Jharkhand State Electricity Regulatory Commission

Tariff Order
on
Annual Revenue Requirement
for
Financial Years 2007-08, 2008-09 & 2009-10
and
Determination of Distribution Tariff
for
Financial Year 2009-10
for
Tata Steel Limited
(TSL)

Ranchi

January 2010

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List of Abbreviations

Abbreviation	Description
A&G	Administrative and General
AAD	Advance Against Depreciation
ARR	Aggregate Revenue Requirement
CWIP	Capital Work in Progress
DPS	Delayed Payment Surcharge
DS	Domestic Service
DS HT	Domestic Service High Tension
DVC	Damodar Valley Corporation
FAS	Financial Accounting System
FY	Financial Year
GFA	Gross Fixed Assets
GOI	Government of India
HT	High Tension
JSERC	Jharkhand State Electricity Regulatory Commission
JUSCO	Jamshedpur Utilities and Services Company Limited
kV	Kilovolt
kVA	Kilovolt-ampere
kW	Kilowatt
kWh	Kilowatt-hour
LT	Low Tension
MUs	Million Units
MMC	Monthly Minimum Charges
NTI	Non Tariff Income
O&M	Operations and Maintenance
PLF	Plant Load Factor
PLR	Prime Lending Rate
PPA	Power Purchase Agreement
R&M	Repair and Maintenance
RoE	Return on Equity
Rs.	Rupees
SAP	System, Application and Production
SBI	State Bank of India
SERC	State Electricity Regulatory Commission
SLM	Straight Line Method
TPCL	Tata Power Company Limited

A1: INTRODUCTION

Jharkhand State Electricity Regulatory Commission (JSERC)

1.1 The Jharkhand State Electricity Regulatory Commission (herein after referred to as 'JSERC' or 'the Commission') was established by the Government of Jharkhand under Section 17 of the Electricity Regulatory Commission Act, 1998 on August 22, 2002. The Commission became operational w.e.f. April 24, 2003. The Electricity Act, 2003 (hereinafter referred to as "the Act" or "EA, 2003") came into force w.e.f. June 10, 2003; and the Commission is now deemed to have been constituted and functioning under the provisions of the Act.

1.2 The Government of Jharkhand vide its notification dated 22.08.2002 defined the functions of JSERC as per Section 22 of the Electricity Regulatory Commission Act, 1998 to be the following, namely:-

(a) to determine the tariff for electricity, wholesale, bulk, grid or retail, as the case may be, in the manner provided in section 29;

(b) to determine the tariff payable for the use of the transmission facilities in the manner provided in Section 29;

(c) to regulate power purchase and procurement process of the transmission utilities and distribution utilities including the price at which the power shall be procured from the generating companies, generating stations or from other sources for transmission, sale, distribution and supply in the State;

(d) to promote competition, efficiency and economy in the activities of the electricity industry to achieve the objects and purposes of this Act.

1.3 With the Electricity Act, 2003 being brought into force, the earlier Electricity Regulatory Commission Act of 1998 stands repealed and the functions of JSERC are now defined as per Section 86 of the Act.

1.4 In accordance with the Act, the JSERC discharges the following functions: -

(a) determine the tariff for generation, supply, transmission and wheeling of electricity, wholesale, bulk or retail, as the case may be, within the State:

Provided that where open access has been permitted to a category of consumers under Section 42, the State Commission shall determine only the wheeling charges and surcharge thereon, if any, for the said category of consumers;

(b) regulate electricity purchase and procurement process of distribution licensees including the price at which electricity shall be procured from the generating companies or licensees or from other sources through agreements for purchase of power for distribution and supply within the State;

(c) facilitate intra-state transmission and wheeling of electricity;

(d) issue licences to persons seeking to act as transmission licensees, distribution licensees and electricity traders with respect to their operations within the State;

(e) promote co-generation and generation of electricity from renewable sources 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;

(f) adjudicate upon the disputes between the licensees and generating companies; and to refer any dispute for arbitration;

(g) levy fee for the purposes of this Act;

(h) specify State Grid Code consistent with the Grid Code specified under Clause (h) of sub-section (1) of Section 79;

(i) specify or enforce standards with respect to quality, continuity and reliability of service by licensees;

(j) fix the trading margin in the intra-state trading of electricity, if considered, necessary;

(k) discharge such other functions as may be assigned to it under this Act.

1.5 The Commission advises the State Government on all or any of the following matters, namely :-

(a) promotion of competition, efficiency and economy in activities of the electricity industry;

(b) promotion of investment in electricity industry;

(c) reorganisation and restructuring of electricity industry in the State;

(d) matters concerning generation, transmission, distribution and trading of electricity or any other matter referred to the State Commission by that Government.

1.6 The State Commission ensures transparency while exercising its powers and discharging its functions.

1.7 In discharge of its functions, the State Commission is guided by the National Tariff Policy (NTP) as brought out by GoI in compliance to Section 3 of the Act. The objectives of the NTP are to:

(a) ensure availability of electricity to consumers at reasonable and competitive rates;

(b) ensure financial viability of the sector and attract investments;

(c) promote transparency, consistency and predictability in regulatory approaches across jurisdictions and minimize perceptions of regulatory risks;

(d) promote competition, efficiency in operations and improvement in quality of supply.

Tata Steel Limited (TSL)

1.8 Tata Steel Limited, formerly known as Tata Iron and Steel Company Limited (TISCO), is a company incorporated under the provisions of the Companies Act, 1956. TSL is distributing electricity in the township of Jamshedpur under the license granted u/s 14 of the Act since 1923 through a sanction/license granted under section 28(1) of the erstwhile Indian Electricity Act, 1910. After this Act was repealed by the introduction of the EA, 2003, TISCO filed an application for a distribution license for Jamshedpur township on December 24, 2003 u/s 15 of the Act. In the absence of the final regulations and in view of the provisions of Section 14, proviso one and Section 172(b) of the Act, JSERC vide order dated March 24, 2004 permitted TSL to continue operating under the provisions of the repealed Act till the time regulations regarding the same are notified by the Commission.

1.9 After notification of JSERC (Terms and Conditions for Distribution Tariff) Regulation, 2004, action for issue of license was initiated and subsequently the license was issued to TSL on January 12, 2006 w.e.f. March 24, 2004.

1.10 The area of licensee is bounded as under:

(a) **North**: River Subarnarekha

(b) **South**: Tracks of South Eastern Railways

(c) **East**: Eastern boundaries of Mouza Jojobera and Nildhand.

(d) **West**: River Kharkai

Scope of the present order

1.11 This Order relates to the Annual Revenue Requirement(ARR) and Tariff Petitions filed by TSL at different points of time before the Commission for approval of its:

(a) ARR and tariff determination for FY 2007-08;

(b) ARR and tariff determination for FY 2008-09; &

(c) ARR for FY 2007-08, FY 2008-09 and FY 2009-10 and tariff determination for FY 2009-10.

1.12 This Order is issued in accordance with Sections 61, 62 and 64 of the Act and provisions of the JSERC (Terms and Conditions for Distribution Tariff) Regulation, 2004 (hereinafter referred to as 'Distribution Tariff Regulations, 2004')

1.13 While determining tariff for the licensed area of TSL, the Commission has taken into consideration the following:

(a) Provisions of Section 86 of the Act,

(b) Provisions of the National Electricity Policy,

(c) Provisions of NTP, and

(d) Principles for tariff determination laid down in the 'Distribution Tariff Regulations, 2004'

A2: PROCEDURAL HISTORY

Background

2.1 As per the 'Distribution Tariff Regulations, 2004', the distribution licensees need to file a tariff application with statements containing the expected revenue from the tariff charges including miscellaneous income and other charges , if any, for the ensuing financial year by 1st November every year.

2.2 The petitioner requested for extension in filing the Tariff petition vide letter no. PBD/59/40/09 dated January 27, 2009. The request was accepted by the Commission vide letter no. JSERC/Tariff/51/432 dated February 7, 2009 and an extension of three months was granted to the petitioner. Subsequently, the petitioner requested for another extension of time vide letter no. PBD/233/59/09 dated April 24, 2009. In reply, the Commission directed the petitioner to submit the ARR petition by June 2009, vide its letter no. JSERC/Tariff/51/49 dated May 15, 2009.

2.3 The petitioner finally submitted the ARR and Tariff petition (Case no. 15 of 2009) on July 30, 2009 with a request to the Commission to condone the delay in filing the petition.

Information Gaps in the petition

2.4 As part of the exercise of ARR and tariff determination for TSL, several deficiencies were observed in the tariff petition received from the petitioner. These information gaps were communicated to the petitioner in a deficiency note vide memo no. JSERC/15 of /2009/256 dated September 16, 2009.

2.5 The petitioner submitted the additional data/information on November 30, 2009 vide PBD/659/59/09 in response to the aforementioned additional data/information requirements.

Inviting Public Response

2.6 After scrutinizing the additional data furnished by the petitioner, the Commission accepted the petition and directed the petitioner to issue public notice for inviting comments/suggestions from public and to make available copies of the ARR and Tariff petition to the general public.

2.7 The public notice was subsequently issued by the petitioner in various newspapers, as detailed hereunder:

Table 1 List of newspapers and dates on which the public notice appeared

Newspaper	Date
Avenue Mail (English)	04.11.09 & 05.11.09

Hindustan Times (English)	04.11.09 & 05.11.09
Prabhat Khabar (Hindi)	04.11.09 & 05.11.09
Hindustan (Hindi)	04.11.09 & 05.11.09
Dainik Jagran (Hindi)	04.11.09 & 05.11.09

2.8 A period of thirty days (30) was provided for submitting the comments/suggestions. The Commission subsequently issued public notice on the website www.jserc.org and various newspapers for conducting the public hearing on the ARR and Tariff petition of TSL for FY 2007-08, FY 2008-09 & FY 2009-10. The details of the newspapers wherein the advertisement for public hearing was issued by the Commission is detailed hereunder:

Table 2 List of newspapers and dates on which the public notice appeared

Newspaper	Date
Prabhat Khabar (Jamshedpur edition)	14.12.09
Hindustan (Jamshedpur edition)	14.12.09
Uditvani (Jamshedpur edition)	14.12.09
Dainik Jagran (Jamshedpur edition)	14.12.09
Ranchi Express	14.12.09
Hindustan Times	14.12.09
The Pioneer	14.12.09
Farooqui Tanzeem (Urdu Daily)	14.12.09

A3: SUMMARY OF ARR & TARIFF PETITION FILED BY TSL

Overview

3.1 Tata Steel Limited (TSL) is distributing electricity in the township of Jamshedpur under license granted u/s 14 of the Act and has an established customer base of about 26000 consumers. At present, TSL has been managing the city of Jamshedpur through its 100% subsidiary JUSCO, which provides and maintains basic civic amenities in the city of Jamshedpur.

3.2 As mentioned above, this Tariff Order addresses the petitions for ARR determination for FY 2007-08, 2008-09 and 2009-10 and tariff determination for FY 2009-10 after taking into account the revenue gap/surplus generated during FY 2005-06, FY 2006-07, FY 2008-09 as per annual accounts and for FY 2008-09 as per latest available information.

3.3 As stated above, the figures for FY 2007-08 have been considered as per the actual commercial information and audited accounts. The figures for FY 2008-09 have been considered as per the provisional data and figures. The figures for FY 2009-10 are based on the past performance and expected growth in each element of cost and revenue based upon the projected increase in demand of existing consumers as well as projected increase in sales by new consumers.

ARR and Tariff Determination

3.4 In accordance with Section 64(3) of the Act, the State Electricity Regulatory Commission, within one hundred and twenty days of the application being filed, is required to either accept it and issue a tariff order or reject the application for reasons to be recorded in writing if the application is not in accordance with the provisions of the Act.

3.5 The petitions for FY 2007-08 and FY 2008-09 were not disposed off in time since the matter was pending before Appellate Tribunal for Electricity (ATE).

3.6 Since the matter has now been decided by the ATE vide its order dated May 7 2008 against the appeal no.160 of 2007, the Commission has decided to review the petitions for FY 2007-08 and FY 2008-09 along-with the petition for FY 2009-10.

Tariff petition for FY 2007-08

3.7 The ARR and Tariff petition as submitted by the petitioner for FY 2007-08 is summarised below:

Table 3 ARR Requirement by TSL- ARR petition, FY 2007-08 (Rs. In Cr)

Parameters	Projected
Power Purchase Cost	328.01
O&M Cost	29.04
Interest & Finance Charges	9.26
Depreciation	8.03
Income Tax	4.96
Less: Expenses Capitalized	
Total Costs	379.3
Add: Reasonable Return	6.30
Less: Non-tariff Income	4.06
Annual Revenue Requirement	**381.54**
Revenue@ Existing Tariff	384.86
Revenue (Gap)/Surplus	**3.32**

Tariff petition for FY 2008-09

3.8 The ARR and Tariff petition as submitted by the petitioner for FY 2008-09 is summarised below:

Table 4 ARR Requirement by TSL- ARR petition, FY 2008-09 (Rs. In Cr)

Parameters	Projected
Power Purchase Cost	378.43
O&M Cost	37.04
Interest & Finance Charges	6.80
Depreciation	5.92
Income Tax	3.29
Less: Expenses Capitalized	
Total Costs	431.48
Add: Reasonable Return	6.63
Less: Non-tariff Income	5.61
Less Revenue Surplus for FY 2007-08	***18.79***
Annual Revenue Requirement	**413.71**
Revenue@ Existing Tariff	412.86
Revenue (Gap)/Surplus	**(0.86)**

Tariff petition for FY 2009-10

3.9 The ARR and Tariff petition as submitted by the petitioner for FY 2009-10 is summarised below:

Table 5 ARR Requirement by TSL- ARR petition, FY 2009-10 (Rs. In Cr)

Parameters	FY 2007-08 (Actual)	FY 2008-09 (Revised)	FY 2009-10 (Projection)
Power Purchase Cost	313.49	392.29	426.21
O&M Cost	31.47	39.52	43.47
Interest & Finance Charges	9.06	9.98	11.80
Depreciation	5.14	5.11	5.74
Income Tax	5.69	6.01	7.23
Less: Expenses Capitalized			
Total Costs	**364.85**	**452.91**	**494.46**
Add: Reasonable Return	5.19	5.23	6.42
Less: Non-tariff Income	5.61	3.16	3.17
Annual Revenue Requirement	**364.43**	**454.98**	**497.71**
Revenue@ Existing Tariff @ 100% collection Efficiency	380.13	443.59	458.91
Revenue@ Existing Tariff @ estimated Collection Efficiency	**365.58**	**433.89**	**449.74**
Cum. (Gap)/Surplus from FY 2005-06 & FY 2006-07		**15.98**	
Net Revenue (Gap)/Surplus	**1.14**	**(5.11)**	**(47.97)**
Cumulative (Gap)/Surplus up to FY 2009-10			**(51.94)**

3.10 The petitioner has proposed to recover only the net revenue gap attributable to FY 2009-10 (i.e Rs. 47.97 Cr) through increase in tariff and has proposed that the remaining portion (i.e Rs. 3.97 Cr) related to previous financial years be considered as 'Regulatory Asset' as specified under NTP.

3.11 The petitioner has submitted the category-wise Tariff proposal for bridging the gap of Rs. 47.97 Cr, as detailed hereunder:

Table 6 Existing/Proposed Tariff for FY 2009-10

Consumer category and consumption slabs	Fixed Charge			Energy Charge (Rs/Kwh)	
	Unit	*Existing*	*Proposed*	*Existing*	*Proposed*
DS I (0-100 Units)	**Rs./Connection /Month**	**Rs 10 (220 V, 0-5 Kw)/Rs 20 (440V, 5+Kw)**	**Rs 40/per month (0-20 Kw)/Rs 4/Kw/month (20 Kw+)**	**1.70**	**1.70**
DS II (101-400 Units)				**2.80**	**3.15**
DS III (401 & Beyond Units)				**3.00**	**3.40**
Domestic Temporary Supply	**-**	**-**	**-**	**3.00**	**3.40**
Domestic High Tension – DSHT	**Rs./Connection /Month**	**Rs 275**	**Rs 100/KVA/Month**	**2.70**	**2.70**
Commercial Category	**Rs./Connection /Month**	**Rs 25-220 V/ Rs 75-440V**	**Rs 100/per month (0-20 Kw)/Rs 100/Kw/month (20 Kw+)**	**4.30**	**4.50**
High Tension I	**Rs./KVA/Month**	**200**	**215**	**3.30**	**3.65**

High Tension II		200	215	3.25	3.60
High Tension III		180	195	3.20	3.55
Utilities/Street Light	-	-	-	2.90	2.95
Temporary supply	-	-	-	5.00	5.00
Sale to JUSCO	-	-	-	2.92/2.72	3.13/2.93

A4: PUBLIC CONSULTATION PROCESS

Submission of comments/suggestions and conduct of public hearing

4.1 The petition evoked response from several consumers, and a public hearing was held in Jamshedpur on December 20, 2009 wherein respondents put forth their comments and suggestions before the Commission in the presence of the petitioner. There were 44 members of public who took part in the pubic hearing process. The list of the attendees is attached as Annexure-I.

4.2 The Commission allowed persons/ representatives of entities who had not submitted prior written representations but attended the public hearing to express their views, regarding the ARR and tariff petition in person during the course of public hearing. There were in all 12 persons who filed written comments/made oral submission during public hearing process, as detailed hereunder:

Table 7 List of participants

S. N.	Participant/Organization	Represented by
1	National Metallurgical Laboratory	Sh. Vinod Kumar
2	Sh. S.K. Mahmood	Self
3	Sh. Dharmesh Kumar	Self
4	Sh. Dilip Kumar Jha	Self
5	Sh. Rajesh Kumar	Self
6	Sh. Appa Rao	Self
7	Sh. Sriniwas Rao	Self
8	Sh. Niraj Kumar	Self
9	Sh. Imtiaz	Self
10	Sh. C.M. Dubey	Self
11	Sh. R. N. Singh	Self
12	Sh. Abhimanyu Kumar	Self

4.3 The comments/suggestion raised by the participants during public consultation process, along with the replies given by the petitioner and views of the Commission are given below.

Classification Issue

Public Comments/Suggestions

4.4 NML, a premier non-profit government research & development organisation, has submitted to the Commission to consider it as a "HT Domestic Consumer" instead of "HT Industrial Consumer". NML has also submitted a copy of the agreement between CESC Ltd. – the distribution licensee of Kolkata and Central Glass & Ceramic Research Institute (CGCRI) – a sister concern of NML, in which CGCRI has been considered under domestic category.

TSL's response

4.5 TSL in its ARR & Tariff petition has already proposed to consider government research organizations under the Domestic Supply- HT (DSHT) category. It has requested the Commission to take an appropriate decision in this regard.

Views of the Commission

4.6 The Commission shall separately take up this issue with the petitioner.

NOC and refund of security by JSEB for shifting of connection

Public Comments/Suggestions

4.7 Difficulty in obtaining NOC and refund of security, clearance certificate for shifting the connection from JSEB to the parallel licensee TSL.

TSL's Response

4.8 The matter related to non-issue of NOC and non-refund of security deposit by the first licensee is not related to the petitioner.

Views of the Commission

4.9 There is already a provision in para 7.5 of the JSERC (Electricity Supply Code) Regulations, 2005 regarding issue of NOC. The ATE vide its order dated January 16, 2008 passed in appeal no.122 of 2007 has also issued appropriate directions in this regard.

Other Issues

Public Comments/Suggestions

4.10 The following are the relevant comments and suggestions of the public on other issues:

(a) The consumers face great difficulty in payment of bills because of lack of sufficient number of bill payment counters. It was suggested that drop boxes system should be adopted to facilitate payment of electricity bills in addition to on-line payment facility.

(b) TSL should take up installation of street lights within its area of operation

(c) The response of Customer Care Centre is not upto mark regarding information related to major / minor breakdowns and approximate time for correction of faults.

(d) It was requested that the petition should also be made available in Hindi.

(e) The petition is being signed by an authorized signatory of Tata Steel Ltd., but no detail of post/designation or appointment letter is being provided in the petition.

(f) TSL is also distributing electricity in areas other than areas leased to it by the State Government, which it cannot undertake without permission of the Commission.

(g) TSL is filing its ARR & Tariff petition after 3 years which it should be doing on annual basis.

(h) TSL has outsourced its operational activities without permission of the Commission.

(i) Several figures from the ARR & Tariff petition were also questioned on the ground pretext that these were not substantiated by sufficient proofs.

(j) The requirement of capital expenditure proposed for future years was also questioned in the absence of any contract being awarded or tender process being undertaken by the licensee.

TSL's Response

4.11 The following is the point-wise response of TSL, on the above comments/suggestions:

(a) Every effort has been made to minimize the waiting time at the bill deposit counters. The facility of making payment of electricity bills is being made available to the consumers throughout the month. However, TSL agrees that near the due dates of payment, the rush at collection counters increases which however is noted to be not more than half an hour in majority of the cases. TSL has taken note of the suggestion of providing drop-box facility and also online payment facility to its consumer and submitted that steps shall be taken in this respect.

(b) TSL submits that installation of street lights is the function of the local municipal authority.

(c) TSL submits that every effort is made to inform the consumers regarding any scheduled outage in a particular area through newspaper advertisements, etc. However, in case of major/minor faults and breakdowns, since a large part of its network consists of underground cables, etc. sometimes it is difficult to give a precise time frame for completion of the maintenance work. In such cases, a tentative time period which is usually the outer limit, for correction of fault is communicated to the customer care centres, which in turn is conveyed to the consumers.

(d) The matter related to submission of Tariff petition in Hindi is the prerogative of the Commission and thus TSL has no comments to offer.

(e) Regarding submission of detail of the authorised signatory of the petition, TSL submits that it has submitted the petition under an affidavit in the formats prescribed by the Commission.

(f) Regarding the issue of distribution of electricity in the unauthorized areas, TSL submits that distribution of electricity is being undertaken only in the areas licensed by the Commission and it does not intends to spread outside its licensed area without prior and proper approval of the Commission.

(g) TSL submits that the ARR & Tariff petition is being submitted to the Commission on annual basis and the same is not submitted after 3 years.

(h) Regarding the issue of outsourcing of operational activities by TSL, it is submitted that decisions regarding day to day management of the operational activities are being taken duly considering the operational as well as financial efficiency in the best of the interest of the licensee and its consumers.

(i) Regarding submission of proofs of various figures being mentioned in the petition, it is submitted that as far as practically possible TSL has provided the requisite supportive document required by the Commission and it is not practically feasible to make all these documents a part of the petition document.

(j) TSL has proposed to undertake capital expenditure in anticipation of upcoming demand in the licensed area. TSL has projected lying of network infrastructure well in advance, so that when the demand arises it does find itself off guard. Moreover, these capital expenditure figures are under proposal stage only and TSL has not yet undertaken these activities till now.

Views of the Commission

4.12 The Commission directs the petitioner to initiate the drop-box facility for bill deposition and also develop a plan for online payment of bills.

4.13 The Commission expects that the petitioner to maintain the highest standard of consumer service delivered via enhancement in the services provided through the consumer care centres.

A5: ANALYSIS OF ARR AND TARIFF PETITION FOR FY 2007-08

5.1 The Commission has scrutinized the petition filed by TSL for FY 2007-08. Component-wise details of the petitioner's submission and the Commissions' analysis thereof and approvals applicable for FY 2007-08 have been discussed in this section.

Energy Sales

Petitioner's submission

5.2 The petitioner submitted that the domestic consumption in its licensed area has witnessed continuous growth in the last few years due to changing lifestyle of the consumers as well as due to increase in disposable income of different sections of the society. The industrial consumption has also increased due to the economic upswing.

5.3 The petitioner submitted details of actual number of consumers and energy sales for FY 2006-07 and projected number of consumers and energy sales for FY 2007-08. The following table summarises the category-wise actual and projected number of consumers during FY 2006-07 and FY 2007-08 respectively:

Table 8: Number of Consumers

Category	FY 2006-07 (Actual)	FY 2007-08 (Projected)
Domestic LT	16,330	17,780
Domestic HT	45	45
Commercial	5,345	5,345
High Tension I	39	39
High Tension II	9	9
High Tension III	7	7
Street Lights	1	1
Utilities	1	1
Total	**21,777**	**23,227**

5.4 The category-wise consumption estimates for the above consumers is detailed in the table given below:

Table 9: Projected Energy Sales (MUs)

Category	FY 2006-07 (Actual)	FY 2007-08 (Projected)
Domestic LT	70.22	71.62
Domestic HT	57.50	58.65
Commercial	29.84	30.43

High Tension I	16.53	16.86
High Tension II	57.16	58.30
High Tension III	846.38	864.15
Street Lights	5.55	5.72
Utilities	31.98	32.94
Total	**1115.16**	**1138.67**

Commission's analysis

5.5 The Commission has scrutinized the commercial information in relation to the number of consumers and category-wise units sold, as projected by TSL, for FY 2007-08 on the basis of actual number of consumers and category-wise units sold during FY 2006-07.

5.6 The Commission observed that during FY 2007-08, the licensee has not projected addition in number of consumers in any category except domestic category. However, the units projected to be sold to domestic category are not increased in the proportion of increase in number of domestic consumers.

5.7 Therefore, the Commission approves the category-wise number of consumers and projected units sales as proposed by the petitioner for all categories except domestic category during FY 2007-08. For domestic category, the Commission has computed the estimated sales on the basis of projected increase in number of consumers in this category.

5.8 The table given below summarises the approved number of consumers and consumption for FY 2007-08:

Table 10: Approved Number of Consumers and Sales (FY 2007-08)

Category	Consumers	Units Sold (MUs)
Domestic LT	17,780	73.34
Domestic HT	45	58.65
Commercial	5,345	30.43
High Tension I	39	16.86
High Tension II	9	58.30
High Tension III	7	864.15
Street Lights	1	5.72
Utilities	1	32.94
Total	**23,227**	**1140.39**

Distribution Losses

Petitioner's submission

5.9 The petitioner has estimated an overall distribution loss of 9.92% for FY 2007-08, which is same as that recorded during FY 2006-07. This includes 1% transmission losses and 10MUs losses from pilferage etc.

5.10 The petitioner submitted that it is proposing the same level of loss despite the increased consumption in domestic and LV side, as maintaining the same level of the losses has been made possible due to constant vigil on pilferage and encouraging consumers with un-authorised connections to become regular consumers. Also due to various technological up-gradations like ABC cables, use of electronic meters etc.

5.11 The petitioner also highlighted the fact that its distribution losses are very much lower than the other private utilities elsewhere in the Country whose losses are in the range of 12% to 16%.

Commission's analysis

5.12 While the Commission appreciates the level of distribution losses registered by the licensee, it also observes that the petitioner is not comparable with other private utilities operating in the Country because of the difference in geographical reach, consumer mix, sales mix and number of consumers served by other private utilities.

5.13 Therefore, the Commission feels that there is a scope for further reduction of distribution losses projected by the licensee. However, for the time being the Commission approves the figure of distribution losses projected by the petitioner and will make any adjustment, if required, as and when the actual figures for FY 2007-08 are submitted by the petitioner.

Energy Balance

Petitioner's submission

5.14 The petitioners' projection of energy balance for FY 2007-08 is based on the energy sales projections being grossed up by the projected distribution loss level, to arrive at the quantum of power purchase required to meet the energy sales projections. As the distribution loss level and projected energy sales are estimated as 9.92% and 1138.67 MUs respectively, the estimated quantum of energy required to be purchased at 1264 MUs.

Commission's analysis

5.15 The Commission's estimation of energy balance takes into consideration the approved energy sales level of 1140.39 MUs and distribution loss level of 9.92%. As a result, approved power purchase requirement is marginally increased from 1264.00 MUs, as proposed by the petitioner, to 1265.91 MUs. The following table summarises the approved energy balance:

Table 11: Approved Energy Balance for FY 2007-08

Particulars	Submitted by TSL	Approved by JSERC
Units sales (MUs)	1138.67	1140.39
Distribution losses (%)	*9.92%*	*9.92%*
Units purchase (MUs)	**1264.00**	**1265.91**

Power Purchase Cost

Petitioner's submission

5.16 The petitioner submitted that primarily there are two sources of power purchase TPCL and DVC. The Power Purchase Agreements (PPA) has been executed by the licensee with both these sources in September'1997 and April'2001 respectively. The capacities available to the petitioner consists of 240 MW from TPCL and 85 MVA from DVC, the latter being in the form of contract demand.

5.17 The petitioner projected an average power purchase cost of Rs.2.59 per unit from these sources. The petitioner further submitted that the cost projections are based on existing fuel cost and any increase in fuel cost during FY 2007-08 should be allowed to be passed through in terms of the 'Distribution Tariff Regulations, 2004'.

5.18 The petitioner also submitted that it would continue to optimise the power purchase cost from available sources to meet the peak requirements and minimize the cost impact during off-peak period that varies upto 15-20% within 24 hours as well as during different seasons of the year.

5.19 The details of energy to be procured from TPCL and DVC during FY 2007-08 and the corresponding costs are summarized in table given below:

Table 12: Projected Power Purchase Cost for FY 2007-08

Power Purchase Cost	MUs	Cost /KHz	Total Cost (Rs. Cr)
DVC			
Quantum of purchase	**360**		

Energy Charges		1.63	55.75
Maximum Demand Charges (Rs./kava/M)		365.00	32.75
Fuel surcharge		-	32.4
AMG Energy charges		**-**	2.5
Total		-	**123.40**
Average cost of power		*3.43*	
TPCL			
Quantum of purchase	**1325**		
Energy Charges		0.93	123.23
Fixed Charges		1.40	185.58
Total		-	**308.81**
Average cost of power		*2.33*	-
Transmission Charges	**1685**	**0.03**	**5.06**
TOTAL POWER PURCHASE COST			
Total Power Purchase	**1685**		**437.26**
Transferred to Steel Works	421.01		109.25
Net Power Purchase for Power Distribution	**1263.99**		**328.00**
Average power purchase cost		***2.59***	

Commission's analysis

5.20 The Commission has computed the quantum and rate of power purchase from TPCL on the basis of the Tariff Order on ARR of TPCL for FY 2007-08, issued in January 2010. The Commission approves the power purchase rate of DVC as submitted by the petitioner for FY 2007-08 with the condition that it will be trued-up, as and when the actual rate of power purchase from DVC is submitted by the petitioner. The quantum of power from DVC has been computed on the basis of the balance requirement from the total energy requirement approved in the earlier section, after considering the quantum of energy from TPCL.

5.21 Based on the above, the approved average power purchase cost is computed at Rs.2.52 per unit, as summarized in the table given below:

Table 13: Approved Power Purchase Cost for FY 2007-08

Power Purchase Cost	MUs	Cost /unit	Total Cost (Rs. Cr)
DVC			
Quantum of purchase	**272.77**		
Energy Charges		1.63	42.24
Maximum Demand Charges (Rs./kava/M)		365.00	24.81
Fuel surcharge		-	24.55

AMG Energy charges		-	1.89
Total		-	**93.50**
Average cost of power		*3.43*	
TPCL			
Quantum of purchase	**1414.15**		
Energy Charges		1.01	142.83
Fixed Charges		1.29	182.43
Total		-	**325.25**
Average cost of power		*2.45*	-
Transmission Charges	**1686.92**	**0.03**	**5.06**
TOTAL POWER PURCHASE COST			
Total Power Purchase	**1686.92**		**423.81**
Transferred to Steel Works	421.01		105.89
Net Power Purchase for Power Distribution	**1265.91**		**317.92**
Average power purchase cost		***2.52***	

Employee Cost

Petitioner's submission

5.22 The petitioner has projected an employee cost of Rs.7.29 Cr by escalating the actual employee cost of Rs.6.75 Cr incurred during FY 2006-07 by 8%, to represent hike in wages.

Commission's view

5.23 The Commission approves the employee cost projected by the petitioner.

Repair & Maintenance Expenses

Petitioner's submission

5.24 The petitioner has projected the repair & maintenance (R&M) expenses of Rs.18.25 Cr by escalating the actual R&M expenses incurred during FY 2006-07 by 5%, and by also claiming the proposed expenditure of Rs.2.00 Cr on for consumer metering & indexing.

Commission's view

5.25 The Commission approves the normal escalation projected by the petitioner over the actual expenditure of FY 2006-07. However, the proposed works of consumer metering & indexation being part of capital expenditure have been disallowed. Hence, the Commission approves Rs.16.25 Cr as the R&M expenses for FY 2007-08.

Administrative & General Expenses

Petitioner's submission

5.26 The petitioner has projected the Administrative & General (A&G) expenses of Rs.3.50 Cr by escalating the actual A&G expenses incurred during FY 2006-07 by 3%.

Commission's view

5.27 The Commission approves the A&G expenses projected by the petitioner.

5.28 Thus the total O&M expenses proposed and approved for FY 2007-08 is summarized as under:

Table 14: O&M Expenses for FY 2007-08 (Rs. Cr)

Particulars	Proposed by TSL	Approved by JSERC
Employee Cost	7.29	7.29
A&G expenses	3.50	3.50
R&M expenses	18.25	16.25
Total	**29.04**	**27.04**

Capital Investment Plan

Petitioner's submission

5.29 The petitioner has proposed a capital investment plan of Rs.36.00 Cr for next 3 years with the objective to strengthen the overall transmission and distribution system. The capital expenditure is proposed to be phased out in 3 years starting from FY 2007-08. The capital expenditure proposed for FY 2007-08 is Rs.15.00 Cr.

5.30 The capital investment plan proposed by the petitioner is detailed hereunder:

Table 15 Proposed Capital Investment plan for FY 2007-08 (Rs Cr)

S No.	Particulars	Capital Investment (Phasing for FY 2007-08)
1.	Installation of 15 MVA transformer at Tinplate Area substation with 33 Kava and associated 6.6 Kava feeder	2
2.	Strengthening of HT Feeder and conversion of over head HT feeders into underground feeders in to town	1
3.	Installation of 2nd 15 MVA transformers at town yard	1
4.	Augmentation of Power Supply in town	1
5.	Up gradation of electrics in employee accommodations	1

6.	Augmentation of Power Supply in Company housing complexes	1
7.	132 Kava line from Jojoba to Sonar	8
	Total Capital Investment Plan	**15**

Commission's analysis

5.31 The Commission approves the capital investment plan of Rs.15.00 Cr for FY 2007-08 as submitted by the petitioner.

CWIP & Gross Fixed Asset

Petitioner's submission

5.32 The petitioner submitted that it will be able to capitalise Rs.8.00 Cr of the CWIP during FY 2007-08. The following capitalisation schedule has been proposed by the petitioner :

Table 16: Proposed GFA for FY 2007-08 (Rs. Cr)

Asset Class	Closing GFA of FY 06	Addition during FY 07	Closing GFA of FY 07	Addition during FY 08	Closing GFA for FY 08
Land	0.30	-	0.30	0.00	0.30
Building	9.04	-	9.04	0.00	9.04
Network Assets	120.31	4.23	124.55	8.00	132.55
Total	**129.65**	**4.23**	**133.89**	**8.00**	**141.89**

Commission's analysis

5.33 The Commission considered the audited accounts of the petitioner for FY 2005-06 and FY 2006-07 as a basis for approving the Capital work-in-progress (CWIP) and Gross Fixed Assets (GFA) of the petitioner for FY 2007-08. Based on the audited accounts, the Commission has determined the average conversion rate of total CWIP into fixed assets during previous years. After taking into account the determined conversion rate of 81%, the asset capitalised during FY 2007-08 amounts to Rs.14.36 Cr. The table given below summarises the approved CWIP for FY 2007-08:

Table 17: Approved CWIP for FY 2007-08 (Rs. Cr)

Particulars	Amount
Opening CWIP	2.76
Capex During the Year	15.00
Total CWIP	17.76
Less. Transferred to Fixed Assets (FA)	14.36
Closing CWIP	**3.40**
Average Conversion Rate	*81%*

5.34 On the basis of approved CWIP as detailed above, value of approved GFA for FY 2007-08 is detailed hereunder:

Table 18: Approved GFA for FY 2007-08 (Rs. In Cr)

Particulars	Amount
Opening balance of GFA	110.76
Add: Transferred from CWIP	14.36
Closing balance of GFA	**125.12**

Depreciation

Petitioner's submission

5.35 The petitioner submitted that it has been maintaining its distribution assets under the broad classification of: land, building, plant & machinery, furniture, computer & IT and civil structure. Re-classification of these assets as per the 'Distribution Tariff Regulations, 2004' is not practically feasible at this point of time.

5.36 The computation of depreciation charge is based on the straight-line method (SLM) at the rates prescribed in the Companies Act, 1956. Accordingly, the depreciation charge for FY 2007-08 has been estimated to be Rs.8.03 Cr.

Commission's analysis

5.37 The 'Distribution Tariff Regulations, 2004' specify that depreciation shall be calculated annually as per SLM at the rates of depreciation prescribed in the schedule attached to the said Regulations in Appendix-II. Further, it is provided that capital base for the purpose of depreciation shall be the historical cost of the asset with the residual life of the asset being 10% of its approved original cost.

5.38 However, in view of the petitioner inability to classify its distribution assets in accordance with Appendix II of the 'Distribution Tariff Regulations, 2004', the Commission has for the time being considered the classification as proposed by the petitioner.

5.39 The depreciation rate is computed on the basis of the audited accounts of the petitioner for FY 2006-07 on the average GFA during FY 2006-07, which amounts to 4.49%. The calculation of depreciation rate base is detailed in the table given below:

Table 19: Calculation of Rate Base for FY 2007-08(Rs. Cr)

Particulars	Amount
GFA as on 1.4..2006	99.10
GFA as on 31.3.2007	110.76
Average GFA for FY 2006-07 (A)	104.93
Depreciation Charge for FY 2006-07 (B)	4.71
Deprecation rate base (B/A) (%)	**4.49%**

5.40 The Depreciation rate base of 4.49% is applied on the average GFA of Rs.114.77 Cr during FY 2007-08 to determine the depreciation charge for FY 2007-08. Consequently, the depreciation charge for FY 2007-08 amounts to Rs.5.16 Cr, which is adjusted with depreciation charge on assets funded through consumer contribution.

5.41 Accordingly, Commission approves depreciation charge of Rs.4.75 Cr for FY 2007-08, as summarised in the table given below:

Table 20 Proposed and Approved Depreciation Charges (Rs. Cr)

Items & Assets	Proposed depreciation rate	Proposed depreciation	Approved depreciation rate	Approved depreciation
Land	0.00%	0.00	0.00%	0.00
Building	6.15%	0.56	6.15%	0.37
Network Assets	5.81%	7.47	5.81%	4.93
Total Depreciation Charge		**8.03**		**5.30**
Less: Depreciation on assets created out of consumer contribution				0.54
Net Depreciation				**4.75**
Closing Balance of GFA		*141.89*		*125.12*
Average GFA				***117.94***
Depreciation as a % of Av. GFA		*5.66%*		*4.49%*

Debt and Equity Components

Petitioner's submission

5.42 The petitioner submitted that it has funded the entire capital expenditure through its own resources and thus claimed interest on loan and RoE based on the normative debt and equity.

5.43 The petitioner has considered normative equity to be equal to 30% of the gross fixed assets (GFA) at the end of FY 2007-08 and the normative debt has been considered as net fixed assets (NFA) minus normative equity at the end of FY 2007-08.

Commission's analysis

5.44 The 'Distribution Tariff Regulations, 2004' states that:

> *"Debt Equity ratio for the purpose of determination of tariff shall be 70:30.Where equity employed is more than 30%, the amount of equity for the purpose of tariff shall be limited to 30%. Where actual equity employed is less than 30%, the actual equity shall be considered."*

5.45 Accordingly, the Commission determined the normative debt and equity in the ratio of 70:30 of the value of GFA after adjusting the consumer contribution. Normative repayment of loan is deemed to be equal to the depreciation charge during the year. The table given below summarises the proposed and approved normative capital structure of the petitioner for FY 2007-08:

Table 21: Normative Capital Structure for FY 2007-08 (Rs. Cr)

Particulars	Proposed by TSL	Approved by JSERC
Gross Fixed Assets	**149.89**	**125.12**
Less: Accumulated Depreciation	66.70	46.46
Net Fixed Assets	**83.19**	**78.67**
Sources:		
Consumer Contribution	0.00	12.86
Equity	44.97	33.68
Normative Loans (net of depreciation)	38.22	32.13
Total	**83.19**	**78.67**

Interest and Other Finance Charges

Petitioner's submission

5.46 The petitioner has proposed interest and other finance charges of Rs.9.26 Cr. It has proposed a working capital of Rs.36.05 Cr for FY 2007-08 consisting of receivables of 2 months sale (excluding the HT3 consumption), average bank balance towards power procurement less the security deposit. The interest on normative working capital has been calculated by applying an interest rate of 13.5%.

5.47 The table given below summarises the break-up of the amount projected by the petitioner, as interest and finance charges:

Table 22: Proposed interest and finance charges (Rs. Cr)

Particulars	FY 2007-08
Interest on Normative Debt @ 11.5%	4.40
Interest on Working Capital @13.5%	4.87
Total	**9.26**

Commission's analysis

5.48 In accordance with the generally accepted accounting principles and the norms specified in the 'Distribution Tariff Regulations', interest on loan is computed on the average loan outstanding during the year. Accordingly, the interest on normative loan is computed on the average balance during FY 2007-08, by applying an interest rate of 11.50%, as proposed by the petitioner.

5.49 The normative interest amount approved by the Commission for FY 2007-08 amounts to Rs.3.42 Cr as detailed in the table given below:

Table 23: Approved interest on normative loan for FY 2007-08 (Rs. in Cr)

Particulars	Amount
Opening Balance	27.38
Deemed Addition during the year	9.51
Deemed Repayments	4.75
Closing Balance	**32.13**
Average balance during the Year	29.75
Interest Rate	*11.5%*
Interest Payment	**3.42**
Less: Capitalized	-
Net interest	**3.42**

5.50 In accordance with Regulation 13 of 'Distribution Tariff Regulations, 2004' the interest on working capital shall be allowed to meet the shortfall in collection over and above the target approved by the Commission.

5.51 However, in view of the genuine business requirement of the petitioner, the Commission is allowing the interest on the working capital base of Rs.35.64 Cr, at the prevailing sub-prime lending rate of SBI, which is 12.25% p.a. The table given below summarises the approved interest on working capital for FY 2007-08:

Table 24: Approved Interest on working capital for FY 2007-08 (Rs. Cr)

Particulars	Amount
Receivables for 2 months' sale	10.00
Average Bank Balance required for 1 month of power purchase	27.00
Sub total	**37.00**
Less: Security deposit	1.36
Total Working Capital	**35.64**
Rate of interest	*12.25%*
Interest on Working Capital	**4.37**

5.52 Regulation 13 of the 'Distribution Tariff Regulations, 2004' states that "interest on consumer security deposits shall be equivalent to the bank rate or more, as may be specified by the Commission from time to time."

5.53 The consumer security deposit for FY 2007-08 has been projected based on projected addition of consumers during FY 2007-08. The interest on consumer security deposit has been computed @ 5.75% p.a, being the bank rate. The Commission approves an interest on security deposit of Rs. 0.11 Cr for FY 2007-08.

Total Interest and Finance Charges

5.54 As per the analysis of the Commission detailed above, the approved interest and finance charges for the FY 2007-08 amounts to Rs.7.89 Cr, as summarised in the table given below:

Table 25 Approved Interest and Other Finance Charges (Rs. Cr)

Particulars	Amount
Interest on Debt	3.42
Interest on Security Deposit	0.11
Interest on Working Capital	4.37
Total	**7.89**

Return on Equity (RoE)

Petitioner's submission

5.55 The petitioner has calculated RoE on the equity base of Rs.44.97 Cr at the rate of 14%, which amounts to Rs.6.30 Cr. However, the petitioner submitted that as the distribution business has more risk than the generation and transmission business, a higher return of 16% should be allowed.

Commission's analysis

5.56 The Commission determined RoE on the approved equity base of Rs.31.77 Cr at the rate of 14% as specified by Regulation 20.1 of the 'Distribution Tariff Regulations, 2004'. The following table summarises the return on equity for FY 2007-08:

Table 26 Proposed and approved Return on Equity for FY 2007-08 (Rs. Cr)

Description	Proposed by TSL	Approved by JSERC
Normative Equity	44.97	33.68
Rate of return	*14%*	*14%*
RoE	**6.30**	**4.72**

Income Tax

Petitioner's submission

5.57 The petitioner has proposed a tax liability of Rs.4.96 Cr for the FY 2007-08, based on the proposed RoE of Rs.6.30 Cr.

Commission's analysis

5.58 In view of the approved RoE of Rs.4.72 Cr, the Commission approves the tax expense of Rs.3.71 Cr., as shown below:

Table 27 Proposed and approved Income Tax for FY 2007-08 (Rs. Cr)

Particulars	Submitted by TSL	Approved by JSERC
Income Tax	4.96	3.71

Non Tariff Income (NTI)

Petitioner's submission

5.59 The petitioner has proposed a total of Rs.4.06 Cr, as NTI from sources such as meter rent, miscellaneous charges form consumers, delayed payment surcharge, etc. during FY 2007-08.

Commission's analysis

5.60 The Commission has computed the NTI by increasing the miscellaneous charges in the proportion of increase in number of consumers and accordingly approves NTI of Rs.5.06 Cr., as summarised in the table given below:

Table 28 Proposed and approved NTI for FY 2007-08 (Rs. Cr)

Particulars	Submitted by TSL	Approved by JSERC
Meter Rent	0.43	0.54
Misc Charges from Consumers	3.63	4.52
DPS	0.00	0.00
Total	**4.06**	**5.06**

Revenue from Existing Tariff

Petitioner's submission

5.61 The petitioner has submitted the consumer category-wise revenue from existing tariffs for FY 2007-08, on the basis of the projected number of consumers and sales for each category of consumer. The revenues from existing tariff amounts to Rs.384.85 Cr for the FY 2007-08.

Commission's Analysis

5.62 On the basis of approved sales estimation to various categories of consumers the Commission approves the revenue from sale of power amounting to Rs.385.33 Cr., as detailed in the table given hereunder

Table 29 Approved Revenue from existing tariffs for FY 2007-08 (Rs. In Cr)

S. No.	Consumer Category	No. of Consumers	Consumption	Contract demand / Connected Load	Fixed Charge	Energy Charge	Revenue from Fixed Charge	Revenue from Energy Charge	Total Revenue
		Nos.	Million Units	kW/BHP/kVA	Rs./kW Rs./kVA, Rs./BHP, Rs/month/connection	Rs./kWh OR Rs./kVAh	Rs. Cr (yearly)	Rs. Cr (yearly)	Rs. Cr (yearly)
1	Domestic	17,780	73.34	-	-	-	0	20	20.65
2	Domestic HT	45	58.65	-	275	3	0	16	15.86
3	Commercial Supply	5,345	30.43	-	220 V - Rs. 15 / 440 V - Rs. 75	4	0	13	13.28
4	High Tension Service								
	HT-1 (100-500 kVA)	39	16.86	-	200	3	0	6	6.05

	HT-2 (500-5000 kVA)	9	58.30	-	200	3	2	19	20.58
	HT-3 (5000 kVA or more)	7	864.15	-	180	3	21	277	297.70
	Sub Total HTS	55	939.31	-	-	-	23	301	324.33
5	Street Light	1	5.72	-	-	3	-	2	1.66
6	Utilities	1	32.94	-	-	3	-	10	9.55
	Total Within State	**23227**	**1140.38**				**23.70**	**361.63**	**385.33**

Summary of ARR for FY 2007-08 and treatment of revenue gap

5.63 In view of the above, the ARR of the petitioner for FY 2007-08 along with the revenues at existing tariffs and revenue gap for FY 2007-08 is summarised in the table given below:

Table 30 Summary of Annual Revenue Requirement (Rs.Cr)

Particulars	Submitted by TSL	Approved by JSERC
Power Purchase Cost	328.00	317.92
O&M Expenses	29.04	27.04
Interest & Other Finance Charges	9.26	7.89
Return on Equity	6.30	4.72
Depreciation	8.03	4.75
Income tax	4.96	3.71
***Less:* Expenses Capitalised**	-	-
Total Costs	**385.59**	**366.58**
Less: Non-tariff income	4.06	5.06
Annual Revenue Requirement	**381.53**	**360.98**
Revenue @Existing tariff	**384.85**	**385.33**
Revenue (gap)/surplus	**3.32**	**24.35**

5.64 The cumulative revenue surplus approved by the Commission for FY 2007-08 is **Rs. 24.35 Cr** as against the revenue surplus of **Rs.3.32 Cr** proposed by the petitioner. Since there is no revenue gap and since the petition has been analyzed and reviewed after the end of the tariff period, the Commission has decided not to make any revision in applicable tariff schedule.

A6: COMMISSION'S ANALYSIS OF ARR AND TARIFF PETITION FOR FY 2008-09

6.1 The Commission has scrutinized the petition filed by TSL for FY 2008-09. The Component-wise details of the Petitioner's submission and the Commission's analysis and approvals applicable for FY 2008-09 have been discussed in this section.

Energy Sales

Petitioner's submission

6.2 The petitioner submitted that the domestic consumption in its licensed area has witnessed continuous growth in the last few years due to changing lifestyle of the consumers as well as increase in disposable income of different sections of the society. The industrial consumption also increased due to the economic upswing.

6.3 The category-wise actual number of consumers and projected number of consumers for FY 2008-09 is detailed hereunder:

Table 31: No. of Consumers

Category	FY 08 (Actual)	FY09 (Projected)
Domestic LT	19,465	20,000
Domestic HT	80	82
Commercial	6,312	6,800
High Tension I	36	36
High Tension II	12	15
High Tension III	9	9
Street Lights	1	1
Utilities	1	1
Sale to JUSCO	-	
132 kV	-	1
33 kV	-	1
Total	**25,916**	**26,946**

6.4 The category-wise consumption estimates for the above consumers is detailed in the table given below:

Table 32: Details of category-wise projected energy sales (MUs)

Category	FY 08 (Actual)	FY09 (Projected)
Domestic LT	80.23	91.50

Domestic HT	57.56	65.51
Commercial	32.06	35.35
High Tension I	14.48	17.68
High Tension II	58.70	67.59
High Tension III	840.09	873.02
Street Lights	6.86	8.32
Utilities	33.06	36.39
Sale to Other Licensee (JUSCO)		
132 kV	0.00	10.00
33 kV	0.00	30.00
Total units	**1123.04**	**1235.36**

Commission's analysis

6.5 The Commission observes that during FY 2008-09, licensee has projected addition in number of consumers in the case of

(a) domestic category-both HT & LT

(b) commercial;

(c) HT-II; and

(d) (iv) JUSCO-for distribution in its licensed area.

6.6 The Commission scrutinized the commercial information in relation to the number of consumers and category-wise units projected to be sold by the licensee for FY 2008-09 on the basis of actual figures for FY 2007-08. The Commission accepts the basis of projection and approves the number of consumers and sales projected by the petitioner.

Distribution Losses

Petitioner's submission

6.7 The petitioner projected an overall distribution loss level of 8.71% for FY 2008-09, which is similar to the distribution losses during FY 2007-08.

6.8 The petitioner has submitted that it is proposing the similar loss level despite the increased consumption in domestic and LV side. It is further submitted that it has been able to propose the similar loss level due to constant vigil on pilferage and encouraging consumers with un-authorised connections to become regular consumers. Also, due to various technological up-gradations like ABC cables, use of electronic meters etc.

6.9 The petitioner also highlighted the fact that its distribution losses are very much lower than the other private utilities elsewhere in the Country who have reported losses in the range of 12% to 16%.

Commission's analysis

6.10 While the Commission appreciates the lower level of distribution losses registered by the licensee, it restates that the petitioner is not comparable with other private utilities operating in the Country because of difference in geographical reach, consumer mix, sales-mix and number of consumers served by other private utilities.

6.11 Therefore, the Commission feels that there is scope for further reduction in the distribution losses projected by the licensee. However, for the time being the Commission accepts the figure of distribution losses as projected by the licensee and will make adjustment as and when the actual figures for FY 2008-09 are made available to the Commission.

Energy Balance

Petitioner's submission

6.12 The Petitioner's projection of energy balance for FY 2008-09 is based on the energy sales projections being grossed up by an estimated distribution loss level, in order to arrive at the quantum of power purchase required to meet the expected demand. With the loss level and total energy sales being estimated at 8.71% and 1235.36 MUs respectively, the Petitioner's estimated energy requirement comes to 1353.19 MUs for FY 2008-09.

Commission's analysis

6.13 The Commissions approves the energy balance proposed by the petitioner. The following table summarises the proposed and approved energy balance:

Table 33: Approved Energy Balance for FY 2008-09

Energy Balance	Projected
Units sales (MUs)	1235.36
Distribution losses (%)	*8.71%*
Units purchase (MUs)	1353.19

Power Purchase Cost

Petitioner's submission

6.14 The petitioner submitted that primarily there are two sources of power purchase TPCL and DVC. The Power Purchase Agreements (PPA) has been executed by the licensee with both these sources in September'1997 and April'2001 respectively. The capacities available to the petitioner consists of 240 MW from TPCL and 85 MVA from DVC, the latter being in the form of contract demand.

6.15 However, in order to meet the power shortage during outage of generating units at TPCL and power drawl restrictions from DVC, the petitioner also proposes to procure power by short-term bilateral purchase from other generators or traders or licensees, as the case may be. Accordingly, the petitioner has projected a short-term power purchase of 21.60 MUs at the rate of Rs.8.50/unit.

6.16 The petitioner has projected the average power purchase cost of Rs.2.80/unit from all the above-mentioned sources of power. It has further submitted that the cost projections have been based on existing fuel cost and any increase in these during FY 2008-09 should be allowed to be pass through in line with the terms of the 'Distribution Tariff Regulations, 2004'.

6.17 The petitioner has submitted that it would continue to optimise the power purchase cost from different sources to meet the peak requirements and minimize the cost impacts during off-peak period that varies upto 15-20% within 24 hours as well as during different seasons of the year.

6.18 The details of source-wise energy to be procured during FY 2008-09 and the corresponding costs are summarized in table given below:

Table 34: Projected Power Purchase Cost for FY 2008-09

Power Purchase Cost	MUs	Cost /unit	Total Cost (Rs. Cr)
DVC			
Quantum of purchase	**406.90**		
Average power purchase cost		*3.33*	135.50
Total	**406.90**		**135.50**
TPCL			
Quantum of purchase	**1438.04**		
Energy Charges		1.23	176.88
Fixed Charges		1.33	191.26
Total	**1438.04**		**368.14**

Average power purchase cost		*2.56*	
Open Access	**21.60**	**8.50**	**18.36**
TOTAL POWER PURCHASE COST			
Total power purchase	**1866.54**		**522.00**
Transferred to Steel Works	**513.35**		**143.56**
Net Power Purchase for Power Distribution	**1353.19**		**378.43**
Average power purchase cost		***2.80***	

Commission's analysis

6.19 The Commission has computed the quantum and rate of power purchase from TPCL on the basis of the Tariff Order on ARR of TPCL for FY 2007-08, issued in January 2010. The Commission has also approved the quantum of short term purchase from other sources at 21.60 MUs, as proposed by the petitioner. The quantum of power from DVC has been computed on the basis of the balance requirement from the total energy requirement approved in the earlier section, after considering the quantum of energy from TPCL and short-term purchase.

6.20 The Commission approves the power purchase rate of DVC as submitted by the petitioner for FY 2007-08 with the condition that it will be trued-up, as and when the actual rate of power purchase from DVC is submitted by the petitioner.

6.21 The Commission considers the proposed power purchase rate of short-term power to be too high and approves the short-term power purchase rate at the same level as that approved for the power purchased from DVC, with the condition that it will be trued- up as and when the actual rate of power purchase from other sources is made available, subject to prudence check by the Commission.

6.22 Based on this the approved details of source-wise energy to be procured during FY 2008-09 and the corresponding costs involved are tabulated below:

Table 35: Approved Power Purchase Cost for FY 2008-09

Power Purchase Cost	MUs	Cost /unit	Total Cost (Rs. Cr)
DVC			
Quantum of purchase	**413.29**		
Average power purchase cost		*3.33*	137.63
Total	**413.29**		**137.63**
TPCL			
Quantum of purchase	**1431.65**		
Energy Charges		1.23	176.88

Fixed Charges		1.30	186.95
Total	**1431.65**		**363.82**
Average power purchase cost		*2.53*	
Open Access	**21.60**	3.33	**7.19**
TOTAL POWER PURCHASE COST			
Total power purchase	**1866.54**		**508.64**
Transferred to Steel Works	**513.35**		**139.89**
Net Power Purchase for Power Distribution	**1353.19**		**368.75**
Average power purchase cost		***2.73***	

Operations & Maintenance Expenses

Petitioner's submission

6.23 Operations and maintenance expenses consists of (a) employee cost; (b) repair & maintenance expenditure; & (c) administrative & general expenses.

6.24 The petitioner has submitted that it has outsourced major part of its operation & maintenance of power distribution business to its 100% subsidiary, JUSCO. For FY 2008-09, the petitioner has projected an O&M expense of Rs.37.04 Cr, which is 16% more than the O&M expenses registered during FY 2007-08.

6.25 TSL has submitted that its power distribution network is expanding every year and so are its load & energy sales. In order to meet these requirements, licensee requires additional O&M expenses. The petitioner has further justified its claim by comparing the O&M expenses as a percentage of ARR with Torrent Power and BRPL. O&M expenses as a percentage of ARR are 9.18% and 8.96% in case of Torrent Power and BRPL respectively.

Commissions view

6.26 The Commission acknowledges the fact that the O&M expenses as a percentage of ARR of the petitioner is lower than some other private utilities. The Commission also approves the 16% inflation factor considered by the petitioner to project the O&M expenses and hence approves the O&M expenditure proposed by the petitioner.

Table 36: Proposed and Approved O&M Expenses (Rs. Cr)

	FY 2007-08	FY 2008-09
O&M Expenses	31.89	37.04
% increase		*16%*

Capital Investment Plan

Petitioner's submission

6.27 The petitioner has proposed a capital investment plan of Rs.126 Cr for next 5 years with the objective to strengthen the overall transmission and distribution system. The capital expenditure is proposed to be phased out in 5 years starting from FY 2008-09. The capital expenditure proposed for FY 2008-09 is Rs.18.98 Cr.

6.28 The capital investment plan proposed by the petitioner is detailed hereunder:

Table 37 Proposed Capital Investment plan for FY 2008-09 (Rs. Cr)

S No.	Particulars	Capital Investment (Phasing for FY 2008-09)
1.	Installation of 15 MVA transformer at Tinplate Area substation with 33 Kv	1.18
2.	132 Kv Transmission line from Jojobera to Sonari	8
3.	Installation of 2nd 15 MVA transformers at L town yard	1.3
4.	Augmentation of Power Supply in Bistpur, Sakchi, Kadma, Golmuri etc	4
5.	To set up 6.6 Kv distribution network from 2nd 15 MVA transformers at L town yard	1
6.	Installation of 2nd 15 MVA transformers at Sonari	0.7
7.	Augmentation of distribution network in Sonari, Bhatia Basti, Ullliyan, Shahstri Nagar, Chota Govindpur, Govindpur etc	2.4
8.	Installation of meters at all Street Lights	0.1
9.	Strengthening of Testing & maintenance facilities for distribution equipment	0.3
	Total Capital Investment Plan	**18.98**

Commission's analysis

6.29 The Commission accepts the capital investment plan for FY 2008-09 submitted by the petitioner.

CWIP & Gross Fixed Asset

Petitioner's submission

6.30 The petitioner has submitted that it would be able to capitalise Rs.17.94 Cr during FY 2008-09.

Commission's analysis

6.31 The Commission considered the audited accounts of the petitioner for FY 2007-08 as a basis for calculating the CWIP and Gross Fixed Assets (GFA) of the petitioner for FY 2008-09.

6.32 Based on the audited accounts of previous years, the Commission determined the average conversion rate of total CWIP into fixed assets. Thus, considering the determined conversion rate of 35%, the asset capitalised during FY 2008-09 amounts to Rs.9.84 Cr. The table given below summarises the calculation of CWIP for FY 2008-09:

Table 38: Approved CWIP for FY 2008-09(Rs. In Cr)

Particulars	FY 2008-09
Opening CWIP	8.88
Capex During the Year	19.00
Total CWIP	27.88
Less. Transferred to FA	9.84
Closing CWIP	**18.04**
Average Conversion	***35%***

6.33 On the basis of CWIP as calculated above, value of approved GFA for FY 2008-09 is shown hereunder:

Table 39: Approved GFA for FY 2008-09 (Rs. Cr)

Particulars	FY 2008-09
Opening balance	115.61
Add: Transferred from CWIP	9.84
Closing balance	**125.45**

Depreciation

Petitioner's submission

6.34 The petitioner has submitted that it has been maintaining its distribution assets under the broad classification of: land, building, plant & machinery, furniture, computer & IT and civil structure. Re-classification of these assets as per 'Distribution Tariff Regulations, 2004' is not practically feasible at this point of time.

6.35 The computation of depreciation charge is based on the straight-line method (SLM) at the rates as per the Companies Act, 1956. The depreciation charge for FY 2008-09 has been estimated to be Rs.5.92 Cr.

Commission's analysis

6.36 The 'Distribution Tariff Regulations,2004' specify that the depreciation shall be calculated annually as per the SLM at the rate of depreciation as prescribed in the schedule attached to the Regulations at Appendix-II. Further, it is provided that capital base for the purpose of depreciation shall be the historical cost with the residual life of the asset being 10% of its approved original cost. However, in view of the Petitioner's inability to classify its distribution assets in accordance with Appendix II, the Commission has for the time being considered the classification and depreciation rates as proposed by the petitioner.

6.37 The Commission has considered the average depreciation rate of 4.57% calculated as a percentage of depreciation charge on average closing GFA for FY 2006-07 and FY 2007-08 as stated in the audited accounts. The calculation of rate base is detailed in the table given below:

Table 40: Calculation of Rate Base (Rs. Cr)

Particulars	Amount
GFA as on 1.4..2007	110.76
GFA as on 31.3.2008	115.61
Average GFA for FY 2007-08(A)	113.18
Depreciation Charge for FY 2007-08(B)	5.18
Depreciation rate(B/A)	4.57%

6.38 The above depreciation rate has been applied to calculate the approved depreciation charge for FY 2008-09 on the average GFA of Rs.120.53 Cr. The depreciation charge of Rs.5.51 Cr thus arrived is further reduced in the proportion of assets funded by way of consumer contribution. Accordingly, the Commission approves depreciation charge of Rs. 4.85 Cores for FY 2008-09 as summarized in the table given below:

Table 41 Proposed and approved depreciation costs (Rs. Cr)

Items & Assets	petition depreciation	petition depreciation rate	Approved depreciation rate	Approved depreciation
Land	0.00	0.00%	0.00%	0.00
Building	0.03	1.62%	1.62%	0.02
Network Assets	5.86	4.61%	4.61%	5.45
Furniture & Fixtures	0.03	14.58%	14.58%	0.03
Vehicles	0.01	7.19%	7.19%	0.01
Total Depreciation Cost	**5.92**			**5.51**
Less: Depreciation on assets created out of consumer contribution				0.66
Net Depreciation				**4.85**

Closing Balance of GFA	129.19			125.45
Average GFA				**120.53**
Depreciation as a % of GFA	4.58%			4.57%

Debt and Equity Components

Petitioner's submission

6.39 The petitioner has submitted that it has funded the entire capital expenditure through its own resources and thus claimed interest on loan and return on equity on the normative debt and equity.

6.40 The petitioner has computed normative equity to be equal to 30% of the gross fixed assets at the end of FY 2008-09 and the normative debt has been considered as net fixed assets minus equity at the end of FY 2008-09.

Commission's analysis

6.41 The 'Distribution Tariff Regulations, 2004' states that:

"Debt Equity ratio for the purpose of determination of tariff shall be 70:30.Where equity employed is more than 30%, the amount of equity for the purpose of tariff shall be limited to 30%. Where actual equity employed is less than 30%, the actual equity shall be considered."

6.42 Accordingly, the Commission has calculated the normative debt and equity in the ratio of 70:30 of the value of GFA after adjusting the consumer contribution of Rs.16.19 Cr. Normative repayment of loan is deemed to be equal to the depreciation charge during the year. The table given below summarises the proposed and approved normative capital structure of the petitioner for FY 2008-09:

Table 42: Normative Capital Structure for FY 2008-09 (Rs. Cr)

Particulars	Submitted by TSL	Approved by JSERC
Gross Fixed Assets	**138.11**	**125.45**
Less: Accumulated Depreciation	55.05	60.56
Net Fixed Assets	**83.06**	**64.89**
Sources:		
Consumer Contribution	16.19	16.19
Equity	41.43	32.78
Normative Loans(net of depreciation)	25.44	15.92
Total	**83.06**	**64.89**

Interest and Other Finance Charges

Petitioner's submission

6.43 The petitioner has proposed the interest and other finance charges to the tune of Rs. 6.80 Cr. The table given below summarises the break-up of the amount proposed by the petitioner, as interest charges:

Table 43 Interest and Finance charges proposed by the petitioner (Rs. Cr)

Particulars	FY 2008-09
Interest on Normative Debt @ 11.5%	2.99
Interest on Security Deposit	0.19
Interest on Working Capital @13.5%	3.62
Total	**6.80**

6.44 The petitioner has proposed a working capital of Rs.26.82 Cr for FY 2008-09 consisting of receivables of 2 months (excluding the HT3 consumption), average bank balance towards power procurement less the security deposit. The interest on normative working capital has been calculated by applying an interest rate of 13.5%.

Commission's analysis

6.45 In accordance with the generally accepted accounting principles and norms specified in the 'Distribution Tariff Regulations, 2004', the interest on loan is computed on the average loan outstanding during the year. Accordingly, the interest on normative loan has been computed on the average balance during FY 2008-09 by applying an interest rate of 11.50%, as proposed by the petitioner. Thus, the normative interest amount approved by the Commission for FY 2008-09 amounts to Rs.2.30 Cr as detailed in the table given below:

Table 44: Approved Interest on Loan for FY 2008-09 (Rs. Cr)

Particulars	Amount
Opening Balance	23.26
Deemed Addition during the year	(2.49)
Deemed Repayments	4.85
Closing Balance	15.92
Average balance during the Year	19.59
Interest Rate	*11.75%*
Interest Payment	**2.30**

6.46 In accordance with Regulation 13 of the 'Distribution Tariff Regulations, 2004' the interest on working capital shall be allowed to meet the shortfall in collection over and above the target approved by the Commission.

6.47 However, in view of the genuine business requirement of the petitioner, the Commission is allowing the interest on the working capital base of Rs.26.69 Cr at the prevailing sub-prime lending rate of SBI, which is 12.25%. The table given below summarises the approved interest on working capital for FY 2008-09:

Table 45 Approved interest on Working Capital for FY 2008-09 (Rs. Cr)

Particulars	Amount
Receivables for 2 months' sale	8.35
Average Bank Balance required for 1 month of power purchase	21.82
Sub total	**30.17**
Less: Security deposit	3.48
Total Working Capital	**26.69**
Rate of interest	*12.25%*
Interest on Working Capital	**3.27**

6.48 Regulation 13 of the 'Distribution Tariff Regulations,2004' states that "interest on consumer security deposits shall be equivalent to the bank rate or more, as may be specified by the Commission from time to time."

6.49 The consumer security deposit for FY 2008-09 has been projected based on projected addition of consumers during FY 2008-09. The interest on consumer security deposit has been computed @ 5.75% p.a, being the bank rate. Accordingly, The Commission has computed and approved the interest on security deposit of Rs. 0.20 Cr for FY 2008-09.

6.50 The approved interest and finance charges for the FY 2008-09 are summarised in the table given below:

Table 46 Approved interest and other finance charges (Rs. In Cr)

Particulars	Submitted by TSL	Approved by JSERC
Interest on Debt	2.99	2.30
Interest on Security Deposit	0.19	0.20
Interest on Working Capital	3.62	3.27
Total	**6.80**	**5.77**

Return on Equity

Petitioner's submission

6.51 The petitioner has calculated the RoE on the equity base as calculated above at the rate of 16% amounting to Rs.6.63 Cr.

Commission's analysis

6.52 The Commission has calculated the RoE on the approved equity base of Rs.31.77 Cr at the rate of 14% as specified by Regulation 20.1 of the 'Distribution Tariff Regulations, 2004'. The following table summarises the proposed and approved RoE for FY 2008-09:

Table 47 Proposed and approved Return on Equity (Rs. Cr)

Description	Submitted by TSL	Approved by JSERC
Normative Equity	41.43	32.78
Rate of return	*16%*	*14%*
Return on Equity	**6.63**	**4.59**

Income Tax

Petitioner's submission

6.53 The petitioner has proposed a tax liability of Rs.3.29 Cr for the FY 2008-09 based on the proposed RoE of Rs.6.63 Cr.

Commission's analysis

6.54 In view of the approved RoE of Rs.4.59 Cr, the Commission approves the tax expense of Rs.2.28 Cr.

Table 48 Proposed and approved Income Tax for FY 2008-09 (Rs. Cr)

Particulars	Submitted by TSL	Approved by JSERC
Income Tax	3.29	2.28

Non Tariff Income (NTI)

Petitioner's submission

6.55 The petitioner has proposed a total of Rs.5.61 Cr as income from non-tariff sources such as meter rent, miscellaneous charges form consumers, delayed payment surcharge, etc. during FY 2008-09.

Commission's analysis

6.56 The Commission has computed the non-tariff income by considering the Miscellaneous charges in the proportion of increase in number of consumers and accordingly approves an amount of Rs.5.83 Cr as summarised in the table given below:

Table 49 Proposed and approved NTI for FY 2008-09 (Rs. Cr)

Particulars	Submitted by TSL	Approved by JSERC
Meter Rent	0.39	0.41
Misc Charges from Consumers	5.22	5.43
DPS	0.00	0.00
Total	**5.61**	**5.83**

Revenue from existing tariff

Petitioner's submission

6.57 The petitioner has submitted the consumer category-wise revenue from existing tariffs for FY 2008-09 on the basis of the projected number of consumers and sales for each category of consumer. The revenues from existing tariff amounts to Rs.412.86 Cr. for the FY 2008-09.

Commission's Analysis

6.58 On the basis of approved sales estimation to various categories of consumers, the Commission approves the revenue from sale of power amounting to Rs.423.92 Cr as detailed in the table given hereunder

Table 50 Approved Revenue from existing tariffs for FY 2008-09 (Rs. Cr)

Consumer Category	No. of Consumers	Consumption	Contract demand / Connected Load	Fixed Charge	Energy Charge	Revenue from Fixed Charge	Revenue from Energy Charge	Total Revenue
	Nos.	Million Units	kW/BHP/kVA	Rs./kW Rs./kVA, Rs./BHP, Rs/month/connection	Rs./kWh OR Rs./kVAh	Rs. Cr (yearly)	Rs. Cr (yearly)	Rs. Cr (yearly)
Domestic								
0-100				220 V - Rs. 15 / 440 V - Rs. 35	1.70			
101-400					2.80			
Above 400					3.25			
Domestic Total	20,000	91.50				0.70	21.50	22.20
Domestic HT	82	65.51		275	2.70	0.02	17.69	17.71
Commercial Supply	6,800	35.35		220 V - Rs. 15 / 440 V - Rs. 75	4.30	0.10	15.20	15.30
High Tension Service								
HT-1 (100-500 kVA)	36	17.68		200	3.30	1.35	5.83	7.18
HT-2 (500-5000 kVA)	15	67.59		200	3.25	4.11	21.97	26.08
HT-3 (5000 kVA or more)	9	873.02		180	3.20	31.58	279.3	310.9
Sub Total HTS	60	958.29				37.04	307.1	344.2
Street Light	1	8.32			2.90	0.00	2.41	2.41
Utilities	1	36.39			2.90	0.00	10.55	10.55
Sale to JUSCO	2	40.00				0.00	11.54	11.54
132 kV	1	10.00		0	2.78		2.78	2.78
33 kV	1	30.00		0	2.92		8.76	8.76
Total Within State	**26946**	**1235.36**				**37.86**	**386.1**	**423.92**

Summary of ARR for FY 2008-09 and treatment of revenue gap

6.59 In view of the above, the Annual revenue requirement of the petitioner for the FY 2008-09 along with the revenues at existing tariffs and revenue gap for FY 2008-09 is summarised in the table given below:

Table 51 Summary of Annual Revenue Requirement for FY 2008-09 (Rs. Cr)

Annual Revenue Requirement	FY 2008-09 (Projected)	
	Submitted by TSL	**Approved by JSERC**
Costs	(Rs. Cr)	(Rs. Cr)
Power Purchase Cost	378.43	368.75
O&M Expenses	37.04	37.04

Interest & Other Finance Charges	6.80	5.77
Return on Equity	6.63	4.59
Depreciation	5.92	4.85
Income tax	3.29	2.28
Less: Expenses Capitalised	-	-
Total Costs	**438.12**	**423.28**
Less: Non-tariff income	5.61	5.83
Less Surplus for FY 2007-08	*18.79*	*18.79**
Annual Revenue Requirement	**432.51**	**398.65**
Revenue @Existing tariff	**412.86**	**423.92**
Revenue (gap)/surplus	**(0.86)**	**25.27**

* These are un-audited figures and shall be trued up with next year's petition on the basis of the actual audited figures of FY 2007-08.

6.60 The cumulative revenue surplus approved by the Commission for FY 2008-09 is **Rs. 25.27 Cr** as against the revenue gap of **Rs.0.86 Cr** proposed by the petitioner. Since there is no revenue gap and since the petition has been analyzed and reviewed after the end of the tariff period, the Commission has decided not to make any revision in tariffs.

A7: COMMISSION'S ANALYSIS OF ARR AND TARIFF PETITION FOR FY 2009-10

7.1 This section contains a summary of the components of the petition for ARR of FY 2007-08 (True up as per actual figures), FY 2008-09 (revised estimates) & FY 2009-10 (projected) and determination of tariff for FY 2009-10, submitted by TSL and the Commission's analysis of the said components.

7.2 Since the audited accounts for FY 2007-08 and FY 2008-09 are made available to the Commission, the Commission has made use of the cost elements of ARR relating to these years for truing up for FY 2007-08 as well as computing the revised estimates for FY 2008-09.

Energy Sales

7.3 The petitioner has estimated the energy sales at two levels:

(a) Consumption by Steel Works

(b) Jamshedpur Township consumption

Petitioner's submission

7.4 The petitioner has submitted details of actual energy sales for FY 2007-08, provisional sales for FY 2008-09 and projected sales for FY 2009-10. Projections for FY 2009-10 are based on the projected increase in demand by current consumers as well as estimated increase in sales through addition of new consumers.

7.5 The following table summarises the basis used for projecting the sales across various categories of consumers during FY 2009-10:

Table 52: Basis of growth in energy sales during FY 2009-10 over FY 2008-09

Consumer Category	Basis of Projection
Domestic LT	@3.44% , being CAGR for a period from FY07 to FY09
Domestic HT	@2%, being normative growth which is more than CAGR for a period from FY07 to FY09
Commercial	@8.00% , being normal growth
High Tension I	@5.00% due to new consumers and increase in load of existing consumers
High Tension II	@5.00% due to increase in consumption by existing consumers
High Tension III	@2.00% due to increase in consumption by existing consumers
Street Lights	@2.50%, based on the estimated increase in connected load
Temporary Supply	No growth
Sale to JUSCO	Sale of Residual energy

7.6 The number of consumers in each consumer category for the years FY 2007-08 (actual), FY 2008-09 (provisional) and FY 2009-10 (projected) are detailed hereunder:

Table 53 Number of Consumers

Category	FY 2007-08	FY 2008-09	FY 2009-10
	Actual	*Provisional*	*Projected*
Domestic	17,897	18,693	19,155
Domestic - DS HT	48	51	52
Commercial	6,478	6,788	6,914
High Tension I	36	39	46
High Tension II	10	10	13
High Tension III	8	9	9
Street Lights	3		
Total	**24,480**	**25,590**	**26,189**

7.7 The connected load for each consumer category for the years FY 2007-08 (actual), FY 2008-09 (provisional) and FY 2009-10 (projected) is detailed hereunder:

Table 54 Category-wise Connected Load

Category	Units	FY 2007-08	FY 2008-09	FY 2009-10
		Actual	*Provisional*	*Projected*
LT Domestic	kW	64,495	64,632	65,988
HT Domestic	kVA	11,113	12,713	12,967
LT Commercial	kW	37,268	37,999	38,704
High Tension I	kVA	6,070	7,530	9,630
High Tension II	kVA	17,125	19,825	21,675
High Tension III	kVA	142,900	198,900	198,900
Street Lights / Utilities	kW	1,496	1,563	1,603
Total		**280,467**	**343,162**	**349,467**

7.8 The table given below details the actual, provisional and projected sale of energy for FY 2007-08 (actual), FY 2008-09 (provisional) and FY 2009-10 (projected) respectively.

Table 55 Estimates of Energy Sales (MUs)

Category	FY 2007-08	FY 2008-09	FY 2009-10
	Actual	*Provisional*	*Projected*
Domestic - DS I		21.46	22.20
Domestic - DS II		21.70	22.45
Domestic - DS III		28.67	29.65
Domestic - Temporary Supply		3.29	3.41
Domestic Total	**80.23**	**75.12**	**77.71**
Domestic - DS HT	57.56	57.70	58.85

Commercial	32.06	40.92	44.20
High Tension I	14.48	15.77	16.56
High Tension II	58.70	79.76	83.75
High Tension III	840.09	936.30	955.02
Street Lights / Utilities	6.86	8.40	8.61
Temporary Supply		2.39	2.39
Sale to Other Licensee	4.41	38.39	52.52
Total	**1094.39**	**1254.75**	**1299.61**

Commission's analysis

7.9 The Commission scrutinized the commercial information and the basis of computation of sales projection filed by the petitioner. The Commission approves the sales for FY 2007-08 and FY 2008-09 at the same level as projected by the petitioner, as these are based on the actual sales registered by the petitioner.

7.10 For projecting the energy sales during FY 2009-10, the Commission, in absence of latest data, approves the energy sales as projected by the petitioner. However, the Commission has estimated the number of consumers and connected load/contract demand based on the pending list of consumers/connected load as on April 1, 2009 submitted by the petitioner.

7.11 The Commission has assumed that there would be an addition of at least the same number of consumers during FY 2009-10 as was registered during FY 2008-09. Accordingly the Commission approves the under mentioned consumers for FY 2007-08 (actual), FY 2008-09 (provisional) and FY 2009-10 (projected):

Table 56: Approved Number of Consumers

Category	FY 2007-08	FY 2008-09	FY 2009-10
	Actual	***Provisional***	***Projected***
Domestic - DS I			
Domestic - DS II			
Domestic - DS III			
Domestic - Temporary Supply			
Domestic Total	**17,897**	**18,693**	**19,549**
Domestic - DS HT	48	51	53
Commercial	6,478	6,788	7,021
High Tension I	36	39	52
High Tension II	10	10	16
High Tension III	8	9	9
Street Lights	3		
Total	**24,480**	**25,590**	**26,700**

7.12 The approved connected load figure for the above-mentioned consumers is detailed hereunder:

Table 57: Approved Connected Load/Contract Demand

Category	Units	FY 2007-08	FY 2008-09	FY 2009-10
		Actual	*Provisional*	*Projected*
LT Domestic	kW	64,495	64,632	67,345
HT Domestic	kVA	11,113	12,713	13,216
LT Commercial	kW	37,268	37,999	39,303
High Tension I	kVA	6,070	7,530	10,886
High Tension II	kVA	17,125	19,825	26,677
High Tension III	kVA	142,900	198,900	198,900
Street Lights / Utilities	kW	1,496	1,563	1,603
Total		**280,467**	**343,162**	**357,931**

7.13 Based on the approved number of consumers and connected load, the category-wise approved sales to various categories of consumers is summarised as under:

Table 58: Approved category-wise unit sales (in MUs) for FY08, FY09 and FY10

Category	FY 2007-08	FY 2008-09	FY 2009-10
	Actual	*Provisional*	*Projected*
Domestic - DS I		21.46	22.20
Domestic - DS II		21.70	22.45
Domestic - DS III		28.67	29.65
Domestic - Temporary Supply		3.29	3.41
Domestic Total	**80.23**	**75.12**	**77.71**
Domestic - DS HT	57.56	57.70	58.85
Commercial	32.06	40.92	44.20
High Tension I	14.48	15.77	16.56
High Tension II	58.70	79.76	83.75
High Tension III	840.09	936.30	955.02
Street Lights / Utilities	6.86	8.40	8.61
Temporary Supply		2.39	2.39
Sale to Other Licensee	4.41	38.39	52.52
Total	**1094.39**	**1254.75**	**1299.61**

7.14 Since the sales figures for FY 2009-10 are on estimation basis, and shall be subjected to true-up in subsequent tariff orders, the Commission approves the sales of 1299.61 MUs submitted by the petitioner but directs the petitioner to conduct demand forecasting and load research studies to correctly estimate the category wise sales in future. The Commission has given timelines for the same in the directives section of this tariff order.

Distribution Losses

Petitioner's submission

7.15 The petitioner has proposed a distribution loss level of 8% during FY 2009-10. It has further submitted that it has planned a capital investment of Rs.2.00 Cr during FY 2009-10 in order to control losses. TSL has forecasted a marginal increase of 0.21% of distribution loss over the previous year as a result of projected expansion in consumer base, energy sales and network.

7.16 The petitioner cited that any reduction beyond 8.00% loss requires substantial efforts in terms of investment and has requested the Commission to allow distribution losses at a level of 8.00% for FY 2009-10, which it claims to be much lower when compared to distribution losses of other private distribution licensees in India.

Commission's analysis

7.17 The Commission notes that more than 50% of the additional energy projected to be sold during FY 2009-10 over FY 2008-09 is to the HT consumers and 32% to JUSCO, which is again at HT/EHT level. Therefore, Commission feels that there is no rationale for increase in distribution losses over the previous year's level. Therefore, the Commission deems it fit to approve a distribution loss level of 7.75%, which is equivalent to distribution loss level registered during FY 2008-09.

7.18 However, in case the actual distribution losses during FY 2009-10 are reported in the range as stated in the petition, the Commission would review the loss levels in the subsequent tariff order. Meanwhile**, the Commission directs the petitioner to conduct loss estimation and energy audit studies to ascertain the loss levels more accurately. The Commission has given timelines for the same in the directives section of this tariff order.**

Energy Balance

Petitioner's submission

7.19 TSL has estimated an overall increase in energy consumption in its license area by 3.57% in FY 2009-10, due to changing lifestyle and increase in disposable income of different sections of the society.

7.20 The energy balance for FY 2007-08 and FY 2008-09 is based on the actual energy purchase, energy sales and corresponding energy losses for both years.

7.21 The Petitioner's projection of energy balance for FY 2009-10 is based on the energy sales projections for township consumption being grossed up by an estimated distribution loss level of 8.0% in order to compute the quantum of power purchase required. Accordingly, with an estimated distribution loss level of 8.0% and energy sales estimation of 1299.61 MUs, the Petitioner's estimated energy requirement for the power distribution to Jamshedpur town is proposed at 1415.43 MUs for FY 2009-10 as detailed in table given hereunder:

Table 59: Projected Energy Balance

	FY 2007-08	FY 2008-09	FY 2009-10
Energy Requirement			
Power Distribution Business	1094.39	1254.76	1299.61
Overall Loss (%)	*9.33%*	*7.79%*	*8.00%*
Energy Requirement for Jamshedpur Town	1207.06	1360.74	1415.43
Transfer to Tata Steel	466.08	589.80	574.74
Total	**1673.14**	**1950.45**	**1990.18**
Energy Availability			
TPCL (Units II & III)	1435.15	1523.43	1512.14
DVC	237.99	400.90	471.34
Others		26.12	6.70
Total	**1673.14**	**1950.45**	**1990.18**

Commission's analysis

7.22 The Commission has considered the energy transferred to Steel Works at the same level as that proposed by the petitioner for all the three years under consideration. In its last Tariff Order for FY 2005-06, the Commission has directed the petitioner to treat Steel Works as a distinct consumer and propose its tariff within a period of six months of the issue of that tariff order. In this regard, the petitioner has stated that issue of treating Unit II & Unit III of TPCL as a captive unit of TSL is still under consideration of Hon'ble Supreme Court of India after being rejected by Appellate Tribunal. Since the Appellate Tribunal has rejected the claim of the petitioner and the Hon'ble Supreme Court has also not put any stay on the Judgement of Appellate Tribunal, the Commission has decided to net off the power sold to the Steel Works from the power purchase cost of the petitioner.

7.23 Based on the approved distribution loss level of 7.75% during FY 2009-10, the Commission calculated the power purchase requirement of the petitioner by adjusting the difference from short-term source of power. The approved energy balance along-with source wise power purchase is detailed hereunder:

Table 60: Approved Energy Balance and source-wise purchase of power

	FY 2007-08	FY 2008-09	FY 2009-10
Energy Requirement			
Power Distribution Business	1094.39	1254.75	1299.61
Overall Losses (%)	*9.33%*	*7.79%*	*7.75%*

Energy Requirement for Jamshedpur Town	1207.06	1360.73	1408.79
Transfer to Tata Steel	466.01	589.30	574.74
Total	**1673.07**	**1950.03**	**1983.53**
Energy Availability			
TPCL (Units II & III)	1435.08	1523.01	1512.09
DVC	237.99	400.90	471.34
Others		26.12	0.10
Total	**1673.07**	**1950.03**	**1983.53**

Power Purchase Cost

Petitioner's submission

7.24 As mentioned earlier, primarily there are two sources of power purchase for the petitioner viz., DVC (under perpetual PPA) and TPCL (under long-term PPA). Apart from this, the petitioner occasionally resorts to short-term power purchase to meet the power shortage during outage of generating units at TPCL and power drawal restrictions from DVC.

7.25 The average cost of power purchase from TPCL and DVC is estimated at Rs.2.70/unit and Rs.3.95/unit respectively for FY 2009-10. The petitioner submits that this estimate is based on the prevailing fuel prices and any changes in them should be passed through after netting it for losses. Further, the petitioner submitted that DVC has increased fuel surcharge w.e.f. April 2008 and has asked arrears for the same in June 2009 for power supplied during FY 2008-09. Likewise, TSL has computed the power purchase cost for FY 2008-09 while taking into effect the arrears due to increased fuel cost surcharge.

7.26 The petitioner has projected a total power purchase cost of Rs.426.20 Cr as a cost of purchasing 1415.44 MUs as detailed in table given hereunder:

Table 61: Projected Power Purchase Cost (Rs. Cr)

SOURCE	FY 2007-08	FY 2008-09	FY 2009-10
TPCL			
Units Purchased (MUs)	1,435	1,523.43	1,512.14
Per Unit Price	2.33	2.51	2.70
Power Purchase Cost	**334.88**	**382.65**	**408.29**
DVC			
Units Purchased (MUs)	237.99	400.90	471.34
Per Unit Price	4.19	3.88	3.95
Power Purchase Cost	**99.66**	**155.44**	**186.29**
Others			
Units Purchased (MUs)	0.00	26.12	6.70
Per Unit Price		9.28	7.00
Power Purchase Cost		**24.24**	**4.69**

Total Units Purchased (MUs)	**1673.14**	**1950.45**	**1990.18**
Total Power Purchase Cost (Rs. Cr)	**434.54**	**562.33**	**599.27**
Per unit cost of power purchase	*2.60*	*2.88*	*3.01*
Receipt from power transfer to Steel Works (Rs. Cr)	121.05	170.03	173.07
Net Power Purchase (MUs)	**1207.06**	**1360.65**	**1415.44**
Net Power Purchase Cost (Rs. Cr)	**313.49**	**392.30**	**426.20**

Commission's analysis

7.27 The Commission has determined the power purchase cost from DVC for FY 2007-08 and FY 2008-09 based on the audited accounts. The power purchase rate from DVC for FY 2009-10 has been considered at the same level submitted by the petitioner, being the current rate charged by the DVC from other utilities.

7.28 The Commission feels that the petitioner needs to manage the deficit either through DVC or needs to cut down on its sale to JUSCO, with whom TSL has executed an agreement in FY 2008-09 for sale of its residual power.

7.29 The Commission considers the proposed power purchase rate of Rs.9.28/kWh for short-term power to be too high and approves the short-term power purchase rate at the same level as that approved for the power purchased from DVC i.e. Rs. 3.95/unit, with the condition that it will be trued- up as and when the actual rate of power purchase from other sources is made available, subject to prudence check by the Commission.

7.30 However, considering that the timing of the issue of this tariff order is such that almost 10 months of the tariff period has already passed, the Commission shall consider the short-term purchase, as per actual rate of purchase, for the period starting from 1st April 2009 and till the issue of this tariff order when the true up exercise will be undertaken, subject to prudence check. The petitioner shall be required to submit the data separately for the period as stated above.

7.31 The Commission has determined the cost of power purchase from TPCL for all the three years on the basis of the Tariff Order on Annual Revenue Requirement and Determination of Generation Tariff for Financial Years 2007-08, 2008-09 and 2009-10 for TPCL on the petition for FY 2009-10, issued in January 2010.

Table 62 Approved Power Purchase Cost (Rs. Cr)

SOURCE	FY 2007-08	FY 2008-09	FY 2009-10
TPCL (Unit II)			
Units Purchased (MUs)	736	761.5	1,512.14
Per Unit Price	2.37	2.46	2.57
Power Purchase Cost	**174.34**	**187.67**	**388.50**
TPCL (Unit III)			

Units Purchased (MUs)	699	761.5	1,512.14
Per Unit Price	2.41	2.48	2.57
Power Purchase Cost	**168.32**	**188.57**	**388.50**
DVC			
Units Purchased (MUs)	237.99	400.90	471.34
Per Unit Price	4.19	3.88	3.95
Power Purchase Cost	**99.66**	**155.44**	**186.29**
Others			
Units Purchased (MUs)		26.12	0.05
Per Unit Price		9.28	3.95
Power Purchase Cost		**24.24**	**0.02**
Total Units Purchased (MUs)	**1673.07**	**1950.03**	**1983.53**
Total Power Purchase Cost (Rs. Cr)	**442.33**	**555.92**	**574.81**
Per unit cost of power purchase	*2.64*	*2.85*	*2.90*
Receipt from power transfer to Steel Works (Rs. Cr)	123.20	167.99	166.55
Net Power Purchase (MUs)	**1207.06**	**1360.73**	**1408.79**
Net Power Purchase Cost (Rs. Cr)	**319.12**	**387.92**	**408.26**

Operations & Maintenance (O&M) Expenses

7.32 O&M expenses consist of (a) employee cost; (b) repair & maintenance (R&M) expenses; & (c) administrative & general (A&G) expenses.

Petitioner's submission

7.33 The petitioner has submitted that it has outsourced its major portion of power distribution business to its 100% subsidiary, JUSCO. For FY 2009-10, it has projected the O&M expenses based on the normative increase of 10% over the previous years' O&M expenses.

7.34 The petitioner has submitted that its power distribution network is expanding every year and so are its load & energy sales. In order to meet these requirements, the licensee requires additional O&M expenses. The petitioner has further justified its claim by comparing the O&M expenses as a percentage of ARR with Torrent Power and BRPL for FY 2008-09. O&M expenses as a percentage of ARR are 9.18% and 8.96% in case of Torrent Power and BRPL respectively, whereas for TSL they are 8.73%.

Commission's analysis

7.35 The Commission acknowledges that the O&M expenses of the petitioner as a percentage of ARR are among the lowest in the Country. The Commission also approves the 10% inflation factor considered by the petitioner for projection of O&M expenses and hence approves the O&M expenditure proposed by the petitioner.

Table 63: Proposed and Approved O&M Expenses (Rs. Cr)

	FY 2007-08	FY 2008-09	FY 2009-10
O&M Expenses	31.47	39.52	43.47
% increase		*26%*	*10%*

Capital Investment Plan

Petitioner's submission

7.36 The petitioner has proposed a capital investment plan of Rs.179.75 Cr for the next 5 years with the objective to meet the increasing demand of existing consumers and creation of distribution network in the main city as well as fringe areas of Jamshedpur. Till FY 2008-09, TSL has invested Rs.16.70 Cr in various schemes and has planned to invest rest of the amount of Rs.163.05 Cr in a phased manner during next 5 years. The capital expenditure proposed for FY 2009-10 is Rs.23.25 Cr.

7.37 The Capex plan proposed by the petitioner for FY 2009-10 is detailed hereunder:

Table 64 Proposed Capital Investment plan for FY 2009-10

S No.	Particulars	Capital Investment (Rs Cr (Phasing for FY 2008-09)
1.	132 Kv Transmission line from Jojobera to Sonari	4
2.	Augmentation of Power Supply in Bistpur and Marine	4
3.	To set up 6.6 Kv distribution network from 2nd 15 MVA transformers at L town yard	1
4.	Installation of 2nd 15 MVA transformers at Sonari and downstream network	4.8
5.	Creation of distribution infrastructure in fringe areas of Jamshedpur viz Bhatia Basti, Ullliyan, Shahstri Nagar, Chota Govindpur, Govindpur and Birsa Nagar	2.4
6.	Strengthening of Testing & maintenance facilities for distribution equipment	0.4
7.	132/33 Kv, 2*50 MVA substation for future growth	0.5
8.	Substation Automation/SCADA for Ch Area, Sonari, L town, Telco area & Tinplate Area 33/6.6 Kv substations	1
9.	GSM based Remote meter reading for high Value consumers.	0.6
10.	Replacement of Bare O/H LT Lines with insulated cable/ Ariel Bunched Cable line	1
11.	Replacement of 33 Kv O/H L5, L6,L3,L4 to underground cabling including capacity enhancement	1.1
12.	33Kv Tie between Bara Substation and Tinplate Area Substation	0.55
13.	Power Supply to VidyapatiNagar, Baridih Basti	2
	Total Capital Investment Plan	**23.35**

Commission's analysis

7.38 The Commission observes that the petitioner has not been fully investing in various scheme as per the proposed investment plan in the previous years, as shown below:

Table 65: Capex Achievement Vs Capex approved (Rs. Cr)

	FY 2007-08	FY 2008-09
Capex proposed	15.00	18.98
Actual Capex achieved	10.97	13.39
Achievement (%)	*73%*	*71%*

7.39 It is evident from the above that the petitioner has been able to achieve only about 72% of the proposed capital investment in previous years. The Commission feels that the petitioner should review its 5-year capital investment plan in more detail and propose a more realistic capital investment plan in future.

7.40 In the meantime, the Commission approves the capital investment plan of Rs.23.35 Cr for FY 2009-10 as submitted by the petitioner. However, the petitioner is required to submit scheme-wise details of actual capital expenditure incurred in FY 2009-10 and also the scheme-wise implementation schedule for FY 2010-11, with the next tariff petition.

CWIP & Gross Fixed Asset

Petitioner's submission

7.41 The petitioner submitted that during FY 2008-09 it would be able to capitalise assets worth Rs.26.83 Cr. It has submitted the following figures of GFA for FY 2007-08, FY 2008-09 and FY 2009-10:

Table 66: Proposed Capitalisation Schedule (Rs. Cr)

Asset Class	Closing GFA of FY 08	Addition during FY 09	Closing GFA for FY 09	Addition during FY 10	Closing GFA for FY 10
Building	0.47	0.00	0.47	0.10	0.57
P&M	114.65	0.77	115.42	25.72	141.14
Furniture	0.77	0.01	0.77	0.17	0.95
Computers & IT	0.23	0.00	0.23	0.05	0.29
Civil Structure	3.49	0.02	3.51	0.78	4.29
Total	**119.61**	**0.80**	**120.41**	**26.83**	**147.24**

Commission's analysis

7.42 The Commission approves the CWIP and GFA for FY 2007-08 and 2008-09 as per the audited accounts submitted by the petitioner.

7.43 For the purpose of computing the CWIP & GFA for FY 2009-10, the Commission has determined the average conversion rate of total CWIP into fixed assets to determine the amount of CWIP and GFA for the financial year ending 31st March, 2010. The average conversion rate is 40%, based on the audited accounts of the petitioner for FY 2006-07 to FY 2008-09.

7.44 Based on the approved capitalisation of Rs.23.25 Cr and conversion rate of 40%, the approved CWIP amounts to Rs.26.50 Cr for FY 2009-10, as detailed in the table given below:

Table 67 Approved CWIP (Rs. Cr)

Particulars	FY 2007-08	FY 2008-09	FY 2009-10
Opening CWIP	2.76	8.88	21.17
Capex During the Year	10.97	13.39	23.25
Total CWIP	13.73	22.27	44.43
Less. Transferred to FA	4.85	1.10	17.93
Closing CWIP	**8.88**	**21.17**	**26.50**
Average Conversion Rate	*35%*	*5%*	*40%*

7.45 On the basis of CWIP as calculated above, value of approved GFA is detailed hereunder:

Table 68: Approved GFA for FY 2009-10 (Rs. Cr)

Particulars	FY 2007-08	FY 2008-09	FY 2009-10
Opening balance of GFA	110.76	115.61	116.70
Add: Transferred from CWIP	4.85	1.10	17.93
Closing balance of GFA	**115.61**	**116.70**	**134.63**

Depreciation

Petitioner's submission

7.46 The petitioner has submitted that it has been maintaining its distribution assets under the broad classification of: land, building, plant & machinery, furniture, computer & IT and civil structure. All the assets except civil structure have been separately identified for power distribution business of the licensee and the proportionate value of civil structure is being included in the gross block of assets on the basis of valuation carried out by the registered valuer. The petitioner further submitted that re-classification of these assets as per 'Distribution Tariff Regulations, 2004' is not practically feasible at this point of time.

7.47 The petitioner has submitted the computation of depreciation charge on the basis of the straight-line method (SLM) at the rates prescribed in the Companies Act, 1956. For assets capitalised during the year, depreciation has been computed on half-yearly basis. The proposed depreciation charge for FY 2007-08, FY 2008-09 and FY 2009-10 is tabulated below:

Table 69 Proposed Deprecation Charge (Rs. Cr)

Assets	FY 2007-08	FY 2008-09	FY 2009-10
Land	0.00	0.00	0.00
Building	0.02	0.02	0.02
Plant & Machinery	4.93	4.91	5.55
Furniture	0.03	0.02	0.02
Computers & IT	0.01	0.01	0.01
Civil Structure	0.15	0.15	0.15
Total Depreciation	**5.14**	**5.11**	**5.75**
Closing Balance of GFA	**119.60**	**120.39**	**147.22**
Depreciation as a % of GFA	**4.30%**	**4.24%**	**3.91%**

Commission's analysis

7.48 The 'Distribution Tariff Regulations, 2004' specify that the depreciation shall be calculated annually as per SLM at the rate of depreciation prescribed in the schedule attached to the Regulations at Appendix-II. Further, it is provided that capital base for the purpose of depreciation shall be the historical cost of the asset with the residual life of the asset being 10% of its approved original cost.

7.49 In view of the petitioners' inability to classify its distribution assets in accordance with Appendix II, the Commission has for the time being considered the classification and depreciation rates as proposed by it.

7.50 For the purpose of calculation of the depreciation charge for the FY 2007-08 and FY 2008-09, the Commission has considered the values as given in the audited accounts for these years. However, the proportionate depreciation on the assets created out of consumer contribution has been deducted to arrive at the approved deprecation charge of Rs.4.60 Cr and Rs.4.63 Cr for FY 2007-08 and FY 2008-09 respectively.

7.51 For FY 2009-10, the Commission has calculated the depreciation charge by applying the average depreciation rate determined on the basis of audited accounts for FY 2008-09 to the average GFA approved by the Commission for FY 2009-10. The calculation of approved rate base is detailed in the table given below:

Table 70: Calculation of Rate Base for FY 2009-10 (Rs. Cr)

Particulars	Amount
GFA as on 1.4.2008	115.61
GFA as on 31.3.2009	116.70
Average GFA for FY 2008-09(A)	116.15
Depreciation Charge for FY 2008-09(B)	5.21
Deprecation rate (B/A)	*4.48%*

7.52 The depreciation rate of 4.48%, as determined above, is applied on average GFA of Rs.125.67 Cr, to compute the approved depreciation charge for FY 2009-10, amounting to Rs.5.63 Cr. The depreciation charge is reduced in the proportion of assets funded by way of consumer contribution which amounts to Rs.0.62 Cr. Accordingly, the Commission approves depreciation charge of Rs. 5.01 Cr for FY 2009-10 as summarised in the table given below:

Table 71 Approved Depreciation charge for FY08, FY09 & FY10 (Rs. Cr)

Assets	FY 2007-08	FY 2008-09	FY 2009-10
Land	0.00	0.00	0.00
Building	0.02	0.02	0.02
Plant & Machinery	4.96	5.00	5.44
Furniture	0.03	0.02	0.02
Computers & IT	0.01	0.01	0.01
Civil Structure	0.15	0.15	0.15
Gross Depreciation	**5.18**	**5.21**	**5.63**
Less: Depreciation on assets created out of Consumer Contribution	0.58	0.57	0.62
Net Depreciation	**4.60**	**4.63**	**5.01**
Closing Balance of GFA	**115.61**	**116.70**	**134.63**
Depreciation as a % of GFA	**4.48%**	**4.48%**	**4.48%**

Debt and Equity Components

Petitioner's submission

7.53 The petitioner has submitted that it has funded the entire capital expenditure through its own resources i.e. through equity infusion and consumer contribution and thus claimed interest on loan and RoE on the normative debt and equity.

7.54 The petitioner has computed normative equity to be equal to the 30% of the gross fixed assets as at the year end and the normative debt has been considered as 70% of the net fixed assets net of consumer contribution.

Commission's analysis

7.55 The 'Distribution Tariff Regulations, 2004' states that:

> *"Debt Equity ratio for the purpose of determination of tariff shall be 70:30.Where equity employed is more than 30%, the amount of equity for the purpose of tariff shall be limited to 30%. Where actual equity employed is less than 30%, the actual equity shall be considered.*

7.56 Accordingly, the Commission has calculated the normative debt and equity in the ratio of 70:30 of the value of GFA after netting the consumer contribution. Normative repayment of loan is deemed to be equal to net depreciation charge during the year. The table given below summarizes the proposed and approved normative capital structure of the petitioner for FY 2007-08, FY 2008-09 and FY 2009-10:

Table 72: Proposed and Approved Capital Structure for FY 08, FY09 & FY10 (Rs. Cr)

PARTICULARS	FY 2007-08		FY 2008-09		FY 2009-10	
	Submitted by TSL	*Approved by JSERC*	*Submitted by TSL*	*Approved by JSERC*	*Submitted by TSL*	*Approved by JSERC*
Gross Fixed Assets	**119.60**	**115.61**	**120.39**	**116.70**	**147.22**	**134.63**
Less: Accumulated Depreciation	47.13	45.76	52.23	50.39	57.98	55.40
Net Fixed Assets	**72.47**	**69.85**	**68.16**	**66.31**	**89.24**	**79.23**
Sources:						
Consumer Contribution	11.41	12.86	11.41	12.86	13.41	14.83
Equity [30% *(GFA-CC)]	32.46	30.83	32.70	31.15	40.14	35.94
Loans [70%* (GFA-CC)-Accumulated Dep.]	42.74	26.17	39.72	22.30	53.08	28.46
Total	**86.61**	**69.85**	**83.83**	**66.31**	**106.63**	**79.23**

Interest and Other Finance Charges

Petitioner's submission

7.57 Based on the normative debt as calculated above, the petitioner calculated the net interest liability at 200 basis points (i.e.2%) below SBI PLR of 12.25% as on 1st April 07, 1st April 08 & 1st April 09. This interest rate is applied to the closing balance of normative loan to arrive at the net interest charges of Rs.4.38 Cr, Rs.4.07 Cr & Rs.5.44 Cr for FY 2007-08, FY 2008-09 & FY 2009-10 respectively.

7.58 The petitioner has projected normative working capital of Rs.36.79 Cr, Rs.46.40 Cr & Rs.49.78 Cr for FY 2007-08, FY 2008-09 & FY 2009-10 respectively, consisting of receivables equivalent to 2 months (excluding the HT3 consumption), average bank balance required for 1 month power purchase net of security deposit. The interest on normative working capital has been calculated by applying an interest rate of 12.25% (SBI PLR).

7.59 The petitioner has also proposed the interest on security deposit by consumers at the bank rate which is equivalent to 6.00% p.a. The total interest and finance charges proposed by the petitioner is summarised in the table given below:

Table 73: Interest and Finance charges proposed by the petitioner (Rs. Cr)

Particulars	FY 2007-08	FY 2008-09	FY 2009-10
Interest on Normative Debt @ 10.25%	4.38	4.07	5.44
Interest on Working Capital @12.25%	4.51	5.68	6.10
Interest on Security Deposit @ 5.75%	0.17	0.22	0.26
Total	**9.06**	**9.98**	**11.80**

Commission's analysis

7.60 In accordance with generally accepted accounting principles and norms specified in the 'Distribution Tariff Regulations, 2004', the interest on loan is computed on the average loan outstanding during the year. Accordingly, the interest on normative loan is computed on the average normative loan balance during the year by applying interest rate of 10.25%, as proposed by the petitioner. The interest on normative loan approved by the Commission for FY 2007-08, FY 2008-09 & FY 2009-10 amounts to Rs.2.74 Cr , Rs.2.48 Cr & Rs.2.60 Cr respectively as detailed hereunder:

Table 74 Approved interest on Normative Loans (Rs. Cr)

Particulars	FY 2007-08	FY 2008-09	FY 2009-10
Opening Balance of Normative Loan	27.38	26.17	22.30
Deemed Addition during the year	3.39	0.77	11.17
Deemed Repayments	4.60	4.63	5.01
Closing Balance of Deemed Loan	**26.17**	**22.30**	**28.46**
Average balance during the Year	**26.77**	**24.24**	**25.38**
Interest Rate	*10.25%*	*10.25%*	*10.25%*
Interest Payment	**2.74**	**2.48**	**2.60**
Less: Capitalized	-	-	-
Net interest	**2.74**	**2.48**	**2.60**

7.61 In accordance with the Regulation 13 of 'Distribution Tariff Regulations, 2004' the interest on working capital shall be allowed to meet the shortfall in collection over and above the target approved by the Commission.

7.62 For FY 2007-08 and FY 2008-09, the Commission has considered the actual working capital as reported in the audited accounts for the purpose of calculation of working capital base.

7.63 However for FY 2009-10, the Commission is allowing the interest on working capital at the working capital base projected by the petitioner and modified in accordance with approved power purchase cost. For estimating the interest on working capital, the interest rate applicable is sub-prime lending rate of SBI, which is 12.25%, in line with the 'Distribution Tariff Regulations, 2004'.

Table 75 Approved interest on Normative Working Capital Loan (Rs. Cr)

Particulars	FY 2007-08	FY 2008-09	FY 2009-10
Receivables for 2 months' sale	45.03	68.88	19.37
Average Bank Balance required for 1 month of power purchase	23.37	29.72	34.12
Sub total	68.40	98.61	53.49
Less: Sundry creditors & Security deposit	61.44	73.46	3.83
Total Working Capital	**6.97**	**25.15**	**49.66**
Rate of interest	*12.25%*	*12.25%*	*12.25%*
Interest on Working Capital	**0.85**	**3.08**	**6.08**

7.64 Interest on consumer security deposit is being allowed on the approved consumer security base by applying the prevalent RBI bank rate i.e. 5.75% p.a.

Table 76 Approved interest on consumer security deposit (Rs. Cr)

Particulars	FY 2007-08	FY 2008-09	FY 2009-10
Average Security Deposit	2.86	3.67	3.83
Interest rate (%)	*5.75%*	*5.75%*	*5.75%*
Interest on Security Deposit	**0.16**	**0.21**	**0.22**

Total Interest and Finance Charges

7.65 As per the analysis of the Commission detailed above, the Interest and Finance Charges for the FYs 2007-08, 2008-09 and 2009-10 are approved as follows

Table 77 Approved Interest and other Finance charges (Rs. Cr)

Particulars	FY 2007-08	FY 2008-09	FY 2009-10
Interest on Loan	2.74	2.48	2.60
Interest on Working Capital	0.85	3.08	6.08
Interest on Security Deposits	0.16	0.21	0.22
Total Interest & Finance Charges	**3.76**	**5.78**	**8.91**

Return on Equity

Petitioner's submission

7.66 The petitioner has submitted that although the Commission recommends a 14% rate of return on equity as reasonable, the power distribution business is perceived to have a greater inherent risk than the Generation or Transmission business due to various factors such as direct interface with retail consumers. The petitioner further submitted that various SERC's allow a RoE of 16% for power distribution in acknowledgment of the greater business risk, and hence the petitioner has computed RoE considering a 16% rate of return.

7.67 The base considered is the GFA less consumer contribution and 30% of the same is taken as the equity base for calculation of returns. RoE is also computed and charged proportionately on the assets capitalized during the year. Based on the above methodology, the RoE computed by the petitioner for FY 2007-08, FY 2008-09 and FY 2009-10 is Rs.5.19 Cr, Rs.5.23 Cr and Rs.6.42 Cr respectively.

Commission's analysis

7.68 In accordance with the 'Distribution Tariff Regulations, 2004' the Commission has considered the equity base to be equal to 30% of gross fixed assets net of consumer contribution.

7.69 Further, the Commission permits a rate of return of 14% as specified in Regulation 20.1 of the 'Distribution Tariff Regulations, 2004' as against the Petitioner's requested rate of return of 16%.

7.70 Accordingly, the Commission approves RoE amounting to Rs.4.21Cr for FY 2007-08, Rs.4.34 Cr for FY 2008-09 and Rs.4.70 Cr for FY 2009-10 as detailed hereunder:.

Table 78 Proposed and approved Return on Equity (Rs. Cr)

Return on Equity	FY 2007-08		FY 2008-09		FY 2009-10	
	Submitted by TSL	*Approved by JSERC*	*Submitted by TSL*	*Approved by JSERC*	*Submitted by TSL*	*Approved by JSERC*
Normative Equity Base	32.46	30.83	32.70	31.15	40.14	35.94
Rate of Return (%)	*16%*	*14%*	*16%*	*14%*	*16%*	*14%*
Return on Equity	**5.19**	**4.21**	**5.23**	**4.34**	**6.42**	**4.70**

Income Tax

Petitioner's submission

7.71 The income tax is calculated based on the provisions of the Income Tax Act, 1961. Tax computations are based on adding back the normative interest and finance charges on long-term loan as well as normative interest on working capital claimed in ARR. Accordingly, the petitioner has proposed the income tax for FY 2007-08, FY 2008-09 & FY 2009-10 as Rs. 5.69 Cr, Rs.6.01 Cr and Rs.7.23 Cr, respectively

Commission's analysis

7.72 The Commission has considered the method of computation of income tax used by the petitioner and computed the income tax accordingly. There is deviation in the income tax claimed and approved by the Commission. This is due to the difference in RoE and interest figures as approved by the Commission. Accordingly, the Commission approves Rs.3.39 Cr, Rs.4.13 Cr and Rs.5.37 Cr as Income-tax for FY 2007-08, FY 2008-09 and FY 2009-10 respectively.

Non Tariff Income (NTI)

Petitioner's submission

7.73 The Non-Tariff Income includes hire-charges for equipments, fixed charges, misc. recoveries etc., among others. The NTI for 2007-08, 2008-09 and 2009-10 is given to be Rs. 5.61Cr, Rs. 3.16 Cr and Rs. 3.17Cr respectively.

Commission's analysis

7.74 The Commission has considered the non-tariff income for FY 2007-08 and FY2008-09 based on the audited accounts. For FY 2009-10, the Commission has marginally increased the miscellaneous charges in proportion to increase in number of consumers.

Table 79 Proposed and approved NTI (Rs. Cr)

Misc Charges/Income from Consumers	FY 2007-08		FY 2008-09		FY 2009-10	
	Submitted by TSL	*Approved by JSERC*	*Submitted by TSL*	*Approved by JSERC*	*Submitted by TSL*	*Approved by JSERC*
Hire Charge for Equipments	0.02	0.02	0.04	0.04	0.04	0.04
Elect Charge-Fixed Charge	0.38	0.40	0.40	0.40	0.40	0.42
Recovery of Short of Fittings	0.06	0.06	0.10	0.10	0.10	0.10
Service Charges	0.18	0.19	0.07	0.07	0.07	0.07
Income - Permanent Electrical Installation	4.84	5.06	2.10	2.10	2.11	2.19
Total	**5.61**	**5.87**	**3.16**	**3.16**	**3.17**	**3.30**

Revenue from existing tariff

Petitioner's submission

7.75 The petitioner has submitted the Category-wise revenue from existing tariffs for FY 2007-08, FY 2008-09 on the basis of the accounts and for FY 2009-10 on the basis of the projected sales and load for each category. The revenues from existing tariff submitted by the petitioner for FY 2007-08, FY 2008-09 and FY 2009-10 is Rs.380.13 Cr, Rs.443.65 Cr and Rs.458.91Cr respectively. The petitioner has requested for allowing revenue considering the collection efficiency of 96.17%, 97.81% and 98% for FY 2007-08, FY 2008-09 and FY 2009-10 respectively.

Commission's Analysis

7.76 The Commission approves the revenues from existing tariff for FY 2007-08 and FY 2008-09 as these are as per the audited accounts submitted by the petitioner.

7.77 For FY 2009-10, the Commission has computed the revenues at existing tariffs amounting to Rs.469.18 Cr. The revenues from all the charges except the fixed charges have been computed as per the projections of the petitioner. The fixed charges have been computed on the basis of the consumers and load projected by the Commission.

7.78 The Commission disallows the reduction in revenue on account of lower collection efficiency, as there is no provision for bad debts as per the 'Distribution Tariff Regulations, 2004' and Commission believes that any inefficiency on part of the petitioner should not be loaded to the consumers.

Table 80 Revenue from existing tariffs for FY 2009-10

Consumer Category	Fixed Charge	Energy Charge	Revenue from Fixed Charge	Revenue from Energy Charge	Revenue from MMC	PF Surcharge	Rebates	Total Revenue
	Rs./kW Rs./kVA, Rs./BHP, Rs/month/connection	Rs./kWh OR Rs./kVAh	Rs. Cr (yearly)	Rs. Cr (yearly)	Rs. Cr (yearly)	Rs. Cr (yearly)	Rs. Cr (yearly)	Rs. Cr (yearly)
Domestic								
0-100	Rs. 10 - 220 V / Rs. 20 - 440 V	1.70	0.09	3.77				3.86
101-400		2.80	0.09	6.29				6.38
Above 400		3.00	0.12	8.90				9.01
Domestic Temp for Religious functions		3.00		1.02				1.02
Domestic Total			0.30	19.98				20.28
Domestic HT	275	2.70	0.02	15.89				15.91

Commercial Supply	Rs. 25 - 220 V, Rs. 75 - 440 V	4.30	0.31	19.01				19.32
High Tension Service								
HT-1 (100-500 kVA)	200	3.30	2.21	5.46	0.83	0.01	0.00	8.51
HT-2 (500-5000 kVA)	200	3.25	5.58	27.22	1.44	0.01	0.21	34.04
HT-3 (5000 kVA or more)	180	3.20	42.96	305.61	7.72		3.34	352.95
Sub Total HTS			50.75	338.29	9.99	0.02	3.55	395.50
Street Light	20	2.90	0.00	2.50				2.50
Temporary Supply	30	5.00		1.20				1.20
Sale to Other Licensee		2.92 and 2.72		14.49				14.49
Total Within State			**51.38**	**411.35**	**9.99**	**0.02**	**3.55**	**469.18**

Revenue surplus of FY 2005-06 and FY 2007-08

Petitioner's submission

7.79 The petitioner has submitted the revenue surplus of Rs. 15.98 Cr for FY 2005-06 and FY 2006-07.

Commission's Analysis

7.80 The Commission has scrutinized the annual accounts for FY 2005-06 and FY 2006-07 and has computed the accumulated revenue surplus for both these years as Rs.18.48 Cr., as detailed hereunder:

Table 81: Computation of Net Surplus for FY 2005-06 and FY 2006-07(Rs. in Cr)

Particulars	FY 2005-06 (Actual)	FY 2006-07 (Actual)
Net Surplus as per Statement of Affairs (A)	**9.64**	**16.58**
Return on Equity		
Gross Fixed Assets (GFA)	99.10	110.76
***Less*:Consumer Contribution**	12.77	12.86
Net GFA	86.33	97.91
Normative Equity @30%	25.90	29.37
RoE @ 14% (B)	**3.63**	**4.11**
Net Surplus (A-B)	**6.01**	**12.47**
Cumulative Surplus		**18.48**

Summary of ARR for FY 2009-10 and treatment of revenue gap

7.81 In view of the above, the Annual revenue requirement proposed by the petitioner and approved by the Commission, for the FY 2007-08 (actual), FY 2008-09(revised) and FY 2009-10 (projected) along with the revenues at existing tariffs and revenue gap for FY 2009-10 is summarised in the table given below:

Table 82 Summary of Annual Revenue Requirement (Rs. Cr)

Costs	FY 08 (Actual)		FY 09 (Actual)		FY 10 (Projections)	
	Submitted by TSL	*Approved by JSERC*	*Submitted by TSL*	*Approved by JSERC*	*Submitted by TSL*	*Approved by JSERC*
Power Purchase Cost	313.49	319.12	392.30	387.92	426.20	409.43
O&M Expenses	31.47	31.47	39.52	39.52	43.47	43.47
Interest & Other Finance Charges	9.06	3.76	9.97	5.78	11.80	8.91
Depreciation	5.14	4.60	5.11	4.63	5.75	5.01
Return on Equity	5.19	4.21	5.23	4.34	6.42	4.70
Income tax	5.69	3.39	6.01	4.13	7.23	5.37
Less: Expenses Capitalised						
Total Costs	**370.04**	**366.56**	**458.14**	**446.31**	**500.87**	**476.89**
Less: Non-tariff income	5.61	5.87	3.16	3.16	3.17	3.30
Annual Revenue Requirement	**364.43**	**360.69**	**454.98**	**443.15**	**497.70**	**473.59**
Revenue @Existing tariff	**380.13**	**380.13**	**443.59**	**443.59**	**458.91**	**469.18**
Revenue @Existing tariff (at <100% collection efficiency)	**365.58**		**433.93**		**449.73**	
Revenue (gap)/surplus	**1.14**	**19.44**	**(21.09)**	**0.44**	**(47.97)**	**(4.41)**
Surplus of FY 05-06 & FY 06-07	**15.98**	**18.48**				
Net Revenue (gap)/surplus	**17.12**	**37.92**	**(21.09)**	**0.44**	**(47.97)**	**(4.41)**
Cumulative (Gap)/surplus (upto FY 2009-10)					**(51.94)**	**33.96**

7.82 The cumulative revenue surplus approved by the Commission up to FY 2009-10 is **Rs. 33.96 Cr** as against the revenue gap of **Rs.51.94 Cr** proposed by the petitioner.

Treatment of Revenue Gap/Surplus

7.83 The petitioner has proposed to recover the revenue gap envisaged for FY 2009-10 amounting to **Rs. 47.97 Cr** from the consumers in FY 2009-10 and the remaining gap be deferred as regulatory asset.

7.84 As stated above, as per the annual revenue requirement and the revenues at exiting tariff determined by the Commission, there is a cumulative revenue surplus **of Rs. 33.96 Cr** as against the envisaged revenue gap of **Rs. 51.94** Cr submitted by the petitioner. Since there is no revenue gap, the Commission disallows the proposal for tariff hike submitted by the petitioner.

7.85 Meanwhile, as the effective time period remaining for the tariff year is less, Commission has decided not to make any revision in the tariff schedule and has been decided to carry forward the revenue surplus to the next tariff year.

A8: TARIFF RELATED OTHER ISSUES

Tariff Rationalization

Petitioner's submission

8.1 The petitioner has submitted that, the average cost of supply for TSL is Rs.3.83 per unit in FY 2009-10, without taking into account past recoveries on account of revenue gap in the years 2007-08 and 2008-09. Against the same, the average realization from the domestic and domestic-HT consumer categories is very low at Rs. 2.60 per unit and Rs. 2.70 per unit respectively.

8.2 The petitioner has further submitted the comparison of the effective tariff vs. the Average Cost of Supply, as shown under

Table 83 Effective Tariff vs. Average Cost of Supply as submitted by petitioner

S No.	Consumer Categories	% of Avg CoS @ Rs. 3.63 per unit (FY 2008-09)	% of Avg CoS @ Rs. 3.83 per unit (FY 2009-10)	% of Avg CoS @ Rs. 3.83 per unit (FY 2009-10)	FY 08-09 (Prov)	FY 09-10 (Existing)	FY 09-10 (Proposed)
		Existing	Existing	Proposed	Rs/unit	Rs/unit	Rs/unit
1.	Domestic	72%	68%	77%	2.60	2.60	2.96
2.	Domestic HT	74%	71%	77%	2.70	2.70	2.96
3.	Commercial supply	120%	114%	124%	4.36	4.35	4.75
4.	**High Tension**						
a	HT-1	131%	126%	138%	4.73	4.81	5.29
B	HT-2	107%	101%	114%	3.90	3.88	4.36
C	HT-3	99%	94%	104%	3.60	3.61	4.00
5.	Street light	80%	76%	77%	2.90	2.90	2.95
6.	Temporary supply	138%	131%	131%	5.00	5.00	5.00
7.	Sale to other licensees*	100%	92%	100%	2.88	2.76	2.97

* Note: Cost of Supply from sale to other licensee has been taken at power purchase cost

8.3 The petitioner submitted that, as shown in the table, there are variations in the Average Cost of Supply and average realization of different consumer categories- domestic, domestic HT and street light being the subsidized categories; commercial and HT being the subsidizing categories.

Commission's Analysis

8.4 The Commission has computed the average cost of supply for FY 2009-10 at Rs. 3.64 per unit, without taking into account the revenue surplus from the years FY 2007-08 and FY 2008-09.

8.5 The overall average realization from various consumer categories is at Rs. 3.61 per unit, which is almost 99% of the average cost of supply, without considering the surplus revenues from previous years. This clearly suggests that there is no requirement of increase in tariffs. Meanwhile, the average realization from each consumer vis-à-vis the average cost of supply is shown below

Table 84 Effective Tariff Vs Average Cost of Supply as per the Commission analysis

S No.	Consumer Categories	% of Avg CoS @ Rs. 3.53 per unit (FY 2008-09)	% of Avg CoS @ Rs. 3.63 per unit (FY 2009-10)	FY 2008-09 (Provisional)	FY 2009-10 (Existing)
		Existing	Existing	Rs/unit	Rs/unit
1.	Domestic	74%	72%	2.60	2.61
2.	Domestic HT	76%	74%	2.70	2.70
3.	Commercial supply	124%	120%	4.36	4.37
4.	**High Tension**				
a	HT-1	134%	141%	4.74	5.14
B	HT-2	110%	112%	3.90	4.06
C	HT-3	102%	102%	3.60	3.70
5.	Street light	82%	80%	2.90	2.90
6.	Temporary supply	142%	137%	5.00	5.00
7.	Sale to other licensees	82%	66%	2.88	2.76

8.6 As also submitted by the petitioner, there are variations in the average Cost of Supply and average realization of different consumer categories. However, it is pertinent to mention that except the domestic and domestic HT categories, the average realization for all the other categories is in line with the provisions of the National Tariff Policy which guides towards a tariff regime within a range of ± 20% of the average Cost of Supply.

A9: STATUS OF EARLIER DIRECTIVES

Directives as per TO 2005-06	Status	Views of the Commission
Separation of accounts: Directive to the petitioner to separate the accounts of its Power Business Division from any other Business including Steel Works within six months from the date of issue of this order. **The petitioner shall also make appropriate arrangements to treat Steel Works as a consumer and propose a corresponding tariff for the same within six months of the issue of this order**	The Book of Accounts for the Power Distribution Business has been separated in a manner maximum practicable to separate form its other business and same has been submitted the Commission With respect to treating Steel Works as a consumer and submission of tariff proposal , this matter is pending with Hon'ble Supreme court of India	Petitioner has not complied with the directive. The Commission Directs the petitioner to comply with the directive within six months of the issue of this order.
Directive to the petitioner to attain prior approval of the Commission for any new agreement entered into by the petitioner for purchase of power from DVC or any other source.	Petitioner has submitted that it has been purchasing power from DVC as per existing agreement and no new agreement has been entered into by the Tata Steel with DVC. However on 31st July 2008, contract demand was increased from 85 MVA to 120MVA through a Supplementary Power Supply Agreement. Tata Steel has submitted that whenever it enters into any new agreement , it will approach the Hon'ble Commission	Petitioner has complied with the directive.
Directive to the petitioner that energy scheduled from different sources shall strictly adhere to the principle of merit order based on variable cost.	Petitioner has submitted that it has been scheduling power from primarily two sources –Tata Power Limited & DVC based on the Merit Order considering the technical limitations of the system	Petitioner has complied with the directive.
Directive to the petitioner to undertake cost of supply study and submit the progress in this regard to the Commission in 6 months from the date of issue of this order.	Petitioner has submitted that Cost of supply of electricity is worked out by allocating the relevant losses, all expenses and reasonable return. At present these figures have been allocated based on certain assumptions while evaluation of cost of supply	Petitioner has partially complied with the directive. The Commission directs the petitioner to conduct the cost of supply study for each category within one year of the issue of this order and submit it to the Commission for review and finalization. The Petitioner should also submit the scope of work and the methodology to be followed for conducting the CoS Study within one month of the issue of this order.

Directives as per TO 2005-06	Status	Views of the Commission
The Commission approved one-time expenditure of Rs. 2 Cr towards energy audit and GIS mapping proposed to be undertaken by the petitioner in FY 2005-06 as a part of Administration and General expenses. In this regard, the Commission directed the petitioner to submit the progress made and the status report every quarter starting April-June 2006.	The petitioner submitted that it had incurred Rs. 1.55 Cr expenditure on account of Energy Audit & GIS mapping in FY 2007-08	The petitioner has not submitted the progress made and the status report every quarter for the expenditure incurred on account of Energy audit & GIS mapping. The Commission directs the petitioner to submit the progress report within one month of the issue of this order. The quarterly reports should be submitted henceforth within the first week of the end of each quarter
Directive to the petitioner to collect and maintain data on category wise and slab wise connected load for all consumer categories.	Petitioner has submitted that it had started collecting data for connected load from all new consumers before giving them connections. Moreover in the ARR petition for FY2009-10, it has submitted category wise contract demand for FY2008-09.	Petitioner has partially complied with the directive. The Commission directs the petitioner to submit quarterly report on the same henceforth within the first week of the end of each quarter.
Directive to the petitioner to collect information on the demand from various consumer categories at different times of the day as well as on consumption of energy during these intervals. The petitioner should also undertake a study to estimate the cost implications of metering at sub-station level and consumer level to be able to effectively implement ToU tariff regime.	Petitioner has submitted that majority of its consumption is accounted by HT-1, HT-2 & HT-3 category and it has installed appropriate meters to capture their usage pattern. Furthermore, petitioner has submitted that being continuous process industrial consumers, these industries operate in three shifts and consumption pattern is mostly guided by their production scheduling and it had found no correlation between time of day and energy usages for these consumers	Petitioner has not submitted the information captured on the demand from various consumer categories and their usage pattern at different times of day to the Commission. Petitioner has not undertaken study to estimate cost implications of metering at sub-station level and consumer level to be able to effectively implement ToU tariff regime. The Commission directs the petitioner to submit the report three months of the issue of this order.
Directive to the petitioner to collect and submit data on the revenue collected from minimum consumption charge for the various categories.	Petitioner has submitted that it has duly accounted the minimum consumption charges for the various categories in the ARR petition for FY2009-10	Petitioner has complied with the directive.
Directive to the petitioner to submit its capital investment plans to be undertaken in future along with their cost benefit analysis for the approval of the Commission.	Petitioner has submitted that capital investment plans were duly submitted in ARR petition for FY 2008-09 and likewise investments were made. For FY2009-10, the ARR petition contains capital expenditure for Commission's	Petitioner has not complied with the directive to submit the cost benefit analysis of the investment plans submitted in the petition. A fresh direct is given in the New directives section of this order.

Directives as per TO 2005-06	Status	Views of the Commission
	approval	
The Commission had allowed a revenue surplus of Rs 23.51 Cr. The Licensee should approach the Commission with justification for its utilization.	The petitioner has submitted that though the Commission had forecasted a revenue surplus of Rs. 23.51 Cr in its tariff order; but the actual surplus recorded was only Rs 15.98 Cr for the period FY2005-06 & 2006-07. This revenue surplus has been duly accounted in evaluation of cumulative revenue gap at the end on FY2009-10 and Commission is requested to give a adequate tariff hike to cover the proposed revenue gap	Petitioner has complied with the directive.

A10: NEW DIRECTIVES

10.1 The Commission has observed through out the tariff petition that some areas of the operational and financial performance of TSL require further improvement. Therefore, the Commission is issuing the following directives

Sales estimates and projections

10.2 The Commission directs TSL to undertake a detailed study for load research and demand forecast in order to correctly workout its short term and long term peak energy requirement.

10.3 To correctly estimate the energy demand, data related to the category wise actual consumption is must. The Commission directs TSL to estimate consumption for different categories including un-metered category, if any, and to furnish number of hours of supply to various categories of consumers for the previous years with the next tariff petition.

Distribution loss estimation

10.4 The Commission directs TSL to formulate a task force for supervising the Distribution loss in its licensed area. The task force should report to the Commission quarterly about the various efforts that has been undertaken to correct ascertain the loss levels. The Commission also directs TSL to carry out energy audit of its system and provide quarterly reports to the Commission regarding the progress of energy audit, action taken to reduce Distribution loss and results achieved.

Metering issues

10.5 The Commission believes that a correct and adequate metering system assists in maintaining and reducing the loss levels of any petitioner. In view of this, the Commission directs TSL to, within three months of this order, submit a report on the metering technology used for various categories of consumers and also submit quarterly reports on the number of non-performing /defective meters for each category in the system and time taken to replace such meters.

10.6 The Commission also directs the petitioner to develop a process for installation of consumer purchased meters and issue relevant circulars within three months of this order.

Standards of performance

10.7 The Commission observed that few consumers objected to the quality of supply and service of power. The Commission directs TSL to submit the statement of record mandated under Standard of Performance Regulations along-with the amount of compensation/claim paid since inception and up to the 3rd quarter of FY 2009-10 and thereafter submit the same to the Commission on quarterly basis. The Commission also directs TSL to submit the implementation plan for opening of new bill collection centre at Adityapur within three months of the issue of this order.

10.8 The Commission further directs TSL to submit an action plan for the disseminating the information regarding load shedding to its consumers through phone/ SMS by mobile phones, within three months of the issue of this order.

Capital Investment Plan

10.9 The Commission directs the petitioner to submit scheme-wise details of actual capital expenditure incurred in FY 2008-09 & upto date for FY 2009-10 and also the scheme-wise implementation schedule for FY 2010-11, with the next tariff petition.

Load factor of High Tension Service and EHTS category

10.10 The Commission also directs TSL to carry out a study on load factor considering the contract demand, the actual consumption, load factor, billing, collection, reasons for low load factor and submit it to the Commission within a period of six months from the date of tariff order.

Adjustment of Bills & payments/receipt as per revised Generation tariff of TPCL

10.11 The Commission directs the petitioner to reconcile the payment due/receipts with TPCL, in lieu of the revised Generation tariffs determined by the Commission for FY 2007-08, FY 2008-09 and FY 2009-10 vide the Commissions Tariff Order for TPCL dated 20th January 2010, within three month of the issue of this order.

Adjustment of Bills & payments/receipt as per revised cost of power sold to JUSCO

10.12 The Commission directs the petitioner to reconcile the payment due/receipts with JUSCO, in lieu of the revised cost of power sold to JUSCO as determined by the Commission in this order, within one month of the issue of this order. The petitioner is required to generate a supplementary bill for the reconciled billed amount and submit the same to JUSCO.

Data adequacy in next Tariff petition

10.13 The Commission directs TSL to come up with a next tariff petition for FY 2010-11 removing the various data deficiencies highlighted throughout the tariff order along with the latest information for FY 2009-10.

10.14 The Commission also directs the petitioner to file the next tariff petition for FY 2010-11 within one month of the issue of this order and also ensure submission of subsequent ARR & tariff filings are done by 1st November every year previous to the tariff period.

This Order is signed and issued by the Jharkhand State Electricity Regulatory Commission on this the 20thday of January, 2010.

Date: 20th January, 2010
Place: Ranchi

Sd/-
(MUKHTIAR SINGH)
CHAIRPERSON

A11: ANNEXURES

ANNEXURE-I

List of participating members of public in public hearing

Sl. No.	Name (S/Shri)	Address / Organisation if any
1.	Vijay Prakash Singh	JUSCO
2.	Arvind Kumar Sinha	Tata Steel Ltd.
3.	Ritu Ranjan Padhi	Tata Steel Ltd.
4.	K.C. Jha	JUSCO
5.	Ajit Kar	Tata Steel Ltd.
6.	B.K. Prasad	Tata Steel Ltd.
7.	Ajay Kumar	Tata Steel Ltd.
8.	Rajesh Ranjan	JUSCO
9.	S.K. Bhallendu	199 H/6 S. Jamshedpur
10.	S.N. Barua	23 Beldih Lal Flat
11.	Abhimanyu Qumar	43/B, Teachers Colony Bhalaluoa
12.	Dilip Kumar Jha	Qrs. 2652 Sidhgora
13.	Dharmesh Kr. Jha	Qrs. 1672 Sidhgora
14.	K.K. Paul	National Metellurgical Laboratory
15.	P.K. Dhawan	National Metellurgical Laboratory
16.	Ravi Ranjan	80/A Cable Basti, Golmuri
17.	Prof. R.N. Singh	Began Area Vikas Sakchi, Jamshedpur
18.	Dipesh Kumar Sinha	Sidhgora, Jamshedpur
19.	Rajesh Kumar	Sonari
20.	Prakash Barua	Bodhi Society, Jamshedpur
21.	Ajeet Chatterjee	Tata Power, Jojobera
22.	Anirban Das	Tata Power, Jojobera
23.	S.K. Mehboob	Shop No. 1, DKD Market, IC Rd., Jamshedpur
24.	A.K. Modak	M/s Durga Electrical
25.	A. Mitra	JUSCO
26.	A.K. Sinha	JUSCO

27.	Manmohan Singh	JUSCO
28.	Appa Rao	Golmuri
29.	Srinivas Rao	Golmuri
30.	Vinod Kumar	National Metellurgical Laboratory
31.	Rajiv Bahadur	JUSCO
32.	P.K. Singh	Old Professi. Jamshedpur
33.	Neeraj Kumar	Nehru Colony, Bagan Area
34.	Sanjiv Paul	JUSCO
35.	B.K. Ojha	Dainik Jagran
36.	Imteyaz Hassain	Shastri Nagar
37.	Kanill	Jamshedpur
38.	Ajay Shah	Shah Jewellers, Natraj Man., Jamshedpur
39.	Detesh Badyain	Jolaram Sweets
40.	Upender Pradhan	Bistupur
41.	S.K. Mousdb	B.H. Area
42.	Amit Kumar	Hindustan Times
43.	C.M. Dubey	Shastri Nagar
44.	D. Pal	Shastri Nagar
45.	Amir Ahmad	Shastri Nagar
46.	N. Pandey	Shastri Nagar
47.	Md. Rijwan	Shastri Nagar
48.	Bijendra Kumar	New Ispat Mail
49.	Md. Imtayaz	News Time