency improvements, especially reduction in T&D losses. Further, the target reduction of 2-3% per annum cannot be said to be unrealistic, especially in view of the existing level of T&D losses in the state of Tripura.

The Commission has, therefore, decided to fix the target for T&D losses at 25.00% for the year 2012-13 i.e. a reduction of 2.7% over the loss level fixed for the year 2011-12.

## 6.5 Fuel cost

### Petitioner's submission

TSECL has submitted projected fuel cost of Rs. 188.05 Crore for FY 2011-12 and Rs. 196.34 Crore for FY 2012-13. Fuel cost break-up projected by the petitioner for FY 2011-12 and FY 2012-13 is presented in the following table:

**Table 6-12: Fuel cost projected for FY 2011-12 and FY 2012-13**

Particulars	FY 2011-12			FY 2012-13		
	Fuel Quantity (MMSCM)	Average Rate (Rs./1000 SCM)	Total Cost (Rs. Crore)	Fuel Quantity (MMSCM)	Average Rate (Rs./1000 SCM)	Total Cost (Rs. Crore)
GAIL (Rokhia)	147.35	4842.75	71.36	147.35	4939.61	72.79
ONGCL (Rokhia)	62.8	6630.86	41.64	69.64	6763.47	47.10
GAIL (Baramura)	144.65	4843.00	70.05	144.65	4939.61	71.45
ONGC (Baramura)	0	0.00	0.00	0	0	0.00
Transportation Charge			5.00			5.00
<b>Total</b>	<b>354.8</b>		<b>188.05</b>	<b>361.64</b>		<b>196.34</b>

### Commission's Analysis

The Commission has reviewed the actual fuel purchase bills of ONGCL and GAIL for FY 2010-11 and from April 2011 upto 15<sup>th</sup> March 2012. Based on this analysis, the Commission has determined per unit cost of natural gas, actual calorific value of the gas received by the petitioner for RGTPP and BGTPP.

Further, the Commission has provided an escalation of 3% on the total fuel cost for FY 2012-13.

Approved fuel cost of TSECL for FY 2012-13 is tabulated below:

**Table 6-13: Fuel cost approved for FY 2012-13**

(Rs. Crore)

Source	FY 2011-12		FY 2012-13	
	As per petition	Revised estimate	As per petition	Approved by the Commission
RGTPP	113.00	102.03*	119.89	105.09*
BGTPP	70.05	75.01*	71.45	77.26 *
Transportation charges	5.00		5.00	
<b>Total</b>	<b>188.05</b>	<b>177.03</b>	<b>196.34</b>	<b>182.34</b>

\* Transportation charges included

**The Commission, accordingly approves fuel purchase cost of Rs. 182.34Crore for FY 2012-13.**

## 6.6 Power purchase cost

### Petitioner's submission

The petitioner has projected power purchase cost at Rs. 187.82 Crore for FY 2011-12 and Rs. 251.22 Crore for FY 2012-13. Details of power purchase cost as submitted by the petitioner are tabulated below:

**Table 6-14: Power purchase cost projected for FY 2011-12 and FY 2012-13**

(Rs. Crore)

Particulars	FY 2011-12	FY 2012-13
	Projected	Projected
NHPC	19.74	9.74
NEEPCO	142.76	102.76
OTPC Pallatana	0.00	106.84
PGCIL	25.33	31.89
<b>Total Power Purchase cost</b>	<b>187.82</b>	<b>251.23</b>

### Petitioner's submission

The petitioner has considered average rate of power purchase from NEEPCO for FY 2011-12 at Rs. 3.49 per unit. For NHPC, the average power purchase rate for FY



2011-12 and FY 2012- 13 has been estimated based on the average cost of the past 3 years i.e. from FY 08-09 to FY 10-11 which was Rs.1.69 per unit. In addition, the petitioner has considered Rs. 50 Crore on account of arrears due to change in CERC tariff norms for period 2009-2014 for NEEPCO and NHPC (Rs. 40 Crore for NEEPCO and 10 Crore for NHPC).

The petitioner has also considered additional power purchase cost of Rs. 106.84 Crore to be procured from OTPC Pallatana from September 2012 to March 2013. The petitioner has considered average rate of Rs. 3.42 per unit (Rs. 1.86 as per unit fixed charges and Rs. 1.56 as per unit variable charges) for OTPC Pallatana.

For estimation of transmission charges, the petitioner has considered the power injection of the above mentioned central sector utilities and withdrawal by Tripura as 103.6 MW and 95.7 MW for FY 2011-12 based on the Regional Transmission Accounts (RTA) data (November 2011) published by NERPC. For FY 2012-13, the injections and drawl have been increased by 98 MW from September 2012 onwards on account of OTPC Pallatana. The petitioner has considered the existing rate of Point of Connection (PoC) charge for north-east region i.e. Rs. Rs. 85000/MW/month for FY 2011-12 and FY 2012-13.

The following table shows the average cost of power as projected by the petitioner.

**Table 6-15: Average power purchase cost projected for FY 2011-12 and FY 2012-13**

(Rs./unit)

Particulars	FY 2010-11 Actual	FY 2011-12 Projected	FY 2012-13 Projected
NHPC	1.80	3.43	1.69
NEEPCO	2.35	3.49	2.51
OTPC Pallatana	-	-	3.42
PGCIL	0.60	0.54	0.41

### Commission's Analysis

The Commission has computed the annual fixed charges (in proportion to the petitioner's share in the total allocation of the plant) applicable in FY2011-12 for various central sector generating stations from the actual power purchase bills of the petitioner from April 2011 to December 2011. For the remaining three months of FY 2011-12 i.e. from January 2012 to March 2012, the Commission has considered the revised fixed charges as per the CERC Tariff Order dated 30<sup>th</sup> September 2011. FY

2012-13, fixed cost has been estimated as per the aforesaid Order of CERC (in proportion to the petitioner's share).

The variable cost including Fuel Price Adjustment (FPA) for FY 2011-12 has been considered based on actual variable cost for FY 2010-11 and for the first nine months of FY 2011-12, as submitted by the petitioner. An escalation of 10% has been applied to arrive at the variable cost for FY 2012-13. The escalation of 10% has been considered by the Commission for projecting the variable cost for FY 2012-13 keeping in view of the increase in the fuel prices. The Commission has approved the other charges for FY 2012-13 at similar level as estimated for full year of FY 2011-12. The Commission has also considered an amount of Rs. 20.47 for FY 2011-12 on account of arrears paid/to be paid to NEEPCO and NHPC based on the actual power purchase bills received by the petitioner as well as from the statement received from NEEPCO regarding power purchase cost of TSECL from April 2011 to January 2012. Further, Commission has made an additional provision has been made in FY 2012-13 for payment of arrear bills.

As the tariff for OTPC Pallatana has not been fixed, the Commission has provisionally considered the rate of Rs. 2.90/unit as against Rs. 3.42/unit claimed by the petitioner for the FY 2012-13. Any deviation in the actual power purchase cost from OTPC Pallatana will be considered by the Commission during the true up of FY 2012-13.

Transmission cost for FY 2011-12 has been determined based on the actual transmission charges paid by the petitioner from April 2011 to December 2011. Based on the transmission charges estimated for FY 2011-12, the Commission has computed the transmission charges for FY 2012-13. While approving the transmission charges for FY 2012-13, the Commission has made an additional provision for evacuating power from OTPC Pallatana from December 2012 to March 2013.

Based on the details furnished by the TSECL regarding rebate received for the period April 2011 to December 2011, the Commission has also considered a rebate received on timely payment of bills of Rs. 2.21 Crore for FY 2012-13

Approved power purchase cost for FY 2012-13 is shown in the table below:

**Table 6-16: Power purchase cost approved for FY 2012-13**

(Rs. Crore)

Source	Units Purchased (MU)	Fixed Charges	Variable Charges	Other Charges	Arrears	Total	Av. Cost (Rs./unit)
<b>NEEPCO Stations</b>							
Khandong HEP	11.96	2.04	0.57	0.13		2.74	2.29
Kopili plus Kopili extn HEP	64.71	4.80	2.12	0.30		7.22	1.12
Kopili-stage II	10.36	1.32	0.98	0.00		2.30	2.22
Agartala Gas Turbine Power Plant (AGTPP)	107.83	12.56	22.92	0.02		35.51	3.29
Assam Gas Based Power plant (AGBPP) Kathalguri	114.09	17.15	17.72	0.01		34.88	3.06
Doyang HEP	18.59	4.38	3.02	0.00		7.40	3.98
Ranganadi HEP	85.64	23.34	10.99	1.92		36.25	4.23
<b>Subtotal</b>	<b>413.19</b>	<b>65.58</b>	<b>58.33</b>	<b>2.39</b>	<b>5.00</b>	<b>131.29</b>	<b>3.18</b>
<b>NHPC Station</b>							
Loktak Hydro-Electric Power station (HEP)	70.87	11.16	8.37	0.01		19.55	2.76
<b>Subtotal</b>	<b>70.87</b>	<b>11.16</b>	<b>8.37</b>	<b>0.01</b>		<b>19.55</b>	<b>2.76</b>
<b>Other station</b>							
OTPC Pallatana	179.44					52.04	2.90
<b>Total Power Purchase</b>	<b>663.49</b>	<b>76.74</b>	<b>66.70</b>	<b>2.40</b>	<b>5.00</b>	<b>202.88</b>	<b>3.06</b>
PGCIL Charges						28.10	
SLDC Charges						0.48	
Less: Rebate						2.21	
<b>Grand Total of charges</b>	<b>633.64</b>	<b>76.74</b>	<b>66.70</b>	<b>2.40</b>	<b>5.00</b>	<b>229.25</b>	<b>3.62</b>

## 6.7 Operation and maintenance (O&M) cost

O&M expenses comprises of employee cost, repair and maintenance expenses and administrative and general expenses. Summary of O&M expenses projected by the petitioner is summarised in table below:

**Table 6-17: O&M cost projected for FY 2011-12 and FY 2012-13**

(Rs. Crore)

Particulars	FY 2011-12	FY 2012-13
	Projected	Projected
Employee expenses	85.45	90.57
R&M expenses	18.47	20.37
A&G expenses	9.93	10.23
<b>Total O&amp;M expenses</b>	<b>113.85</b>	<b>121.17</b>

The following section presents head wise analysis of the O&M expenses.

### **6.7.1 Employee cost**

#### **Petitioner's submission**

The petitioner has projected Rs. 85.45 Crore and Rs. 90.57 Crore as employee expenses for FY 2011-12 and FY 2012-13.

The petitioner has stated that the present employee strength of TSECL is 4608. Most of these employees are working on deputation of the State Government and the terminal benefits like pension, gratuity etc. of all such employees is borne by the State Government directly. The liability of the petitioner for all such employees is only the total salaries and allowances which TSECL pays as per the State Government's directives. The petitioner has assumed that the total number of employees in FY 2011-12 and FY 2012-13 will remain at the existing level.

The petitioner has considered 6% increase in the average employee cost for FY 2011-12 and FY 2012-13 i.e. 3% increase on account of basic pay and 3% increase due to increase in dearness allowance. The petitioner has not provided any break-up of employee expenses in terms of basic pay, DA and allowances.

#### **Commission's Analysis**

The Commission has reviewed the actual employee cost from April 2011 to February 2012 (11 months) submitted by the petitioner. The actual employee cost incurred by the petitioner for 11 months of FY 2011-12 was Rs. 74.95 Crore. However, the petitioner in its subsequent submission has clarified that the 11 months employee cost submitted to the Commission is a provisional figure and further addition to be done once the actual salary figures will be received from the division/sub-division offices by the end of FY 2011-12.

Based on the actual 11 months employee expenses cost for FY 2011-12 submitted and clarifications provided by the petitioner, the Commission has approved the employee cost for FY 2011-12 at Rs. 85.00 Crore. The Commission has considered an escalation of 6% (on the basis of CPI Index) over the FY 2011-12 employee expenses for computing the employee expenses for FY 2012-13. Approved employee expenses for FY 2012-13 is presented in the following table.

**Table 6-18: Employee expenses approved for FY 2012-13**

(Rs. Crore)

Particulars	FY 2011-12		FY 2012-13	
	As per petition	Revised estimate	As per petition	Approved by the Commission
Employee expenses	85.45	85.00	90.57	90.10

**The Commission accordingly approves the employee expenses of Rs. 90.10 Crore for FY 2012-13 against Rs. 90.57 Crore projected by the petitioner.**

### 6.7.2 Repair and maintenance expenses

The petitioner has projected Rs. 18.47 Crore and Rs. 20.37 Crore as R&M expenses for FY 2011-12 and FY 2012-13.

#### Petitioner's submission

The petitioner has submitted that the total R&M expenditure incurred by TSECL is in the range of Rs. 15-17 Crore, which works out to be around 1.9% of the average Gross Fixed Asset (GFA) value.

The petitioner has projected the R&M expenses on the basis of the projected gross fixed assets value of Rs. 1071 Crore and Rs. 1171 Crore respectively for FY2011-12 and FY 2012-13.

#### Commission's Analysis

Commission observed that the petitioner has projected the R&M expenses at 1.72% and 1.74% of the GFA for FY 2011-12 and FY 2012-13. Actual R&M cost submitted by the TSECL for 11 months FY 2011-12 has been Rs. 9.42 Crore. The Commission considered it is reasonable to allow the R&M expenses for FY 2011-12 at 1.62% of the GFA i.e. Rs. 17.40 Crore. However, the Commission feels that R&M activities required further attention from the petitioner and approves Rs. 20.88 Crore i.e. 1.78% of the GFA for FY 2012-13. The Commission has approved higher R&M cost during FY 12-13, considering that the petitioner has not done the required R&M of the existing network in the past few years.

**Table 6-19: R&M cost approved for FY 2012-13**

(Rs. Crore)

Particulars	FY 2011-12		FY 2012-13	
	As per petition	Revised estimate	As per petition	Approved by the Commission
R&M expenses	18.47	17.40	20.37	20.88

**The Commission accordingly approves the R&M expenses of Rs. 20.88 Crore for FY 2012-13 as against Rs. 20.37 Crore claimed by the petitioner.**

### 6.7.3 Administrative and general (A&G) expenses

The petitioner has projected Rs. 9.93 Crore and Rs. 10.23 Crore as A&G expenses for FY 2011-12 and FY 2012-13.

#### Petitioner's submission

The A&G expenses of the petitioner mainly cover expenses for administrative requirements like telephone, electricity, vehicles lease, statutory taxes to be paid etc and payment of outsourced agencies like statutory auditors, legal charges, consultancy fees etc. Actual A&G expenses of TSECL was in the range of Rs. 8-10 Crore during FY 2007-08 to FY 2010-11.

#### Commission's Analysis

After reviewing the petitioner's claim for A&G expenses, the Commission escalated the actual A&G expenses of FY 2010-11 by 6% based on the CPI Index to estimate the A&G expenses for FY 2011-12 and approval for FY 2012-13. The approved A&G expenses for FY 2012-13 is summarised in table below:.

**Table 6-20: A&G expenses approved for FY 2012-13**

(Rs. Crore)

Particulars	FY 2011-12		FY 2012-13	
	As per petition	Revised estimate	As per petition	Approved by the Commission
A&G expenses	9.93	10.21	10.23	10.83

**The Commission accordingly approves the A&G expenses of Rs. 10.83 Crore for FY 2012-13 as against Rs. 10.23 Crore claimed by the petitioner.**

Total O&M expenses approved by the Commission for FY 2012-13 is depicted below:

**Table 6-21: O&M expenses approved for FY 2012-13**

(Rs. Crore)

Particulars	FY 2011-12		FY 2012-13	
	As per petition	Revised estimate	As per petition	Approved by the Commission
Employee expenses	85.45	85.00	90.57	90.10
R&M expenses	18.47	17.40	20.37	20.88
A&G expenses	9.93	10.21	10.23	10.83
<b>Total</b>	<b>113.85</b>	<b>112.61</b>	<b>121.17</b>	<b>121.80</b>

**The Commission accordingly approves the O&M expenses of Rs. 121.80 Crore for FY 2012-13 as against Rs. 121.17 Crore claimed by the petitioner.**

## **6.8 Depreciation**

The Petitioner has claimed depreciation in the tune of Rs. 95.19 Crore and Rs. 52.19 Crore for FY 2011-12 and FY 2012-13.

### **Petitioner's submission**

The Petitioner in its petition has proposed capital expenditure in the tune of Rs. 142.65 Crore in FY2011-12 and Rs. 133.50 in FY 2012-13.

The petitioner has projected gross fixed assets of Rs. 1,030.39 Crore and Rs. 1,130.39 Crore for FY 2011-12 and FY 2012-13 respectively. The petitioner has submitted that for calculation of depreciation, the depreciation rates have been taken based on the average depreciation rate booked in FY 2010-11 on the total asset value. Since, the category-wise break-up of assets added during the year is not available, the average depreciation rate of 4.87% computed as per Companies Act has been applied on the total gross asset value for FY 2011-12 and FY 2012-13.

The petitioner has further submitted that as per the circular issued by Power Department, Government of Tripura on 7th December, 2011, all the funds released by State Government under NLCPR, NEC, BADP, PMGY and SPA (all schemes except RGGVY and R-APDRP) shall be treated as interest free loans and all the grants paid earlier under different schemes shall be converted to interest free loans. As such, the entire value of GFA has been considered by the TSECL for depreciation calculation. As such for FY 2011-12 and FY 2012-13, depreciation has been claimed on the total value of gross fixed asset based on the average depreciation rate of 4.87%.

Since all the grants have been converted to interest free loans after the issuance of the above mentioned circular,. The amount of depreciation not claimed by the TSECL on these assets from FY 2007-08 to FY 2010-11 has been claimed by the petitioner in FY 2011-12.

Based on the above considerations, the depreciation amount claimed by the petitioner is tabulated below:

**Table 6-22: Depreciation claimed for FY 2011-12 and FY 2012-13**

(Rs. Crore)

Particulars	FY 2011-12	FY 2012-13
	Projected	Projected
Depreciation on total gross asset base (A)	47.32	52.19
Prior period depreciation on assets created through grants subsequently converted to loans (B)	47.88	0.00
Total depreciation to be recovered through tariff (A+B)	95.19	52.19

**Commission's Analysis**

The Commission has reviewed the claim of the petitioner. Commission's views and approval for depreciation for FY 2012-13 is presented below.

**Depreciation claim on total gross fixed assets (row A of Table 6-22)**

Clause 5 (II) (xii) of Schedule -2 of TERC Tariff Regulations 2004 states that:

*“Depreciation on the assets capitalized based on the investment programme approved by the Commission and actually in use. The rates of depreciation shall be as applicable on straight line method under the Companies Act, 2003 as amended from time to time.”*

The petitioner has not taken any prior approval of the capital expenditure plan given in the ARR petition, which is mandatory as per the aforementioned clause of the TERC Tariff Regulations 2004. Further, the GFA projected by TSECL is based on assumptions only. The petitioner stated that the capitalization during FY 2011-12 and FY 2012-13 will be 70% of the proposed capital expenditure during that year.

Further, the petitioner has not specified the source of capital expenditure funding in the petition. In the past years, the capital expenditure has been funded by Government of India, Government of Tripura through budgetary support, mostly by providing grants and subsidies. TSECL has admitted that there is no detailed information related to the past year capital expenditure.

**In the absence of audited assets/depreciation registers and audited accounts, the gross block of assets projected by TSECL with certain assumptions in the ARR and tariff petition and the subsequent submissions with reference to data**



**gaps pointed out, cannot be considered for the purpose of arriving depreciation.**

The Commission directs the TSECL to prepare and maintain asset wise depreciation registers in complete order and get them audited and submitted to the Commission by 30<sup>th</sup> June, 2012 . The Commission further directs the petitioner to submit their scheme-wise Capital Expenditure Plan along with , details of funding sources, cost benefit analysis of the project, completion date of project, single line diagram of the major capital works, Detailed Project Report (DPR), reason for spillover of project and reason for escalation of cost of the project in every quarter of the year.

**Depreciation claim on prior period depreciation on assets created through grants subsequently converted to loans (row B of Table 6-22)**

The Commission has reviewed the document (as submitted by the petitioner vide letter no. F.AGM/C&SO/TC/101/ dated 6<sup>th</sup> March 2012) by which the petitioner claimed that all the funds released by State Government under various schemes are converted to interest free loans. The Commission observed that the document, which claimed by the petitioner as Government Circular, is actually a proceeding of a meeting and there is no statutory notification to this effect. The Commission could not allow the petitioner's claim for depreciation merely on the basis of proceeding of a meeting.

Further, in Commission's view once an asset has been created out of a grant given and the parties have acted on the said basis, it is then not open to the Government or the licensee to change the nature of the funding of the asset to deem it as a loan. The parties cannot at hindsight change the nature of the funding to claim tariff. The petitioner cannot proceed on the ground that the grants are now converted to loan and claim servicing of the capital cost in the form of depreciation.

On basis of the above circumstances, the Commission cannot approve the depreciation claim of the petitioner for FY 2011-12 and FY 2012-13.

**Depreciation approved for FY 2012-13**

Based on the above, Commission is approving the depreciation on provisional basis

for FY 2012-13 at the same level of FY 2010-11. Commission will review the actual depreciation at the end of FY 2012-13 and will true up the depreciation based on the compliance of TSECL against the directives given by the Commission in this regard.

**The Commission provisionally approves depreciation at Rs. 24.31 Crore for FY 2012-13 against the petitioner's claim for Rs. 52.19 Crore.**

**Table 6-23: Depreciation approved for FY 2012-13**

(Rs. Crore)

Particulars	FY 2011-12		FY 2012-13	
	As per petition	Revised estimate	As per petition	Approved by the Commission
Depreciation	95.19	24.31	52.19	24.31

## 6.9 Reasonable Return

The Petitioner has claimed reasonable return at Rs. 30.44 Crore and Rs. 36.64 Crore respectively for FY 2011-12 and FY 2012-13.

### Petitioner's submission

The Petitioner has considered the average paid-up equity at Rs. 196.43 Crore in FY 2011-12 and FY 2012-13, an increase of Rs. 87.13 Crore from the previous year level. The petitioner has sighted that the paid-up equity capital for TSECL has been projected to increase from Rs.109.30 Crore to Rs. 654.70 Crore as per the notification issued by Government of Tripura in October 2010 vide which capital reserves of Rs. 545.46 Crore is to be transferred to paid-up equity capital. To determine the amount of equity to be considered for calculation of return, the petitioner refer to the relevant clause (clause 12) CERC Tariff Regulations 2009-2014.

The reasonable return amount claimed by the petitioner for FY 2011-12 and FY 2012-13 is given in the table below:

**Table 6-24: Reasonable return claimed for FY 2011-12 and FY 2012-13**

(Rs. Crore)

Particulars	FY 2011-12	FY 2012-13
	Projected	Projected
Reasonable Return	30.44	36.64

### Commission's Analysis

Clause 2 (II) Schedule -1 of TERC Tariff Regulations 2004 states that:

*“The Reasonable Return for the purpose shall be – 5% above the ruling RBI rate or 3% above the PLR of State Bank of India or average of any other three approved Nationalized Banks whichever is higher and calculated on the subscribed and paid up equity capital which shall also include Share Premium Balance for this purpose but shall not include Bonus Share or Shares issued other than for cash. .”*

Since the additional equity of 545.46 Crore highlighted above has not reflected in the audited accounts of the petitioner, the Commission will take decision on this matter once it is reflected in the audited accounts.

Accordingly, for FY 2011-12 and FY 2012-13, the Commission has considered the average paid-up capital of Rs. 109.30 Crore.

**The Commission, accordingly approves reasonable return at Rs. 16.52 Crore for FY 2012-13 against the petitioner's claim for Rs. 36.64 Crore.**

**Table 6-25: Reasonable return approved for FY 2012-13**

(Rs. Crore)

Particulars	FY 2011-12		FY 2012-13	
	As per petition	Revised estimate	As per petition	Approved by the Commission
Reasonable Return	30.44	16.52	36.64	16.52

### 6.10 Interest & Finance Charges

#### Petitioner's submission

The Petitioner has claimed interest & finance charges at Rs. 0.35 Crore for FY 2011-12 and FY 2012-13.

#### Commission's Analysis

**The Commission, accordingly approves interest and finance charges at Rs. 0.35 Crore for FY 2012-13.**

## **6.11 Provision for bad debt**

### **Petitioner's submission**

The petitioner has claimed provision for writing-off bad debt of Rs. 0.87 Crore for FY 2012-13. TSECL has considered provision for bad debts at 2% of the old outstanding Rs. 43.70 Crore.

### **Commission's Analysis**

To write-off outstanding debt approval of the Board of Director would be required. Since the Board is yet to take decision on this matter, the Commission has disallowed this expense for FY 2012-13. Upon the approval of the Board on this matter, the petitioner can claim provision for bad debt in the next year's truing-up.

**The Commission, accordingly approves provision of bad debt at Rs. nil for FY 2012-13.**

## **6.12 Non-tariff income**

### **Petitioner's submission**

The petitioner has projected non-tariff income at Rs. 29.80 Crore for FY 2011-12 and Rs. 26.90 Crore for FY 2012-13. The non-tariff income is in the form of Interest earned on fixed deposits made in various banks and other miscellaneous income like sale of scrap, sale of tender, meter rent etc.

The petitioner has projected the non-tariff income for FY 2012-13 at a lower level from FY 2010-11. TSECL has stated that the lower projection of non-tariff income is due to lower revenue earning from Fixed Deposit interest.

### **Commission's Analysis**

The Commission has analysed the petitioner's claim on non-tariff income. The Commission is of the view that the revenue from non-tariff income of the petitioner may not increase substantially in the ensuing years. However, there is no basis to project the non-tariff income at lower level from FY 2010-11. Therefore, the Commission kept the non-tariff income for the FY 2012-13 at the same level of FY 2010-11.

**The Commission, accordingly approves non-tariff income at Rs. 30.91 Crore for FY 2012-13.**

Table 6-26: Non-tariff income approved for FY 2012-13

(Rs. Crore)

Particulars	FY 2011-12		FY 2012-13	
	As per petition	Revised estimate	As per petition	Approved by the Commission
Non-tariff income	29.80	30.91	26.90	30.91

### 6.13 Aggregate revenue requirement for FY 2012-13

Based on the above analysis and approvals, the Aggregate Revenue Requirement projected by TSECL and approved by the Commission are furnished in table 6-27 below.

Table 6-27: Aggregate revenue requirement for FY 2012-13

(Rs. Crore)

Particulars	FY 2011-12		FY 2012-13	
	As per petition	Revised estimate	As per petition	Approved by the Commission
Fuel cost	188.05	177.03	196.34	182.34
Power Purchase	187.82	179.68	251.22	229.25
O&M Expense	113.85	112.61	121.17	121.80
Depreciation	95.19	24.31	52.19	24.31
Interest & Finance Charges	0.35	0.35	0.35	0.35
Return on Equity	30.44	16.52	36.64	16.52
Provision for Bad Debt	0.00	0.00	0.87	0.00
<b>Less:</b>				
Non-Tariff Income	29.80	30.91	26.90	30.91
<b>Annual Revenue Requirement</b>	<b>585.90</b>	<b>479.59</b>	<b>631.87</b>	<b>543.66</b>

### 6.14 Revenue for FY 2012-13

#### Petitioner's submission

TSECL has projected the revenue from energy sales at 358.92 Crore for FY 2011-12 and Rs. 461.12 Crore for FY 2012-13 as detailed in the table below.

**Table 6-28: Revenue claimed for FY 2011-12 and FY 2012-13 by TSECL**

(Rs. Crore)

Particulars	FY 2011-12	FY 2012-13
	Projected	Projected
Revenue from intra-state sale/ retail supply tariff	256.34	288.80
Revenue from sale to Manipur and Mizoram	50.84	50.84
Revenue from inter-state sales/ trading	51.74	121.49
<b>Total Revenue from Sale of Power</b>	<b>358.92</b>	<b>461.12</b>

In addition to the above, the petitioner has also projected Rs. 134.22 Crore as revenue subsidy for FY 2011-12 based on the latest circular received from GoT on 07 December 2011 vide which the State Government has committed to convert old interest free loans released for general purpose amounting Rs. 85.58 Crore to revenue subsidy and release additional pending amount of Rs. 2.64 and also pay the committed subsidy of Rs. 46 Crore in current year. The total revenue for FY 2011-12 projected by the petitioner is Rs. 493.14 Crore.

#### **Commission's Analysis**

The Commission has worked out the quantum of energy sales through trading/UI after deducting energy sales of 169.48 MU to Manipur and Mizoram from surplus energy sales to other states figures as per the energy balance for FY 2011-12 and FY 2012-13 (presented in table 6-11). The Commission has projected 206.97 MUs and 292.41 MUs will be sold through trading/ inter state sale during FY 2011-12 and FY 2012-13 respectively.

The Commission has considered an average rate of Rs. 2.96 per unit for estimation of revenue from sale through trading/inter state sale during FY 2012-13. The Commission has considered the average rate of Rs. 2.96 per unit for FY 2012-13 based on the actual revenue realization details submitted by the TSECL from interstate sale from April 2011 to December 2011.

The Commission has reviewed the average billing rate of the intra-state consumers from April 2011 to December 2011. The actual average billing rate during this period was Rs. 4.00, which is in line with the petitioner's projection given in the present petition. The Commission has considered this rate for projection of revenue from intra-state sales.

Revenue from sale to Manipur and Mizoram has been projected at Rs. 3.01 per unit i.e. as per the bulk supply agreement between TSECL and Power Departments of Mizoram and Manipur.

Based on the above total revenue approved by the Commission at the existing tariff is presented in the table below:

**Table 6-29: Revenue approved for FY 2012-13**

(Rs. Crore)

Particulars	FY 2011-12		FY 2012-13	
	As per petition	Revised estimate	As per petition	Approved by the Commission
Revenue from intra-state sale	256.34	256.33	288.79	288.56
Revenue from sale to Manipur and Mizoram	50.84	50.84	50.84	50.84
Revenue from inter-state sales/ trading	51.74	61.27	121.48	86.55
Subsidy	134.22	134.22		
<b>Total Revenue</b>	<b>493.14</b>	<b>502.66</b>	<b>461.12</b>	<b>425.95</b>

## 6.15 Revenue gap and surplus

Revenue gap/surplus approved for FY 2012-13 is shown in the table below:

**Table 6-30: Revenue gap/surplus approved for FY 2012-13**

(Rs. Crore)

Particulars	FY 2011-12		FY 2012-13	
	As per petition	Revised estimate	As per petition	Approved by the Commission
ARR	585.90	479.59	631.87	543.66
Less: Revenue	493.14	502.66	461.12	425.95
Revenue (gap)/surplus	(92.76)	23.06	(170.76)	(117.71)
Adjustment of net Surplus on account of Truing-up for the period FY 2005-06 to FY 2010-11				44.52
Previous Years' estimated surplus carried over				23.06
Net (Gap)/Surplus to be addressed				(50.12)

Based on the total ARR approved and the total revenue estimated by the Commission for FY 2012-13, there is a revenue gap of Rs. 50.12 in FY 2012-13.



## 7. Observations and Directives

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### 7.1 Observations of the Commission

- 1. Audited accounts:** The Commission has observed that TSECL has provided annual accounts for the period FY 2007-08 to FY 2010-11 along with the tariff petition. Commission observed that only two year's annual accounts i.e. for FY 2007-08 and FY 2008-09 are audited accounts and the remaining two year's accounts i.e. for FY 2009-10 and FY 2010-11 are provisional. As per the norms of tariff determination, the audited accounts are required as TSECL has been incorporated under the Companies Act 1956. These statutory audited accounts would have served the purpose but the petitioner have failed to produce the audited accounts for FY 2009-10 and FY 2010-11 even after giving assurance that the same would be submitted by 15th March, 2012. The Commission on the other hand getting strict orders from the Ministry of Power via FOR/CERC/APTEL that revision of tariff should be done on yearly basis and the revised tariff rates should be effective from April 1st, 2012 till the 31st March of the next year. There are further directives that the status in this respect i.e. revision of tariff matters should be submitted to FOR/CERC/APTEL positively within June 2012 about the action taken by the SERCs. The Commission, therefore, has no option but to revise the tariff rates based on the provisional accounts.
- 2. Non- submission of tariff petition in the previous four years:** The last tariff petition was submitted during FY 2006-07 and thereafter after several reminders from the Commission TSECL has not submitted any tariff petition. Submission of the present tariff petition was also delayed abnormally.
- 3. Non-realization of billed amount:** It has been found that TSECL has not been able to realize the full bill amount from the consumers and as a result of that collection efficiency in some zones is below 85% which lead to increase in the AT&C losses. The AT&C loss reduction milestones as was submitted during the tariff petition for FY 2005-06 and FY 2006-07 could not be achieved by TSECL. TSECL is directed to prepare, year wise analysis and initiate measures to for realization of arrears and shall submit an action plan in this respect by 30<sup>th</sup> June, 2012. It is strongly felt that the deterioration in the financial condition of TSECL is mainly due to non-realization of billed amounts. TSECL should improve its

collected efficiency. Information related to collection from meter rent, fixed and energy charges, arrears and other charges should be submitted to Commission quarterly.

- 4. Depreciation:** TSECL has not prepared and submitted any assets and depreciation register before the Commission. It is very difficult for the Commission to determine the capitalization of assets and depreciation thereof without the assets and depreciation register. TSECL is directed to arrange for the preparation of assets and depreciation registers function wise, asset classification wise and funding wise. Till such time, the above registers are prepared and got audited, it is not possible for the Commission to consider the gross fixed assets and accumulated depreciation over the years to arrive at the capital base and allow the return there on as per TERC Tariff Regulations, 2004. TSECL is directed to submit the assets and depreciation registers function wise, and asset classification wise by 30<sup>th</sup> June, 2012 for the review and approval of the Commission. The reference of asset creation vide Minutes of the Meeting dated 7<sup>th</sup> December, 2011 need substantiation through a notification from Government of Tripura. TSECL has claimed depreciation amounting to Rs. 95.19 Crore and Rs. 52.19 Crore respectively for the FY 2011-12 and FY 2012-13. Prior to that TSECL has claimed Rs. 27.71 Crore, Rs. 28.59 Crore, Rs. 25.32 Crore and Rs. 24.31 Crore respectively from FY 2007-08 to FY 2010-11. Therefore, TSECL has already claimed total depreciation of Rs. 209 Crore as per the petition.

It is evident from the above table that the depreciation as per the annual accounts from FY 2005-06 to FY 2010-11 was Rs. 224.91 Crore, which also included depreciation on assets created through government grants. The Commission has provisionally allowed depreciation at Rs. 209.00 Crore for the truing-up from FY 2005-06 to FY 2010-11 on the assets created without government grants. After claiming such huge amount the petitioner again claimed Rs. 95.19 Crore and Rs. 52.19 Crore, which is not convincing to the Commission. If this depreciation figures added in the ARR, the resultant tariff will increase abnormally and will go beyond the reach of the common consumers. In this context, it is pointed out that the tariff schedule proposed by TSECL varies from Rs. 4.01 to Rs. 11.04 per unit which is unreasonable and unjustified. In other states in India like Gujarat, Maharashtra, Punjab, Haryana, Andhra Pradesh and Odisha are maintaining electricity tariff much below the rate proposed by TSECL. No logic has been

found behind such claim and it is beyond any norm as well as against the National Tariff Policy. It is needless to say that the as per normal procedure the depreciation has to be accounted as per the guidelines of the TERC Regulations and the Companies Act and to be cleared by the Board of Directors and audited by the professional Chartered Accountant. In TSECL's case, such procedure have not been followed.

- 5. Amount realization from FPPCA charge:** TSECL has not submitted any detail regarding amount realized from FPPCA charges from September 2010 onwards. The FPPCA charges implemented from September 2010 and at the time of issuance of the FPPCA order the Commission has stipulated that the monthwise collection from the FPPCA charges should be submitted to the Commission. Failure to submit this information speaks that TSECL not in favour of any Audited accounts.
- 6. Break-up of revenue billed and collection:** TSECL was unable to submit the break-up of revenue billed and revenue collected from the consumers i.e. from energy charges, fixed charges, meter rent, surcharge and recovery of the past arrears. It is therefore not clear before the Commission that how much revenue has been recovered under various heads. The Commission feels that TSECL should take this matter very seriously and take appropriate action for proper accounting of income and expenditure, which will be yardstick in determination of the health of the Corporation. In this connection, the Commission also feels that the staff strength of the finance section should be increase having proper background of Corporate Finance and Accounting process.
- 7. Non-compliance of past directives:** The Commission has issued Directives to TSECL in the last Tariff Order for FY 2006-07 and prescribed timelines to submit action taken reports regarding compliances with the Commission's Directives. However, TSECL has not submitted any such reports from FY 2006-07 to FY 2010-11. It is observed that the utility is not serious on compliance of the regulatory matters. If this practice continues, the Commission will take appropriate steps in future. Further, replies to Commission against their queries have not attended in a number of previous cases.
- 8. Reduction of losses:** It was pointed out by a number of stakeholders that the T&D losses of the licensee is very high.

TSECL though has been taking several steps to reduce the T&D losses, it is directed to get the technical and commercial losses segregated by conducting proper energy audit. Such segregation is necessary as the measures required to be taken for the two types of losses are different.

**9. Capital Expenditure Plan:** Despite directives given in the previous Tariff Order for FY 2006-07, TSECL has not submitted in Capital Expenditure Plan in the last four years for the approval of the Commission. In future tariff determination, the Commission will not approve any depreciation or interest on loan without prior approval of capital expenditure.

**10. Manpower:** The Commission has observed that at present TSECL is dealing with manpower crunch in Finance, Technical, Personnel and Administration sections. In Commission's view, strengthening of manpower in these department required immediate attention from the petitioner. The petitioner shall initiate the process of identifying manpower gap in each of its section and accordingly recruit manpower to fill-up this gap.

**11. Reorganization of TSECL:** TSECL should start the re-organization process immediately as the Corporation is expanding. The power sector reform process has ushered a number of new areas to look at and these require specialized departments as well as manpower. A proper organization would benefit TSECL in the long run.

## 7.2 Directives

### Directive – 1

**Timely submission of ARR & Tariff Petition:** The Commission directs TSECL to file ARR & Tariff petition for FY 2013-14 on or before 30<sup>th</sup> November 2012. Timely submission of ARR & Tariff petition shall ensure that the new tariff would be applicable from 1<sup>st</sup> April 2013.

### Directive – 2

**Annual Statement of Accounts:** TSECL is directed to prepare “Statement of Accounts” which include balance sheet, profit & loss account, report of the auditors, lost records & Registers etc along with supporting statements/ schedules for Electricity Business separately and submit the same along with the next ARR and Tariff Petition. It has been observed by the Commission that separate statement for asset-wise depreciation created through government grants is not enclosed in the annual accounts of the petitioner. Further, break-up of employees cost in terms of basic pay, dearness allowances, other allowances, gratuity, pension liability is also not available in annual accounts as well as not maintained by the TSECL. The prudence of the expenses could be checked only with reference to the audited accounts of the previous years and this is required for realistic approval of ARR for ensuing years.

### Directive – 3

**Asset and Depreciation Registers:** Determination of Tariff requires both GFA value and corresponding depreciation. TSECL is directed to prepare the function wise assets and depreciation registers including asset-wise classification. Till such time, the required asset-wise details are not prepared and got audited, it is not feasible for the Commission to consider the gross fixed assets and accumulated depreciation over the years to arrive at the capital base and allow the return there on as per the TERC Tariff Regulations 2004. The preparation of asset and depreciation register shall be completed by 30<sup>th</sup> September, 2012.

### Directive – 4

**Management Information System (MIS):** TSECL has not maintained proper data in respect of sales, revenue and revenue expenses. Further, category wise/ slab wise number of consumers and connected load/ demand which is required for projection of sales and revenue for ensuing years is also not maintained by TSECL.

Therefore, TSECL is directed to take appropriate steps to build up credible & accurate data base and management information system (MIS) and regularly update the same for future record and reference. Arrangement may also be made for “On-line Payment” and “Payment to the Bank” of the electricity bills.

**Directive – 5**

**Collection of past arrears:** TSECL is directed to assess year wise arrears due from the consumers and also initiate measures to realize the arrears and shall submit an action plan in this regard by 30<sup>th</sup> September 2012 to the Commission.

**Directive – 6**

**Transmission and distribution losses:** A number of objectors have raised the issue of high level of T&D losses of TSECL. In the ARR petition for FY 2006-07, the petitioner has projected the T&D loss level at 23.60% for FY 2011-12. In the present petition, the petitioner has projected the T&D losses figures at 29.50% for FY2011-12, an increase of around 6%.

Therefore, the Commission directs TSECL to take every possible step to reduce the T&D losses. TSECL also directed to prepare an action plan for reduction of the T&D losses and submit the same to the Commission by 30<sup>th</sup> June 2012.

**Directive – 7**

**MYT Compliance:** The Commission directs TSECL submit an Action Taken Report (ATR) on its preparedness to move to MYT framework for tariff determination not later than 30<sup>th</sup> June 2012.

**Directive – 8**

**Telescopic structure of tariff:** The Commission directs TSECL submit an Action Taken Report (ATR) on its preparedness to move to telescopic structure for tariff determination by 30<sup>th</sup> September 2012.

**Directive – 9**

**Capital Expenditure Plan:** Annual Capital Expenditure Plan shall be submitted to the Commission for the prior approval from the Commission for all major capital works costing Rs. 5.00 crore and above before execution of the works in every quarter of the year.

**Directive – 10**

**Interest on Consumer Security Deposits:** TSECL is directed to furnish the appropriate details of interest on security deposits refundable to the consumers as per Regulation by 30<sup>th</sup> June, 2012.

**Directive – 11**

**Metering of consumers and replacement of defective meters:** It is observed that a large number of Kutir Jyoti category of consumers are not metered. Besides, a large number of consumers have defective meters. It is learnt that TSECL has already initiated the process for replacement of defective meters in phases. TSECL is directed to submit an action plan for installation of appropriate meters to the consumers of all categories by 30<sup>th</sup> June, 2012 for the approval of the Commission.

Under Section 55(1) of Electricity Act, 2003, no licensee shall supply electricity after expiry of two years from the appointed date except through installation of correct meter in accordance with the Regulations framed in this behalf by the Authority. Accordingly, metering is required to be done in line with Central Electricity Authority (Installations and Operation of Meters) Regulations, 2006, to all consumers. Both the billing efficiency and the collection efficiency cannot be improved in the absence of proper functioning of the meters. TSECL is directed to provide meters to all un-metered consumers by the end of FY 2012-13 on 100% metering plan and submit “Quarterly Progress Reports” regularly.

**Directive – 12**

**AT&C losses:** While analysis the present True-up and ARR petition, it was observed that TSECL has not furnished the AT&C loss level for the true-up period or proposed any AT&C losses trajectory for FY 2011-12 and FY 2012-13. The Commission has considered the T&D losses in this Tariff Order. TSECL is directed to submit the AT&C losses reduction trajectory for the ensuing three years to the Commission by 30<sup>th</sup> June 2012.

## **8. Tariff principles and design**

### **8.1 Tariff principles**

The Commission has been guided by the provisions of the Electricity Act, 2003, the National Electricity Policy (NEP), the National Tariff Policy (NTP), the Regulations on Terms and Conditions of Tariff issued by the Central Electricity Regulatory Commission (CERC) and the Tripura Electricity Regulatory Commission (Tariff Regulation 2004) notified by the Commission.

Section 61 of the Act lays down the broad principles and guidelines for determination of retail supply tariff. The guiding principles as laid down in Section 61 of the Act are as follows:

1. the principles and methodologies specified by the Central Commission for determination of the tariff applicable to generating companies and transmission licensees;
2. the generation, transmission, distribution and supply of electricity are conducted on commercial principles;
3. the factors which would encourage competition, efficiency economical use of the resources, good performance and optimum investments;
4. safeguarding of consumers' interest and at the same time, recovery of the cost of electricity in a reasonable manner;
5. the principles rewarding efficiency in performance;
6. multi-year tariff principles;
7. that the tariff progressively, reflects the cost of supply of electricity, and also reduces and eliminates cross-subsidies within the period to be specified by the Appropriate Commission;
8. the promotion of co-generation and generation of electricity from renewable sources of energy;
9. the National Electricity Policy and Tariff Policy.

The NTP mandates that the Multi-Year-Tariff (MYT) framework be adopted for determination of tariff from 1<sup>st</sup> April 2006. However, the Commission is not in a position to introduce MYT Regime in the State mainly because of lack of requisite and reliable data. The present MIS and regulatory reporting system of TSECL are totally inadequate for such an exercise. There has been no study to assess voltage



wise losses in the absence of metering of all feeders, distribution transformers and consumers. Technical and commercial losses are yet to be segregated and quantified voltage wise. The Commission has issued a directive to the TSECL in the Tariff Order 2006-07 to chalk out a long-term action plan for reduction of T&D losses. Under these conditions, it would not be practicable to implement the MYT framework this year. The Commission, after taking into account all factors, has decided to introduce MYT in due course, when the data is available.

**Section 8.3 of National Tariff Policy lays down the following principles for tariff design:**

- 1. The State Governments can give subsidy to the extent they consider appropriate as per the provisions of the Section 65 of the Act. Direct subsidy is a better way to support the poorer categories of the consumers than the mechanism of cross subsidizing the tariff across the board. Subsidies should be targeted effectively and in transparent manner.*
- 2. "In accordance with the National Electricity Policy, consumers below poverty line who consume below a specified level, say 30 units per month, may receive a special support through cross subsidy. Tariffs for such designated group of consumers will be at least 50% of the average cost of supply. This provision will be re-examined after five years.*
- 3. For achieving the objective that the tariff progressively reflects the cost of supply of electricity, the SERC would notify the roadmap, within six months with a target that latest by the end of the year 2011-12 tariffs are within  $\pm 20\%$  of the average cost of supply. The road map would have intermediate milestones, based on the approach of a gradual reduction in cross subsidy.*

*For example, if the average cost of service is Rs.4.00 per unit, at the end of FY 2012 - 13, the tariff for the cross subsidized categories excluding those referred to in para 1 above should not be lower than Rs.3.20 per unit and that for any of the cross subsidizing categories should not go beyond Rs.4.80 per unit.*

- 4. While fixing tariff for agricultural use, the imperatives of the need of using ground water resources in a sustainable manner would also need to be kept in mind in addition to the average cost of supply. The tariff for agricultural use may be set at*

*different levels for different parts of the state depending on the condition of the ground water table to prevent excessive depletion of ground water.”*

The mandate of the NEP that the tariff should be within plus or minus 20% of the average cost of supply by FY 2010-11 has been the guiding principle. It is not possible for the Commission to lay down the road map for reduction of cross subsidy, mainly because of lack of data regarding cost of supply at various voltage levels. A directive has been issued in this order to build up data to arrive at cost of supply at various voltage levels etc. Hence, in working out the cost of supply, the Commission has gone on the basis of average cost of supply in the absence of relevant data for working out consumer category wise cost of supply. However, in this tariff order an element of performance target has been indicated by setting target for T&D loss reduction during the period for FY 2012-13. The improved performance, by reduction of loss level, will result in substantial reduction in average cost of supply.

## 8.2 Proposal of TSECL for tariff increase

### 8.2.1 Tariff proposal

The petitioner has initially proposed for introduction of “telescopic” tariff structure from the existing “non-telescopic” structure for domestic and commercial category consumers. The petitioner vide letter dated 24<sup>th</sup> March, 2012 has withdraw its proposal for introduction of “telescopic” tariff due to non-implementation of Demand Side Management (DSM) measures, which shall take some time. A DSM need to constitute by the licensee for which, TERC has already notified a Regulations in the Official Gazette. Once the DSM measures implemented, the telescopic system of billing can be implemented.

The TSECL has proposed a tariff increase for all categories of consumers. The proposal submitted by TSECL is hereunder:

**Table 8-1: Tariff proposal submitted by TSECL for FY 2012-13**

Sr. No.	Category of Consumers			Fixed charge (Rs/ month)	Net Tariff rate (Rs/ kWh)
	Name	As per Contracted Load	Monthly Consumption (kWh /month)		
KJ	Kutir Jyoti			56.37/ M/C	
A.	Domestic	Single Phase			
		1 Domestic (rural)	0-30	18.22	3.55

Sr. No.	Category of Consumers				Fixed charge (Rs/ month)	Net Tariff rate (Rs/ kWh)
	Name	As per Contracted Load	Monthly Consumption (kWh /month)			
		2	Slab 1	0-50	27.33	4.01
		3	Slab 2	51-150	45.55	7.20
		4	Slab 3	151-300	54.66	9.63
		5	Slab 4	Above 300	54.66	11.04
		6	Three Phase- compulsory above 3 KW	All units	72.88/kW/ month	8.47
<b>B.</b>	Commercial		Single Phase			
		1	Small Comm./ Pan shop	0-30	27.33	5.19
		2	Slab 1	0-150	36.44	6.38
		3	Slab 2	Above 150	72.88	9.83
		4	Semi commercial	All units	72.88	9.29
		5	Three Phase ( compulsory above 3 kW)	All units	72.88/kW/ month	10.39
		6	Three Phase (compulsory above 3 kW) for Group Consumers	All units	72.88/kW/ month	10.20
<b>C.</b>	Industrial		Upto 5 HP (E- R/5)	All units	27.33/kW/ month	6.38
			Upto 5 HP (E- U/5)	All units	36.44/kW/ month	6.74
			5-20 HP	All units	54.66/kW/ month	7.65
			20-100 HP	All units	72.88/kW/ month	8.20
			Above 100 HP	All units	91.11/kW/ month	9.29
<b>D.</b>	Bulk supply			All units	91.11/kW/ month	9.11
<b>E.</b>	Tea, coffee & rubber garden			All units	91.11/kW/ month	8.93
<b>F.</b>	Public utility					
<b>1</b>	Water Works			All units	45.55/kW/ month	5.83
<b>2</b>	Irrigation	a.	Up to 5 HP	All units	36.44/kW/ month	3.64
		b.	Above 5 HP	All units	72.88/kW/ month	4.74
<b>3</b>	Public Lighting	a.	Panchayat	All units	36.44/kW/ month	5.65
		b.	Nagar panchayat/ Municipal area	All units	36.44/kW/ month	6.56
<b>4</b>	Special Public Utility	a.	Public Utility (Nagar panchayat/			6.20

Sr. No.	Category of Consumers			Fixed charge (Rs/ month)	Net Tariff rate (Rs/ kWh)
	Name	As per Contracted Load	Monthly Consumption (kWh /month)		
		Municipal area)			
		b. Public Utility (Panchayat)			5.83

### 8.3 Tariff approved by the Commission

#### 8.3.1 Existing Tariff Rates

The existing tariff rates including FPPCA charges is presented in the following table.

Table 8-2: Existing tariff rates

Consumer Category	Monthly consumption	Fixed Charge (Rs./Month, Rs./ kW/month)	Gross Tariff rate (Rs./kWh)	Rebate (Rs./ kWh)	Net Tariff rate (Rs./kWh)	FPPCA ( Rs/M/ C or Rs/ kWh)	Net energy charges including FPPCA charges (Rs./kWh)
<b>Kutir Jyoti (Rs/ month)</b>		26.00/ per connection/ month	0.00	0.00	0.00	9.00/ per connection/ month	35.00/ per connection / month
<b>Domestic</b>							
Domestic Rural	0-30 units	10.00	1.30	0.10	1.20	0.75	1.95
Slab 1	0-50 units	15.00	1.40	0.10	1.30	0.90	2.20
Slab 2	51 -150 units	25.00	2.00	0.10	1.90	1.20	3.10
Slab 3	151-300 units	30.00	2.60	0.10	2.50	1.40	3.90
Slab 4	Above 300	30.00	3.40	0.10	3.30	1.40	4.70
Three phase - compulsory above 3 kW	All units	40.00/kW	3.35	0.10	3.25	1.40	4.65
<b>Commercial</b>							
Small Commercial /Pan shop	0-30 units	15.00	2.10	0.10	2.00	0.85	2.85
Slab 1	0-150 units	20.00	2.60	0.10	2.50	1.00	3.50
Slab 2	Above 150 units	40.00	3.50	0.10	3.40	1.40	4.80
Semi Commercial	All units	40.00	3.80	0.10	3.70	1.40	5.10
Three phase - compulsory above 3 kW	All units	40.00/kW	4.40	0.10	4.30	1.40	5.70
Three Phase - Group Consumer	All units	40.00/kW	4.30	0.10	4.20	1.40	5.60
<b>Industries</b>							
Upto 5 HP (E-R/5)	All units	15.00/kW	2.20	0.10	2.10	1.40	3.50
Upto 5 HP (E-U/5)	All units	20.00/kW	2.40	0.10	2.30	1.40	3.70
5-20 HP	All units	30.00/kW	2.90	0.10	2.80	1.40	4.20
20-100 HP	All units	40.00/kW	3.20	0.10	3.10	1.40	4.50
Above100 HP	All units	50.00/kW	3.80	0.10	3.70	1.40	5.10

Consumer Category	Monthly consumption	Fixed Charge (Rs./Month, Rs./kW/month)	Gross Tariff rate (Rs./kWh)	Rebate (Rs./kWh)	Net Tariff rate (Rs./kWh)	FPPCA (Rs/M/ C or Rs/ kWh)	Net energy charges including FPPCA charges (Rs./kWh)
<b>Bulk Supply</b>	All units	50.00/kW	3.70	0.10	3.60	1.40	5.00
<b>Tea, coffee &amp; rubber garden</b>	All units	50.00/kW	3.60	0.10	3.50	1.40	4.90
<b>Public Utility</b>							
Water works	All units	25.00/kW	1.90	0.10	1.80	1.40	3.20
Irrigation (<5 HP)	All units	20.00/kW	0.90	0.10	0.80	1.20	2.00
Irrigation (>5 HP)	All units	40.00/kW	1.30	0.10	1.20	1.40	2.60
Public Lighting (Panchayat)	All units	20.00/kW	1.80	0.10	1.70	1.40	3.10
Public Utility (Nagar Panchayat/ Municipality)	All units	40.00/kW	2.30	0.10	2.20	1.40	3.60
<b>Special Public Utility</b>							
Public Utility (Nagar panchayat/ Municipal area)	All units	30.00/kW	2.10	0.10	2.00	1.40	3.40
Public Utility (Panchayat)	All units	20.00/kW	1.90	0.10	1.80	1.40	3.20

### 8.3.2 Approved Tariff Rates

The average cost of supply determined for FY 2012-13 is Rs. 4.69 per unit, whereas the average realization from revenue at existing tariffs in FY 2012-13 is Rs. 4.00 per unit.

Further, at existing tariffs, the revenue gap of the petitioner as estimated by the Commission would be Rs. 50.12 Crore in FY2012-13.

Hence, in view of the revenue gap at existing tariff and considering the increase in average cost of supply, the Commission has increased the tariff for FY2012-13 for the various consumer categories.

The Commission has approved the tariff by including the existing FPPCA charges in the energy charges. From April 2012 onward, if there is any variation in the fuel purchase cost i.e. increase/decrease due to revision of fuel price and power purchase by MoPNG and CERC, the petitioner shall file their detailed calculations as per FPPCA Formula approved the Commission.

The category-wise tariffs approved for FY 2012-13 are as follows:

Table 8-3: Tariff approved by the Commission for FY 2012-13

Consumer Category		Fixed Charge (Rs./Month, Rs. kW/month)	Gross Tariff rate (Rs./kWh)	Rebate (Rs. /kWh)	Net Tariff rate (Rs./kWh)
<b>Kutir Jyoti (Rs/ month)</b>		Rs. 40.00/connection/month			
<b>Domestic</b>					
Domestic (Rural)	0-30 units	10.00	2.74	0.10	2.64
Slab 1	0-50 units	15.00	2.99	0.10	2.89
Slab 2	51 -150 units	25.00	3.89	0.10	3.79
Slab 3	151-300 units	30.00	4.69	0.10	4.59
Slab 4	Above 300	30.00	5.49	0.10	5.39
Three phase - compulsory above 3 kW	All units	40.00/kW	5.44	0.10	5.34
<b>Commercial</b>					
Small Commercial /Pan shop	0-30 units	15.00	3.64	0.10	3.54
Slab 1	0-150 units	20.00	4.29	0.10	4.19
Slab 2	Above 150 units	40.00	5.59	0.10	5.49
Semi Commercial	All units	40.00	5.89	0.10	5.79
Three phase - compulsory above 3 kW*	All units	40.00/kW	6.49	0.10	6.39
Three Phase - Group Consumer*	All units	40.00/kW	6.39	0.10	6.29
<b>Industries</b>					
Upto 5 HP (E-R/5)	All units	15.00/kW	4.29	0.10	4.19
Upto 5 HP (E-U/5)	All units	20.00/kW	4.49	0.10	4.39
5-20 HP	All units	30.00/kW	4.99	0.10	4.89
20-100 HP	All units	40.00/kW	5.29	0.10	5.19
Above100 HP	All units	50.00/kW	5.89	0.10	5.79
<b>Bulk Supply</b>	All units	<b>50.00/kW</b>	<b>5.79</b>	<b>0.10</b>	5.69
<b>Tea, coffee &amp; rubber garden</b>	All units	<b>50.00/kW</b>	<b>5.69</b>	<b>0.10</b>	<b>5.59</b>
<b>Public Utility</b>					
Water works	All units	25.00/kW	3.99	0.10	3.89
Irrigation (<5 HP)	All units	20.00/kW	2.79	0.10	2.69

Consumer Category		Fixed Charge (Rs./Month, Rs. kW/month)	Gross Tariff rate (Rs./kWh)	Rebate (Rs. /kWh)	Net Tariff rate (Rs./kWh)
Irrigation (>5 HP)	All units	40.00/kW	3.39	0.10	3.29
Public Lighting (Panchayat)	All units	20.00/kW	3.89	0.10	3.79
Public Utility (Nagar Panchayat/ Municipality)	All units	40.00/kW	4.39	0.10	4.29
<b>Special Public Utility</b>					
Public Utility (Nagar panchayat/ Municipal area)	All units	30.00/kW	4.19	0.10	4.09
Public Utility (Panchayat)	All units	20.00/kW	3.99	0.10	3.89

N.B: If any error noticed and required corrections may be pointed out to the Commission within 15 days of issuance of the Tariff Order

#### 8.4 Approved miscellaneous and other charges

The miscellaneous and other charges approved by the Commission for FY 2012-13 is summarised in the table below:

**Table 8-4: Approved miscellaneous and other charges for FY 2012-13**

Sl. no.	Category: Miscellaneous Charges	Existing	Approved
	<b>Category-I:- MISCELLANEOUS CHARGES</b>		
A	The tariff for temporary supply for lights and fans for festival, ceremonies, public meeting shall be charged at the following rate, namely :-		
i.	Net	Rs.3.00 per kWh	Rs.4.40 per kWh
ii.	Rebate	Rs.0.10 per kWh	Rs.0.10 per kWh
iii.	Gross	Rs.3.10 per kWh	Rs.4.50 per kWh
	N.B: The minimum charge for each installation which shall be paid in advance shall be	Rs.30/- per day per kW of contracted load or a fraction thereof	Rs. 45/- per day per kW of contracted load or a fraction thereof
B	The tariff for temporary supply for lights & fans to commercial establishment which shall include temporary Cinema, Theater, Circus, Exhibition, Fare shall be charged at the following rate, namely:-		
i.	Net	Rs.3.40 per kWh	Rs.5.40 per kWh
ii.	Rebate	Rs.0.10 per kWh	Rs.0.10 per kWh

Sl. no.	Category: Miscellaneous Charges	Existing	Approved
iii.	Gross	Rs.3.50 per kWh	Rs.5.50 per kWh
	N.B: The minimum charge for each installation which shall be paid in advance shall be	Rs.30/- per day per KW of contracted load or a fraction thereof	Rs.45/- per day per KW of contracted load or a fraction thereof
	<b>Category: Other Charges</b>		
1	The monthly meter rent for different phases shall be at the following rate, namely:-		
i.	For single phase meter not exceeding 10 Amp -	Rs.10.00	Rs.10.00
ii.	For three phase meter -	Rs.15.00	Rs.15.00
iii.	For three phase meter with C.T.	Rs.25.00	Rs.25.00
iv.	For HT metering equipment i.e. kWh meter with MDI & KVR supplied by the Deptt. -	Rs.200.00	Rs.200.00
v.	For Trivector meter-	Rs.400.00	Rs.400.00
vi	For TOD meter	Rs.400.00	Rs.400.00
2	The charges for testing of meter at the request of consumer for different phase shall be at the following rate, namely:-		
i.	For each single phase meter-	Rs.40.00	Rs 50.00
ii.	For each three phase meter -	Rs.80.00	Rs 100.00
iii.	For each HT meter -	Rs.200.00	Rs 250.00
	Provided that after testing it is found that the meter has no defect, and it is in order.		
3	The charges for replacement of meter owing to temporary increase of load which shall be paid in advance shall be at the following rates, namely:-		
i.	For single phase	Rs.60.00	Rs 75.00
ii.	For three phase	Rs.250.00	Rs 250.00
4	The charge for replacement of fuse at consumer premises.	Nil	Nil
5	The charges for installation of subtraction meter & additional meter at consumer's meter board shall be NOTE- Where two or more meters are installed against one connection instead of one meter to suit the convenience of the consumer, reading of the main meter will be taken and billed for.	Rs.200.00	Rs 200.00
6	The monthly meter rent for an additional meter shall be at the following rates, namely:-		
i.	For single phase	Rs.15.00	Rs.15.00
ii.	For three phase	Rs.25.00	Rs.25.00
7	There shall be no charge for test, inspection and	Rs.100.00	Rs 200.00



Sl. no.	Category: Miscellaneous Charges	Existing	Approved
	connection of a new installation. But for any further test or inspection which may be found necessary owing to any fault in the installation or due to non-compliance with the condition of supply the charge for each additional test shall be		
8	The charges for disconnection on consumers request shall be at the following rate, namely:-,		
i.	For single phase	Rs.50.00	Rs 75.00
ii.	For three phase	Rs.60.00	Rs 80.00
iii.	For Bulk/HV/EHV	Rs.100.00	Rs 125.00
9	The charges for reconnection on consumers request shall be at the following rates, namely:-		
i.	For single phase	Rs.100.00	Rs 125.00
ii.	For three phase	Rs.150.00	Rs 175.00
iii.	For Bulk/HV/EHV	Rs.200.00	Rs 250.00
10	The charges for temporary connection which shall be non refundable for all categories of load through a meter within permissible distance from the electric supply main shall be at the following rates, namely:-		
i.	For 220-230V(i.e. Single Phase connection)	Rs.200.00 per installation	Rs.300.00 per installation
ii.	For 380-400V(i.e. 3-phase, 4-wire connection).	Rs.300.00 per installation	Rs.450.00 per installation
	N.B: (i) The consumer shall supply all materials required for service lines as may be approved by licensee, from the nearest pole of the supply point. There shall be no disconnection charge and meter rent for temporary connection. N.B: (ii) For temporary. Connection the consumer shall pay as security deposit of Rs.750.00 for single phase or Rs.1500.00 for three phase supply which is refundable after disconnection of the temporary connection and final payment of the energy bill by consumer. N.B: (iii) For the purpose of this clause, temporary connection means a connection for a continuous period not exceeding 15 days.		
11	The charge for changing of meter by a larger capacity at the request of consumer in respect of permanent connection shall be at the following rates, namely:-		
i.	For 220-230V(Single phase)	Rs.125.00	Rs 150.00
ii.	For 380-400V(3-phase, 4-wire).	Rs.375.00	Rs 400.00
12	The charge for changing the position the meter & the board within the same building at the request of the consumer when no addition in the service line is required shall be at tile following rates, namely:-		
i.	For 220-230V(Single phase)	Rs.125.00	Rs 150.00

<b>Sl. no.</b>	<b>Category: Miscellaneous Charges</b>	<b>Existing</b>	<b>Approved</b>
ii.	For 380-400V(3-phase, 4-wire).	Rs.350.00	Rs 400.00
	Provided that while changing the position of the meter and the board as aforesaid if any additional provision in the service line is required, then actual cost shall be charged on such service line as it is a new service connection. But the charge for changing the position of the meter and the load shall be as above.		
13	Charges for calibration of check meter upon request of consumer.	Nil	Rs. 150.00
14	Charges for special meter reading on consumer request	Nil	Rs.100.00

In case the Government of Tripura decides to pay the subsidy for some categories of consumers for FY 2012-13, the subsidy shall be paid in advance on monthly basis to TSECL.

Commission directs the TSECL to recover full tariff in case the Government of Tripura does not pay subsidy in advance for two consecutive months.

## COMMISSION'S ORDER

The Commission approves the Aggregate Revenue Requirement (ARR) for Tripura State Electricity Corporation Limited(TSECL) for FY 2012-13 as shown in the following table.

### Aggregate Revenue Requirement for FY 2012-13

(Rs. Crore)

Particulars	Approved by the Commission
Fuel cost	182.34
Power Purchase	229.25
O&M Expense	121.80
Depreciation	24.31
Interest & Finance Charges	0.35
Return on Equity	16.52
Provision for Bad Debt	0.00
<b>Less:</b>	
Non-Tariff Income	30.91
<b>Annual Revenue Requirement</b>	<b>543.66</b>

The approved retail supply tariff will be in accordance with the Tariff Schedule given in Table 8-2 and 8-3 to this order. The order shall come into force from 1<sup>st</sup> April, 2012 and shall remain valid till 31<sup>st</sup> March, 2012 or till further order/ amend by the Commission.

Sd/-

**SHRI. M.R. KARMAKAR**  
Chairman

Place : Agartala

Date : 28.03.2012