Jharkhand State Electricity Regulatory Commission

Final True up of JSEB for
FY 2003-04 to FY 2010-11

and

MYT Order for Generation Business for
First Control Period (FY 2012-13 to FY2015-16)

and

Annual Revenue Requirement for
FY 2011-12 & FY 2012-13 for
Transmission & Distribution Business

and

Determination of Tariff for FY 2012-13

for

Jharkhand State Electricity Board
(JSEB)

Ranchi

August 2012

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List of Abbreviations

Abbreviation	Description
A&G	Administrative and General
APTEL	Appellate Tribunal for Electricity
ARR	Aggregate Revenue Requirement
CoD	Date of Commissioning
CWIP	Capital Work in Progress
DPS	Delayed Payment Surcharge
DS	Domestic Service
DS HT	Domestic Service High Tension
DVC	Damodar Valley Corporation
FY	Financial Year
GFA	Gross Fixed Assets
GoJ	Government of Jharkhand
HT	High Tension
JSERC	Jharkhand State Electricity Regulatory Commission
JSEB	Jharkhand State Electricity Board
LT	Low Tension
kV	Kilovolt
kVA	Kilovolt-ampere
kW	Kilowatt
kWh	Kilowatt-hour
MMC	Monthly Minimum Consumption
MU	Million Units
NEFT	National Electronic Fund Transfer
NTI	Non Tariff Income
O&M	Operations and Maintenance
PLF	Plant Load Factor
PLR	Prime Lending Rate
PPA	Power Purchase Agreement
PTPS	Patratu Thermal Power Station
R&M	Repair and Maintenance
RM&LE	Renovation Modernization & Life Extension
RoE	Return on Equity
SBI	State Bank of India
SERC	State Electricity Regulatory Commission
SHPS	Sikidri Hydro Power Station
SLM	Straight Line Method
TOD	Time of Day

SECTION 1: INTRODUCTION

Jharkhand State Electricity Regulatory Commission (JSERC)

1.1 The Jharkhand State Electricity Regulatory Commission (herein after referred to as the "JSERC" or "the Commission") was established by the Government of Jharkhand under Section 17 of the Electricity Regulatory Commission Act, 1998 on 22nd August 2002. The Commission became operational w.e.f. 24th April 2003. The Electricity Act, 2003 (hereinafter referred to as "the Act" or "EA, 2003") came into force w.e.f. 10th June 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 22nd August 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 enactment of Electricity Act, 2003, 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 Petitioners 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 Petitioners, distribution Petitioners and electricity traders with respect to their operations within the State;

(e) promote cogeneration 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 Petitioner;

(f) adjudicate upon the disputes between the Petitioners 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 Petitioners;

(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 as brought out by GoI in compliance to Section 3 of the Act. The objectives of the National Tariff Policy 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.

Jharkhand State Electricity Board (JSEB)

1.8 Jharkhand State Electricity Board (hereinafter referred to as the 'Petitioner') was constituted on 10th March 2001 under Section 5 of the Electricity (Supply) Act, 1948 as a result of the bifurcation of the erstwhile State of Bihar. Before that, the Bihar State Electricity Board (BSEB) was the predominant entity entrusted with the task of generating, transmitting and supplying power in the State. The Petitioner has been engaged in electricity generation, transmission, distribution and related activities in the state of Jharkhand. Presently, the board is functioning as two entities, i.e. State Transmission Utility (STU) and a Petitioner.

1.9 Apart from the distribution and transmission functions, the Petitioner also owns two power plants; **Patratu Thermal Power Station (PTPS)** having a capacity of 840 MW (de-rated capacity of 770 MW) and **Sikidri Hydel Power Station (SHPS)** having a capacity of 130 MW.

1.10 The unit-wise capacity and date of Commissioning (CoD) of PTPS is tabulated hereunder:

Table 1: Unit-wise Capacity and CoD of PTPS

Description	Capacity/ De-rated (MW)	CoD
Unit I	50/40	26.06.1966

Unit II	50/40	27.04.1967
Unit III	50/40	16.10.1968
Unit IV	50/40	31.10.1969
Unit V	100/90	31.03.1971
Unit VI	100/90	31.03.1972
Unit VII	110/105	31.08.1977
Unit VIII	110/105	16.07.1979
Unit IX	110	30.03.1984
Unit X	110	20.03.1986

1.11 The Petitioner is also engaged in construction and maintenance of its transmission and distribution system for providing services to various categories of electricity consumers within the area of its jurisdiction.

Scope of the Present Order

1.12 In compliance with the Hon'ble Appellate Tribunal for Electricity Order dated 8th May 2008 vide Appeal no.129 of 2007 & IA 78 of 2009 dated 23rd September 2009, the Commission had issued the Tariff Order for JSEB for FY 2010-11 dated 26th April 2010 covering the following:

(a) Truing up exercise for FY 2003-04 to FY 2006-07 as per the provisional accounts of the Petitioner for these years,

(b) ARR and Tariff Petitions filed by the Petitioner for approval of ARR for FY 2007-08 & FY 2008-09,

(c) Suo-motu proceedings for FY 2009-10 & FY 2010-11, and

(d) Determination of Provisional tariff for FY 2010-11.

1.13 It is important to mention here that in the absence of audited accounts for FY 2003-04 to FY 2006-07, the Commission had carried out provisional true up of JSEB for the said years during the Suo-motu determination of tariff for FY 2010-11.

1.14 On 22nd July 2011, the Commission issued the Tariff Order for FY 2011-12 covering the following:

(a) Truing up exercise for FY 2007-08, FY 2008-09 and FY 2009-10 based on provisional accounts of the respective years, ARR & Tariff Petition filed by the Petitioner and trajectory for operational parameters set by the Commission in its previous Tariff Order.

(b) Revision exercise for FY 2010-11 based on the latest data and ARR petition filed by the Petitioner.

(c) Determination of ARR and provisional tariff for FY 2011-12, based on the past trends and ARR & Tariff Petition filed by the Petitioner.

1.15 The Petitioner filed the ARR & Tariff petition for Transmission & Distribution business of JSEB separately on 29th December 2011 and subsequently also filed the MYT Petition for Generation Business for the first control period from FY 2012-13 to FY 2015-16 on 10th February 2012.

1.16 As the Petitioner also submitted the audited accounts for FY 2003-04 to FY 2006-07, it requested the Commission to conduct the final true up exercise up to FY 2006-07. Meanwhile, the Commission directed the Petitioner to get all accounts audited till FY 2010-11 and submit the same to the Commission before the public hearing process is initiated. In this respect, the Commission asked the Petitioner to take up this matter on an urgent basis and also directed the Petitioner to request the Office of the CAG to expedite the process. Accordingly, the Petitioner submitted the audited accounts till FY 2010-11 in April 2012.

1.17 The Commission after thorough scrutiny of the accounts and the petitions submitted by the Petitioner has covered the following in this Tariff Order:

(a) Final Truing up exercise for FY 2003-04 to FY 2010-11 based on audited accounts of the respective years, ARR & Tariff Petition filed by the Petitioner and trajectory for operational parameters set by the Commission in its previous Tariff Order and Tariff Regulations issued by the Commission.

(b) Revision exercise for FY 2011-12 of Generation, Transmission and Distribution Business of the Petitioner based on the latest data and ARR petition filed by the Petitioner, true up of previous years, trajectory for operational parameters set by the Commission in its previous Tariff Order and Tariff Regulations issued by the Commission.

(c) Approval of Business Plan and MYT Order for Generation Business for the First Control Period of FY 2012-13 to FY 2015-16 based on the business plan and Petition filed by the Petitioner, true up of previous years and trajectory for operational parameters and norms for various tariff components set by the Commission in the 'Jharkhand State Electricity Regulatory Commission (Terms and Conditions for determination of Generation Tariff) Regulations, 2010' (hereinafter referred to us **'Generation Tariff Regulations, 2010'**).

(d) Determination of ARR and tariff for transmission business for FY 2012-13, based on true up of previous years, ARR & Tariff Petition filed by the Petitioner, and trajectory for operational parameters and norms for various tariff components set by the Commission in the 'Jharkhand State Electricity Regulatory Commission (Terms and Conditions for determination of Transmission Tariff) Regulations, 2010' (hereinafter referred to us **'Transmission Tariff Regulations, 2010'**).

(e) Determination of ARR and tariff for distribution business for FY 2012-13, based on true up of previous years, ARR & Tariff Petition filed by the Petitioner, and trajectory for operational parameters and norms for various tariff components set by the Commission in the 'Jharkhand State Electricity Regulatory Commission (Terms and Conditions for determination of Distribution Tariff) Regulations, 2010' (hereinafter referred to us **'Distribution Tariff Regulations, 2010'**).

1.18 The aforementioned exercise has been done by taking into consideration:

(a) Provisions of the Electricity Act, 2003;

(b) Provisions of the National Electricity Policy;

(c) Provisions of the National Tariff Policy;

(d) Principles laid down in the 'Generation Tariff Regulations, 2004'; for purposes of final truing up of FY 2003-04 to FY 2010-11;

(e) Principles laid down in the 'Distribution Tariff Regulations, 2004'; for purposes of final truing up of FY 2003-04 to FY 2010-11;

(f) Principles laid down in the 'Generation Tariff Regulations, 2010'. These Regulations have been referred to for tariff determination for the first MYT Control period i.e. FY 2012-13 to FY 2015-16;

(g) Principles laid down in the 'Transmission Tariff Regulations, 2010'. These Regulations have been referred to for tariff determination of FY 2012-13, the second year of the transition period;

(h) Principles laid down in the 'Distribution Tariff Regulations, 2010'. These Regulations have been referred to for tariff determination of FY 2012-13, the second year of the transition period.

SECTION 2: PROCEDURAL HISTORY

Background

2.1 The Petitioner has filed the MYT Petition for determination of Generation Tariff for the first Control Period (FY 2012-13 to FY 2015-16) and ARR and Tariff Petitions for determination of transmission and distribution tariff for FY 2012-13 and also for truing-up the ARR from FY 2003-04 to FY 2006-07. The Petitioner along with the Tariff Petition submitted the audited annual accounts for FY 2003-04, FY 2004-05, FY 2005-06 and FY 2006-07.

2.2 As per Tariff Regulations, 2010 notified by the Commission for the Generation, Transmission and Distribution Business on 1st November, 2010, the Petitioner is required to submit the audited accounts of the previous years along with the Petition, which the Petitioner has failed to submit as it only submitted the audited accounts till FY 2006-07.

2.3 The Commission asked the Petitioner to submit the audited accounts till FY 2010-11. The Petitioner informed the Commission that the audited accounts from FY 2007-08 to FY 2010-11 have been submitted to the office of CAG for the purpose of audit and will take time to be audited.

2.4 Subsequently, the Petitioner submitted the audited accounts till FY 2010-11 in April 2012. Accordingly, the Commission conducted public hearings during the months of April and May 2012 for the following:

(a) Final Truing up exercise for FY 2003-04 to FY 2010-11;

(b) Revision exercise for FY 2011-12 of Generation, Transmission and Distribution Business of the Petitioner;

(c) Approval of Business Plan and MYT Order for Generation Business for the First Control Period from FY 2012-13 to FY 2015-16;

(d) Determination of ARR and tariff for Transmission Business for FY 2012-13;

(e) Determination of ARR and tariff for Distribution Business for FY 2012-13.

2.5 Public notices were published by the Commission in leading newspapers in Jharkhand. The Public hearings were attended by a total of 473 persons at various locations in Jharkhand representing consumer groups, consumer forums, industries apart from the Petitioner -JSEB.

2.6 The Petitioner presented its case in the public hearings and requested the Commission to admit its ARR & Tariff Petition and determine the ARR & Tariff accordingly considering the audited annual accounts submitted by the Petitioner.

Information Gaps in the Petition

2.7 In the process of scrutinizing the Tariff Petition filed by the Petitioner, the Commission observed several deficiencies in the ARR & Tariff Petition. The information gaps were communicated to the Petitioner through written communication vide several letters dated 24th January 2012, 12th February 2012, 16th May 2012, 2nd June 2012, 8th June 2012 and 13th June 2012. The Petitioner subsequently submitted its response and provided the requisite data through several written communications during the months of April-June 2012.

2.8 Subsequently, Technical validation sessions were also held during the month of June 2012 at the office of the Petitioner in Ranchi by the representatives of the Commission. After the technical validation sessions, the Commission sought further clarifications from the Petitioner, from time to time, till the finalization of this Tariff Order. The Commission regularly interacted with the officers of the JSEB to validate the information submitted by them.

Inviting Comments/Suggestions from the Public

2.9 After scrutinizing the Tariff Petition and the additional information/data furnished by the Petitioner, the Commission directed the Petitioner to issue public notice for inviting comments/suggestions from public and to make copies of the ARR and tariff petition available to the general public. The public notice was subsequently issued by the Petitioner in various newspapers, as detailed hereunder:

Table 2: List of newspapers where public notice was issued by the Petitioner

Newspaper	Date
Hindustan	14th April 2012
Sanmarg	14th April 2012
Hindustan Times	15th April 2012
Prabhat Khabar	15th April 2012

2.10 A total period of 15 days was provided to the public for submitting their objections/ comments/suggestions.

2.11 The Commission also uploaded this information on its official website www.jserc.org and published advertisements in various newspapers separately for each public hearing. The list of newspapers along with the dates and the place for which the notice was issued by the Commission is tabulated hereunder.

Table 3: List of newspapers where public notice was published by the Commission

Newspaper	Date	
Hindustan	26.04.2012	Jharkhand Edition
Prabhat Khabar	26.04.2012	Jharkhand Edition
Sanmarg	26.04.2012	Jharkhand Edition
Dainik Bhaskar	27.04.2012	Jharkhand Edition
Aaj	27.04.2012	Jharkhand Edition
Ranchi Express	27.04.2012	Jharkhand Edition
The Hindustan Times (English)	27.04.2012	Jharkhand Edition
The Pioneer (English)	26.04.2012	Jharkhand Edition
Farooqui Tanzeem (Urdu)	26.04.2012	Jharkhand Edition
Hindustan	28.04.2012	Medninagar Edition
Prabhat Khabar	28.04.2012	Medninagar Edition
Sanmarg	29.04.2012	Medninagar Edition
Ranchi Express	28.04.2012	Medninagar Edition
Dainik Jagran	29.04.2012	Medninagar Edition
The Hindustan Times (English)	29.04.2012	Medninagar Edition
Hindustan	03.05.2012	Deoghar Edition
Prabhat Khabar	05.05.2012	Deoghar Edition
Dainik Bhaskar	05.05.2012	Deoghar Edition
Dainik Jagran	03.05.2012	Deoghar Edition
The Hindustan Times (English)	05.05.2012	Deoghar Edition
The Pioneer (English)	03.05.2012	Deoghar Edition
Farooqui Tanzeem (Urdu)	03.05.2012	Deoghar Edition
Hindustan	09.05.2012	Dhanbad Edition
Prabhat Khabar	12.05.2012	Dhanbad Edition
Aaj	09.05.2012	Dhanbad Edition
Dainik Jagran	09.05.2012	Dhanbad Edition
Bihar Observer	12.05.2012	Dhanbad Edition
The Hindustan Times (English)	12.05.2012	Dhanbad Edition
Hindustan	15.05.2012 & 17.05.2012	Jamshedpur Edition
Prabhat Khabar	19.05.2012	Jamshedpur Edition
Dainik Bhaskar	19.05.2012	Jamshedpur Edition
Dainik Jagran	15.05.2012 & 17.05.2012	Jamshedpur Edition
Uditavani	17.05.2012	Jamshedpur Edition
The Hindustan Times (English)	19.05.2012	Jamshedpur Edition
Hindustan	23.05.2012	Ranchi Edition
Prabhat Khabar	23.05.2012	Ranchi Edition
Sanmarg	24.05.2012	Ranchi Edition
Dainik Bhaskar	26.05.2012	Ranchi Edition
Aaj	23.05.2012	Ranchi Edition
Ranchi Express	24.05.2012	Ranchi Edition

Dainik Jagran	24.05.2012	Ranchi Edition
The Hindustan Times (English)	26.05.2012	Ranchi Edition
The Pioneer (English)	26.05.2012	Ranchi Edition
Quami Tanzeem (Urdu Daily)	26.05.2012	Ranchi Edition

Conduct of public hearings

2.12 The public hearings were held at revenue divisional areas in Jharkhand during April to May 2012, as detailed under.

Table 4: Location and date of public hearing

Location	Date
Medninagar	29.04.2012
Deoghar	06.05.2012
Dhanbad	13.05.2012
Jamshedpur	20.05.2012
Ranchi	27.05.2012

2.13 For wider coverage and maximum response from the public, public hearings were held on Sundays. The Commission also issued public notice for public hearings in the local newspapers on the day prior to the day of public hearing and also on the date of the hearing.

2.14 Numerous objections/comments/suggestions on the ARR & Tariff Petition were received. The objections/comments/suggestions of the public, Petitioner's responses and Commission's views thereon are detailed in Section 4 of this Order.

SECTION 3: SUMMARY OF THE ARR & TARIFF PETITION FILED BY THE PETITIONER

3.1 The following sub-sections present a summary of ARR & Tariff Petition filed by the Petitioner for final true-up of ARR for FY 2003-04 to FY 2006-07, Business Plan, ARR and Tariff determination for Generation Business for MYT Control Period for FY 2012-13 to FY 2015-16 and ARR & Tariff determination for Transmission & Distribution Business for FY 2012-13.

Final True up for FY 2003-04 to FY 2006-07

3.2 In the ARR and Tariff Petition filed with the Commission, the Petitioner requested for the final true up of ARR for the period FY 2003-04 to FY 2006-07 based on the audited annual accounts of respective years. The summary of ARR as submitted by the Petitioner from FY 2003-04 to FY 2006-07 is detailed hereunder:

Table 5: Summary of Final True up of ARR for FY 2003-04 to FY 2006-07 (Rs Cr) proposed by JSEB

Particulars	FY 2003-04	FY 2004-05	FY 2005-06	FY 2006-07
Generation Cost	151.21	111.60	119.47	87.99
Power Purchase cost	1023.84	1174.37	1335.78	1539.52
Employee cost	144.36	155.95	169.94	169.15
R&M expenses	29.44	26.28	31.20	36.33
A&G expenses	23.82	27.19	30.57	32.68
Interest and finance charges	115.04	188.91	312.52	485.90
Interest on working capital	17.05	21.01	21.72	18.22
Depreciation	64.42	65.79	32.44	35.55
Bad debts provision	222.34	312.75	249.33	181.81
Prior period expenses	6.16	134.32	233.55	(54.89)
Total Expenditure	**1797.68**	**2218.17**	**2536.52**	**2532.26**
Add: Statutory return/ RoE	56.73	56.97	60.38	61.37
Less: Non Tariff Income	(48.54)	(53.80)	(173.40)	(184.75)
Net Revenue Required	**1805.87**	**2221.35**	**2423.49**	**2408.88**
Revenue at Current tariff	1071.83	1009.31	1155.18	1406.96
Grants-In-Aid of debt service	75.00	104.25	363.48	200.00
Subsidy for R.E loss	0.00	0.00	0.00	0.00
Revenue Gap/ (Surplus)	**659.03**	**1107.79**	**904.84**	**801.92**
Cumulative Revenue Gap/ (Surplus)	**659.03**	**1766.82**	**2671.66**	**3473.58**

3.3 The Petitioner has proposed a cumulative revenue gap of Rs 3473.58 Cr from final true up of ARR for FY 2003-04 to FY 2006-07 as against Rs. 364.58 Cr approved by the Commission in the Tariff Order for FY 2010-11 during the provisional truing up of the aforesaid years. Accordingly, the Petitioner has asked for additional allowance of Rs. 3109 Cr (Rs. 3473.58-Rs. 364.58 Cr), as detailed in following table:

Table 6: Accumulated Revenue Gap as proposed by JSEB for FY 2003-04 to FY 2006-07 (Rs Cr)

Particulars	Approved by JSERC in provisional true-up	As per Audited Accounts	Proposed by JSEB for True-up
FY 2003-04	(13.35)	280.44	659.03
FY 2004-05	35.68	653.29	1107.79
FY 2005-06	(47.78)	482.95	904.84
FY 2006-07	390.03	450.47	801.92
Cumulative Gap for FY 2003-04 to FY 2006-07	**364.58**	**1867.15**	**3473.58**
Less: Revenue Gap approved in Tariff Order for FY 2010-11			**364.58**
Proposed Additional Gap for FY 2003-04 to FY 2006-07			**3109.00**

3.4 The Petitioner has further requested the Commission to allow carrying cost on the Revenue-gap proposed by the Petitioner at the rate of respective PLR as on 1st April of respective year. The details of carrying cost as submitted by the Petitioner are hereunder:

Table 7 Carrying cost on Under-Recovered amount for the year FY 2003-04 to FY 2006-07 (Rs Cr)

Particulars	FY 2005-06	FY 2006-07	FY 2007-08	FY 2008-09	FY 2009-10	FY 2010-11	FY 2011-12	FY 2012-13
Opening Balance	-	707	1906	3151	3982	4470	4995	5645
Revenue Gap for the year	672	1072	953	412	-	-	-	-
Closing Balance	672	1179	2859	3563	3982	4470	4995	5645
Interest rate (SBI PLR)	10.25%	10.25%	12.25%	12.50%	12.25%	11.75%	13.00%	14.75%
Interest	34	127	292	420	488	525	649	833
Total Recovery for FY 2012-13	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**6477**

3.5 The Petitioner has requested the Commission to approve Rs 6477 Cr as revenue gap for the period FY 2003-04 to FY 2006-07 and allow recovery of same.

Generation Business Plan for First Control Period (FY2012-13 to FY 2015-16)

3.6 The following sub-section summarizes the Generation Business Plan & ARR and Tariff Petition as submitted by the Petitioner for the first MYT control period for FY 2012-13 to FY 2015-16.

Trajectory for Performance Parameters

3.7 In case of the PTPS, the Petitioner in its Business Plan has submitted the trajectory for achievable station heat rate, improvements in auxiliary consumption and other performance parameters during the Control Period as summarized in following table.

Table 8: Performance Trajectory for the Control Period for PTPS submitted by the Petitioner

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
SHR (Kcal/kWh)	4,231	4,231	4,231	4,231
Aux. consumption	14.25%	14.00%	13.50%	13.50%
PAF/ PLF	34.34%	51.77%	51.81%	51.94%
Specific oil consumption for FO (ml/kWh)	5.49	5.49	5.49	5.49
Specific oil consumption for LDO (ml/kWh)	3.74	3.74	3.74	3.74
Transit Loss	3.87%	3.87%	3.87%	3.87%

3.8 The Petitioner has also submitted the trajectory for achievable generation and auxiliary consumption for SHPS as summarized in the following table:

Table 9: Performance Trajectory for the Control Period for SHPS submitted by the Petitioner

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Hydel Capacity (MW)	130	130	130	130
Gross Hydel Generation (MUs)	159.00	159.00	159.00	159.00
Aux Power (MUs)	6.11	6.11	6.11	6.11
Aux Power (%)	3.84%	3.84%	3.84%	3.84%
Net Hydel Generation(MUs)	152.89	152.89	152.89	152.89

Investment Plan and O&M Expenses Plan

3.9 The Petitioner submitted that it will make a total capital expenditure of Rs 1086 Cr for its Generation Business during the MYT Control period. The Petitioner has been allotted three coal blocks namely Banhardi Coal Block, Urmapaharitola Coal Block and Mourya Coal Block. The Petitioner has proposed a total capital expenditure of Rs 174 Cr for development of these coal blocks during the control period. The proposed capital expenditure for the first MYT Control period has been summarised in following table.

Table 10: Capex Plan for MYT Control Period proposed by Petitioner

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	Total
Capex in RM&LE of PTPS	120	275	275	132	802
Capex in RM&LE of Sikidiri Hydro	30	80	-	-	110
Capex in Development of Coal Blocks	40	42	44	48	174
Total Investment	**190**	**397**	**319**	**180**	**1,086**

3.10 In case of PTPS, the Petitioner has submitted the unit-wise and year-wise Renovation Modernisation and Life Extension (RM&LE) schedule during the Control period along with the phasing out of units 3 & 5 of PTPS as per the recommendations of Central Electricity Authority (CEA).

3.11 The unit wise capital works proposed by the Petitioner for PTPS during the MYT Control period has been summarised in following table.

Table 11: Unit wise RM&LE schedule for PTPS submitted by Petitioner

Unit No.	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Unit 1	Capital overhaul & restoration	Capital overhaul & restoration		
Unit 2	Restoration of Exploded boiler	Restoration of Exploded boiler		
Unit 3	X	X	X	X
Unit 4				
Unit 5	X	X	X	X
Unit 6				
Unit 7	X		R&M and Up-gradation	
Unit 8	X	Restoration & Up-gradation		
Unit 9	Under Restoration			
Unit 10	Under Restoration			Renovation & Modernization

3.12 Further, the Petitioner also submitted the scheme-wise break up of proposed capital expenditure for PTPS for FY 2012-13 as summarized in the following table:

Table 12: Scheme-wise Capex for PTPS for FY 2012-13 submitted by Petitioner

Sl. No.	Description	Amount (Rs. Crs)
A.	**On-going scheme of Restoration and other activities**	
i	Augmentation of switch yard and BOP	3.00
ii	Pollution control measures	30.00
iii	Fire fighting system	10.00
iv	Revised expenditure under unforeseen head for restoration of Unit No. 9 & 10	16.00
	Sub-total (A)	59.00
B.	**New Scheme**	
i	For oil unloading system	5.00
ii	Renovation of DM water plant	5.00
iii	Capital overhauling and restoration of Unit 1	12.00
iv	Restoration of exploded boiler of Unit 2	12.00

v	Capital overhauling of Unit 6	10.00
vi	Overhauling of cooling tower and BOP	5.00
vii	Restoration of Unit 7	12.00
	Sub-total (B)	61.00
	Grand Total	**120.00**

3.13 In case of SHPS, the Petitioner has planned renovation activities for Power Canal, fore bay dam, etc. during FY 2012-13 at an amount of Rs.10.00 Crs. Petitioner also plans to undertake dredging of reservoir in SHPS for enhancement of catchment area. The Petitioner has also planned to undertake RM&LE of both the units of SHPS during FY 2012-13 and FY 2013-14. The proposed expenditure plan under this head by the Petitioner is Rs. 100 Cr.

3.14 Further, the Petitioner submitted that the entire capital expenditure of Rs.1086 Cr. to be proposed by it during the control period shall be funded through 100% loan from the Govt. of Jharkhand during the respective years.

3.15 The capitalisation schedule for the proposed capital investment of Rs. 1086 Cr for the control period as submitted by the Petitioner has been summarised in following table.

Table 13: Capitalisation schedule for MYT Control period submitted by the Petitioner

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Total Investment	190	397	319	180
Amount Capitalized from investment during the year	**135**	**315**	**275**	**132**
Balance transferred to Capital Works in Progress	55	82	44	48

Generation ARR for MYT Control Period from FY 2012-13 to FY 2015-16

3.16 The following table summarises the ARR for the Generation Business for the first MYT Control period from FY 2012-13 to FY 2015-16 as submitted by the Petitioner.

Table 14: ARR for Generation Business for MYT Control period submitted by the Petitioner

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Fuel Cost	123.24	376.07	462.44	518.16
Employee cost	124.06	135.23	147.40	160.66
R&M expenses	49.87	70.68	84.44	88.16
A&G expenses	16.30	17.77	19.37	21.11
Interest and finance charges	55.34	103.82	152.58	178.57
Interest on working capital	10.29	16.76	19.68	21.64

Depreciation	18.36	27.00	35.16	39.24
Total Expenditure	**397.46**	**747.33**	**921.07**	**1027.54**
Add: Statutory return/ RoE	85.74	128.60	156.94	164.60
Less: Non Tariff Income	(2.28)	(1.99)	(2.01)	(2.05)
Net Revenue Required	**480.91**	**873.93**	**1075.99**	**1190.08**

Transmission ARR Petition for FY 2012-13

3.17 The following table summarizes the ARR for the Transmission function as submitted by the Petitioner for FY 2012-13.

Table 15: ARR for Transmission Function for FY 2012-13 (Rs Cr) as submitted by Petitioner

Particulars	FY 2011-12 (RE)	FY 2012-13 (Projected)
Employee expenses	57.61	45.26
Repair & Maintenance expenses *	20.34	49.14
Administration & General expenses	5.46	5.95
Interest & Finance Charges	26.44	71.81
Interest on working Capital *	2.53	3.45
Depreciation	19.23	41.02
Total Costs	**131.60**	**216.63**
Add: Reasonable return	30.53	85.81
Less: Non-Tariff Income	(1.05)	(1.14)
Net revenue recoverable	**161.08**	**301.30**

Note: *As per revised submission dated 24th May 2012

Distribution ARR Petition & Tariff Proposal for FY 2012-13

3.18 The following table summarizes the ARR & Tariff petition for the Distribution function as submitted by the Petitioner for FY 2012-13.

Table 16: Aggregate Revenue Requirement for Distribution Function (Rs Cr) submitted by Petitioner

Particulars	FY 2011-12 (RE)	FY 2012-13 (Projected)
Power Purchase cost	3,611.23	5046.67
Employee cost	352.87	277.25
Repair & Maintenance cost	42.26	64.47
Administration & General expenses	33.42	36.43
Interest and financing charges	278.65	278.54

Interest on working capital	36.77	57.74
Depreciation	50.50	73.76
Interest on consumer security deposit	12.52	12.47
Less: Disincentive for T&D Loss	-	-
Total Costs	**4418.23**	**5847.33**
Add: Reasonable return	63.44	112.58
Less: Non Tariff Income	(78.32)	(57.99)
ARR	**4403.35**	**5901.92**

Note: As per the additional submission by the Petitioner dated 7th June 2012

3.19 Based on the ARR projected for Generation, Transmission and Distribution function, the Petitioner estimated the revenue gap/ (surplus) for the JSEB as whole for the period FY 2012-13 as summarised in following table.

Table 17: Revenue Gap/ (Surplus) for JSEB for FY 2011-12 & FY 2012-13 as submitted by Petitioner

Particulars	FY 2012-13 (Projected)
ARR for Generation Business	480.91
ARR for Transmission Business	301.30
ARR for Distribution Business	5901.92
Total ARR for JSEB	**6684.13**
Revenue from existing tariff	3865.03
Resource Gap funding from State Government	1000.00
Revenue Gap/ (Surplus) at existing tariff	**1819.10**
Revenue Gap from final true up of FY 2003-04 to FY 2006-07 along with carrying cost	6477.00
Corrected figure of Revenue Gap for FY 2007-08 to FY 2011-12 along with carrying cost	575.06
Cumulative Revenue Gap till FY 2012-13	**8871.16**

3.20 The Petitioner submitted a proposal for average tariff hike of 36% and requested the Commission to treat the balance gap as Regulatory asset. The tariff schedule as proposed in the Petition is reproduced hereunder:

Table 18: Proposed Tariff Schedule for FY 2012-13 submitted by Petitioner

Category	Existing Fixed Charges	Proposed Fixed Charges	Existing Energy Charge (Rs/kWh)	Proposed Energy Charges (Rs/kWh)
Domestic				
DS-I (a), Kutir Jyoti (Unmetered)	Rs.35 per conn. per Month	Rs.50 per conn. per Month	Nil	Nil
DS-I (a), Kutir Jyoti (metered)	Rs.12 per conn. per Month	Rs.25 per conn. per Month	1.10 (0-50 units)	1.20 (0-50 units)
			1.10 (Above 50 units)	1.20 (Above 50 units)

DS-I (b), Other Rural Domestic Connections (Unmetered)	Rs.85 per conn. per Month	Rs.200 per conn. per Month	Nil	Nil
DS-I (b), Other Rural Domestic Connections (Metered)	Rs.20 per conn. per Month	Rs.40 per conn. per Month	1.25	1.50 (0 - 200 units)
				1.50 (Above 200 units)
DS-II	Rs.35 per conn. per Month	Rs.70 per conn. per Month	1.90 (0-200 units)	2.95 (0-200 units)
	Rs.50 per conn. per Month	Rs.120 per conn. per Month	2.40 (Above 200 units)	3.95 (Above 200 units)
DS-III	Rs.90 per conn. per Month	Rs.200 per conn. per Month	2.40	3.95
DS HT	Rs.65 per kVA per Month	Rs.100 per kVA per Month	2.00	3.75
NDS-I, Metered	Rs.25 per conn. per Month	Rs.100 per conn. per Month	1.50	2.50
NDS-I unmetered	Rs.150 per conn. per Month upto 1 kW and Rs.60 per kW per month for each additional 1 kW or part thereof	Rs.300 per conn. per Month upto 1 kW and Rs.60 per kW per month for each additional 1 kW or part thereof	Nil	Nil
NDS-II	Rs.150 per kW per Month or part thereof	Rs.195 per kW per Month or part thereof	4.80	5.50
NDS-III *	NA	Rs.200 per conn per month	NA	10.00
LTIS	Rs.110 per HP per month	Rs.150 per HP per Month	4.10	4.90
Irrigation & Agricultural				
IAS-I Metered	Nil	Rs.50 per HP per month	0.55	1.00
IAS-I Unmetered	Rs.60 per HP per month	Rs.100 per HP per month	Nil	Nil
IAS-II Metered	Nil	Rs.100 per HP per month	0.85	4.00
IAS-II Unmetered	Rs.240 per HP per month	Rs.500 per HP per month	Nil	Nil
High Tension Service	Rs.205 per kVA per month	Rs.300 per kVA per month	4.90	5.50
HT Special Service	Rs.370 per kVA per month	Rs.400 per kVA per month	2.85	3.90
RTS	Rs.205 per kVA per month	Rs.300 per kVA per month	4.85	5.50
SS-I	Rs.30 per conn. per month	Rs.150 per conn. per month nth	3.85	6.50
SS-II	Rs.125 per 100 watt lamp and Rs.30 for each additional 50	Rs.250 per 100 watt lamp and Rs.100 for each additional 50	Nil	Nil

	watts	watts		
REC	Nil	Nil	0.77	2.00
MES	Rs.180 per kVA per month	Rs.240 per kVA per month	3.50	5.00

* New Category proposed by JSEB for Advertisement & Hoardings Consumers

3.21 In view of the huge regulatory asset proposed, the Petitioner asked the Commission to approve a resource gap funding from the Government of Jharkhand to the extent of Rs. 1500 Cr. for FY 2012-13 in accordance with the provisions under Section 65 of the Electricity Act, 2003. The Petitioner has proposed to use a part of the resource gap support for meeting the future year ARR and for recovery against the accumulated revenue gap and shall be used for retiring accumulated outstanding dues of various power generators and other old liabilities.

SECTION 4: PUBLIC CONSULTATION PROCESS-ISSUES RAISED

4.1 The Tariff Petition evoked response from several stakeholders. The public hearings were held in various locations across the State of Jharkhand to ensure the maximum public participation wherein stakeholders put forth their comments and suggestions before the Commission in the presence of the Petitioner. In all 473 persons participated in the public hearing process. The list of the attendees is attached as Annexure-I to this Order.

4.2 In the course of public hearings, the Commission also allowed persons/representatives of entities who had not submitted prior written representations but attended the public hearings, to express their views in person, regarding the ARR and Tariff Petition filed by the Petitioner for FY 2012-13 and also about ways and means to improve the services rendered by the Petitioner.

4.3 The comments and suggestions raised by the stakeholders along with replies of the Petitioner and views of the Commission thereon are discussed in this Section.

Non submission of Annual Accounts by the Petitioner

Public Comments/Suggestions

4.4 It was objected that the Petitioner has not been able to submit its provisional annual accounts for FY 2011-12 and any expenditure figure cannot be accepted without a provisional account. It has also been objected that the audited accounts for FY 2003-04 to FY 2006-07 have not been attached with the Petition and the Petition is filed without even the provisional accounts for Board's three activities Generation, Transmission and Distribution.

Petitioner's response

4.5 The Petitioner submitted that copies of audited annual accounts of the Board for FY 2003-04 to FY 2009-10 have already been submitted to the Commission (in hard and soft form). Further, it is pertinent to mention here that the Petitioner also submitted the audited annual account for FY 2010-11 to the Commission as additional information subsequent to the filing of Tariff Petition for FY 2012-13.

4.6 Also, as per the order of Government of Jharkhand, the JSEB has been allowed to function as the State Transmission Utility and licensee till December 31, 2012. As the unbundling of JSEB is under process, the Petitioner has not prepared function wise annual accounts. It is further to be noted that even the allocation of assets and liability between BSEB and JSEB is incomplete due to pending resolution of several issues, which are sub-judice in the Court of Law, which would have an impact on the preparation of function-wise annual accounts.

Views of the Commission

4.7 As far as the submission of annual accounts is concerned, the Commission is in possession of the audited annual accounts of JSEB for FY 2003-04 to FY 2010-11. Further, the Commission is aware that copies of the annual accounts of JSEB were made available to the consumers who approached the Petitioner for the same. In fact, one of the consumers made a detailed presentation making use of the annual accounts during the Public Hearings conducted by the Commission. The Commission has considered the submissions made by the consumers and the audited annual accounts submitted by the Petitioner to carry out truing up for FY 2003-04 to FY 2010-11 in this Tariff Order. With regard to the accounts for FY 2011-12, as the petition was admitted by the Commission in April 2012, it was difficult for the Petitioner to get the provisional accounts prepared for FY 2011-12. Therefore, the Commission has considered the latest information of FY 2011-12 for conducting the revised estimation for the year.

4.8 Since the Petitioner has been allowed to function as State Transmission Utility (STU) and licensee till 31st December 2012, it was not directed to prepare function-wise annual accounts. However, as it is expected that the unbundling of JSEB will be undertaken, the Commission views that the Petitioner should start to bifurcate the accounts in completeness into generation, transmission and distribution business from next year onwards. Meanwhile, in line with the Tariff Regulations, 2010, the Commission has reviewed and determined the tariff for JSEB separately for Generation, Transmission and Distribution function.

Power Purchase Cost from DVC not to be passed on Consumers

Public Comments/Suggestions

4.9 It has been stated that the Hon'ble Jharkhand high court ordered DVC to supply 100 MW to JSEB. However JSEB instead of absorbing this power has been selling it to consumers outside its jurisdiction area. As the supply is not being consumed by the consumers, the purchase cost should not be allowed to be passed on to consumers.

Petitioner's Response

4.10 The Petitioner submitted that it has not been selling power to any entity outside the State. However, The Petitioner is subject to Unscheduled Interchange (UI) depending upon variations in instantaneous demand and scheduled generation from tied-up sources. Accordingly, there are instances of both under-drawal and over-drawal during the course of a day, week, month or a year. The under-drawal leading to UI receivables becomes more predominant during the rainy seasons when the demand for power within the State is low.

4.11 The Petitioner further submitted that it has passed the benefit of revenue generated from UI receivables to its consumers in accordance with the applicable terms and conditions of tariff prescribed by the Hon'ble JSERC.

Views of the Commission

4.12 The Commission agrees with the response of the Petitioner as it views that in situation where there is no requirement of the Power in the state on a particular day, subject to meeting state requirement, the Petitioner can generate revenue through UI on Under-drawl.

4.13 However, the Commission views that the short-term and long-term Power Purchase planning needs to be ratified by the Commission before implementation by the Petitioner. Therefore the Commission directs the Petitioner to submit to the Commission a detailed Power Procurement Plan before the start of every financial year so that the Commission can review the need for purchase and selling power and approve accordingly.

On collection from Government Department & Large Industries

Public Comments/Suggestions

4.14 JSEB has huge outstanding dues from State government and other industries which affect its financial viability. The Board should make efforts to collect the outstanding dues instead of increasing the tariff.

Petitioner's Response

4.15 The Petitioner submits that its officials have been trying their best for the recovery of outstanding dues from such consumers, as outstanding dues adversely affect the financial position of the enterprise.

Views of the Commission

4.16 The Commission views it seriously that dues worth crores of rupees are pending with the government departments as well as with the private consumers. In order to assist the Petitioner, the Commission directed the Principal Secretary, Energy Department, Govt. of Jharkhand to convene a meeting at his level, and if need be, at the Chief Secretary level as well as with the concerned government departments. The Commission is aware that the Principal Secretary, Energy Department, Govt. of Jharkhand convened a meeting of all the concerned departments and directed them to clear the dues. Some departments have already made the payments.

4.17 Again a meeting was held at the level of Chief Secretary in which the Petitioner was directed to serve consumer-wise arrear bills on all the concerned departments and on receipt of such bills the departments are supposed to make payments. The Commission feels that efforts are on to clear the pending dues of all the govt. departments. The Petitioner is also pursuing the pending dues of the private consumers through Certificate Courts and such other institutions. Moreover, the Commission, in order to protect the interest of the consumers, treats all the pending dues of the Petitioner as revenue in the ARR.

T&D Losses

Public Comments/Suggestions

4.18 The Petitioner has provided different figures for T&D Losses in its tariff proposal for FY 2012-13 and in the IPPAI report on Power sector in Jharkhand. It has been requested to the Commission to consider the correctness of the two figures.

Petitioner's response

4.19 The Petitioner submitted the details of T&D losses as submitted in tariff petition and also as approved by the Commission in Tariff Order for FY 2011-12 as given below:

Years	As per actuals submitted in the Tariff Petition	Approved by the Commission in T.O. for FY 2011-12
FY 2009-10	36.51%	24.66%
FY 2010-11	34.92%	20.66%
FY 2011-12 (Projected)	31.90%	19.00%

4.20 Further, the JSEB is making all efforts to reduce distribution losses by metering of consumers, introduction of AMR/ Remote Metering, introducing spot billing, undertaking network up-gradation/ improvement projects and R-APDRP projects in 30 towns, etc.

Views of the Commission

4.21 The Commission has scrutinized the commercial information upto FY 2010-11 as per the audited annual accounts to determine the actual T&D losses of Petitioner. However, the Commission has considered and approved the T&D losses for the purpose of true up of previous years as well as determination of tariff only on the basis of the trajectory set by the Commission in previous Tariff Orders and the 'Distribution Tariff Regulations, 2010'.

On Clause 13 of the "Modified HT Agreement"

Public Comments/Suggestions

4.22 The stakeholders have stated that the provision of Clause 13 "Modified HT Agreement" should stand for HTSS consumers as well. It has been objected that proposed formula should not be bent for one particular category as it sends discriminatory credibility signal to the market. It was also mentioned that as per Clause 13, which was inserted in "Modified HT agreement", provides for prorate reduction in monthly MMC & Guaranteed Minimum Energy Charges for non-supply hours by Petitioner.

Petitioner's response

4.23 The objective of providing minimum guaranteed consumption norms is to ensure efficient network utilization and to ensure recovery of JSEB expenses, a significant portion of which is fixed in nature. Considering that the Petitioner installs large network infrastructure for distribution of energy, and also incurs various other costs (like depreciation, interest etc.) for the upkeep of the network, it is important that consumers also utilize the network to an optimal level failing which the Board shall not be able to recover the returns on its investment. Hence, in order to ensure recovery of returns on investments made by the Petitioner, minimum guarantee charges are proposed to be levied. Further, it is submitted by the board that this is a normally accepted practice in many states in the country.

Views of the Commission

4.24 During the course of public hearings, the Petitioner made a presentation of their ARR & Tariff Petition including additional terms and conditions of supply. In their presentation, they requested that Clause 13 of the HT Agreement to which the consumers have referred to above, be deleted. The consumers vehemently objected to it and said that the HT agreement, after consultation with all stakeholders, have been approved by the Commission and there is no reason to delete the said clause now through this Tariff Order. The Commission agrees with the views of the consumers and do not see any reason to delete the said Clause 13 of HT agreement, which basically protects the interest of the consumers.

Regarding the proposed Tariff for HTSS Consumers

Public Comments/Suggestions

4.25 It has been objected that the tariff proposed by the Petitioner is extremely high and will force induction furnace industry to take power from other than the Petitioner. The concern has been raised by the objectors that the tariff proposed by the Petitioner in HTSS category is going to have an adverse impact on consumers.

4.26 The hike will force the board's consumers to shift to JUSCO as more than 30% hike in cost is not sustainable for any HTS unit of JSEB. Further, the consumers demanded that the Board should provide rationale for proposing fixed charges even though demand is not fully met and that the proposed hike is very high and abnormal.

Petitioner's response

4.27 The Petitioner has prepared its ARR and tariff Petition for FY 2012-13 in accordance with the JSERC Regulations as have been notified by the Commission. The gap in the revenues at current tariff rates and the estimated expenditure has been accordingly arrived at. As per the process of tariff determination, this gap is to be met through appropriate tariff as deemed fit by the Hon'ble JSERC. The tariff hike has been proposed considering the present structure and the increase required meeting the expected revenue gap.

4.28 The fixed charges have been proposed in view of the past experience of detection of several instances of mal-practices/ theft by HTSS category consumers.

Views of the Commission

4.29 The Commission has dealt with terms of supply related issues in Section 14 of this Order.

Provision for Bad and Doubtful Debts

Public Comments/Suggestions

4.30 It has been found that Petitioner has written off bad debts of nearly Rs. 1000 Cr in four years (FY 2003-04 to FY 2006-07) which amounts to more than 15% of total revenue collection and is more than 50% of total loss reported in audited accounts. It is requested to Commission to have prudence check and tests before deciding on bad debt provisions in account for JSEB.

Petitioner's response

4.31 The Petitioner submits that the annual provisioning towards bad & doubtful debts is an accepted method of accounting and considering the peculiarity of retail supply of electricity business, the same has also been recognized by the other State Electricity Regulatory Commissions (SERCs).

4.32 Considering the geographical spread of the large consumer base across the State including a large part of the same prevailing in the far flung areas and the problem of realizing energy dues from retail consumers, the provision of bad & doubtful debts has been requested by the Petitioner.

4.33 As it is evident from the growth in the number of rural/BPL/kutir jyoti connections in the State, Petitioner's consumer mix is becoming more and more dominated by consumers pertaining to the economically weaker sections of the society.

4.34 In view of the above facts, the Petitioner prays to the Hon'ble Commission to use its power to relax and allow for provision for bad and doubtful debts proposed in the Tariff Petition.

Views of the Commission

4.35 Since there is no provision for allowing expenditure on account of bad and doubtful debts in the 'Distribution Tariff Regulations 2010', the Commission has not passed on any liability to the consumers on account of the provisioning or writing off of bad and doubtful debts.

On Actual Operational Parameters for PTPS

Public Comments/Suggestions

4.36 The Petitioner's request to allow the actual operational parameters for PTPS should not be permitted. It has been mentioned that the norm's had been notified by the Commission long back but the Petitioner has failed to improve. Hence, the Commission should not allow such liberty and should not pass on the Petitioner's inefficiency to the consumers. Such liberty to Petitioner cannot be allowed even after 10 years.

Petitioner's response

4.37 PTPS, being a very old thermal power plant, is running on a very low PLF. The efficiency parameters such as the Station Heat Rate, Auxiliary Consumption, Specific Coal Consumption and Specific Oil Consumption are also higher than the normative levels as defined by the Tariff Regulation of the Commission. JSEB submits that the Commission may fix a relaxed norm in view of the vintage and past performance of the plant. The National Tariff Policy also accepts the vintage of plants and past performance of power plants as base to set norms.

4.38 JSEB also submits that it is also exploring options of renovating the plant and restoring it to optimal working conditions. The Board in its business plan, for generation function of JSEB, has proposed Capital Investment Plan of Rs. 802 Cr for RM&LE activities for the PTPS during the MYT Control period from FY 2012-13 to FY 2015-16.

Views of the Commission

4.39 The Hon'ble APTEL in its Order dated 8th May 2008 in Appeal no. 129 of 2007 and IAs stated that *"50. Prevalent inefficiencies in the Board, excessive Transmission and Distribution losses are a matter of grave concern and are extremely detrimental to the interest of the consumers. We deprecate the current affairs of the Board and direct that immediate steps will be taken to improve the working of the Board. We direct that the Commission lays down time bound targets for reduction of T&D losses and* ***norms for improvement of the Power Stations*** *and increasing the overall efficiency of the Board."*

4.40 In accordance with the directives of the Hon'ble APTEL, the Commission has set Operational targets in the "Generation Tariff Regulations, 2010' for the PTPS and SHPS. The Commission has in previous tariff orders also raised concerns regarding poor operational performance of PTPS and on non-achievement of trajectory of operation parameters, the Commission does not allow the inefficiency from actual performance to be passed on to the consumers as well as also penalises the Petitioner for such inefficiencies in form of inefficient cost of PTPS.

Impact of Proposed Tariff Hike

Public Comments/Suggestions

4.41 The objector has submitted that the proposed tariff hike is very steep and would burden the consumers.

Petitioner's response

4.42 The Petitioner has prepared its ARR and tariff Petition for the year FY 2012-13 in accordance with the Terms and Condition of determination of Tariff Regulations, 2010 for Generation, Transmission and Distribution as have been notified by the Commission. The gap in the revenues at current tariff rates and the estimated expenditure has been accordingly arrived at. As per the process of tariff determination, this gap is to be met either through a tariff hike or through other means as deemed fit by the Commission. Hence the hike in demand as well as energy charges for consumer categories has been rationally proposed for partially bridging this gap.

Views of the Commission

4.43 The Commission has dealt with terms of supply related issues in Section 14 of this Order.

Proposed Capital Investment for Generating Stations

Public Comments/Suggestions

4.44 The objector has submitted that the Petitioner's claim of allowing proposed expenditure due to old generating stations should be rejected. It has been proposed by the consumers that the investments asked by the Petitioner are sufficient enough to establish a new power plant as most of the generating units have crossed their life periods and further capital invested in repairing them is becoming a burden on the consumers.

Petitioner's response

4.45 PTPS is a very old generating station, but in the present power deficit scenario, it is not possible to shut down the plant. While continuing the operation of the plant, the JSEB is also exploring options of renovating the plant and restoring it to optimal working conditions. The Petitioner in its business plan for its generation function has proposed Capital Investment Plan of Rs. 912 Cr during the control period i.e. from FY 2012-13 to FY 2015-16 for Renovation Modernisation & Life Extension (RM&LE). It is expected that post RM the performance of PTPS and SHPS will improve.

4.46 Further, JSEB has been allocated the coal block for power plant and the Board is in process of appointing mining and power plant developer for generation of Power on the basis of competitive bidding process specified by Ministry of Power.

Views of the Commission

4.47 The Commission agrees with the response of the Petitioner that some of the plants are very old and need to undergo overhauling and Renovation & Modernization. Such measures will assist the generation company to minimize the generation costs in future which will benefit the consumers in long run.

Operation and maintenance (O&M) cost

Public Comments/Suggestions

4.48 The Petitioner should submit the projected Operation and Maintenance (O&M) costs details including employee cost, repair and maintenance and administration & general expenses.

Petitioner's response

4.49 The Petitioner has prepared its ARR and tariff Petition for the FY 2012-13 in accordance with JSERC Tariff Regulations as have been issued by the Hon'ble Commission.

4.50 The objector's query related to O&M is for MYT period for which the Board will prepare its business plan and MYT Petition for distribution function as per the time line set by the Commission.

Views of the Commission

4.51 The Petitioner has submitted the break-up of operation and maintenance costs including employee cost, repair & maintenance and administration & general expenses and the Commission has scrutinized these under the respective heads in this Tariff Order.

Depreciation

Public Comments/Suggestions

4.52 It has been requested to the Commission to verify usable assets records to ensure JSEB is not allowed to claim depreciation on unused assets and thereby pass on unfair cost to consumers.

Petitioner's response

4.53 The Petitioner submits that the depreciation has been calculated in accordance with the asset base of the JSEB and the asset-wise accumulated depreciation. The depreciation has been projected on the basis of allowed depreciation rates and straight line method of depreciation calculation as specified by the Commission in JSERC's Regulations, 2010.

4.54 Further, it is also to be noted that the Board does not prepare accounts as per Accounting Standards as the JSEB is still a Board constituted under the provisions of the Electricity Supply Act, 1948 and is not comparable to other utilities which are companies registered under the Companies Act, 1956.

Views of the Commission

4.55 The Commission has computed the depreciation charges as per the JSERC Tariff Regulations, 2010.

Interest on security deposit

Public Comments/Suggestions

4.56 The objectors have stated that in case of interest & finance charges, the interest on consumer security deposit is not being paid to majority of consumers and has been paid at 3.5% instead of 6%. The provision made in previous Tariff Order has not been complied with.

Petitioner's response

4.57 The Petitioner has submitted that it has been paying interest on amount held as security deposit to its consumer in accordance with Clause 10.6 of the Jharkhand State Electricity Regulatory Commission (Electricity Supply Code) Regulations 2005.

4.58 The Petitioner has further stated that, if there is any specific case of an inadvertent error, the Petitioner shall be pleased to take necessary corrective actions. Also, the JSEB shall make all efforts to identify and correct such cases, if any, on a proactive basis

Views of the Commission

4.59 The Commission takes serious note of the issue raised by some consumers on being given only 3.5% instead of 6% as interest on security deposits. The Commission directs the Petitioner to generate the list of consumers who are not being paid 6% interest on security deposit and submit the list along with the action taken report to the Commission with the next tariff petition.

Quality of supply

Public Comments/Suggestions

4.60 It has been submitted that the quality of power supply by the Petitioner is in very bad shape and the consumers are not getting even 8 hours of continuous supply which is impacting industries leading to unscheduled shut downs. On the other hand, Petitioner has proposed to increase the tariff due to losses arising out of their system. It is strongly advocated that the Petitioner should first be directed to supply quality power with proper voltage and uninterrupted supply and then should come up with hike in tariff.

Petitioner's response

4.61 JSEB submitted that Jharkhand is a power deficit State and it has obligation to serve the consumers. In order to fulfil its obligation, JSEB is expanding its network across the length and breadth of the state.

4.62 To meet the growing demand of electricity of existing and new consumers, JSEB is making all efforts to meet the standards of performance as stipulated in the JSERC (Distribution Licensees Standards of performance) Regulations, 2005.

Views of the Commission

4.63 The Commission is mandated to ensure quality, continuity and reliability of services by the licensees by specifying standards of performance and in this regard the Commission has notified the JSERC (Distribution Licensees Standards of performance) Regulations, 2005 and is also regularly monitoring the implementation there of. The Commission feels that the transmission and distribution network of the licensee is old and worn out which needs replacement/ strengthening.

Applicability of HTSS Consumers

Public Comments/Suggestions

4.64 It is submitted that the applicability of HTSS consumers should be applied uniformly.

Petitioner's response

4.65 The Petitioner has no specific comments to offer on this. The Hon'ble Commission may be in a better position to respond on the applicability of the HTSS category.

Views of the Commission

4.66 The Commission has laid down terms and conditions of supply for all categories of consumers including HTSS, which are applicable uniformly across the state.

Service character of HTSS consumers (Measurement of Furnace)

Public Comments/Suggestions

4.67 It has been objected that a Para on service character has been attached by the Petitioner over JSERC Tariff Order for FY 2011-12 and FY 2010-11. The said Clause has been deleted as even the Commission in past have come to the conclusion that linking KVA per ton should be dispensed. Hence, this has to be deleted in full.

Petitioner's response

4.68 JSEB submitted that the tariff for the HTSS category comprises of significantly lower energy charge as compared to the HTS category. In view of several past instances of under declaration of connected load by HTSS consumers, JSEB was suffering huge revenue loss on this account. Therefore, the JSEB has proposed this segregation as per the contracted demand.

Views of the Commission

4.69 The Commission observes that the Petitioner in its proposed tariff schedule for HTSS has requested for linking of sanctioned load with the load requirement of tonnage of furnace and has also mentioned in the Service character for HTSS that the minimum load of one tonne furnace shall in no case be less than 600 kVA and all load will be determined on this basis.

4.70 The Commission in previous Tariff Orders of FY 2010-11 and FY 2011-12 dispensed with the practice of physical measurements of the furnace in order to avoid harassment to the consumers. The Commission has categorically said that the specifications of the manufacturer will be the basis for arriving at the total capacity of the furnace. The Commission feels that the Petitioner through its request is trying to re-introduce the system which has been dispensed with since last two years. Therefore, the Commission agrees with the consumers and rejects the response of the Petitioner.

Guaranteed Minimum 630 Hrs of Supply to HTSS

Public Comments/Suggestions

4.71 The objector has stated that JSEB needs to improve its quality of service. In that respect, the industry welcomes JSEB promise of 630 hrs of guaranteed supply for HTSS consumers which shall be in planned manner so that consumption can be planned.

Petitioner's response

4.72 JSEB submitted that it has been making all efforts in ensuring quality and reliable power is available to all its consumers on a continuous basis. Also, Jharkhand is a power deficit State and hence power supply interruptions are inevitable on certain occasions. However, in the best of its spirits, JSEB shall endeavour to minimize the interruptions to the various consumer categories and shall make all efforts to provide minimum 630 hours of power supply per month to HTSS consumers.

4.73 It has also been submitted by the Petitioner that the formula provided by it is in accordance with the supply hours, the same has also been approved by other SERCs such as BERC in the past.

Views of the Commission

4.74 The Commission welcomes the response of the Petitioner and directs that the Petitioner should ensure minimum 630 hours of power supply to the HTSS consumers.

Contract Demand Variation

Public Comments/Suggestions

4.75 The issue has been raised that the occasional contract demand variation and corresponding energy variation should be as approved by JSERC in the HT agreement.

Petitioner's response

4.76 This matter should be discussed in separate forum as this is not the part of tariff fixation exercise.

Views of the Commission

4.77 The Commission agrees with the response of the Petitioner and the consumer should take up the issue with the Petitioner separately.

Disconnection of Power Supply in case Maximum demand exceeds on Regular Basis

Public Comments/Suggestions

4.78 It has been requested that the Tariff Order should include that the Petitioner discontinue power supply in case Maximum demand is exceeding on regular/ frequent basis, when the demand variation is more than 110% of the contract demand on a long term basis.

Petitioner's response

4.79 JSEB submits that disconnection of power supply, in case the maximum demand exceeds on regular / frequent basis, when the demand variation is more than 110% of the contract demand, is not the solution to this issue. JSEB also stated that industrial consumers form a major chunk of the load connected to the network and if HT consumers exceed demand significantly, it puts enormous pressure on the network during peak loading hours.

4.80 Hence, it is imperative that HT consumers regulate their load optimally. The penalty for exceeding the contract demand has been proposed keeping the same in mind. This would not only ensure grid discipline but would also lead to optimal utilization of the network.

Views of the Commission

4.81 The Commission has dealt with terms of supply related issues in Section 14 of this Order.

Delayed Payment Surcharge

Public Comments/Suggestions

4.82 JSEB's proposal on delayed payment surcharge is in line and acceptable to us and hence, for approval of the Commission and hence implementation.

Petitioner's response

4.83 The JSEB has no specific comments to offer on this.

Views of the Commission

4.84 The Commission has dealt with terms of supply related issues in Section 14 of this Order.

Voltage Rebate

Public Comments/Suggestions

4.85 It has been requested that JSERC should approve voltage rebate for 33 kV HTSS consumers at 5% in line with other 132kV/220 kV consumers.

Petitioner's response

4.86 JSEB submits that it has proposed same voltage rebate to HTSS consumers as approved by Hon'ble Commission in its Tariff Order for FY 2011-12.

Views of the Commission

4.87 The Commission has dealt with terms of supply related issues in Section 14 of this Order.

Load Factor Rebate

Public Comments/Suggestions

4.88 The load factor rebate should be as follows:

- 70 - 100%: 10%
- 60 - 70%: 7.5%
- 50 - 60%: 3%
- 10 - 50%: No rebate

Petitioner's response

4.89 JSEB has proposed same load factor rebate to HTSS consumers as approved by Hon'ble Commission in its Tariff Order for FY 2011-12.

Views of the Commission

4.90 The Commission has dealt with terms of supply related issues in Section 14 of this Order.

Return on Equity

Public Comments/Suggestions

4.91 The issue has been raised that the RoE should be allowed as per Regulations and addition on account of capital expenditure cannot be added to the capital base and equity be raised accordingly, till such time the capital expenditure is capitalized and approved by the statutory auditors.

Petitioner's response

4.92 The JSEB has prayed for reasonable return on equity as per JSERC Terms and Conditions for determination of Generation, Transmission and Distribution Tariff Regulations, 2010 and past Tariff Orders issued by Hon'ble JSERC.

Views of the Commission

4.93 The Commission has allowed the RoE as per the relevant tariff regulation issued by the Commission from time to time.

Load Factor Penalty

Public Comments/Suggestions

4.94 The issue has been raised that the load factor penalty should be dropped if the load is more than 10% of the demand by the consumer for a month as also approved by the Commission in the HT agreement. Also, the Petitioner should serve a warning notice to the consumer informing if supply is to be disconnected for that following month and on disconnection the security deposit shall be returned after adjustment of any dues.

Petitioner's response

4.95 JSEB has proposed the load factor penalty so as to ensure accurate declaration of the load/contract demand by the consumers thereby leading to better network management. Also the same is allowed in several states in the Country. This would not only ensure grid discipline but would also lead to optimal utilization of the network.

Views of the Commission

4.96 The Commission has dealt with terms of supply related issues in Section 14 of this Order.

Income from Sale of Power through UI

Public Comments/Suggestions

4.97 JSEB has not taken into account income from sale of power through UI while the power purchased through UI has been considered. It has been objected that the gains have not been included in non-tariff income thus reducing the income which resulted in higher expenditure.

Petitioner's response

4.98 It is submitted that revenue income under UI settlement is part of revenue through sale of power which is reflected in schedule -1 of the Annual accounts of the Board, which is being duly considered for determining the revenue requirement of the Board.

Views of the Commission

4.99 The Commission has considered both UI payable and UI receivable while determining the ARR and Tariff Order for the years under consideration.

Power Factor Penalty

Public Comments/Suggestions

4.100 The power factor penalty surcharge clause appears reasonable and worth approval by Commission.

Petitioner's response

4.101 The JSEB has no specific comments to offer on this.

Views of the Commission

4.102 The Commission has dealt with terms of supply related issues in Section 14 of this Order.

Prompt Payment Rebate

Public Comments/Suggestions

4.103 It has been requested to the Commission by the objectors introduce incentive for prompt payment, full or part of the bill within five days of the receipt of the bill by the consumer, a rebate of 2% is requested to be approved by the Commission and to be reflected in consumer bills.

Petitioner's response

4.104 JSEB responded that it is the responsibility of consumer to pay bill in time and for the discharge of this responsibility consumer requires no incentive. Moreover, any incentive given to consumer will increase the ARR and effectively increase the tariff so it is not proper methodology.

Views of the Commission

4.105 The Commission has dealt with terms of supply related issues in Section 14 of this Order.

Amendment of Concerned Security Deposit Regulation

Public Comments/Suggestions

4.106 As per the present JSERC's Regulations, a security deposit of the value Rs 4- 5 Cr is needed for induction furnace/ Arc furnace plant with investment of Rs 20 Cr. Further, it was brought to the notice of the Commission that security deposit amount deposited with JSEB is greater than the O&M expenses of running plant. It is a very heavy cash outflow from the industry. Hence, it is requested that Commission to permit deposit of security deposits through bank guarantee and amend the related regulation.

Petitioner's response

4.107 This matter is not related to tariff fixation exercise of the JSEB, rather it's a part of (Electricity Supply Code) Regulations, 2005.

Views of the Commission

4.108 The Commission agrees with the response of the Petitioner. If the consumer wants, they should raise the issue separately.

Reimbursement of Interest on Security Deposit

Public Comments/Suggestions

4.109 It has been objected that the Petitioner has asked for reimbursement of interest on security deposit in the ARR which indicates that JSEB has exhausted Deposited Security Money. It is a double punishment for the consumers and hence, should not be permitted.

Petitioner's response

4.110 JSEB responded that the amount held as security deposits from consumers and distribution system users is subtracted while calculating the working capital requirement. Hence, as per Clause 6.1 of the JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2010 "Interest on Consumer Security Deposit" has been claimed separately in the ARR for FY 2012-13.

Views of the Commission

4.111 The Commission states that the Petitioner is claiming reimbursements of security deposit in line with the relevant provisions of the 'Distribution Tariff Regulations, 2010'

Load Shedding

Public Comments/Suggestions

4.112 It has been objected that the Petitioner carries load shedding as and when it feels like. It is the duty of the Petitioner to keep consumers posted with shutdown/ load shedding and failing to do so it must be asked to compensate consumers.

Petitioner's response

4.113 The Petitioner responded that this matter is not related to tariff fixation exercise of JSEB. However, the JSEB keeps on giving the details on load shedding in leading local newspaper in advance so as to avoid any in convenience to consumers.

Views of the Commission

4.114 The Commission directs the Petitioner to ensure reduction of load restrictions and also timely publication of load shedding schedule to consumers under intimation to the Commission well in advance.

Error while downloading Tariff Petition

Public Comments/Suggestions

4.115 It has been complained by many objectors that they could not download Tariff Petition on time due to technical reasons and it was difficult for them to provide comments/ suggestions in such a short-duration.

Petitioner's response

4.116 JSEB shall welcome the objections/ suggestions from all the stakeholders even at the time of public hearing so as to maximize the participation of consumers during the tariff fixation exercise by the Hon'ble Commission.

Views of the Commission

4.117 The Commission views that such error is not acceptable and directs the Petitioner to ensure such issues do not crop up again in future.

On Comparison with Different States

Public Comments/Suggestions

4.118 The comparison with different states has been objected on the basis that the comparison should be done with equally placed states and in line with Commission's regulations and utilities. The claim made by the Petitioner must be backed up by facts on record and claims beyond regulation should be rejected in the interest of consumers.

Petitioner's response

4.119 JSEB in its tariff Petition has shown comparative analysis of performance parameters of generating plants and tariffs approved by different regulatory Commission with similar states in terms of Geographical area, power supply position, consumer profile and socio-economic profile.

Views of the Commission

4.120 The Commission has gone by the relevant regulations issued by the Commission from time to time for approval of all ARR and performance related components.

Proposal of Fixed Charges for LTIS and NDS Consumers

Public Comments/Suggestions

4.121 The proposal of levying of the fixed charges for LTIS and commercial charges has been objected by the objectors.

Petitioner's response

4.122 The Petitioner is of the view that the prime objective of ARR and tariff fixation exercise is to ensure recovery of JSEB expenses, a significant portion of which is fixed in nature. Considering that the Board installs huge network infrastructure for distribution of energy, and is also incurring fixed nature of costs like employee cost etc. for the upkeep of the network, the fixed cost of the tariff should be sufficient enough to recover the fixed cost incurred by the Board.

4.123 Hence, in order to ensure recovery of the expenses being incurred by the Board, fixed charge is proposed to be levied. Further, the provision of fixed charge is in line with the Section 45 (3) of the Electricity Act 2003 and accordingly it is a normally accepted practice in many states in the country and the JSEB accordingly has prayed for consideration of the Hon'ble Commission.

Views of the Commission

4.124 The Commission has dealt with terms of supply related issues in Section 14 of this Order.

Asset Register

Public Comments/Suggestions

4.125 JSEB, irrespective of several directions by Commission, Central Government, Planning Commission's High Power Panel's recommendation, has not prepared its Asset Register, without which the valuation of assets and its depreciation cannot be worked out. It has been objected that no depreciation shall be allowed without Asset Register.

Petitioner's response

4.126 The allocation of assets and liabilities between the two State Electricity Boards i.e. Bihar State Electricity Board (BSEB) and Jharkhand State Electricity Board (JSEB) remains incomplete due to several disputes. The same is yet to be finalized and the matter is lying sub-judice before Hon'ble Supreme Court.

4.127 The JSEB has formulated its capitalization policy, which has been circulated to the field offices for compliance. It is to be noted that as the process is being streamlined by the JSEB, the results of the same may take some time to overcome issues associated with the legacy system.

4.128 Moreover, the JSEB has streamlined its annual accounts. The Annual accounts upto FY 2010-11 have already been audited by the CAG and also have been adopted by the Board.

Views of the Commission

4.129 The Commission directs the Petitioner to expedite the preparation of asset register and submit the action taken report to the Commission with the next tariff petition.

Proposed Change in Tariff for LTIS, NDS and DS consumers

Public Comments/Suggestions

4.130 The objectors have proposed change in tariff for LTIS, NDS and DS consumers.

Petitioner's response

4.131 JSEB has prepared its ARR and tariff Petition for the FY 2012-13 in accordance with the JSERC Regulations as have been notified by the Hon'ble Commission. The gap in the revenues at current tariff and the estimated expenditure has been accordingly arrived at. As per the process of tariff determination, this gap is to be met through appropriate tariff as deemed fit by the Hon'ble JSERC.

Views of the Commission

4.132 The Commission has dealt with terms of supply related issues in Section 14 of this Order.

Metering Testing Charges

Public Comments/Suggestions

4.133 The Petitioner should submit computation for metering testing charges.

Petitioner's response

4.134 JSEB responded that the computation of meter testing charges has been carried out as per JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2010.

Views of the Commission

4.135 The Commission agrees with the response of the Petitioner that the computation of meter testing charges has been carried out as per JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2010. However, the Commission directs the Petitioner to share the computation sheet with the consumers for better understanding.

Interest on Working Capital

Public Comments/Suggestions

4.136 JSEB should share the norms of calculating working capital and in this regard the objectors would like to know outstanding balance of sundry creditors of goods and fuel supplies.

Petitioner's response

4.137 JSEB responded that the computation of interest on working capital has been carried out in accordance with JSERC (Terms and Conditions for determination of Distribution Tariff) Regulations, 2010, JSERC (Terms and Conditions for determination of Transmission Tariff) Regulations, 2010 and JSERC (Terms and Conditions for determination of Generation Tariff) Regulations, 2010.

Views of the Commission

4.138 The computation of interest on working capital has been carried out in accordance with the relevant regulations issued by the Commission from time to time.

ARR for PTPS

Public Comments/Suggestions

4.139 JSEB has prayed to reduce overall de-rated capacity from 770 MW to 640 MW as unit 3 and 5 of PTPS are planned to be phased out and hence the PLF be considered accordingly. It is requested to Commission to consider the request only if units are removed from assets and its residential value is removed from the capital value.

Petitioner's response

4.140 JSEB submitted that it has filed its ARR for thermal generation in accordance with JSERC (Terms and Conditions for determination of Generation Tariff) Regulations, 2010.

Views of the Commission

4.141 The Commission has taken into consideration the performance of the PTPS vis-à-vis the targets for operational parameters fixed by the Commission and also ensured that the inefficiencies are not passed on to the consumers.

SECTION 5: FINAL TRUE UP FOR FY 2003-04 TO FY 2010-11

5.1 The Commission carried out provisional true up for FY 2003-04 to FY 2006-07 in its Tariff Order for FY 2010-11 on the basis of provisional accounts submitted by the Petitioner. Further, in its previous Tariff Order for FY 2011-12, the Commission had stated that the final true up for the period FY 2003-04 to FY 2006-07 shall be carried out once the audited annual accounts for the respective years are submitted by the Petitioner. Accordingly, the Petitioner has now submitted the CAG Audit Reports for the Annual Accounts for the FY 2003-04, FY 2004-05, FY 2005-06 and FY 2006-07 for carrying out the final true up for these years.

5.2 Also as the provisional true up for the FY 2003-04 to FY 2006-07 was carried out for JSEB as a whole without any requirement of function-wise disaggregated cost, the final true up is being carried out for the JSEB as a whole on the basis of Audited annual accounts.

5.3 In its previous Tariff Order for FY 2011-12, the Commission also carried out the provisional true up for years FY 2007-08, FY 2008-09 and FY 2009-10 and Review of ARR for FY 2010-11. At the time of filing of the Petition, the CAG Audit reports for annual accounts for the FY 2007-08 to FY 2010-11 were not available; hence the Petitioner had filed the Petition for final true up for FY 2003-04 to FY 2006-07 only.

5.4 However, during the course of scrutiny of the ARR & Tariff Petition for FY 2012-13, the CAG Audit reports for annual accounts for FY 2007-08, FY 2008-09, FY 2009-10 and FY 2010-11 were submitted to the Commission by the Petitioner. Accordingly, the Commission has decided to proceed with final true up for FY 2007-08 to FY 2010-11 also. Further, in case of FY 2007-08 to FY 2010-11, as the provisional true-up/revision of ARR was carried out separately for functionally disaggregated JSEB-Board into generation-thermal, generation-hydel, transmission and distribution function of the Board, the disaggregation of each function is also done by the Commission while conducting the final true up.

5.5 The year-wise final true up exercise for FY 2003-04 to FY 2010-11 has been carried out on basis of Audited annual accounts for the respective years and also in view of:

(a) Generation Tariff Regulations, 2004;

(b) Distribution Tariff Regulations, 2004;

(c) Methodology adopted by the Commission in previous Tariff Orders

5.6 The component-wise description of Petitioner's submission and Commission's analysis is given hereunder.

Commercial Components

Energy Sales

Petitioner's submission

5.7 The Petitioner submitted the energy sales figures of 2770 MU, 2883 MU, 3381 MU and 4312 MU during FY 2003-04, FY 2004-05, FY 2005-06 and FY 2006-07, respectively on the basis of audited accounts of the respective years.

Commission's analysis

5.8 In the previous Tariff Order for FY 2010-11 and FY 2011-12, the Commission had provisionally approved the sales for FY 2003-04 to FY 2009-10 on the basis of the provisional annual accounts for the respective years subject to final true up on the basis of the audited annual accounts. Further, the sales for FY 2010-11 were approved on the basis of actual sales for April-November 2010 and projections for the remaining period. Since now the audited accounts for FY 2003-04 to FY 2010-11 are available; the Commission has finally trued up the sales for the aforesaid years on the basis of the audited annual accounts for the respective years.

5.9 The following tables summarises the consumer category-wise sales for FY 2003-04 to FY 2010-11, as approved in previous Tariff Orders and as approved now by the Commission.

Table 19 : Energy Sales (MUs) approved by Commission for FY 2003-04 to FY 2006-07

Consumer Categories	FY 2003- 04		FY 2004-05		FY 2005-06		FY 2006-07	
	Approved in TO for FY 2010-11	Approved Now by Comm.	Approved in TO for FY 2010-11	Approved Now by Comm.	Approved in TO for FY 2010-11	Approved Now by Comm.	Approved in TO for FY 2010-11	Approved Now by Comm.
Domestic	660	656	920	784	895	906	1167	1105
Commercial	139	134	142	142	156	161	187	185
Public Lighting	39	43	42	75	80	80	84	83
Irrigation	39	53	58	56	80	59	68	72
MES	60	61	62	68	44	69	65	65
Industrial LT	103	95	102	94	97	98	117	118
Industrial HT	1434	1340	1405	1236	1524	1563	1613	1643
Railway	389	388	423	428	444	444	471	471
Bulk Supply	0	0	0	0	0	0	35	0
Inter-state sale	0	0	0	0	125	0	551	570
Total	**2863**	**2770**	**3154**	**2883**	**3447**	**3381**	**4359**	**4312**

Table 20 : Energy Sales (MUs) approved by Commission for FY 2007-08 to FY 2010-11

Consumer Categories	FY 2007-08		FY 2008-09		FY 2009-10		FY 2010-11	
	Approved in TO for FY 2011-12	Approved Now by Comm.	Approved in TO for FY 2011-12	Approved Now by Comm.	Approved in TO for FY 2011-12	Approved Now by Comm.	Approved in TO for FY 2011-12	Approved Now by Comm.
Domestic	1370	1370	1615	1615	2256	2256	2493	2500
Commercial	214	214	239	239	266	266	311	324
Public Lighting	72	72	77	77	121	121	146	142
Irrigation	72	72	69	69	66	66	80	68
MES	70	70	64	64	72	72	77	76
Industrial LT	124	124	138	138	146	146	150	150
Industrial HT	1791	1791	1852	1852	1963	1963	2101	2150
Railway	531	531	617	617	603	603	592	613
Bulk Supply	0	0	0	0	0	0	0	0
Inter-state sale	129	129	339	339	296	296	763	759
Total	**4375**	**4375**	**5009**	**5009**	**5789**	**5789**	**6713**	**6782**

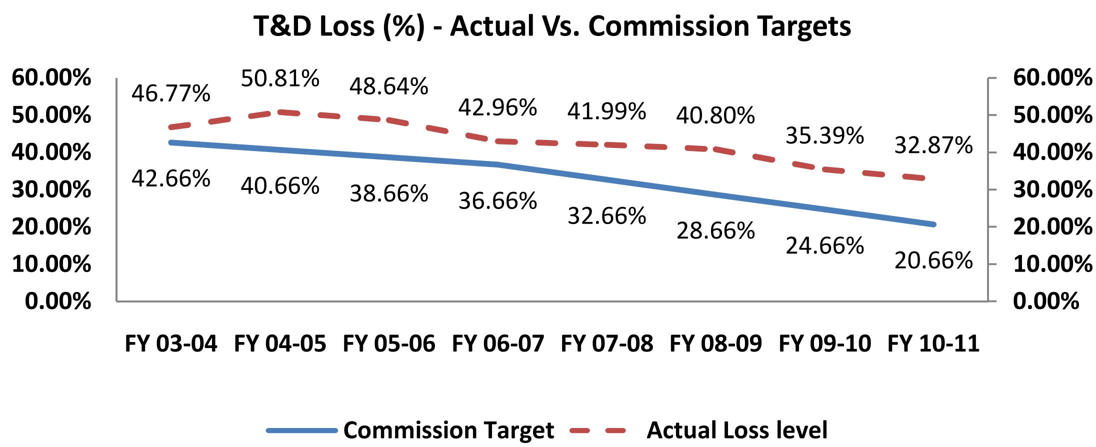
Transmission & Distribution (T&D) losses

Petitioner's submission

5.10 The Petitioner submitted that the actual T&D losses levels, as per the audited annual accounts for FY 2003-04, FY 2004-05, FY 2005-06 and FY 2006-07, stands at 46.77%, 50.81%, 48.64%, & 42.96%, respectively.

Commission's analysis

5.11 The Commission notes with concern that the actual T&D losses are much more than the allowed targets as per the norms set by the Commission in its Previous Tariff Orders as depicted in figure below.



5.12 As can be seen from the above chart, even though there was not much difference in the Commission's target and the actual losses during FY 2003-04, the Petitioner has failed to bring down losses substantially over the years. Infact its losses increased in FY 2004-05 over the previous year. This clearly suggests that the Petitioner has not made sincere efforts to reduce the losses over the past years. Moreover, the Petitioner has not provided any justifiable reasons for higher T&D losses.

5.13 Further, the Hon'ble APTEL in its Direction no.10 of Appeal no.129/2007 had also expressed concern on the excessive T&D losses of the licensee and had directed the Commission to lay down time bound targets for reduction of T&D losses and norms for improvement of the power stations and increasing the overall efficiency of the Board. The relevant extract of the aforesaid order is reproduced below.

Quote:

"(10). Excessive T&D Losses and inefficiencies of JSEB

Analysis and decision:

50. Prevalent inefficiencies in the Board, excessive Transmission and Distribution losses are a matter of grave concern and are extremely detrimental to the interest of the consumers. We deprecate the current affairs of the Board and direct that immediate steps will be taken to improve the working of the Board. We direct that the Commission lays down time bound targets for reduction of T&D losses and norms for improvement of the Power Stations and increasing the overall efficiency of the Board." Unquote

5.14 In compliance with the direction given by the Hon'ble APTEL in the aforesaid Order, the Commission, in its Tariff Order for FY 2010-11, provided the Petitioner the opportunity to work out a logical trajectory to reduce its T&D losses on the basis of its actual loss levels and submit the same to the Commission for consideration. However, the Petitioner failed to file the T&D loss trajectory. Thus, the Commission in line with the Hon'ble APTEL's Direction no.10 and after exercising due diligence on its part, had set a time bound T&D loss reduction trajectory for the Petitioner so that the Petitioner is able to achieve the benchmark T&D loss level of 15% by the end of FY 2016-17.

5.15 In view of the above, the Commission finds no reason to change the targets given to the Petitioner and therefore approves the T&D losses as per the trajectory set by the Commission in its previous Tariff Orders.

5.16 The following table summarises the T&D loss levels approved by the Commission in its previous Tariff Orders, as submitted by the Petitioner in the present Tariff Petition and approved now by the Commission.

Table 21 : Approved T&D Losses (%)

Years	Approved by the Commission in Previous Tariff Orders	As proposed by Petitioner in Tariff Petition	Approved now by the Commission
FY 2003-04	42.66%	46.77%	42.66%
FY 2004-05	40.66%	50.81%	40.66%
FY 2005-06	38.66%	48.64%	38.66%
FY 2006-07	36.66%	42.96%	36.66%
FY 2007-08	32.66%	41.99% *	32.66%
FY 2008-09	28.66%	40.80% *	28.66%
FY 2009-10	24.66%	35.39% *	24.66%
FY 2010-11	20.66%	32.87% *	20.66%

Note: * The Petitioner has not submitted separate petition for these years, the figures are actual as per the audited annual accounts.

Energy Requirement

Petitioner's submission

5.17 The energy requirement from FY 2003-04 to FY 2006-07 as submitted by the Petitioner based on the actual sales and T&D losses has been summarised in following table.

Table 22 : Energy Requirement submitted by the Petitioner (MUs)

Particulars	FY 2003-04	FY 2004-05	FY 2005-06	FY 2006-07
Power Purchase from Outside JSEB Boundary	1029.42	1536.91	2419.14	2959.46
Loss in external systems (%)	3.91%	3.83%	3.79%	3.88%
MU's lost in external system	40.25	58.86	91/69	114.83
Net Outside State Power Purchase	989.17	1478.05	2327.45	2844.63
Energy Input Directly to State Transmission System	805.15	805.56	724.23	1124.78
Own Generation	1021.39	727.49	708.15	725.15
UI Payable	431.06	449.08	187.91	26.87
Energy available for onward transmission	3246.77	3460.18	3947.74	4721.43
Transmission loss (%)	**6.23%**	**6.18%**	**6.17%**	**6.10%**
Transmission loss (MUs)	202.27	213.84	243.58	288.01
Net Energy Sent to Distribution (MUs)	3044.50	3246.34	3704.17	4433.42
Direct input at distribution voltage (33 kV)	1916.60	2340.77	2544.38	2722.94
Total Energy Available for Distribution	**4961.09**	**5587.11**	**6248.55**	**7156.36**
Sales (MUs)	2770.09	2882.67	3381.46	4311.54
Distribution loss (MUs)	2191.00	2704.44	2867.09	2844.82
Distribution loss (%)	44.16%	48.40%	45.88%	39.75%
Overall T&D loss (%)	**46.77%**	**50.81%**	**48.64%**	**42.96%**

Commission's analysis

5.18 The energy requirement of the Petitioner is approved based on actual sales for FY 2003-04 to FY 2010-11 and the approved T&D losses as per norms set by the Commission for respective years. The following tables summarises the energy requirement for FY 2003-04 to FY 2010-11, as approved in previous Tariff Orders and as approved now by the Commission.

Table 23 : Approved Energy Requirement (MUs) for FY 2003-04 to FY 2006-07

Particulars	FY 2003- 04		FY 2004-05		FY 2005-06		FY 2006-07	
	Approved in TO for FY 2010-11	Approved Now by Comm.	Approved in TO for FY 2010-11	Approved Now by Comm.	Approved in TO for FY 2010-11	Approved Now by Comm.	Approved in TO for FY 2010-11	Approved Now by Comm.
Total Energy Sales to Intra-state consumers	2863	2770	3154	2883	3447	3381	4359	3742
Overall T&D	42.66%	42.66%	40.66%	40.66%	38.66%	38.66%	36.66%	36.66%

loss (%) for intra-state consumers								
Overall T&D loss for intra-state consumers	2130	2061	2161	1975	2172	2131	2523	2166
Total Energy requirement for intra-state consumers	**4993**	**4831**	**5315**	**4858**	**5619**	**5513**	**6882**	**5908**
Energy requirement for inter-state sale	0	0	0	0	0	0	0	570
Total Energy requirement	**4993**	**4831**	**5315**	**4858**	**5619**	**5513**	**6882**	**6477**

Table 24 : Approved Energy Requirement (MUs) for FY 2007-08 to FY 2010-11

Particulars	FY 2007-08		FY 2008-09		FY 2009-10		FY 2010-11	
	Approved in TO for FY 2011-12	Approved Now by Comm.	Approved in TO for FY 2011-12	Approved Now by Comm.	Approved in TO for FY 2011-12	Approved Now by Comm.	Approved in TO for FY 2011-12	Approved Now by Comm.
Total Energy Sales to Intra-state consumers	4245	4245	4670	4670	5492	5492	5950	6023
Overall T&D loss (%) for intra-state consumers	32.66%	32.66%	28.66%	28.66%	24.66%	24.66%	20.66%	20.66%
Overall T&D loss for intra-state consumers	2059	2059	1876	1876	1798	1798	1549	1568
Total Energy requirement for intra-state consumers	**6304**	**6304**	**6546**	**6546**	**7290**	**7290**	**7500**	**7592**
Energy requirement for inter-state sale	129	129	339	339	296	296	763	759
Total Energy requirement	**6434**	**6434**	**6885**	**6885**	**7586**	**7586**	**8263**	**8351**

Generation & Power Procurement Components

Own Generation & Fuel cost- PTPS

Petitioner's submission

5.19 The Petitioner submitted that its thermal generating station, namely Patratu Thermal Power Station (PTPS) has 10 Units with a total installed capacity of 840 MW.

5.20 The Units 1 to 6 of the PTPS are 33-40 years old (installed during 1966-71) and have run beyond their normal economic life; while the Units 7 to 10 installed during 1977-86, have also become quite old. Due to aging of these units, capacities of Units 1-8 have been de-rated by 70 MW and hence the overall capacity of the stations stands reduced to 770 MW as against the installed capacity of 840 MW.

5.21 Further the plant also faced shutdowns during the period FY 2003-04 to FY 2006-07 due to following reasons:

(a) Units 3, 4, 5, 7 and 8 with total de-rated capacity of 380 MW were completely shut-down for renovation & modernisation activities.

(b) Out of Unit 6 of 90 MW, only 70 MW was effectively available for generation, as capital overhauling of its TG set had not been done since 1992 and its last stage blades of turbine were cut.

(c) Unit 9 and 10 were damaged due to fire in switchgear, cable gallery and control room damaging power cable, breakers, control room equipments and instruments, protection and interlock release.

5.22 In addition to the shutdown of its units, the operational parameters of the Plant were adversely affected due to receipt of lower quality of coal (Grade E & F) which has higher ash & moisture content even though it had entered into an agreement to purchase superior quality of coal (Grade D) with calorific value of 4201-4590 kCal/kg and repetitive tripping and forced outages of the plant.

5.23 Due to above factors, impacting the performance of the Plant adversely, the Petitioner was unable to achieve the targeted performance parameters like Plant Load Factor (PLF), auxiliary consumption, Station heat rate (SHR), transit loss and Specific Oil Consumption (SOC). The following table summarizes the actual operational parameters for PTPS.

Table 25: Operational Parameters for PTPS submitted by Petitioner

Years	PLF (%)	Auxiliary Cons. (%)	Coal Transit loss (%)	SOC (ml/kWh)	SHR (kCal/kWh)
FY 2003-04	15.81	17.03	5.53	40.20	4371
FY 2004-05	18.68	22.08	5.04	36.74	4267
FY 2005-06	12.55	22.30	3.45	30.44	4311
FY 2006-07	9.11	15.76	2.27	22.15	4552
FY 2007-08 *	10.33	15.69	Not Available in Audited Accounts	15.96	Not Available in Audited Accounts
FY 2008-09 *	15.02	13.83		11.04	
FY 2009-10 *	16.77	12.41		9.15	
FY 2010-11 *	10.02	14.27	6.01	7.50	3983

Note: * The Petitioner has not submitted separate information in Tariff Petition for these years, the figures are actual as per the audited annual accounts.

5.24 Based on the actual performance parameters, the Petitioner submitted the actual generation costs for PTPS for FY 2003-04, FY 2004-05, FY 2005-06 and FY 2006-07 as Rs.151.21 Cr, Rs.111.60 Cr, Rs.119.47 Cr and Rs.87.99 Cr, respectively. The detailed calculation of generation cost of PTPS, as submitted by the Petitioner, has been summarised below.

Table 26: Generation Fuel cost (Rs Cr) for PTPS submitted by the Petitioner

Particulars	FY 2003-04	FY 2004-05	FY 2005-06	FY 2006-07
Installed Capacity (MW)	840.00	840.00	840.00	840.00
De-rated Capacity (Usable in MW)	770.00	770.00	770.00	770.00
Plant Load Factor (%)	15.81%	18.68%	12.55%	9.11%
Auxiliary consumption (%)	17.03%	22.08%	22.30%	15.76%
SHR (kcal/ kWh)	4,370.87	4,266.95	4,310.50	4,551.57
CV of Coal (kcal/ kg)	4,112	4,040	4,160	4,500
CV of oil (kcal/ kg)	10,500	10,500	10,500	10,500
Coal Transit Loss (%)	5.53%	5.04%	3.45%	2.27%
Price of coal	742.26	814.07	875.75	886.45
Price of oil (LDO &FO) (Rs./Kl)	15,101.54	17,368.78	16,877.63	23,499.67
Specific Coal Consumption (Kg/kWh)	0.96	0.96	0.96	0.96
Sp. Oil Consumption (ml/kWh)	40.20	36.74	30.44	22.15
Working :				
Gross generation (MUs)	1,066.65	743.31	846.32	614.66
Auxiliary consumption (MUs)	181.63	164.12	188.70	96.87

Net generation (MUs)	885.02	579.19	657.62	517.79
Coal Consumption (MT)	1,024,307	714,090	811,914	589,936
Oil consumption (KL)	42,879	27,309	25,762	13,615
Coal Cost (Rs. Cr.)	80.48	61.22	73.64	53.51
Oil cost (Rs. Cr.)	64.95	47.24	43.52	32.29
Total fuel cost (Rs. Cr.)	145.43	108.46	117.17	85.80
Other expenses related to generation (Rs/ Unit)	0.07	0.05	0.04	0.04
Other expenses related to generation (Rs. Cr.)	5.78	3.13	2.30	2.19
Total Variable cost (Rs. Cr.)	**151.21**	**111.60**	**119.47**	**87.99**
Per unit Fuel cost on gross generation (Rs./kWh)	1.42	1.50	1.42	1.19
Per unit Fuel cost on net generation (Rs./kWh)	1.71	1.93	1.82	1.36

Commission's analysis

5.25 The Commission, in its previous Tariff Orders, had taken cognizance of the past performance of the PTPS and aging of its units and thus considered the de-rated capacity of the station at 770 MW for approval of fuel cost for FY 2003-04 to FY 2010-11.

5.26 Further, the Commission clarifies that any event of forced outages & shutdowns may be considered, if such an occurrence is on account of force-majeure events only i.e. occurrence of incidents such as cyclones, earthquakes, floods, etc. on which Petitioner has no control. However the reasons provided by the Petitioner for forced outages/ shutdown of the PTPS units was on account of activities such as delay in overhauling of units and renovation & modernisation activities and fire accidents which are controllable factors through periodic maintenance, timely completion of R&M and overhauling activities, fire prevention measures etc. Also the inability of the Petitioner in obtaining coal of specified superior grade even after having signed agreement with the suppliers to this effect and having paid the cost thereof. The Commission is rather concerned, how the Petitioner is accepting the inferior quality coal when they are paying for the superior quality.

5.27 In addition, the Central Electricity Authority (CEA) vide their Letter No.CEA/PLG/ DMLF/545/Ret./2011 dated 4th January 2012 addressed to the Petitioner, suggested phasing out of the PTPS Units 2, 3, 5, 6 & 8, since these units are not contributing to the generation and as such the same needs to be phased out.

5.28 In view of the above, the Commission finds no merit in revisiting the norms for operational parameters as approved by it in previous Tariff Orders. The following table summarises the trajectory set by the Commission for the period FY 2003-04 to FY 2010-11.

Table 27: Operational Parameters set by the Commission in the previous Tariff Order for PTPS

Years	PLF (%)	Auxiliary Cons. (%)	Coal Transit loss (%)	SOC (ml/kWh)	SHR (kCal/kWh)
FY 2003-04	27%	14.55%	5.54%	24.13	3948
FY 2004-05	28%	13.55%	4.50%	23.13	3850
FY 2005-06	29%	12.55%	3.25%	22.13	3750
FY 2006-07	30%	11.55%	2.25%	21.13	3650
FY 2007-08	32%	10.50%	1.25%	14.30	3550
FY 2008-09	34%	10.50%	0.75%	10.77	3450
FY 2009-10	36%	10.50%	0.30%	5.59	3350
FY 2010-11	38%	10.50%	0.30%	2.00	3250

5.29 The variable cost of PTPS has been approved based on the trajectory for operational parameters set by the Commission as mentioned above and the actual coal & oil prices as per the audited annual accounts for FY 2003-04 to FY 2010-11.

5.30 The following tables summarises the operational parameters and the corresponding generation cost for PTPS for FY 2003-04 to FY 2010-11, as approved by Commission

Table 28 : Approved Plant parameters & Fuel cost for PTPS (Rs Cr) for FY 2003-04 to FY 2006-07

Particulars	Units	FY 2003- 04		FY 2004-05		FY 2005-06		FY 2006-07	
		Approved in TO for FY 2010-11	Approved Now by Comm.	Approved in TO for FY 2010-11	Approved Now by Comm.	Approved in TO for FY 2010-11	Approved Now by Comm.	Approved in TO for FY 2010-11	Approved Now by Comm.
Installed capacity	MW	840	840	840	840	840	840	840	840
Derated Capacity (Usable)	MW	770	770	770	770	770	770	770	770
PLF	%	27.00%	27.00%	28.00%	28.00%	29.00%	29.00%	30.00%	30.00%
Auxiliary Consumption	%	14.55%	14.55%	13.55%	13.55%	12.55%	12.55%	11.55%	11.55%
Station Heat Rate	kcal/KWh	3948	3948	3850	3850	3750	3750	3650	3650
Calorific value of coal	kcal/kg	4112	4112	4040	4040	4160	4160	4185	4500
Calorific value of FO/LDO	kcal/l	10500	10500	10500	10500	10500	10500	10500	10500
Coal Transit Loss	%	5.54%	5.54%	4.50%	4.50%	3.25%	3.25%	2.25%	2.25%
Price of coal- Landed cost exc. transit loss	Rs/tonne	742.20	742.26	814.05	814.70	875.75	875.75	886.59	886.45
Price of coal- Landed cost incl. transit loss	Rs/tonne	785.70	785.77	852.41	853.09	905.16	905.17	907.00	906.85
Oil Price (FO)	Rs/kL	15144	15102	17299	17369	16893	16878	24469	23500

Oil Price (LDO)									
Sp. Oil consumption (FO)	ml/kWh	24.13	24.13	23.13	23.13	22.13	22.13	21.13	21.13
Sp. Oil consumption (LDO)									
Gross units generated	MU	1821	1821	1889	1889	1956	1956	2024	2024
Net Units generated	MU	**1556**	**1556**	**1633**	**1633**	**1711**	**1711**	**1790**	**1790**
Total heat required	Mkcal	7189239	7189239	7271326	7271326	7335405	7335405	7385994	7385994
Heat generated by secondary oil	Mkcal	461423	461423	458681	458681	454524	454524	448950	448950
Heat required from coal	Mkcal	**6727817**	**6727817**	**6812644**	**6812644**	**6880881**	**6880881**	**6937044**	**6937044**
Coal Consumption	MT	1748356	1636142	1799833	1686298	1763319	1654058	1764873	1541565
Secondary Oil consumption (FO)	kL	43945	43945	43684	43684	43288	43288	42757	42757
Secondary Oil consumption (LDO)									
Coal Cost	Rs Cr	137.37	128.56	153.42	143.86	159.61	149.72	160.07	139.80
Secondary Oil Cost (FO+LDO)	Rs Cr	66.55	66.36	75.57	75.87	73.13	73.06	104.62	100.48
Total Fuel Cost (Coal + Oil)	Rs Cr	**203.92**	**194.93**	**228.99**	**219.73**	**232.74**	**222.78**	**264.70**	**240.28**
Other generation cost	Rs Cr	5.78	5.78	0.00	3.13	0.00	2.30	0.00	2.19
Total	**Rs Cr**	**209.70**	**200.71**	**228.99**	**222.86**	**232.74**	**225.08**	**264.70**	**242.47**
Fuel Cost/Unit (on Net generation)	Rs/Kwh	1.35	1.29	1.40	1.36	1.36	1.32	1.48	1.35
Actual Net Generation	MU	885	885	577	579	657	658	529	518
Approved fuel cost (on the basis of Net generation)	**Rs Cr**	**119.26**	**114.11**	**80.89**	**79.06**	**89.45**	**86.57**	**78.24**	**70.14**

Table 29 : Approved Plant parameters & Fuel cost for PTPS (Rs Cr) for FY 2007-08 to FY 2010-11

Particulars	Units	FY 2007-08		FY 2008-09		FY 2009-10		FY 2010-11	
		Approved in TO for FY 2011-12	Approved Now by Comm.	Approved in TO for FY 2011-12	Approved Now by Comm.	Approved in TO for FY 2011-12	Approved Now by Comm.	Approved in TO for FY 2011-12	Approved Now by Comm.
Installed capacity	MW	840	840	840	840	840	840	840	840
Derated Capacity (Usable)	MW	770	770	770	770	770	770	640	640
PLF	%	32.00%	32.00%	34.00%	34.00%	36.00%	36.00%	38.00%	38.00%
Auxiliary Consumption	%	10.50%	10.50%	10.50%	10.50%	10.50%	10.50%	10.50%	10.50%
Station Heat Rate	kcal/KWh	3550	3550	3450	3450	3350	3350	3250	3250
Calorific value of coal	kcal/kg	4540	4545	4540	4500	4540	4540	4540	4230
Calorific value of FO/LDO	kcal/l	10500	10500	10500	10500	10500	10500	10500	10500
Coal Transit Loss	%	1.25%	1.25%	0.75%	0.75%	0.30%	0.30%	0.30%	0.30%
Price of coal-Landed cost exc. transit loss	Rs/tonne	895.51	895.51	964.76	964.76	993.64	993.64	1056.91	1079.41
Price of coal-Landed cost incl. transit loss	Rs/tonne	906.85	906.85	972.05	972.05	996.62	996.62	1060.09	1082.66
Price of Oil (FO)	Rs/kL	23508	23508	28332	28332	26898	26898	28772	29064
Price of Oil (LDO)	Rs/kL	29433	29433	38149	38149	39415	39415	45612	44576
Sp. Oil consumption (FO)	ml/kWh	9.20	9.20	7.11	7.11	3.79	3.79	1.18	1.18
a) Sp. Oil consumption (LDO)	ml/kWh	5.10	5.10	3.66	3.66	1.80	1.80	0.82	0.82
Gross units generated	MU	2158	2158	2293	2293	2428	2428	2130	2130
Net Units generated	MU	**1932**	**1932**	**2053**	**2053**	**2173**	**2173**	**1907**	**1907**
Total heat required	Mkcal	7662547	7662547	7912120	7912120	8134711	8134711	6923904	6923904
Heat generated by secondary oil	Mkcal	324093	324093	259346	259346	142527	142527	44739	44739

Heat required from coal	Mkcal	**7338454**	**7338454**	**7652774**	**7652774**	**7992184**	**7992184**	**6879165**	**6879165**
Coal Consumption	MT	1616364	1614621	1685596	1700616	1760354	1760362	1515201	1626280
Secondary Oil consumption (FO)	kL	19858	19858	16300	16300	9209	9209	2521	2521
Secondary Oil consumption (LDO)	kL	11008	11008	8400	8400	4365	4365	1740	1740
Coal Cost	Rs Cr	146.58	146.42	163.85	165.31	175.44	175.44	161.05	176.07
Secondary Oil Cost (FO+LDO)	Rs Cr	79.08	79.08	78.23	78.23	41.97	41.97	15.19	15.08
Total Fuel Cost (Coal + Oil)	Rs Cr	**225.66**	**225.50**	**242.07**	**243.53**	**217.42**	**217.42**	**176.24**	**191.15**
Other generation cost	Rs Cr	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**Rs Cr**	**225.66**	**225.50**	**242.07**	**243.53**	**217.42**	**217.42**	**176.24**	**191.15**
Fuel Cost/Unit (on Net generation)	Rs/Kwh	1.17	1.17	1.18	1.19	1.00	1.00	0.92	1.00
Actual Net Generation	MU	587.39	587.39	875.72	872.98	971.31	990.80	595.06	579.46
Approved fuel cost (on the basis of Net generation)	**Rs Cr**	**68.61**	**68.57**	**103.28**	**103.58**	**97.17**	**99.12**	**55.00**	**58.09**

Own Generation- SHPS

Petitioner's submission

5.31 The Petitioner submitted that the SHPS has been designed for continuous operation at the reservoir level of 1925 ft. However, it has been observed by the Technical consultant appointed by the Board that the reservoir is above the level of 1925 ft for only 3-4 months in a year as there are restrictions on account of the fact that the same reservoir is the source of supply of water to Ranchi town. It is also submitted that the quantity of water in the reservoir is lower than the reported level due to heavy silting, which is the main reason for fall in generation during FY 2005-06. The actual generation available from SHPS during FY 2003-04 to FY 2006-07, as per the audited accounts, has been summarised in following table.

Table 30 : Generation (MUs) for SHPS submitted by the Petitioner

Particulars	Units	FY 2003-04	FY 2004-05	FY 2005-06	FY 2006-07
Capacity	MW	130.0	130.0	130.0	130.0
Gross Generation	MU	138.77	148.54	50.77	207.60
Aux. Consumption	MU	2.4	0.24	0.24	0.24
Aux. Consumption	%	1.73%	0.16%	0.47%	0.12%
Net Generation	**MU**	**136.37**	**148.30**	**50.53**	**207.36**

Commission's analysis

5.32 The Commission has approved the net generation of SHPS based on the actual gross generation mentioned in the audited accounts of the respective years and the normative auxiliary consumption in its previous Tariff Orders for FY 2010-11 & FY 2011-12.

5.33 The following tables summarises the generation available from SHPS for FY 2003-04 to FY 2010-11, as approved by the Commission.

Table 31 : Approved Generation from SHPS (MUs) for FY 2003-04 to FY 2006-07

Particulars	FY 2003- 04		FY 2004-05		FY 2005-06		FY 2006-07	
	Approved in TO for FY 2010-11	Approved Now by Comm.	Approved in TO for FY 2010-11	Approved Now by Comm.	Approved in TO for FY 2010-11	Approved Now by Comm.	Approved in TO for FY 2010-11	Approved Now by Comm.
Capacity (MW)	130	130	130	130	130	130	130	130
Gross Gen. (MU)	139	139	149	149	51	51	208	208
Aux. Cons. (MU)	0.20	0.20	0.20	0.20	0.20	0.20	0.24	0.24
Aux. Cons. (%)	0.14%	0.14%	0.13%	0.13%	0.39%	0.39%	0.12%	0.12%
Net Gen. (MU)	**138.57**	**138.57**	**148.34**	**148.34**	**50.57**	**50.57**	**207.36**	**207.36**

Table 32 : Approved Generation from SHPS (MUs) for FY 2007-08 to FY 2010-11

Particulars	FY 2007-08		FY 2008-09		FY 2009-10		FY 2010-11	
	Approved in TO for FY 2011-12	Approved Now by Comm.	Approved in TO for FY 2011-12	Approved Now by Comm.	Approved in TO for FY 2011-12	Approved Now by Comm.	Approved in TO for FY 2011-12	Approved Now by Comm.
Capacity (MW)	130	130	130	130	130	130	130	130
Gross Gen. (MU)	216	216	223	223	116	116	2*	3
Aux. Cons. (MU)	0.24	0.24	0.45	0.45	0.23	0.23	0.00	0.01
Aux. Cons. (%)	0.11%	0.11%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%
Net Gen. (MU)	**216.22**	**216.22**	**222.88**	**222.88**	**115.43**	**115.43**	**2.00**	**2.56**

Note: * The Petitioner had submitted that during FY 2010-11, the Generation from SHPS has been negligible on account of scanty rainfall during the year

Power Purchase

Petitioner's submission

5.34 The Petitioner has firm allocations of power from thermal power plants of NTPC, hydel Power Plants of NHPC (Chukka, Kuruchi & Rangit), other sources such as DVC, TVNL, WBSEB, PTC & NVVN. In addition to these the Petitioner also purchased power through UI mechanism.

5.35 The actual power purchase cost for FY 2003-04, FY 2004-05, FY 2005-06 and FY 2006-07 was Rs.1023.84 Cr, Rs.1174.37 Cr, Rs.1335.78 Cr and Rs.1539.52 Cr, respectively based on the audited annual accounts for respective years.

5.36 The following tables summarize the actual station wise power purchase for the period of FY 2003-04 to FY 2006-07 as submitted by the Petitioner.

Table 33: Source-wise Power Purchase Cost (Rs Cr) submitted by the Petitioner for FY 2003-04 & FY 2004-05

Source	FY 2003-04			FY 2004-05		
	Unit Rate (Rs/kWh)	Quantum (MUs)	Amt. (Rs Cr)	Unit Rate (Rs/kWh)	Quantum (MUs)	Amt. (Rs Cr)
Farraka	1.83	230.54	42.26	1.76	375.60	66.00
Kahalgaon	2.29	155.08	35.52	1.20	331.79	39.65
Talcher	1.41	250.40	35.35	2.11	315.28	66.57
WBSEB	4.15	27.49	11.41	4.22	29.48	12.44
DVC	3.12	1,889.11	590.33	2.59	2,311.30	598.80
Rangit	2.43	2.03	0.49	5.33	20.16	10.75
PTC (Chukha)	1.41	41.90	5.90	2.26	191.47	43.21

TVNL	1.67	1,131.53	189.10	1.77	1,092.50	193.82
UI Payable	2.11	431.06	90.74	2.56	449.08	115.05
VVNL	3.68	23.09	8.49	3.28	9.60	3.15
GRIDCO	-	-	0.08	1.88	6.07	1.14
PGCIL	-	-	13.91	-	-	23.40
ERLDC	-	-	0.28	-	-	0.38
Reactive Charges	-	-	-	-	-	-
Total	**2.45**	**4,182.23**	**1,023.84**	**2.29**	**5,132.32**	**1,174.37**

Table 34: Source-wise Power Purchase Cost (Rs Cr) submitted by the Petitioner for FY 2005-06 & FY 2006-07

Source	FY 2005-06			FY 2006-07		
	Unit Rate (Rs/kWh)	Quantum (MUs)	Amt. (Rs Cr)	Unit Rate (Rs/kWh)	Quantum (MUs)	Amt. (Rs Cr)
Farraka	1.68	704.07	118.56	1.69	676.27	114.02
Kahalgaon	1.75	533.40	93.47	1.90	324.81	61.81
Talcher	1.26	396.63	50.09	1.13	388.63	43.90
WBSEB	4.16	33.68	14.01	4.21	39.11	16.48
DVC	2.83	2,510.70	710.47	2.86	2,683.83	768.61
Rangit	2.90	43.20	12.54	2.48	25.97	6.43
PTC (Chukha)	1.55	157.51	24.41	1.54	198.91	30.71
TVNL	1.84	1,308.56	240.97	1.90	2,375.52	451.35
UI Payable	2.88	187.91	54.03	0.73	26.87	1.95
VVNL	-	-	-	-	-	-
GRIDCO	-	-	0.04	-	-	0.49
PGCIL	-	-	16.11	-	-	26.03
ERLDC	-	-	0.52	-	-	0.40
Reactive Charges	-	-	0.55	-	-	-
Total	**2.27**	**5,875.66**	**1,335.78**	**2.25**	**6,834.05**	**1,539.52**

Commission's analysis

5.37 The Commission scrutinized the audited annual accounts for FY 2003-04 to FY 2006-07 for verifying the claim made by the Petitioner and found it in line with the audited accounts. Further the Commission also analyzed the audited annual accounts for FY 2007-08 to FY 2010-11 for approving the source-wise actual power purchase cost for the respective years.

5.38 The following tables summarises the source-wise power purchase cost for FY 2003-04 to FY 2010-11, as approved in previous Tariff Orders and as approved now by the Commission.

Table 35 : Approved Source-wise Power Purchase Cost (Rs Cr) for FY 2003-04 to FY 2006-07

Particulars	FY 2003- 04		FY 2004-05		FY 2005-06		FY 2006-07	
	Approved in TO for FY 2010-11	Approved Now by Comm.	Approved in TO for FY 2010-11	Approved Now by Comm.	Approved in TO for FY 2010-11	Approved Now by Comm.	Approved in TO for FY 2010-11	Approved Now by Comm.
NTPC	112.05	113.12	157.23	172.22	259.99	262.12	219.75	219.74
DVC	561.22	590.33	683.00	598.80	804.54	710.47	943.04	768.61
NHPC	0.49	6.40	11.31	53.96	12.54	36.95	6.43	54.46
PTC	5.86	0.00	54.29	0.00	0.55	0.00	48.51	0.00
VVNL	0.00	8.57	0.00	4.29	0.00	0.59	0.00	0.49
TVNL	189.10	189.10	218.50	193.82	240.97	240.97	451.35	451.35
WBSEB	11.41	11.41	12.44	12.44	14.01	14.01	16.48	16.48
Tata Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
UI Payable	90.64	90.74	115.05	115.06	53.84	54.03	0.00	1.95
UI Receivable	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GRIDCO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ERLDC	8.54	0.28	1.15	0.38	24.45	0.52	1.95	0.40
PGCIL	14.51	13.91	22.27	23.40	24.26	16.11	23.99	26.03
Reactive charges	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**993.81**	**1023.84**	**1275.25**	**1174.37**	**1435.16**	**1335.78**	**1711.52**	**1539.52**

Table 36 : Approved Source-wise Power Purchase Cost (Rs Cr) for FY 2007-08 to FY 2010-11

Particulars	FY 2007-08		FY 2008-09		FY 2009-10		FY 2010-11	
	Approved in TO for FY 2011-12	Approved Now by Comm.	Approved in TO for FY 2011-12	Approved Now by Comm.	Approved in TO for FY 2011-12	Approved Now by Comm.	Approved in TO for FY 2011-12	Approved Now by Comm.
NTPC	168.45	168.45	240.80	240.80	308.49	308.49	595.99	608.90
DVC	905.67	905.67	911.19	911.19	925.56	925.56	1202.31	1211.26
NHPC	8.21	8.21	46.87	46.87	62.27	62.27	61.76	63.22
PTC	119.40	119.40	112.65	112.65	101.30	101.30	107.77	130.87
VVNL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TVNL	308.91	308.91	415.57	415.57	378.23	378.23	453.07	450.70
WBSEB	20.28	20.28	21.55	21.55	27.14	27.14	34.42	35.74
Tata Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.87
UI Payable	89.02	89.02	0.00	0.00	75.91	67.49	21.79	29.49
UI Receivable	0.00	0.00	0.00	0.00	0.00	0.00	-187.70	0.00
GRIDCO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ERLDC	1.31	1.31	0.51	0.51	1.89	1.89	7.28	8.24
PGCIL	34.63	34.63	36.51	36.51	43.62	52.04	61.00	62.39
Reactive charges	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**1655.87**	**1655.87**	**1785.63**	**1785.63**	**1924.41**	**1924.41**	**2538.83**	**2601.67**

5.39 The Commission noted that during the FY 2003-04 to FY 2006-07, there is a substantial difference between the power purchase cost approved by the Commission in Tariff Order for FY 2010-11 based on provisional accounts and data submitted now on the basis of audited annual accounts for the aforesaid years. The Commission asked the Petitioner to provide reasons for such variations, which the Petitioner submitted subsequently. The Petitioner submitted that at the time of provisional true up for FY 2003-04, the accounts for the year were not finalized. The provisional account for the year was submitted to CAG for audit and on the basis of their report certain un-booked costs were included in the accounts. Accordingly, the power purchase cost for FY 2003-04 differs from that approved by the Commission in Tariff Order for FY 2010-11. Similar changes were also made in annual accounts for FY 2004-05 to FY 2006-07 on the basis of the CAG audit reports.

5.40 The Commission finds merit in the submission made by the Petitioner, but directs it that in future provisional accounts should be made carefully and diligently and no costs/ revenues should be left unaccounted. Thus, the Commission approves the power purchase as per the audited annual accounts (as given in Tables 35 & 36 of this Order) for FY 2003-04 to FY 2010-11.

Disincentive for non-achievement of T&D loss reduction targets

Petitioner's submission

5.41 The Petitioner submitted that the disallowances imposed during the period FY 2003-04 to FY 2006-07 in the provisional True-up exercise in the form of Disincentive for non-achievement of T&D losses be discontinued and reversed with retrospective effect in the current petition for final True-up based on audited accounts. The Petitioner added that any disallowance on this account, not only has an adverse impact on its financial viability but also encourages inefficient usage/ wastage of power in the State.

Commission's analysis

5.42 As explained in Paras 5.11 to 5.15 of this Tariff Order, the Commission finds no reason to change the T&D loss targets given to the Petitioner in previous Tariff Orders. Accordingly, the power purchase cost incurred due to higher T&D losses, beyond the targeted level, has been disallowed and is treated as 'Disincentive for non-achievement of T&D loss targets'.

5.43 The following table summarises the computation of non-achievement of T&D loss reduction targets by the Commission for FY 2003-04 to FY 2010-11.

Table 37: Disincentive for non-achievement of T&D loss reduction targets (Rs Cr)

Particulars	Units	FY 2003- 04	FY 2004-05	FY 2005-06	FY 2006-07	FY 2007-08	FY 2008-09	FY 2009-10	FY 2010-11
Approved power purchase cost (A)	Rs Cr	1023.84	1174.37	1335.78	1539.52	1655.87	1785.63	1924.41	2601.67
Power purchased from outside sources (B)	MU	4182	5132	5876	6834	6738	7406	7876	9521
Disallowed units due to excess T&D Losses (C)	MU	372	1002	1072	1082	1108	1617	1396	1752
Disincentive for non-achievement of T&D loss reduction targets (A/B *C)	**Rs Cr**	**91.17**	**229.26**	**243.60**	**243.71**	**272.27**	**389.80**	**340.99**	**478.80**

5.44 Accordingly the approved power purchase cost for FY 2003-04 to FY 2010-11 after adjustment of disincentive for non-achievement of T&D loss reduction targets has been summarised in following table.

Table 38: Approved Power Purchase cost (Rs Cr) after adjustment of 'Disincentive for non-achievement of T&D loss reduction targets'

Particulars	FY 2003- 04	FY 2004-05	FY 2005-06	FY 2006-07	FY 2007-08	FY 2008-09	FY 2009-10	FY 2010-11
Gross power purchase cost	1023.84	1174.37	1335.78	1539.52	1655.87	1785.63	1924.41	2601.67
Less: Disincentive for non-achievement of T&D loss reduction targets	91.17	229.26	243.60	243.71	272.27	389.80	340.99	478.80
Net power purchase cost approved	**932.67**	**945.11**	**1092.17**	**1295.81**	**1383.60**	**1395.83**	**1583.42**	**2122.87**

Other Fixed Cost Components

Employee Cost

Petitioner's submission

5.45 The Petitioner, on the basis of the audited annual accounts, submitted that the actual employee cost for FY 2003-04, FY 2004-05, FY 2005-06 and FY 2006-07 was Rs.144.36 Cr, Rs.155.95 Cr, Rs.169.94 Cr and Rs.169.15 Cr, respectively.

5.46 Further, the Petitioner submitted that the increase in the employee cost is due to pay revision arrears and that at the time of creation of the Board, no funds had been transferred to JSEB for payment of outstanding liabilities like pension, GPF, Gratuity and other terminal benefits, which it had to incur through its own resources.

Commission's analysis

5.47 In the Tariff Order for FY 2010-11, while undertaking provisional true up of ARR for FY 2003-04 to FY 2006-07, the Commission had considered the employee cost in accordance with the provisional annual accounts for the respective years subject to final true up on the basis of audited annual accounts.

5.48 The Petitioner has now made available the audited annual accounts for FY 2003-04 to FY 2006-07. Accordingly, the Commission has now approved the actual employee cost for FY 2003-04 to FY 2006-07 as per the audited annual accounts for respective years.

5.49 In the Tariff Order for FY 2011-12, while undertaking provisional true up of ARR for FY 2007-08 to FY 2009-10 and Review of ARR for FY 2010-11, the Commission had approved functionally disaggregated employee cost for the generation (thermal & hydel), transmission and distribution functions of the Petitioner. In order to do so, the Commission had considered the employee cost incurred during FY 2007-08 to FY 2009-10 as per the provisional accounts for respective years, while for FY 2010-11 the Commission had made suitable projections in line with past trend. The overall employee cost was then bifurcated in the ratio of actual number of employees during the year for generation (thermal & hydel), transmission and distribution functions (as also proposed by the Petitioner) to arrive at functionally disaggregated employee cost for aforesaid years.

5.50 In view of above, the Commission has approved the overall employee cost on the basis of audited annual accounts for FY 2007-08, FY 2008-09, FY 2009-10 and FY 2010-11. The approved overall employee cost is then functionally disaggregated on basis of actual number of employees for each function to arrive at functionally disaggregated employee cost for aforesaid years.

5.51 The following table summarises the actual employee cost for the Board as a whole for FY 2003-04 to FY 2006-07, as approved by the Commission.

Table 39 : Approved employee cost (Rs Cr) for FY 2003-04 to FY 2006-07 (Rs Cr)

Particulars	FY 2003-04		FY 2004-05		FY 2005-06		FY 2006-07	
	Approved in TO for FY 2010-11	Approved Now by Comm.	Approved in TO for FY 2010-11	Approved Now by Comm.	Approved in TO for FY 2010-11	Approved Now by Comm.	Approved in TO for FY 2010-11	Approved Now by Comm.
Employee Cost	128.00	144.36	137.26	155.95	144.75	169.94	149.65	169.15

5.52 The following table summarises the function-wise actual employee cost for FY 2007-08 to FY 2010-11, as approved by the Commission

Table 40 : Approved employee cost (Rs Cr) for FY 2007-08 to FY 2010-11 (Rs Cr)

Particulars	FY 2007-08		FY 2008-09		FY 2009-10		FY 2010-11	
	Approved in TO for FY 2011-12	Approved Now by Comm.	Approved in TO for FY 2011-12	Approved Now by Comm.	Approved in TO for FY 2011-12	Approved Now by Comm.	Approved in TO for FY 2011-12	Approved Now by Comm.
Generation - Thermal	44.59	44.59	48.37	48.37	51.46	51.46	66.17	62.33
Generation - Hydel	6.61	6.61	7.18	7.18	7.63	7.63	10.79	7.64
Transmission	18.23	18.23	19.77	19.77	21.04	21.04	29.35	25.53
Distribution	99.43	99.43	113.92	113.92	127.69	127.69	177.62	156.37
Total	**168.86**	**168.86**	**189.24**	**189.24**	**207.83**	**207.83**	**283.93**	**251.86**

Administration & General Expenses

Petitioner's submission

5.53 The Petitioner, on the basis of the audited annual accounts, submitted that the actual A&G cost for FY 2003-04, FY 2004-05, FY 2005-06 and FY 2006-07 was Rs.23.82 Cr, Rs.27.19 Cr, Rs. 30.57 Cr and Rs.32.68 Cr, respectively.

Commission's analysis

5.54 In the Tariff Order for FY 2010-11, while undertaking provisional true up of ARR for FY 2003-04 to FY 2006-07, the Commission had considered the actual A&G cost in accordance with the provisional annual accounts for the respective years subject to final true up on the basis of audited annual accounts. The Petitioner has now made available the audited annual accounts for FY 2003-04 to FY 2006-07.

5.55 Accordingly, the Commission has now approved the actual A&G cost for FY 2003-04 to FY 2006-07 as per the audited annual accounts for respective years.

5.56 In the Tariff Order for FY 2011-12, while undertaking provisional true up of ARR for FY 2007-08 to FY 2009-10 and Review of ARR for FY 2010-11, the Commission had approved functionally disaggregated A&G cost for the generation (thermal & hydel), transmission and distribution functions of the Petitioner. In order to do so, the Commission had considered the actual A&G cost incurred during FY 2007-08 to FY 2009-10 as per the provisional accounts for respective years, while for FY 2010-11 had made suitable projections in line with past trend. The overall A&G cost was then bifurcated in the ratio of actual number of employees during the year for generation (thermal & hydel), transmission and distribution functions (as also proposed by the Petitioner) to arrive at functionally disaggregated A&G cost for aforesaid years.

5.57 In view of above, the Commission, while undertaking final true up for FY 2007-08 to FY 2010-11, has approved the overall A&G cost on the basis of audited annual accounts for FY 2007-08, FY 2008-09, FY 2009-10 and FY 2010-11. The approved overall A&G cost is then functionally disaggregated on the basis of actual number of employees for each function to arrive at functionally disaggregated employee cost for aforesaid years.

5.58 The following table summarises the actual A&G cost for the Board as a whole for FY 2003-04 to FY 2006-07, as approved by the Commission in Tariff Order for FY 2010-11 and as approved now.

Table 41 : Approved A&G cost (Rs Cr) for FY 2003-04 to FY 2006-07 (Rs Cr)

Particulars	FY 2003-04		FY 2004-05		FY 2005-06		FY 2006-07	
	Approved in TO for FY 2010-11	Approved Now by Comm.	Approved in TO for FY 2010-11	Approved Now by Comm.	Approved in TO for FY 2010-11	Approved Now by Comm.	Approved in TO for FY 2010-11	Approved Now by Comm.
A&G Cost	23.82	23.82	28.46	27.19	30.16	30.57	31.97	32.68

5.59 The following table summarises the function-wise actual A&G cost for FY 2007-08 to FY 2010-11, as approved by the Commission in Tariff Order for FY 2011-12 and as approved now.

Table 42 : Approved A&G cost (Rs Cr) for FY 2007-08 to FY 2010-11 (Rs Cr)

Particulars	FY 2007-08		FY 2008-09		FY 2009-10		FY 2010-11	
	Approved in TO for FY 2011-12	Approved Now by Comm.	Approved in TO for FY 2011-12	Approved Now by Comm.	Approved in TO for FY 2011-12	Approved Now by Comm.	Approved in TO for FY 2011-12	Approved Now by Comm.
Generation – Thermal	9.00	9.00	14.07	14.07	10.21	10.21	10.18	12.22
Generation – Hydel	1.34	1.34	2.09	2.09	1.51	1.51	1.66	1.50
Transmission	3.68	3.68	5.75	5.75	4.17	4.17	4.52	5.01
Distribution	20.07	20.07	33.14	33.14	25.32	25.32	27.33	30.66
Total	**34.09**	**34.09**	**55.06**	**55.06**	**41.22**	**41.22**	**43.69**	**49.39**

Repair & Maintenance (R&M) Expenses

Petitioner's submission

5.60 The Petitioner, on the basis of the audited annual accounts, submitted that the actual R&M cost for FY 2003-04, FY 2004-05, FY 2005-06 and FY 2006-07 was Rs.29.44 Cr, Rs.26.28 Cr, Rs. 31.20 Cr and Rs.36.33 Cr, respectively.

Commission's analysis

5.61 In the Tariff Order for FY 2010-11, while undertaking provisional true up of ARR for FY 2003-04 to FY 2006-07, the Commission had considered the actual R&M cost in accordance with the provisional annual accounts for the respective years subject to final true up on the basis of audited annual accounts. The Petitioner has now made available the audited annual accounts for FY 2003-04 to FY 2006-07. Accordingly, the Commission has now approved the actual R&M cost for FY 2003-04 to FY 2006-07 as per the audited annual accounts for respective years.

5.62 In the Tariff Order for FY 2011-12, while undertaking provisional true up of ARR for FY 2007-08 to FY 2009-10 and Review of ARR for FY 2010-11, the Commission had approved functionally disaggregated R&M cost for the generation (thermal & hydel), transmission and distribution functions of the Petitioner. As the proposed R&M cost for FY 2007-08 to FY 2010-11 was very high, the Commission, in the absence of audited accounts, had benchmarked the R&M cost as a percentage of opening GFA. Accordingly the R&M cost for FY 2007-08 to FY 2010-11 for JSEB as a whole was approved at 1.83% of the opening GFA for respective years subject to final true up on the basis of audited annual accounts. The overall R&M cost for the said years was then bifurcated in the ratio of functionally disaggregated opening GFA (as also proposed by the Petitioner) for generation (thermal & hydel), transmission and distribution functions of the Board.

5.63 In view of above, the Commission, while undertaking final true up for FY 2007-08 to FY 2010-11, has approved the overall R&M cost on the basis of audited annual accounts for FY 2007-08, FY 2008-09, FY 2009-10 and FY 2010-11. The approved overall R&M cost is then functionally disaggregated on the basis of opening GFA for each function to arrive at functionally disaggregated R&M cost for aforesaid years.

5.64 The following table summarises the actual R&M cost for the Board as a whole for FY 2003-04 to FY 2006-07, as approved by the Commission in Tariff Order for FY 2010-11 and as approved now.

Table 43 : Approved R&M cost (Rs Cr) for FY 2003-04 to FY 2006-07 (Rs Cr)

Particulars	FY 2003-04		FY 2004-05		FY 2005-06		FY 2006-07	
	Approved in TO for FY 2010-11	Approved Now by Comm.	Approved in TO for FY 2010-11	Approved Now by Comm.	Approved in TO for FY 2010-11	Approved Now by Comm.	Approved in TO for FY 2010-11	Approved Now by Comm.
R&M Cost	29.66	29.44	26.34	26.28	28.30	31.20	30.41	36.33

5.65 The following table summarises the function-wise actual R&M cost for FY 2007-08 to FY 2010-11, as approved by the Commission.

Table 44 : Approved R&M cost (Rs Cr) for FY 2007-08 to FY 2010-11 (Rs Cr)

Particulars	FY 2007-08		FY 2008-09		FY 2009-10		FY 2010-11	
	Approved in TO for FY 2011-12	Approved Now by Comm.	Approved in TO for FY 2011-12	Approved Now by Comm.	Approved in TO for FY 2011-12	Approved Now by Comm.	Approved in TO for FY 2011-12	Approved Now by Comm.
Generation – Thermal	11.70	21.59	12.24	24.98	12.76	24.51	12.88	13.43
Generation – Hydel	0.79	1.45	0.79	1.61	0.79	1.51	0.79	0.81
Transmission	4.24	7.82	4.46	9.11	4.50	8.65	4.54	8.11
Distribution	14.27	26.32	15.96	32.59	17.42	33.47	18.05	21.60
Total	**31.00**	**57.18**	**33.45**	**68.29**	**35.46**	**68.14**	**36.26**	**43.95**

Depreciation

Petitioner's submission

5.66 Based on the audited annual accounts for the respective years, the Petitioner has submitted that the actual depreciation cost for FY 2003-04, FY 2004-05, FY 2005-06 and FY 2006-07 is Rs.64.42 Cr, Rs.65.79 Cr, Rs. 32.44 Cr and Rs.35.55 Cr, respectively.

Commission's analysis

5.67 The Commission has approved the depreciation charges for FY 2003-04 to FY 2006-07, based on the Schedule 11 of the audited annual accounts of the respective years. However, the depreciation on the assets created out of consumer contribution is deducted from the gross depreciation to arrive at the net depreciation for the JSEB as a whole for the respective years.

5.68 The depreciation cost for FY 2007-08 to FY 2010-11 has been approved based on Schedule 11 of audited accounts and then functionally disaggregated on the basis of Schedule 20 of the audited accounts for respective years. Further, the depreciation cost on the assets created out of consumer contribution is deducted from the gross depreciation for the distribution function of the Board, to arrive at the net depreciation for distribution function for the respective years.

5.69 Following table summarises actual depreciation cost, net of depreciation on assets created out of consumer contribution, for FY 2003-04 to FY 2006-07 for the Board as a whole, as approved by the Commission in Tariff Order for FY 2010-11 and as approved now.

Table 45 : Approved Depreciation cost (Rs Cr) for FY 2003-04 to FY 2006-07 (Rs Cr)

Particulars	FY 2003-04		FY 2004-05		FY 2005-06		FY 2006-07	
	Approved in TO for FY 2010-11	Approved Now by Comm.	Approved in TO for FY 2010-11	Approved Now by Comm.	Approved in TO for FY 2010-11	Approved Now by Comm.	Approved in TO for FY 2010-11	Approved Now by Comm.
Depreciation Cost	57.84	61.54	50.03	54.22	49.95	25.63	45.69	22.75

5.70 The following table summarises the function-wise actual depreciation cost, net of depreciation on the assets created out of consumer contribution for the distribution function for FY 2007-08 to FY 2010-11, as approved by the Commission in Tariff Order for FY 2011-12 and as approved now.

Table 46 : Approved Depreciation cost (Rs Cr) for FY 2007-08 to FY 2010-11 (Rs Cr)

Particulars	FY 2007-08		FY 2008-09		FY 2009-10		FY 2010-11	
	Approved in TO for FY 2011-12	Approved Now by Comm.	Approved in TO for FY 2011-12	Approved Now by Comm.	Approved in TO for FY 2011-12	Approved Now by Comm.	Approved in TO for FY 2011-12	Approved Now by Comm.
Generation – Thermal	7.16	7.16	6.91	6.91	8.42	8.42	8.73	8.34
Generation – Hydel	0.76	0.76	0.77	0.77	0.77	0.77	0.57	0.76
Transmission	8.09	8.09	7.45	7.45	7.66	7.66	8.41	7.64
Distribution	26.59	26.59	28.93	28.93	31.31	31.31	38.68	32.62
Total	**42.60**	**42.60**	**44.05**	**44.05**	**48.16**	**48.16**	**56.40**	**49.36**

Interest & finance charges (IFC)

Petitioner's submission

5.71 Based on the audited annual accounts for the respective years, the Petitioner has submitted that the actual Interest & finance charges (other than interest on working capital) for FY 2003-04, FY 2004-05, FY 2005-06 and FY 2006-07 is Rs.115.04 Cr, Rs.188.91 Cr, Rs.312.52 Cr and Rs.485.90 Cr, respectively.

Commission's analysis

5.72 In the Tariff Order for FY 2010-11, while undertaking provisional true up of ARR for FY 2003-04 to FY 2006-07, the Commission had considered the actual interest & finance charges in accordance with the provisional annual accounts for the respective years subject to final true up on the basis of audited annual accounts. The Petitioner has now made available the audited annual accounts for FY 2003-04 to FY 2006-07.

5.73 Accordingly, the Commission has now approved the interest and finance charges (excluding interest on working capital and interest on consumer security deposit) for FY 2003-04 to FY 2006-07 as per the audited annual accounts for respective years.

5.74 The Commission has approved the interest on consumer security deposit (refer Paras 5.85 and 5.86) and interest on working capital (refer Paras 5.89 to 5.94) separately in this Tariff Order. Thus the same has not been included in the interest and finance charges cost as mentioned above.

5.75 The following table summarises the actual interest & finance charges (excluding interest on working capital and interest on consumer security deposit) for FY 2003-04 to FY 2006-07 for the Board as a whole, as approved by the Commission in Tariff Order for FY 2010-11 and as approved now.

Table 47 : Interest & Finance Charges (Rs Cr) for FY 2003-04 to FY 2006-07 (Rs Cr)

Particulars	FY 2003-04		FY 2004-05		FY 2005-06		FY 2006-07	
	Approved in TO for FY 2010-11	Approved Now by Comm.	Approved in TO for FY 2010-11	Approved Now by Comm.	Approved in TO for FY 2010-11	Approved Now by Comm.	Approved in TO for FY 2010-11	Approved Now by Comm.
Interest & Finance Charges	365.77	110.36	418.43	183.97	486.88	306.60	653.05	479.10

5.76 The interest & finance charges as per the audited accounts for FY 2003-04 to FY 2006-07 are lower as compared to the interest and finance charges approved in the Tariff Order for FY 2010-11. This is on account of the actual loan liability of the Petitioner as reflected in the audited accounts being less than that provided in the provisional accounts submitted earlier by the Petitioner. Accordingly, the Commission has now approved the interest & finance charges as per the audited accounts for aforesaid years.

5.77 In the Tariff Order for FY 2011-12, while undertaking the provisional true up for FY 2007-08 to FY 2009-10 and Review of FY 2010-11, the Commission noted that the increase in loan, consumer contribution, grants and subsidies towards cost of capital assets was higher than the amount deployed in GFA and CWIP together and on further scrutiny it was found that the increase in long-term funds is actually deployed towards meeting the revenue deficit of the Petitioner. Therefore, for estimating the sources of finance required to fund the closing GFA, the Commission had reduced the GFA by the consumer contribution, grants & subsidies available with the Petitioner. The normative net loans were then estimated after deducting accumulated depreciation from the value of gross loans. The weighted average rate of interest on loans was applied to the net normative loans to calculate the interest on loan for the respective years.

5.78 In view of above, the Commission, while undertaking the final true up for FY 2007-08 to FY 2010-11, has followed the methodology as approved in previous Tariff Order. The Net Fixed Asset (NFA) as per audited accounts are reduced by the Consumer contribution, grants and subsidies to determine the loan and equity component. The closing GFA & NFA or FY 2007-08 to FY 2010-11, as approved by Commission now has been summarised in following table.

Table 48: Approved GFA & NFA (Rs Cr) for FY 2007-08, FY 2008-09, FY 2009-10 & FY 2010-11 (Rs Cr)

Particulars	FY 2007-08		FY 2008-09		FY 2009-10		FY 2010-11	
	Approved in TO for FY 2011-12	Approved Now by Comm.	Approved in TO for FY 2011-12	Approved Now by Comm.	Approved in TO for FY 2011-12	Approved Now by Comm.	Approved in TO for FY 2011-12	Approved Now by Comm.
Closing GFA	1828.35	1828.35	1938.42	1938.42	1982.01	1982.01	2445.37	2351.60
Less: Acc. Dep.	635.62	597.61	679.67	602.72	727.84	642.62	784.24	692.14
NFA	**1192.73**	**1230.74**	**1258.75**	**1335.70**	**1254.17**	**1339.39**	**1661.14**	**1659.46**

5.79 For funding of above mentioned GFA, the Commission has considered the normative debt-equity ratio of 70:30 as provided in Regulation 19 of the Distribution Tariff Regulation, 2004. Moreover, consumer contribution grants and subsidies for capital assets are first netted off from gross fixed assets and the normative debt-equity ratio is applied on the remaining gross fixed assets only.

5.80 The Commission has considered the addition in consumer contribution, grants and capital subsidy on the basis of the audited annual accounts of the Petitioner considering FY 2006-07 as the base year. The normative net loans are estimated after deducting accumulated depreciation from the value of gross loans. The approved sources of funding for FY 2007-08 to FY 2010-11 has been summarised in following table.

Table 49: Approved Sources for Funding (Rs Cr) for FY 2007-08 to FY 2010-11

Particulars	FY 2007-08	FY 2008-09	FY 2009-10	FY 2010-11
Consumer contribution, grants and subsidies deployed in GFA	699.24	783.66	780.33	886.53
Equity	338.74	346.43	360.50	439.52
Loan	192.77	205.61	198.56	333.41
Total	**1230.74**	**1335.70**	**1339.39**	**1659.46**

5.81 In accordance with the JSERC's Distribution Tariff Regulations, 2004, the return on funds actually deployed in usable assets has been tabulated hereunder:

Table 50: Rate of Return on Approved Sources (Rs Cr)

Approved Sources	Return	Basis
Consumer contribution, grants and subsidies deployed in GFA	0%	Cost –free funds
Equity	14%	As provided in Regulation 20 of the Distribution Tariff Regulations, 2004
Loan		
FY 2007-08	8.16%	Weighted average rate of interest on existing loans as per Regulation 11 of the Distribution Tariff Regulations, 2004
FY 2008-09	7.90%	Weighted average rate of interest on existing loans as per Regulation 11 of the Distribution Tariff Regulations, 2004
FY 2009-10	8.05%	Weighted average rate of interest on existing loans as per Regulation 11 of the Distribution Tariff Regulations, 2004
FY 2010-11	6.88%	Weighted average rate of interest on existing loans as per Regulation 11 of the Distribution Tariff Regulations, 2004

5.82 To approve the interest & finance charges for FY 2007-08 to FY 2010-11, the Commission has followed the provisions of JSERC's Distribution Tariff Regulations, 2004, which states that the normative loan shall be the opening normative loan after taking into account repayments worked out on normative basis. The weighted average rate of interest shall be worked out on the actual outstanding loan as has been summarised in Table above and applied to the normative loan for calculation of interest on loan for the respective year. The deemed repayment is considered to be equal to the depreciation allowed in that year. Based on the above, the interest & finance charges approved by the Commission is tabulated hereunder:

Table 51: Interest & Finance Charges (Rs Cr) for JSEB for FY 2007-08 to FY 2010-11

Particulars	FY 2007-08		FY 2008-09		FY 2009-10		FY 2010-11	
	Approved in TO for FY 2011-12	Approved Now by Comm.	Approved in TO for FY 2011-12	Approved Now by Comm.	Approved in TO for FY 2011-12	Approved Now by Comm.	Approved in TO for FY 2011-12	Approved Now by Comm.
Opening Balance	166.74	166.74	142.93	192.77	72.83	205.61	27.97	198.56
Deemed Addition during the year	18.79	68.63	(26.05)	56.89	3.31	41.11	297.79	184.21
Deemed Repayments during the year	42.60	42.60	44.05	44.05	48.16	48.16	56.40	49.36
Closing Balance	142.93	192.77	72.83	205.61	27.97	198.56	269.37	333.41
Average balance during the Year	**154.84**	**179.76**	**107.88**	**199.19**	**50.40**	**202.08**	**148.67**	**265.98**
Interest Rate	8.16%	8.16%	7.90%	7.90%	8.05%	8.05%	8.05%	6.88%
Interest Expense	**12.63**	**14.67**	**8.52**	**15.73**	**4.06**	**16.27**	**11.97**	**18.31**

5.83 Further, the interest on loan for FY 2007-08 to FY 2010-11 has been functionally disaggregated into generation (thermal & hydel), transmission and distribution functions of the Board in the ratio of the opening GFA for in each year as given in Schedule 20 of the audited annual accounts for respective years. Function-wise interest & finance charges approved by the Commission for respective years has been summarised in following table.

Table 52: Approved disaggregated Interest & Finance Charges (Rs Cr) for FY 2007-08 to FY 2010-11

Particulars	FY 2007-08		FY 2008-09		FY 2009-10		FY 2010-11	
	Approved in TO for FY 2011-12	Approved Now by Comm.	Approved in TO for FY 2011-12	Approved Now by Comm.	Approved in TO for FY 2011-12	Approved Now by Comm.	Approved in TO for FY 2011-12	Approved Now by Comm.
Generation – Thermal	4.77	5.54	3.12	5.75	1.46	5.85	4.25	6.50
Generation – Hydel	0.32	0.37	0.20	0.37	0.09	0.36	0.26	0.40
Transmission	1.73	2.01	1.14	2.10	0.51	2.06	1.50	2.29
Distribution	5.82	6.75	4.06	7.51	1.99	7.99	5.96	9.11
Total	**12.63**	**14.67**	**8.52**	**15.73**	**4.06**	**16.27**	**11.97**	**18.31**

Interest on Consumer Security Deposit

Petitioner's submission

5.84 The Petitioner has not submitted separate details of interest on consumer security deposit paid during the FY 2003-04 to FY 2006-07.

Commission's analysis

5.85 The Commission approves the interest on consumer security deposits on the basis of the audited annual accounts for FY 2003-04 to FY 2010-11. Accordingly the actual interest on consumer security deposit for FY 2003-04 to FY 2006-07 has been reduced from the actual interest and finance charges.

5.86 The following table summarises the approved interest on consumer security deposit for FY 2003-04 to FY 2010-11.

Table 53: Approved Interest on Security deposit (Rs Cr)

Year	Amount
FY 2003-04	4.67
FY 2004-05	4.94
FY 2005-06	5.92
FY 2006-07	6.81
FY 2007-08	7.27
FY 2008-09	7.84
FY 2009-10	8.42
FY 2010-11	11.88

Interest on Working Capital

Petitioner's submission

5.87 The Petitioner proposed interest on working capital for the period 2003-04 to 2006-07 in accordance with the JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2010. Accordingly, 1/12th of O&M, maintenance spares at 1% of opening GFA, two (2) months of receivables, minus amount held as security deposit minus one (1) month equivalent of cost of power purchase has been considered for calculation of working capital. Further the applicable Bank rate of interest has been applied on the working capital for arriving at the interest on working capital proposed for each of the years.

5.88 The following table summarises the interest on working capital for FY 2003-04 to FY 2006-07, as proposed by the Petitioner.

Table 54: Proposed Interest on Working Capital for FY 2003-04 to FY 2006-07 (Rs. Cr.)

Particulars	FY 2003-04	FY 2004-05	FY 2005-06	FY 2006-07
1 Month O&M	16.47	17.45	19.31	19.85
2 Months Receivables	300.98	370.22	403.92	401.48
Maint. & Spares (1% of opening GFA)	13.08	13.91	14.84	15.88
1 Month cost of Power Purchase	85.32	97.86	111.31	128.29
Security Deposit from Customers	86.58	98.77	114.86	131.12
Working Capital	**158.62**	**204.95**	**211.89**	**177.80**
Rate of Interest (SBI PLR)	10.75%	10.25%	10.25%	10.25%
Interest on Working Capital	**17.05**	**21.01**	**21.72**	**18.22**

Commission's analysis

5.89 The Commission clarifies that 'JSERC's Distribution Tariff Regulations, 2010' followed by the Petitioner are applicable from FY 2011-12 onwards and not for period prior to that. Therefore, the Petitioner's reliance for the period FY 2003-04 to FY 2006-07 on aforesaid Regulations is misplaced and Commission does not accept it.

5.90 Further, in the Tariff Order for FY 2010-11, while undertaking the provisional true up for FY 2003-04 to FY 2006-07, the Commission had approved the interest on working capital loans on the basis of the provisional annual accounts for the respective years subject to final true up on the basis of audited annual accounts. The Commission had not allowed normative interest on working capital loans during FY 2003-04 to FY 2006-07, as the actual interest on working capital paid by the Petitioner during the aforesaid years was negligible.

5.91 In view of above, while doing the final true up for FY 2003-04 to FY 2005-06, the Commission now approves the interest on working capital as per actual based on the audited annual accounts of respective years.

5.92 The summary of the actual interest on working capital for the Board as a whole for FY 2003-04 to FY 2006-07, as approved by the Commission earlier and as approved by the Commission now, has been summarised in following table.

Table 55 : Approved Interest on Working Capital (Rs Cr) for FY 2003-04 to FY 2006-07

Particulars	FY 2003-04		FY 2004-05		FY 2005-06		FY 2006-07	
	Approved in TO for FY 2011-12	Approved Now by Comm.	Approved in TO for FY 2011-12	Approved Now by Comm.	Approved in TO for FY 2011-12	Approved Now by Comm.	Approved in TO for FY 2011-12	Approved Now by Comm.
Interest on working capital	0.00	0.00	0.24	0.24	2.08	2.08	0.64	0.64

5.93 In the previous Tariff Order for FY 2011-12, for estimating the interest on working capital for FY 2007-08 to FY 2010-11, the Commission had considered the interest on working capital as per the norms specified in the following regulations:

(a) CERC, (Terms and conditions of Tariff Regulations), 2004 for computing the interest on working for Sikidri hydel power station;

(b) JSERC, Generation Tariff Regulation, 2004 for computing the interest on working capital for the Patratu Thermal power station; and

(c) JSERC, Distribution Tariff Regulations, 2004 for computing the interest on working capital for the distribution function.

5.94 Accordingly, the Commission has followed the aforesaid regulations for estimating the interest on working capital loans for FY 2007-08 to FY 2010-11 as summarised below.

Generation - Hydel

5.95 Since the tariff determination regulations for hydro generating stations of JSERC were not in place during the period FY 2007-08 to FY 2010-11, the Commission decided to approve the interest on working capital based on the norms specified in the CERC regulations. The CERC (Terms and condition of tariff) Regulation, 2004' specify the computation of working capital as per the following norms for hydro generating stations:

(a) Operation & Maintenance expenses for one month,

(b) Maintenance spares @ 1% of historical cost escalated @ 6% p.a. from the date of commercial operation, and

(c) Receivables equivalent to two months of the fixed charges for sale of electricity.

5.96 The computation of working capital for the generation- hydel function is shown in the following table. Further, as the JSEB is still an integrated unit, the working capital on receivables of the entire JSEB has been considered for the distribution function as provided in para 5.99 of this Tariff Order & not separately for generation function here.

Table 56: Approved IWC for Generation-Hydel function for FY 2007-08 to FY 2010-11 (Rs Cr)

Particulars	FY 2007-08		FY 2008-09		FY 2009-10		FY 2010-11	
	Approved in TO for FY 2011-12	Approved Now by Comm.	Approved in TO for FY 2011-12	Approved Now by Comm.	Approved in TO for FY 2011-12	Approved Now by Comm.	Approved in TO for FY 2011-12	Approved Now by Comm.
O&M expenses (in months)	0.73	0.78	0.84	0.91	0.83	0.89	1.10	0.83
Maintenance Spares (% of equipment cost)	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43
Total Working Capital	**1.16**	**1.21**	**1.27**	**1.34**	**1.26**	**1.32**	**1.53**	**1.26**
Rate of interest on working capital	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%	11.75%	11.75%
Interest on working capital	**0.14**	**0.15**	**0.155**	**0.164**	**0.15**	**0.16**	**0.18**	**0.15**

Generation - Thermal

5.97 The JSERC's "Generation Tariff Regulations, 2004' specify the computation of working capital as per the following norms:

(a) Cost of coal for one month corresponding to target availability

(b) Cost of coal for ½ months for pit-head generating stations and one month for non-pithead generating stations, corresponding to the, "target availability"

(c) One month stock for secondary fuel oil, corresponding to "target availability"

(d) Operation & Maintenance expenses for one month

(e) Maintenance spares @ 1% of plant & equipment cost as on 1st April 2004 or the date of commercial operation, whichever is later, and

(f) Receivables equivalent to two months of fixed and variable charges below the level of target availability shall be on pro-rata basis.

5.98 The computation of working capital for the thermal generation- function is shown in the following table. Further, as the JSEB is still an integrated unit, the working capital on receivables of the entire JSEB has been considered for the distribution function as provided in para 5.99 of this Tariff Order & not separately for generation function here.

Table 57: Approved IWC for Generation-Thermal function (Rs Cr)

Particulars	FY 2007-08		FY 2008-09		FY 2009-10		FY 2010-11	
	Approved in TO for FY 2011-12	Approved Now by Comm.	Approved in TO for FY 2011-12	Approved Now by Comm.	Approved in TO for FY 2011-12	Approved Now by Comm.	Approved in TO for FY 2011-12	Approved Now by Comm.
Cost of coal for 1.5 months	5.57	5.57	8.74	8.79	9.80	10.00	6.28	6.69
Secondary fuel oil for 1 month	2.00	2.00	2.78	2.77	1.56	1.59	0.40	0.38
O&M expenses (in months)	5.44	6.27	6.22	7.29	6.20	7.18	7.44	7.33
Maintenance Spares (% of equipment cost)	6.40	6.40	6.69	6.69	6.97	6.97	7.04	7.04
Total Working Capital	**19.41**	**20.23**	**24.43**	**25.54**	**24.54**	**25.75**	**21.16**	**21.44**
Rate of interest on working capital	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%	11.75%	11.75%
Interest on working capital	**2.38**	**2.48**	**2.99**	**3.13**	**3.01**	**3.15**	**2.49**	**2.52**

Distribution

5.99 The JSERC's 'Distribution Tariff Regulations, 2004' states that the interest on working capital is required to meet the shortfall in collection over and above the target approved by the Commission. In case of the Petitioner, the shortfall is 1% of the total revenue of JSEB; hence the interest on working capital has been computed accordingly. The Computation of working capital for the Distribution function is shown below.

Table 58: Approved IWC for Distribution function (Rs Cr)

Particulars	FY 2007-08		FY 2008-09		FY 2009-10		FY 2010-11	
	Approved in TO for FY 2011-12	Approved Now by Comm.	Approved in TO for FY 2011-12	Approved Now by Comm.	Approved in TO for FY 2011-12	Approved Now by Comm.	Approved in TO for FY 2011-12	Approved Now by Comm.
Allowed Bad & Doubtful debt as a % of revenue	1%	1%	1%	1%	1%	1%	1%	1%
Revenue at existing tariff	1391.23	1391.23	1584.91	1584.91	1634.37	1634.37	1,915.39	2010.69

Bad & Doubtful debt (in Rs Cr)	13.91	13.91	15.85	15.85	16.34	16.34	19.15	20.11
Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%	11.75%	11.75%
Interest on Working Capital	**1.70**	**1.70**	**1.94**	**1.94**	**2.00**	**2.00**	**2.25**	**2.36**

Return on Equity (RoE)

Petitioner's submission

5.100 The Petitioner has estimated the reasonable return on equity @ 30% of the closing GFA less consumer contribution, grants & subsidies for FY 2003-04 to FY 2006-07. The rate of return on equity has been proposed @ 14% p.a. The return on equity for the period of FY 2003-04 to FY 2006-07, as submitted by the Petitioner, has been presented in following table.

Table 59: Return on equity (Rs Cr) as submitted by Petitioner for FY 2003-04 to FY 2006-07

Particulars	FY 2003-04	FY 2004-05	FY 2005-06	FY 2006-07
Closing GFA	1,391.17	1,484.43	1,588.23	1,694.46
Closing Capital Subsidies, Grants, Contributions	40.39	127.95	150.66	233.25
GFA for Statutory Return	1,350.79	1,356.48	1,437.57	1,461.22
Statutory Return @ 14% on 30% Equity	**56.73**	**56.97**	**60.38**	**61.37**

Commission's analysis

5.101 The Commission has approved the return on equity for FY 2003-04 to FY 2006-07 in line with the provisions of JSERC's Tariff Regulations 2004 and the methodology approved by it in the Tariff Order for FY 2010-11 while undertaking the provisional true up for aforesaid years. The following table summarises the approved return on equity for the Board as a whole for FY 2003-04 to FY 2006-07.

Table 60 : Approved Return on Equity (Rs Cr) for FY 2003-04 to FY 2006-07

Particulars	FY 2003-04		FY 2004-05		FY 2005-06		FY 2006-07	
	Approved in TO for FY 2010-11	Approved Now by Comm.	Approved in TO for FY 2010-11	Approved Now by Comm.	Approved in TO for FY 2010-11	Approved Now by Comm.	Approved in TO for FY 2010-11	Approved Now by Comm.
Return on Equity	0.00	0.00	0.00	0.00	46.13	43.51	47.62	41.12

5.102 The Commission has approved the return on equity for FY 2007-08 to FY 2010-11 based on the approved equity as provided in Table 49 of this Tariff Order and the rate of return on equity as provided in Table 50 of this Tariff Order. Further, for approving the disaggregated return on equity for generation (thermal & hydel), transmission and distribution function of the Board, the Commission has allocated the overall approved RoE on the basis of opening GFA for each as provided in Schedule 20 of the audited annual accounts for aforesaid years.

5.103 The return on equity as approved by the Commission for FY 2007-08 to FY 2010-11 is detailed in the following table:

Table 61: Approved disaggregated return on equity (Rs Cr) for FY 2007-08 to FY 2010-11

Particulars	FY 2007-08		FY 2008-09		FY 2009-10		FY 2010-11	
	Approved in TO for FY 2011-12	Approved Now by Comm.	Approved in TO for FY 2011-12	Approved Now by Comm.	Approved in TO for FY 2011-12	Approved Now by Comm.	Approved in TO for FY 2011-12	Approved Now by Comm.
Generation – Thermal	17.63	17.90	16.52	17.74	16.31	18.16	22.46	21.86
Generation – Hydel	1.18	1.20	1.06	1.14	1.01	1.12	1.37	1.34
Transmission	6.39	6.48	6.02	6.47	5.76	6.41	7.92	7.71
Distribution	21.51	21.83	21.55	23.14	22.27	24.79	31.47	30.63
Total return on equity	**46.71**	**47.42**	**45.15**	**48.50**	**45.35**	**50.47**	**63.22**	**61.53**

Non-tariff Income

Petitioner's submission

5.104 The Petitioner has submitted that the actual non-tariff income, based on audited annual accounts, for FY 2003-04, FY 2004-05, FY 2005-06 and FY 2006-07 is Rs.353.35 Cr, Rs.430.56 Cr, Rs.515.27 Cr and Rs.457.24 Cr. Out of the total Non-tariff income amount, Delay Payment Surcharge (DPS) from Consumers is in the range of 66%-96% for the period of FY 2003-04 to FY 2006-07, as summarised in following table.

Table 62: Actual Non-Tariff Income (Rs Cr) as per audited accounts

Particulars	FY 2003-04	FY 2004-05	FY 2005-06	FY 2006-07
D.P.S from Consumer	338.68	418.62	379.85	302.77
Other Income	14.67	11.94	135.42	154.47
Total	**353.35**	**430.56**	**515.27**	**457.24**
% of DPS of the total	96%	97%	74%	66%

5.105 With respect to the DPS, the Petitioner submitted that it is unable to collect the entire amount of the billed revenue from its consumers and as such the revenue collected is always lower than the amount billed. The DPS is payable by the consumers on such unpaid amounts (i.e. difference between revenue billed & revenue collected). Thus in case the Commission allows revenue on accrual basis and total amount of DPS as provided in the accounts, the Petitioner would be penalized as same revenue is accounted twice.

5.106 In view of above, the Petitioner submitted that the Commission should consider the realizable DPS @ 10% of the actual DPS as non-tariff income for the purposes of true-up. The non-tariff income, as submitted by the Petitioner, for FY 2003-04 to FY 2006-07 has been summarized below.

Table 63: Non-Tariff Income (Rs. Cr.) as submitted by Petitioner for FY 2003-04 to FY 2006-07

Particulars	FY 2003-04	FY 2004-05	FY 2005-06	FY 2006-07
Realizable D.P.S @ 10% of total DPS	33.87	41.86	37.99	30.28
Other Income	14.67	11.94	135.42	154.47
Total	**48.54**	**53.80**	**173.40**	**184.75**

Commission's Analysis

5.107 The delayed payment surcharge (DPS) is levied in case a consumer defaults in payment of its electricity bill within the stipulated time. For example, in case a consumer, having a billed amount of Rs.100, fails to pay within the stipulated time he will have to pay DPS of Rs.1.50 (1.50% of 100) over and above the billed amount of Rs.100.

5.108 Further in the audited accounts, the amount realised from the revenue from tariff is booked under separate heads i.e. revenue from tariff is booked under revenue from sale of power in Schedule 1 and revenue realised from DPS is booked as non-tariff income in Schedule 5. Thus, in accordance with the generally accepted accounting principles, the revenue from tariff and income from DPS are considered in ARR separately.

5.109 With respect to the own admission by the Petitioner that it is unable to collect the entire amount of revenue billed, the Commission is of the view that such inefficiencies on part of the Petitioner cannot be allowed to be passed on to the consumers who are paying their bills on time.

5.110 In view of above, the Commission allows the actual non-tariff income as reflected in the audited annual accounts for FY 2003-04 to FY 2010-11. The following table summarises the approved non-tariff income for the Board as a whole for FY 2003-04 to FY 2006-07.

Table 64 : Approved Non-Tariff Income (Rs Cr) for FY 2003-04 to FY 2006-07

Particulars	FY 2003-04		FY 2004-05		FY 2005-06		FY 2006-07	
	Approved in TO for FY 2010-11	Approved Now by Comm.	Approved in TO for FY 2010-11	Approved Now by Comm.	Approved in TO for FY 2010-11	Approved Now by Comm.	Approved in TO for FY 2010-11	Approved Now by Comm.
Non-Tariff Income	419.00	353.35	514.59	430.56	575.22	515.27	556.18	457.24

5.111 The summary of the function-wise actual non-tariff income approved by the Commission for FY 2007-08 to FY 2010-11 has been summarised in the following below.

Table 65: Approved function-wise disaggregated Non-tariff Income (Rs Cr) for FY 2007-08 to FY 2010-11

Particulars	FY 2007-08		FY 2008-09		FY 2009-10		FY 2010-11	
	Approved in TO for FY 2011-12	Approved Now by Comm.	Approved in TO for FY 2011-12	Approved Now by Comm.	Approved in TO for FY 2011-12	Approved Now by Comm.	Approved in TO for FY 2011-12	Approved Now by Comm.
Generation – Thermal	1.87	1.87	0.89	0.89	0.81	0.81	0.87	0.93
Generation – Hydel	1.87	1.87	0.89	0.89	0.81	0.81	0.87	0.93
Transmission	1.87	1.87	0.89	0.89	0.81	0.81	0.87	0.93
Distribution	226.58	226.58	282.15	282.15	298.61	298.61	361.88	200.06
Total	**232.18**	**232.18**	**285.08**	**285.08**	**301.44**	**301.44**	**364.99**	**202.85**

Provision for Bad and doubtful Debts

Petitioner's submission

5.112 The Petitioner submitted that it has made provisioning towards bad & doubtful debts in accordance with generally accepted accounting principles. Accordingly, Petitioner has proposed provision for bad and doubtful debts to be considered for final true-up for the period FY 2003-04 to FY 2006-07 on basis of audited annual accounts for respective years. The provision for bad & doubtful debts, for FY 2003-04 to FY 2006-07, has been summarized in following table.

Table 66: Provision for Bad and doubtful debts (Rs Cr) as submitted by the Petitioner for FY 2003-04 to FY 2006-07

Financial Year	Amount
2003-04	222.34
2004-05	312.75
2005-06	249.33
2006-07	181.81

Commission's analysis

5.113 According to the Regulation 10 of the 'Distribution Tariff Regulations, 2004', no provision for bad debts is to be allowed to the Petitioner as it will lead to inefficiency in collection. Thus the Commission has not approved any amount towards bad and doubtful debts for FY 2003-04 to FY 2010-11.

Prior period expenses

Petitioner's submission

5.114 The Petitioner submitted the actual prior period expenses incurred during the period FY 04, FY 05, FY 06 and FY 07 to be Rs.6.16 Cr, Rs.134.32 Cr, Rs. 233.55 Cr and Rs. (-)54.89 Cr, respectively in accordance with the audited annual accounts.

Commission's analysis

5.115 The Commission observes that prior period expenses/income arise as a result of errors or omission in the previous years which are accounted in the subsequent financial years. The Commission has analysed the audited annual accounts for FY 2003-04 to FY 2010-11 and approves the actual prior period expenses incurred in the respective years,

5.116 The following table summarises the approved prior period expenses for FY 2003-04 to FY 2010-11.

Table 67: Approved Prior period expenses (Rs Cr)

Year	Amount
FY 2003-04	6.16
FY 2004-05	134.32
FY 2005-06	233.55
FY 2006-07	(54.89)
FY 2007-08	(12.27)
FY 2008-09	47.98
FY 2009-10	147.44
FY 2010-11	(97.26)

Inefficient Cost of PTPS

Petitioner's submission

5.117 The Petitioner submitted that out of the 10 Units of the Patratu Thermal Power Station (PTPS), Units 1 –6 of the station are around 37 – 42 years old (installed in 1966 -71) and have run beyond normal economic life of these stations. Units 7 –10 were installed during 1977 – 86 and have also become reasonably old.

Table 68: Age of PTPS Units

Installed Capacity (as on 31.03.2011)	Date of Synchronization/ Commissioning	Age (Est. from 31.03.2007)
PTPS (1) 40 MW	26-Jun-66	41
PTPS (2) 40 MW	27-Apr-67	40
PTPS (3) 40 MW	16-Oct-68	38
PTPS (4) 40 MW	30-Oct-69	37
PTPS (5) 90 MW	31-Mar-71	36
PTPS (6) 90 MW	31-Mar-72	35
PTPS (7) 105 MW	31-Aug-77	30
PTPS (8) 105 MW	16-Dec-79	27
PTPS (9) 110 MW	30-Mar-84	23
PTPS (10) 110 MW	2-Mar-86	21

5.118 Due to the age, the capacities of Units 1-8 are de-rated by 70 MW and hence the overall capacity of the station is reduced to 770 MW as against installed capacity of 840 MW.

5.119 Further, Unit 3, 4, 5, 7 and 8 with total de-rated capacity of 380 MW was shut down completely during the period of proposed true-up and required renovation and modernization before generation can be started from these units. Also, out of the de-rated capacity of Unit 6 of 90 MW, only 70 MW was effectively available for generation, as capital overhauling of its TG set has not been done since 1992 and its last stage blades of turbines were cut. In FY 2006-07, only 340 MW of the plant capacity was available generation due to fire in Unit No 9 and 10 during August 2007.

5.120 In addition to above, even though the PTPS has entered into an agreement to purchase "D" grade coal with calorific value of 4201 – 4590 K cal/kg, it is actually receiving E & F grade coal with a lower calorific value and higher ash content against the price of "D" grade coal, which has direct bearing on the performance parameter of the plant.

5.121 The Petitioner adds that it has also taken major initiatives for renovation and modernization of the plant during the FY 2003-04 to FY 2006-07. Thus, any operating inefficiencies of these old units should not be burdened on it and actual cost should be allowed to pass through.

Commission's analysis

5.122 As provided in Paras 5.25 to 5.28 of this Tariff Order, the Commission found no merit in allowing the inefficient performance parameters for PTPS and accordingly the inefficient cost of PTPS. The Commission has estimated the inefficient cost of PTPS as Rs. 106.99 Cr, Rs.74.04 Cr, Rs. 69.01 Cr, Rs. 65.81 Cr and Rs.87.91 Cr for FY 2006-07, FY 2007-08, FY 2008-09, FY 2009-10 and FY 2010-11, respectively. The following table summarises the inefficient cost for PTPS as disallowed by the Commission.

Table 69 : Inefficient Cost of PTPS (Rs Cr)

Particulars	Units	FY 2003-04	FY 2004-05	FY 2005-06	FY 2006-07	FY 2007-08	FY 2008-09	FY 2009-10	FY 2010-11
Approved Net Generation for PTPS (A)	MU	1556.22	1632.74	1710.62	1789.84	1931.83	2052.56	2173.30	1906.74
Approved Fixed cost (B)	Rs Crs	-	-	-	-	106.39	120.07	120.96	126.29
Approved per unit fixed cost (C = A/B * 10)	**Rs/kWh**	**-**	**-**	**-**	**-**	**0.55**	**0.58**	**0.56**	**0.66**
Actual Net generation of PTPS (D)	MU	884.81	579.19	657.97	517.79	587.39	872.98	990.80	579.46
Inefficient cost of PTPS (B – C * D/10)	**Rs Crs**	**0.00**	**0.00**	**0.00**	**106.99**	**74.04**	**69.01**	**65.81**	**87.91**

Penalty for non-compliance of Standards of Performance (SoP)

Petitioner Submission

5.123 The Petitioner has submitted that it is making all efforts to comply to the JSERC (Distribution Licensees' Standards of Performance), Regulations, 2005 and has requested the Commission to remove the penalty imposed for previous years.

Commission's Analysis

5.124 In the Tariff Order of FY 2006-07, the Commission directed the Petitioner to implement JSERC (Distribution Licensees' Standards of Performance), Regulations, 2005 by 1st January, 2008 and to submit a compliance reports to the Commission, failing which the energy charges for all consumer categories will be reduced by 2.5% from 1st January, 2008 as penalty for non-compliance.

5.125 In compliance of the directive given in the Tariff Order for FY 2006-07, the Petitioner did not submit any compliance report on SoP till the issuance of the Tariff Order for FY 2010-11, therefore, the Commission was compelled to impose penalty for non-compliance during FY 2007-08, FY 2008-09 and FY 2009-10 in the Tariff Order for FY 2010-11. The Petitioner neither filed a review petition before the Commission nor filed an appeal before the Hon'ble APTEL. So the Tariff Order for FY 2010-11 has attained finality and cannot be re-opened at this stage.

5.126 As the Petitioner has started submitting compliance reports from FY 2010-11 onwards, the Commission has not levied any penalty from FY 2010-11 onwards.

Revenue from Existing Tariff

Petitioner's Submission

5.127 The Petitioner submitted revenue from sale of tariff for FY 2003-04, FY 2004-05, FY 2005-06 and FY 2006-07 as Rs. 1071.83 Cr, Rs. 1009.31 Cr, Rs.1155.18 Cr and Rs.1406.96 Cr, respectively, in accordance with the audited annual accounts for respective years.

Commission's Analysis

5.128 The Commission also approves the revenue at existing tariffs as per the audited annual accounts of the Petitioner for FY 2003-04 to FY 2010-11, as summarized below:

Table 70: Approved Revenue from existing tariff (Rs Cr)

Year	Approved in Pr. Tariff Orders	Approved Now by Comm
FY 2003-04	1077.38	1,071.83
FY 2004-05	1108.51	1,009.31
FY 2005-06	1187.08	1,155.18
FY 2006-07	1405.21	1,406.96
FY 2007-08	1391.23	1391.23
FY 2008-09	1584.91	1584.91
FY 2009-10	1634.37	1634.37
FY 2010-11	1915.39	2010.69

Revenue from Grants-in-Aid for Debt-Service

Petitioner's Submission

5.129 The Petitioner has submitted additional revenue from Grants-in-Aid for Debt service being the revenue grants received from State Government to meet resource gap as provided in the audited annual accounts. Accordingly, the revenue from Grants-in-Aid for debt service proposed for FY 2003-04, FY 2004-05, FY 2005-06 and FY 2006-07 is Rs. 75 Cr, Rs.104.25 Cr, Rs. 363.48 Cr and Rs. 200 Cr, respectively.

Commission's Analysis

5.130 The Commission approves the amount of revenue received as Grants-in-Aid for debt service from State Government for FY 2003-04 to FY 2010-11 as given in the audited accounts for the aforesaid years. The approved revenue from Grants-in-Aid for debt service has been summarised in following table.

Table 71: Approved Revenue from Grants-in-Aid for Debt for FY 2003-04 to FY 2010-11 (Rs Cr)

Year	Approved in Pr. Tariff Orders	Approved Now by Comm
FY 2003-04	75.00	75.00
FY 2004-05	104.25	104.25
FY 2005-06	363.48	363.48
FY 2006-07	210.00	200.00
FY 2007-08	77.27	77.27
FY 2008-09	80.00	80.00
FY 2009-10	400.00	400.00
FY 2010-11	0.00	450.00

Summary of the Final True-up of ARR for FY 2003-04 to FY 2006-07

5.131 In view of the above analysis, the following table summarises the ARR along with the revenue at existing tariffs and revenue gap as proposed by the Petitioner and as approved now by the Commission for FY 2003-04 to FY 2006-07 for the JSEB as whole.

Table 72 Summary of ARR for JSEB for FY 2003-04 to FY 2006-07 (Rs Cr)

Particulars	FY 2003-04		FY 2004-05		FY 2005-06		FY 2006-07	
	Proposed by JSEB	App. by Comm.	Proposed by JSEB	App. by Comm.	Proposed by JSEB	App. by Comm.	Proposed by JSEB	App. by Comm.
Fuel Cost	151.21	114.11	111.60	79.06	119.47	86.57	87.99	70.14
Power Purchase cost	1023.84	1023.84	1174.37	1174.37	1335.78	1335.78	1539.52	1539.52
Employee cost	144.36	144.36	155.95	155.95	169.94	169.94	169.15	169.15

R&M expenses	29.44	29.44	26.28	26.28	31.20	31.20	36.33	36.33
A&G expenses	23.82	23.82	27.19	27.19	30.57	30.57	32.68	32.68
Interest and finance charges (incl. interest on CSD)	115.04	115.04	188.91	188.91	312.52	312.52	485.90	485.90
Interest capitalised	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on working capital	17.05	0.00	21.01	0.24	21.72	2.08	18.22	0.64
Depreciation	64.42	61.54	65.79	54.22	32.44	25.63	35.55	22.75
Bad debts provision	222.34	0.00	312.75	0.00	249.33	0.00	181.81	0.00
Prior period expenses	6.16	6.16	134.32	134.32	233.55	233.55	(54.89)	(54.89)
Inefficient cost of PTPS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(106.99)
Disincentive for T&D Loss	0.00	(91.17)	0.00	(229.26)	0.00	(243.60)	0.00	(243.71)
Penalty for SoP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Costs	**1797.68**	**1427.14**	**2218.17**	**1611.28**	**2536.52**	**1984.24**	**2532.26**	**1951.51**
Add: Reasonable return	56.73	0.00	56.97	0.00	60.38	43.51	61.37	41.12
Less: Non Tariff Income	(48.54)	(353.35)	(53.80)	(430.56)	(173.40)	(515.27)	(184.75)	(457.24)
ARR	**1805.87**	**1073.78**	**2221.35**	**1180.72**	**2423.49**	**1512.48**	**2408.88**	**1535.39**
Revenue from tariff	1071.83	1071.83	1009.31	1009.31	1155.18	1155.18	1406.96	1406.96
Grants-In-Aid of debt service	75.00	75.00	104.25	104.25	363.48	363.48	200.00	200.00
Subsidy for R.E loss	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Revenue Gap/ (Surplus)	**659.03**	**(73.05)**	**1107.79**	**67.16**	**904.84**	**(6.18)**	**801.92**	**(71.57)**

Summary of the Final True-up of ARR for FY 2007-08 to FY 2010-11

5.132 In view of the above analysis, the ARR along with the revenues at existing tariffs and revenue gap for FY 2007-08 to FY 2010-11 is summarized hereunder:

Functionally Disaggregated ARR

5.133 The functionally disaggregated ARR for Generation function-Hydel as approved by the Commission for FY 2007-08 to FY 2010-11 is summarised in following table.

Table 73 Approved ARR for Generation function-Hydel (Rs Cr)

Particulars	FY 2007-08	FY 2008-09	FY 2009-10	FY 2010-11
Employee cost	6.61	7.18	7.63	7.64
R&M expenses	1.45	1.61	1.51	0.81

A&G expenses	1.34	2.09	1.51	1.50
Interest and finance charges	0.37	0.37	0.36	0.40
less: Interest capitalised	0.00	0.00	0.00	0.00
Interest on working capital	0.15	0.16	0.16	0.15
Depreciation	0.76	0.77	0.77	0.76
Total Costs	**10.68**	**12.17**	**11.96**	**11.25**
Add: Reasonable return	1.20	1.14	1.12	1.34
Less: Non Tariff Income	(1.87)	(0.89)	(0.81)	(0.93)
ARR	**10.02**	**12.42**	**12.27**	**11.66**

5.134 The functionally disaggregated ARR for Generation function-Thermal as approved by the Commission for FY 2007-08 to FY 2010-11 is summarised in following table.

Table 74 Summary of ARR for Generation function-Thermal (Rs Cr)

Particulars	FY 2007-08	FY 2008-09	FY 2009-10	FY 2010-11
Fuel cost	68.57	103.58	99.12	58.09
Employee cost	44.59	48.37	51.46	62.33
R&M expenses	21.59	24.98	24.51	13.43
A&G expenses	9.00	14.07	10.21	12.22
Interest and finance charges	5.54	5.75	5.85	6.50
less: Interest capitalised	0.00	0.00	0.00	0.00
Interest on working capital	2.48	3.13	3.15	2.52
Depreciation	7.16	6.91	8.42	8.34
Inefficient cost of PTPS	(74.04)	(69.01)	(65.81)	(87.91)
Total Costs	**84.88**	**137.79**	**136.91**	**75.54**
Add: Reasonable return	17.90	17.74	18.16	21.86
Less: Non Tariff Income	(1.87)	(0.89)	(0.81)	(0.93)
ARR	**100.92**	**154.65**	**154.26**	**96.47**

5.135 The functionally disaggregated ARR for Transmission function as approved by the Commission for FY 2007-08 to FY 2010-11 is summarised in following table.

Table 75 Summary of ARR for Transmission Function (Rs Cr)

Particulars	FY 2007-08	FY 2008-09	FY 2009-10	FY 2010-11
Employee cost	18.23	19.77	21.04	25.53
R&M expenses	7.82	9.11	8.65	8.11
A&G expenses	3.68	5.75	4.17	5.01
Interest and finance charges	2.01	2.10	2.06	2.29
less: Interest capitalized	0.00	0.00	0.00	0.00
Interest on working capital	0.00	0.00	0.00	0.00
Depreciation	8.09	7.45	7.66	7.64
Total Costs	**39.82**	**44.19**	**43.59**	**48.57**
Add: Reasonable return	6.48	6.47	6.41	7.71

Less: Non Tariff Income	(1.87)	(0.89)	(0.81)	(0.93)
ARR	**44.44**	**49.77**	**49.18**	**55.35**

5.136 The functionally disaggregated ARR for Distribution function as approved by the Commission for FY 2007-08 to FY 2010-11 is summarised in following table:

Table 76 Summary of ARR for Distribution function (Rs Cr)

Particulars	FY 2007-08	FY 2008-09	FY 2009-10	FY 2010-11
Power Purchase cost	1655.87	1785.63	1924.41	2601.67
Employee cost	99.43	113.92	127.69	156.37
R&M expenses	26.32	32.59	33.47	21.60
A&G expenses	20.07	33.14	25.32	30.66
Interest and finance charges (incl. interest on CSD)	14.02	15.35	16.41	20.99
Interest capitalized	0.00	0.00	0.00	0.00
Interest on working capital	1.70	1.94	2.00	2.36
Depreciation	26.59	28.93	31.31	32.62
Bad debts provision	0.00	0.00	0.00	0.00
Prior period expenses	(12.27)	47.98	147.44	(97.26)
Disincentive for T&D Loss	(272.27)	(389.80)	(340.99)	(478.80)
Penalty for SoP	(6.88)	(28.68)	(30.87)	0.00
Total Costs	**1552.59**	**1641.00**	**1936.19**	**2290.22**
Add: Reasonable return	21.83	23.14	24.79	30.63
Less: Non Tariff Income	(226.58)	(282.15)	(298.61)	(200.06)
ARR	**1347.84**	**1382.00**	**1662.37**	**2120.78**

Consolidated ARR for FY 2007-08 to FY 2010-11

5.137 The following table summarises the ARR approved by the Commission for FY 2007-08 to FY 2010-11 for the JSEB as a whole.

Table 77 Summary of ARR for JSEB for FY 2007-08 to FY 2010-11 (Rs Cr)

Particulars	FY 2007-08	FY 2008-09	FY 2009-10	FY 2010-11
Fuel Cost	68.57	103.58	99.12	58.09
Power Purchase cost	1655.87	1785.63	1924.41	2601.67
Employee cost	168.86	189.24	207.83	251.86
R&M expenses	57.18	68.29	68.14	43.95
A&G expenses	34.09	55.06	41.22	49.39
Interest and finance charges (incl. interest on CSD)	21.94	23.57	24.69	30.19
Interest capitalised	0.00	0.00	0.00	0.00
Interest on working capital	4.33	5.23	5.32	5.03
Depreciation	42.60	44.05	48.16	49.36

Bad debts provision	0.00	0.00	0.00	0.00
Prior period expenses	(12.27)	47.98	147.44	(97.26)
Inefficient cost of PTPS	(74.04)	(69.01)	(65.81)	(87.91)
Disincentive for T&D Loss	(272.27)	(389.80)	(340.99)	(478.80)
Penalty for SoP	(6.88)	(28.68)	(30.87)	0.00
Total Costs	**1687.98**	**1835.15**	**2128.65**	**2425.58**
Add: Reasonable return	47.42	48.50	50.47	61.53
Less: Non Tariff Income	(232.18)	(285.08)	(301.44)	(202.85)
ARR	**1503.21**	**1598.58**	**1877.68**	**2284.26**
Revenue from tariff	1391.23	1584.91	1634.37	2010.69
Grants-In-Aid of debt service	77.27	80.00	400.00	450.00
Subsidy for R.E loss	0.00	0.00	0.00	0.00
Revenue Gap/ (Surplus)	**34.72**	**(66.34)**	**(156.69)**	**(176.43)**

Revenue Gap/ (Surplus) & Carrying Cost of Revenue Gap

Petitioner's Submission

5.138 The following tables summarises the cumulative revenue gap/ (surplus) and carrying cost of revenue gap as proposed by the Petitioner for the period FY 2003-04 to FY 2006-07. The Petitioner has proposed the carrying cost on the proposed Revenue Gap as per the applicable Prime Lending Rate (PLR) as on 1st April of respective year

Table 78: Proposed Cumulative Revenue Gap (Rs Cr) for FY 2003-04 to FY 2006-07

Year	Proposed by Petitioner
FY 2003-04	659.03
FY 2004-05	1107.79
FY 2005-06	904.84
FY 2006-07	801.92
Total Revenue Gap/ (Surplus)	**3473.58**

Table 79: Proposed Carrying Cost (Rs Cr) on Under Recovery of ARR

Particulars	FY 2005-06	FY 2006-07	FY 2007-08	FY 2008-09	FY 2009-10	FY 2010-11	FY 2011-12	FY 2012-13
Opening Balance	-	707	1,906	3,151	3,982	4,470	4,995	5,645
Revenue Gap for the year	672	1,072	953	412	-	-	-	-
Closing Balance	672	1,779	2,859	3,563	3,982	4,470	4,995	5,645
Interest Rate (SBI PLR)	10.25%	10.25%	12.25%	12.50%	12.25%	11.75%	13.00%	14.75%
Interest	34	127	292	420	488	525	649	833
Total Recovery for FY 2012-13								**6,477**

Commission's Analysis

5.139 The Commission has carried out the final true up for FY 2003-04 to FY 2010-11 based on the audited annual accounts for aforesaid years, provisions of Tariff Regulations 2004 and methodology adopted in previous Tariff Orders. Accordingly, the Commission has estimated a cumulative revenue surplus of Rs. 448.37 Cr from Final True up of ARR for FY 2003-04 to FY 2010-11, as summarized in following table.

Table 80: Approved Cumulative Revenue Gap/ (Surplus) (Rs Cr) for FY 2003-04 to FY 2010-11

Year	Approved by Commission
FY 2003-04	(73.05)
FY 2004-05	67.16
FY 2005-06	(6.18)
FY 2006-07	(71.57)
FY 2007-08	34.72
FY 2008-09	(66.34)
FY 2009-10	(156.69)
FY 2010-11	(176.43)
Total	**(448.37)**

5.140 Further, as per the analysis of the Commission, there is a revenue surplus of Rs. 448.37 Cr, and as such question of allowing carrying cost does not arise.

SECTION 6: APPROVAL OF GENERATION BUSINESS PLAN FOR FIRST CONTROL PERIOD

6.1 This section deals with the Generation Business Plan comprising of investment plan, trajectory for performance parameters and operation & maintenance expenses plan for the first MYT Control period from FY 2012-13 to FY 2015-16 as submitted by the Petitioner and analysis done by the Commission for approval.

Investment plan

Petitioner's Submission

6.2 As part of the Generation Business Plan, the Petitioner submitted a capital investment plan of Rs. 190 Cr, Rs. 397 Cr, Rs. 319 Cr and Rs. 180 Cr for FY 2012-13, FY 2013-14, FY 2014-15 and FY 2015-16, respectively. Further, the Petitioner has proposed to fund the entire capital investment envisaged during the MYT Control period through 100% loan from Govt. of Jharkhand. The break-up of capital investment plan submitted by the Petitioner is given in the following table:

Table 81: Proposed Investment Plan for Generation Business for MYT Control Period (Rs Cr) submitted by Petitioner

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	Total
Capex in RM&LE of PTPS	120	275	275	132	802
Capex in RM&LE of SHPS	30	80	-	-	110
Capex in Development of Coal Blocks	40	42	44	48	174
Total Investment	**190**	**397**	**319**	**180**	**1,086**

6.3 The proposed capitalization schedule corresponding to the capital investment submitted by the Petitioner is given in the following table:

Table 82: Proposed Capitalization for Generation Business for MYT Control Period (Rs Cr) submitted by Petitioner

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Total Investment	190	397	319	180
Amount Capitalized from investment during the year	135	315	275	132
Balance transferred to Capital Work in Progress	55	82	44	48

Commission's Analysis

6.4 Upon scrutiny of the Business Plan submitted by the Petitioner, the Commission identified certain information gaps, which were communicated to the Petitioner. The primary information gaps identified are listed below:

(a) The Commission asked the Petitioner to submit a detailed (a) Cost Benefit Analysis (CBA) and (b) Detailed Project Report (DPR) for each capital investment schemes proposed by the Petitioner, which are more in value than Rs One Cr. The Commission asked the Petitioner to submit the cost-benefit analysis clearly highlighting the expected increase in technical/operational performance of the plant due to implementation of the scheme and expected savings in cost.

(b) The Commission asked the Petitioner to provide savings in generation tariff due to implementation of each project/scheme.

(c) Further, Clause 6.6 of the 'Generation Tariff Regulations, 2010' requires the Business Plan submitted by the generation company to be approved by the Board of Directors (BoD), hence the Commission asked the Petitioner to submit the certification that the Business Plan has been approved by the BoD.

6.5 However, the Commission did not receive the complete information from the Petitioner in response to its queries. The Petitioner submitted the cost benefit analysis for the Renovation Modernization and Life Extension (RM&LE) activities to be carried out for units 7 & 8 of PTPS. In case of SHPS, the Petitioner submitted a copy of contract with M/s BHEL for carrying out RM&LE activities for SHPS but failed to submit any report on cost benefit analysis. Moreover, the Petitioner failed to provide the BoD approval for any of its schemes.

6.6 In order to determine the capital expenditure for the MYT period, the Commission has considered the cost benefit analysis reports as submitted by the Petitioner for RM&LE of units 7 & 8 of PTPS. However capex for other RM&LE activities proposed for PTPS & SHPS, the Commission has approved the proposed amount by the Petitioner.

6.7 However, the Commission has not allowed any capex for development of the coal blocks as proposed by the Petitioner due to following reasons:

(a) The Petitioner submitted that as the development of the coal blocks is at a nascent stage the overall modalities/ arrangements including financing arrangement are yet to be finalized.

(b) The Petitioner has not obtained the approval of Board of Directors and did not furnish the same to the Commission.

(c) Further, the Commission asked the Petitioner to submit cost benefit analysis for such schemes and its impact analysis on the consumers of the Petitioner, which also the Petitioner failed to submit stating the modalities are still being finalised.

6.8 Thus in view of above, the Commission does not find it justified to allow any capital expenditure for the development of Coal blocks till such time the desired information is provided by the Petitioner.

6.9 The comprehensive function wise capital expenditure as approved by the Commission is given in the following table:

Table 83: Approved Capital Investment for Generation Business for MYT Control Period (Rs Cr)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	Total
Capex in RM&LE of PTPS	120.00	265.00	265.00	132.00	**782**
Capex in RM&LE of Sikdri Hydro	30.00	80.00	0.00	0.00	**110**
Capex in Development of Coal Blocks	0	0	0	0	0
Total Investment	**150**	**345**	**265**	**132**	**892**

6.10 Further, in order to determine the ratio of capitalisation, the Commission considered the percentage of allowed capitalization to the closing GFA for FY 2010-11 and FY 2011-12 as approved by it in previous Tariff Orders for FY 2010-11 & FY 2011-12 as provided in following table. The average of these ratios is then considered for allowing the capitalization for the control period for PTPS & SHPS.

Table 84: Approved Capitalization in previous years for Generation Business (Rs Cr)

Particulars	PTPS		SHPS	
	FY 2010-11	FY 2011-12	FY 2010-11	FY 2011-12
Allowed Capitalization in Previous Tariff Orders	99.95	376.00	13.40	19.25
Closing GFA	804.11	1,180.11	56.42	75.67
% Capitalization	12%	32%	24%	25%
Average Capitalization rate (%)	**22%**		**25%**	

6.11 Based on the above ratios, the Commission has approved capitalisation for Generation Business for the MYT Control period. The opening CWIP and GFA for generation function have been based on the audited figures for FY 2010-11 and approved capex and capitalisation for FY 2011-12 as summarised in following table.

Table 85: GFA & CWIP for PTPS & SHPS as on 31st March 2012

Particulars	PTPS	SHPS
CWIP as on 31st March 2011	554.51	33.27
Add: Allowed Capex during FY 2011-12 *	605.00	0.00
Less: Allowed capitalization for FY 2011-12	256.78	8.18
CWIP as on 31st March 2012	**902.73**	**25.09**
GFA as on 31st March 2011 **	718.85	43.13
Allowed capitalisation for FY 2011-12 ***	256.78	8.18
GFA as on 31st March 2012	**975.64**	**51.31**

Note: * Approved as per Petitioner's proposal subject to true up as per audited accounts; ** As per Audited annual accounts for FY 2010-11; *** Approved after applying average capitalisation rate as given in Table 84 on the sum total of opening CWIP & capex during the year;

6.12 The following tables summarises the approved capital investment and capitalization for PTPS & SHPS for FY 2012-13 to FY 2015-16.

Table 86: Approved Capex and Capitalization for PTPS for the Control Period (Rs Cr)

Particulars	2012-13	2013-14	2014-15	2015-16
Opening CWIP (A)	902.73	796.24	826.22	849.56
Capex during the year (B)	120.00	265.00	265.00	132.00
Approved % of capitalisation (C)	22%	22%	22%	22%
Less: Additions to GFA/ Capitalisation [D = (A + B) * C]	226.49	235.02	241.66	217.37
Adjustments (E)	0.00	0.00	0.00	0.00
Closing CWIP (F = A + B – D – E)	**796.24**	**826.22**	**849.56**	**764.19**
Opening GFA (G)	975.64	1,202.13	1,437.14	1,678.80
Additions to GFA/ Capitalisation (H = D)	226.49	235.02	241.66	217.37
Closing GFA (I = G + H)	**1,202.13**	**1,437.14**	**1,678.80**	**1,896.18**

Table 87: Approved Capex and Capitalization for SHPS for the Control Period (Rs Cr)

Particulars	2012-13	2013-14	2014-15	2015-16
Opening CWIP (A)	25.09	41.54	91.65	69.11
Capex during the year (B)	30.00	80.00	0.00	0.00
Approved % of capitalisation (C)	25%	25%	25%	25%
Less: Additions to GFA/ Capitalisation [D = (A + B) * C]	13.55	29.89	22.54	17.00
Adjustments (E)	0.00	0.00	0.00	0.00
Closing CWIP (F = A + B – D – E)	**41.54**	**91.65**	**69.11**	**52.11**
Opening GFA (G)	51.31	64.86	94.75	117.29
Additions to GFA/ Capitalisation (H = D)	13.55	29.89	22.54	17.00
Closing GFA (I = G + H)	**64.86**	**94.75**	**117.29**	**134.28**

6.13 As stated in Clause 6.8 of the 'Generation Tariff Regulations, 2010', the Commission shall review the actual capital investment at the end of each year of the Control Period as a part of the Annual Performance Review of the Generating Company. The Generating Company shall submit the actual capital expenditure incurred along with the Annual Performance Review Filing. The Commission also directs the Petitioner to submit the Detailed Project Report (DPR) and other related documents and take prior approval of the Commission for any capital scheme of value greater than or equal to Rs One Cr at least one month prior to commencement of proposed work.

6.14 Meanwhile, as stated in Clause 6.9 of the 'Generation Tariff Regulations, 2010', the Commission shall not revisit the approved Capital Investment Plan during the Control Period and any adjustment to depreciation, interest on working capital and return on equity for the actual capital investment undertaken vis-à-vis approved capital investment shall be done at the end of the Control Period.

6.15 Also, as per Clause 6.10 of the 'Generation Tariff Regulations, 2010', the Commission shall conduct a midterm review at the end of second year of the Control Period. In case, the cumulative incurred capital expenditure and/or capitalisation deviates from the approved capital expenditure / capitalisation by more than 20% (cumulative), the Commission will make necessary changes to capital investment plan for the Control Period after consultation with Petitioner and adjust depreciation and financing cost, which includes cost of debt (interest), working capital interest, cost of equity (return) based on the actual capital expenditure and/or capitalisation vis-à-vis approved capital expenditure / capitalisation.

Trajectory for Performance Parameters

Petitioner's Submission

6.16 The Petitioner submitted various reasons for non achievement of targeted performance parameter as set by the Commission during the past years. The Petitioner quoted the reference of CERC, HERC, GERC, PERC and BERC for having relaxed norms related to SHR, auxiliary, PLF and coal transit loss for thermal power stations. The achievable SHR, improvements in auxiliary consumption and other performance parameters as proposed by the Petitioner during the Control period are as tabulated below:

Table 88: Performance Trajectory for PTPS for MYT Control Period submitted by the Petitioner

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
SHR (Kcal/Kwh)	4,231	4,231	4,231	4,231
Aux. cons. (%)	14.25%	14.00%	13.50%	13.50%
PLF (%)	34.34%	51.77%	51.81%	51.94%
Specific FO cons. (ml/kWh)	5.49	5.49	5.49	5.49
Specific LDO cons. (ml/kWh)	3.74	3.74	3.74	3.74

Commission's Analysis

6.17 The Commission has dealt with operational parameters of the generating stations for the MYT Control period in the Section 7 of this Order.

Operation and Maintenance Expenses Plan

Petitioner's Submission

6.18 The Petitioner submitted that it has used the following approach to determine O&M expenses:

(a) Employee expenses for FY 2012-13 have been proposed based on the latest revised estimates for the year. It was submitted that there was substantial increase in the employee expenses in FY 2011-12 owing to the annual increment including 3% in basic and 18% increase in DA. The employee cost for control period excluding arrear has been projected considering an escalation rate of 9% based on the combination of the Consumer Price Index (CPI) and the Wholesale Price Index (WPI) over the immediately preceding year. The segregation of employee cost for Generation function has been done in proportion of the number of employees working in the division.

(b) R&M cost for control period has been projected on the basis of percentage of Gross Fixed Assets (GFA). The Petitioner proposed the norms for the purpose of calculation of R&M costs taking into consideration the average of five (5) years actual value of R&M cost as a percentage of GFA expenses i.e. for the period of FY 2006-07 to FY 2010-11. Accordingly 2.82% has been used for projecting the R&M cost for the control period.

(c) Petitioner has proposed the A&G costs for the control period considering an escalation rate of 9.0% based on the combination of the Consumer Price Index (CPI) and the Wholesale Price Index (WPI) over the immediately preceding year. JSEB has taken the actual A&G expenses for FY 2010-11 as the basis for forecasting A&G expenses for control period. The allocation of A&G expenses has been considered based on total number of employees in the Generation function.

6.19 The projected O&M expenses submitted by the Petitioner are given in tables below:

Table 89: Submitted O&M expenses for PTPS for Control Period (Rs Cr)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Employee expenses	110.52	120.47	131.31	143.13
R&M expenses	47.66	66.55	79.18	82.90
A&G expenses	14.52	15.83	17.25	18.80

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Total	**172.71**	**202.84**	**227.74**	**244.83**

Table 90: Submitted O&M expenses for SHPS for Control Period (Rs Cr)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Employee expenses	13.54	14.76	16.09	17.53
R&M expenses	2.20	4.13	5.26	5.26
A&G expenses	1.78	1.94	2.11	2.30
Total	**17.52**	**20.83**	**23.46**	**25.09**

Commission's Analysis

6.20 The Commission has dealt with operation and maintenance expenses for the Generation Business for MYT Control period in Section 7 of this Order.

SECTION 7: APPROVAL OF REVISED ESTIMATES FOR FY 2011-12 AND ARR & TARIFF DETERMINATION FOR GENERATION BUSINESS FOR FIRST MYT CONTROL PERIOD (FY 2012-13 TO FY 2015-16)

Revised estimates for FY 2011-12

7.1 The Petitioner has submitted the revised estimates for its generation business for the transition period i.e. FY 2011-12 based on the actual generation and plant parameters for April 2011 to October 2011 and estimates for remaining 5 months.

7.2 The component-wise details of the Petitioner's submission and the Commission's analysis have been discussed in this Section.

Own Generation & Fuel cost Determination

Plant Load Factor (PLF)

Petitioner's submission

7.3 In case of PTPS, the Petitioner has projected PLF of 32.42% for FY 2011-12 against 67.40% approved in previous Tariff Order for FY 2011-12. The reasons for low PLF during FY 2011-12 has been submitted as:

(a) Out of the ten (10) Units of PTPS, Units 1- 6 of the station are around 40 years old and have run beyond normal economic life;

(b) Units 7 to10 were installed during 1977- 1986 and have also become reasonably old and have completed their designed life;

(c) The low PLF was also due to the forced outages of the units due to the problems related to boiler and turbine;

(d) Lack of scheduled maintenance and annual overhauling of Units on availability due to Force Majeure event i.e. collapse of the transmission towers during the year due to cyclone have resulted in loss of around 482 MUs.

(e) No major capital investment has been undertaken for RM&LE of units of PTPS

Commission's analysis

7.4 As per 'Generation Tariff Regulations, 2010', the normative availability allowable for PTPS for FY 2011-12 is 82%. However, the Commission approved a PLF of 67.40% for 640 MW out of total de-rated capacity of 770 MW in the previous Tariff Order due to the overhauling going on from previous years in some of the units.

7.5 Accordingly, in case of reviewing the performance during FY 2011-12, the Commission views that as during the said year, major capital overhauling has been undertaken for two units, an 82% PLF is not achievable. Thus, for FY 2011-12, the Commission has decided to consider the PLF at 67.40% for PTPS as approved in previous Tariff Order. However the Commission is of the view that the Petitioner should improve the performance of the said station and accordingly for the MYT Control period, the Commission would consider the normative PLF as given in the JSERC's Generation Tariff Regulations 2010 and the Petitioner is directed to make efforts to achieve the set targets.

Gross Generation

Petitioner's submission

7.6 In case of PTPS, the Petitioner has projected a gross generation of 369.22 MUs based on the projected PLF of 32.42% and usable capacity of 130 MW for FY 2011-12 and the actual running status of its thermal units. In case of SHPS, the Petitioner has projected a gross generation of 287.55 MUs for FY 2011-12.

Commission's analysis

7.7 For PTPS, On the basis of Usable capacity of 640 MW and approved PLF of 67.4%, the Commission approves the gross generation of 2094.95 MUs for FY 2011-12. For SHPS, the Commission approves the gross generation at 287.55 MU as projected by the Petitioner.

Auxiliary Consumption

Petitioner's submission

7.8 The Petitioner has projected auxiliary consumption for FY 2011-12 as 15.05% and 0.09% for PTPS & SHPS, respectively.

Commission's analysis

7.9 The normative auxiliary consumption for PTPS as per the Generation Tariff Regulations, 2010 is 12% for FY 2011-12 and same has been approved now by the Commission.

7.10 Similarly, the normative auxiliary consumption for SHPS as per the Generation Tariff Regulations, 2010 is 0.70% for FY 2011-12 and same has been approved now by the Commission.

Net Generation

Petitioner's submission

7.11 The Petitioner has projected net generation at 313.66 MU for PTPS and 287.29 MU for SHPS for the FY 2011-12.

Commission's analysis

7.12 The Commission has estimated net generation from the generating stations of the Petitioner on the basis of approved gross generation and normative auxiliary consumption. Accordingly the net generation for FY 2011-12 has been approved at 1843.56 MU & 285.54 MU for PTPS and SHPS, respectively.

Station Heat Rate (SHR)

Petitioner's submission

7.13 The Petitioner has projected SHR for PTPS at 4231 kcal/kWh for FY 2011-12.

Commission's analysis

7.14 The Commission has approved the normative SHR for PTPS at 3150 kcal/kWh for FY 2011-12 as per the Generation Tariff Regulations, 2010.

Specific Oil Consumption

Petitioner's submission

7.15 The Petitioner in its Tariff Petition has submitted revised specific oil consumption for furnace oil as 5.49 ml/kWh and for light diesel oil as 3.74 ml/kWh for PTPS for FY 2011-12.

Commission's analysis

7.16 The Commission approves normative secondary oil consumption for PTPS for FY 2011-12 at 3.50 ml/kWh as per the Generation Tariff Regulations 2010, as it is of the view that any inefficiency on part of the Petitioner should not be passed on to the consumers.

Gross Calorific Value (GCV)

Petitioner's submission

7.17 The projected gross calorific value of coal and oil submitted by the Petitioner is 4230 kCal/kg and 10500 kcal/lt, respectively for FY 2011-12. The Petitioner further submitted that it sources Grade E coal from the collieries of Central Coal Fields Limited.

Commission's analysis

7.18 The calorific value of a fuel refers to the amount of heat released on burning one unit of the fuel. Thus, a higher GCV indicates better quality of fuel and also lowers fuel cost, since it lowers the consumption of fuel needed for producing the required amount of energy.

7.19 The Commission asked the Petitioner to submit the actual weighted average GCV of Coal and Oil used in PTPS along with the methodology for arriving at the weighted average GCV of coal and oil, which the Petitioner submitted subsequently. On scrutiny of the report, the Commission found the methodology used for determination of weighted average GCV of coal in line with standard industry practice and thus approves the actual weighted average GCV of coal & oil as submitted by the Petitioner.

7.20 Accordingly, the Commission approves the GCV for coal and oil as 4230 kcal/kg and 10500 kcal/lt, respectively for 2011-12.

Price of Primary Fuel (Coal)

Petitioner's submission

7.21 The Petitioner has submitted the landed price of coal as Rs 1152.11/MT on the basis of seven months actual data for FY 2011-12.

Commission's analysis

7.22 The Commission asked the Petitioner to submit the consumption and price of coal for complete year of FY 2011-12 along with the coal bills, which the Petitioner submitted subsequently. The Commission analyzed the coal bills for FY 2011-12 submitted by the Petitioner and found that the price submitted by the Petitioner was not inclusive of the transit loss.

7.23 Accordingly for FY 2011-12, the Commission approves the weighted average price of coal at Rs. 1154.42/ MT based on actual landed price of coal as submitted by the Petitioner and the normative transit loss of 0.20%.

Price of Secondary Fuel (Oil)

Petitioner's submission

7.24 The Petitioner has submitted the landed price of Furnace Oil (FO) and Light Diesel Oil (LDO) as Rs. 32539/kl and Rs. 53394/kl, respectively for FY 2011-12.

Commission's analysis

7.25 The Commission asked the Petitioner to submit actual quantity purchased and price paid for FO & LDO for FY 2011-12 along with the oil bills, which the Petitioner submitted subsequently. On scrutiny the Commission found that the landed price for FO & LDO during FY 2011-12 works out to be Rs. 41449 / kl and Rs. 59981 / kl, respectively. Further the weighted average price for secondary oil works out to be Rs. 50448 /kl and same has been approved by the Commission.

Fuel Cost

Petitioner's submission

7.26 Based on the proposed performance parameters, actual GCV and price of coal and oil, the Petitioner has submitted the revised estimates for fuel cost for FY 2011-12 to be Rs. 57.82 Crs which includes cost of secondary fuel oil of Rs. 13.97 Cr.

Commission's analysis

7.27 It should be noted that while determining energy charges, the Petitioner has considered the secondary fuel oil cost as part of energy charges only. However, Clause 8.1, 8.2 and 8.3 of the Generation Tariff Regulations 2010 state that secondary fuel oil cost should form part of annual fixed cost. The relevant extract of the regulations has been reproduced here:

Quote

"Components of tariff

8.1 The Tariff for supply of electricity from a thermal generating station shall comprise of two parts, namely, capacity charge (for recovery of annual fixed cost) and energy charge (for recovery of primary fuel cost) to be worked out in the manner provided hereinafter.

8.2 The annual fixed cost of a thermal generating station shall consist of the following components:

(a) Return on Equity;

(b) Interest and Financing Charges on Loan Capital;

(c) Depreciation;

(d) Operation and Maintenance Expenses;

(e) Interest Charges on Working Capital;

(f) Cost of Secondary Fuel Oil (for coal based and lignite fired generating stations only); and

(g) Special allowance in lieu of R&M or separate compensation allowance, wherever applicable:

8.3 The energy (variable) charges shall cover main fuel cost." Unquote

7.28 Accordingly, the Commission has considered the secondary fuel oil cost as part of the fixed cost components, while the fuel cost has been computed based on cost of primary fuel i.e. coal only.

7.29 For estimation of fuel cost, the Commission has determined the Energy Charge Rate (ECR) as per the formula defined in Clause 8.18 (a) of the Generation Tariff Regulations 2010 and same has been reproduced below:

Quote

"8.18 Energy charge rate (ECR) in Rupees per kWh on ex-power plant basis shall be determined to three decimal places in accordance with the following formulae :

(a) For coal based stations

ECR = (GHR – SFC x CVSF) x LPPF x 100/ {CVPF x (100 – AUX)}

Where,

AUX - Normative auxiliary energy consumption in percentage

CVPF - Gross calorific value of primary fuel as fired, in kCal per kg, per litre

or per standard cubic metre, as applicable.

CVSF - Calorific value of secondary fuel, in kCal per ml

ECR - Energy charge rate, in Rupees per kWh sent out.

GHR - Gross station heat rate, in kCal per kWh.

LPPF - Weighted average landed price of primary fuel, in Rupees per kg, per litre or per standard cubic metre, as applicable, during the month.

SFC - Specific fuel oil consumption, in ml per kWh" Unquote

7.30 Based on the approved performance parameters, the weighted average GCV and landed price of coal, the Commission has determined the ECR for FY 2011-12 to be Rs.0.966/ kWh. This rate is then multiplied with the proposed net generation by the Petitioner to estimate the fuel cost for FY 2011-12. Accordingly, the Commission approves fuel cost for PTPS for FY 2011-12 as Rs. 30.28 Cr.

7.31 The following table summarises the performance parameters and fuel cost for PTPS as proposed by the Petitioner and as approved by the Commission for FY 2011-12.

Table 91: Performance parameters and Fuel Cost (Rs Cr) for PTPS for FY 2011-12

Particulars	*Units*	Submitted by the Petitioner	Approved by the Commission
Installed Capacity	*MW*	840	840
De-rated capacity	*MW*	640	640
Capacity used for PLF	*MW*	130	640
PLF	*%*	32.42%	67.40%
Auxiliary Consumption	*%*	15.05%	12.00%
SHR	*kCal/kWh*	4231	3150
CV of Coal	*kCal/kg*	4230	4230
CV of Oil (FO/LDO)	*kCal/lt*	10500	10500
Coal Transit Loss	*%*	3.87%	0.20%
Price of Coal (excl. transit loss)	*Rs/tonne*	1152.11	1152.11
Price of Coal (incl. transit loss)	*Rs/tonne*	1198.49	1154.42
Price of Oil (FO)	*Rs/kl*	32539	41449
Price of Oil (LDO)	*Rs/kl*	53394	59981
Sp. Oil consumption (FO)	*ml/kWh*	5.49	3.50
Sp. Oil consumption (LDO)	*ml/kWh*	3.74	
Workings:			
Gross Generation	*MU*	369.22	2094.95
Net Generation	*MU*	313.66	1843.56
Total heat required	*Million kCal*	1562160	As per Generation Tariff Regulations 2010, this is not required to be computed.
Heat required from Secondary fuel	*Million kCal*	14486	
Heat required from Coal	*Million kCal*	1547674	
Coal Consumption	*MT*	365880	
Sp. Oil consumption (FO)	*kl*	2028	
Sp. Oil consumption (LDO)	*kl*	1380	
Coal Cost	*Rs Cr*	43.85	
Secondary fuel cost	*Rs Cr*	13.97	
ECR	***Rs/kWh***	**1.566**	**0.966**
Fuel cost	***Rs Cr***	**57.82 ***	**30.28****

Note: * Includes cost of secondary fuel oil also; ** Estimated on the basis of ECR and projected net generation as submitted by the Petitioner

7.32 The following table provides a summary of plant parameters for SHPS as submitted by the Petitioner and approved by the Commission for FY 2011-12.

Table 92: Plant parameters for SHPS for FY 2011-12

Parameters	Units	Submitted by the Petitioner	Approved by the Commission
Capacity	MW	130	130
Gross generation	MU	287.55	287.55
Auxiliary Consumption	%	0.09%	0.70%
Net units sent out	**MU**	**287.29**	**285.54**

Fixed Cost Components

Operation & Maintenance (O&M) Expenses

Petitioner's submission

7.33 The Petitioner submitted revised O&M expenses for FY 2011-12 based on actual data for the period April to October 2011 and estimates for the rest five months as Rs.186.27 Cr. for PTPS and Rs 20.36 Cr for SHPS.

Commission's analysis

7.34 The O&M expenses comprise of employee cost, R&M cost and A&G cost as detailed below.

Employee Cost

7.35 The Petitioner submitted the revised employee cost for FY 2011-12 as Rs.140.67 Cr and Rs.17.23 Cr for PTPS and SHPS, respectively. The Commission noted that the Petitioner has projected approx. 126% increase in the employee cost over the actual employee cost for FY 2010-11. The Commission asked the Petitioner to submit the reasons for such substantial increase in employee costs.

7.36 The Petitioner submitted that it has paid out arrears on account of VIth Pay Commission in FY 2010-11 and FY 2011-12 due to which such increase has been registered. Further as these expenses are a statutory requirement of the Petitioner and have to be paid out, same should be allowed as pass through in ARR.

7.37 The Commission, however, feels that such exorbitantly high employee cost cannot be allowed to be passed on to the consumers without verifying with the provisional/ audited data. Thus the Commission approves the employee cost based on the methodology explained below subject to final true up on basis of audited annual accounts.

7.38 The Commission has projected the employee cost, for JSEB as whole, for FY 2011-12 by increasing the actual employee cost (excluding the amount of arrears paid out on account of wage arrears and terminal benefits) for FY 2010-11 by weighted average inflation rate of 8.40% (i.e. weighted average of WPI & CPI during past 5 years in ratio of 80:20, respectively). The Commission has then added the projected payment to be made on account of VI Pay Commission arrears to the projected employee cost for FY 2011-12 and the actual cost incurred towards terminal benefits during FY 2010-11 to arrive at gross employee cost for FY 2011-12 for JSEB as whole subject to final true up on the basis of audited annual accounts.

7.39 The total employee cost is then disaggregated between Generation (thermal & hydel), Transmission and Distribution functions of JSEB in the ratio of actual number of employees during FY 2010-11 as also has been proposed by the Petitioner. The following tables summarises the employee cost approved by the Commission for JSEB as whole and bifurcated employee cost for PTPS & SHPS for FY 2011-12.

Table 93: Approved Employee cost for JSEB as whole for FY 2011-12

Particulars	Amount
Actual employee cost for FY 2010-11 as per Audited Accounts	251.86
Less: VI Pay Commission arrears paid out during FY 2010-11	7.86
Less: Terminal benefits paid out during FY 2010-11	36.28
Gross employee cost for FY 2010-11 excluding arrears & terminal benefits (A)	**207.72**
Escalation factor (B)	*8.40%*
Projected employee cost for FY 2011-12 excluding arrears & terminal benefits [C = A * (1+B)]	225.18
Add: VI Pay Commission arrears to be paid out during FY 2011-12	166.08
Add: Terminal benefits	36.28
Projected Employee cost for FY 2011-12 for JSEB	**427.54**

Table 94: Approved Employee cost for PTPS & SHPS for FY 2011-12

Particulars	Amount
PTPS	105.81
SHPS	12.96
Total Generation	**118.77**

Repair & Maintenance expenses

7.40 The Petitioner submitted the revised R&M cost for FY 2011-12 as Rs.32.28 Cr and Rs.1.50 Cr for PTPS and SHPS, respectively in proportion of the closing GFA for FY 2011-12. The Commission noted that the Petitioner has projected 140% & 85% increase in the R&M cost over the actual R&M cost for FY 2010-11 for PTPS & SHPS, respectively.

7.41 The Commission is of the view that it cannot allow such exorbitant increase in R&M costs and has accordingly benchmarked the R&M costs as a proportion of the opening GFA for FY 2011-12 in accordance with the methodology followed by it in previous Tariff Orders. The actual R&M cost incurred during FY 2010-11 is approx. 2.22% of the opening GFA for the year as per the audited annual accounts for FY 2010-11. This percentage is then multiplied with the approved opening GFA for FY 2011-12 to arrive at the approved R&M costs for FY 2011-12 for PTPS & SHPS. Thus, the Commission has projected the R&M cost for FY 2011-12 as Rs.15.94 Cr and Rs.0.96 Cr for PTPS and SHPS, respectively subject to final true up on the basis of audited annual accounts. The following table summarises the approved R&M cost for PTPS and SHPS for FY 2011-12.

Table 95: Approved R&M cost for PTPS & SHPS for FY 2011-12

Particulars	PTPS	SHPS
Opening GFA	718.85	43.13
R&M as percentage (%) of GFA	2.22%	2.22%
R&M Cost	**15.94**	**0.96**

Administration & Generation expenses

7.42 The Petitioner submitted the revised A&G cost for FY 2011-12 as Rs.13.32 Cr and Rs.1.63 Cr for PTPS and SHPS, respectively after considering an increase of 9% p.a. over actual A&G cost for FY 2010-11. The Commission has also projected the A&G Costs for FY 2011-12 after escalating the actual A&G cost for FY 2010-11 by weighted average inflation rate of 8.40% (i.e. weighted average of WPI & CPI during past 5 years in ratio of 80:20, respectively) subject to final true up based on audited annual accounts. The following table summarises the approved A&G cost for PTPS and SHPS for FY 2011-12.

Table 96: Approved A&G cost for PTPS & SHPS for FY 2011-12

Particulars	PTPS	SHPS
Actual A&G cost for FY 2010-11*	12.22	1.50
Escalation factor (%)	*8.40%*	*8.40%*
A&G Cost	**13.25**	**1.62**

Note: *As per approved values in Table 42 of this Order

7.43 Accordingly, the Commission approves total O&M expenses for FY 2011-12 as Rs.135.00 Cr and Rs.15.54 Cr for PTPS and SHPS, respectively.

Depreciation

Petitioner's submission

7.44 The Petitioner proposed the revised depreciation expense for FY 2011-12 as Rs.10.96 Cr. and Rs.0.88 Cr. for PTPS and SHPS, respectively.

Commission's analysis

7.45 The 'Generation Tariff Regulation, 2010' has specified the following methodology for the calculation of depreciation expense:

(a) Depreciation shall be allowed maximum upto 90% of the capital cost of the asset and the salvage value of the asset shall be considered as 10%;

(b) Depreciation shall be calculated annually as per the straight line method and at the rates specified in the Appendix-I of the said Regulations;

(c) In case of existing projects, during the transition period the balance depreciable value as on 01.04.2011 shall be worked out by deducting the cumulative depreciation including AAD as admitted by the Commission upto 31.03.2011 from the gross depreciable value of the assets;

(d) The rate of depreciation shall be continued to be charged at the rate specified in Annexure-I till the cumulative depreciation reaches 70%. Thereafter the remaining depreciable value shall be spread over the remaining life of the asset such that the maximum depreciation does not exceed 90%.

7.46 The Commission has adopted the methodology specified in the 'Generation Tariff Regulations, 2010' and accordingly approved the depreciation for FY 2011-12 at Rs.9.93 Cr and Rs.0.84 Cr for PTPS and SHPS, respectively. The following table details the depreciation approved by the Commission for FY 2011-12.

Table 97: Approved Depreciation Cost for PTPS & SHPS for FY 2011-12 (Rs Cr)

Particulars	Amount
Depreciation for PTPS	9.93
Depreciation for SHPS	0.84
Total - Generation	**10.77**

Interest on Loan

Petitioner's submission

7.47 The Petitioner has proposed interest on loan as Rs 18.75 Cr and Rs 0.69 Cr for PTPS and SHPS, respectively for FY 2011-12.

Commission's analysis

7.48 The Commission has computed the loan for Generation function on the basis of the methodology followed by the Commission for JSEB as a whole in the previous Tariff Order of FY 2011-12 and during Final Truing up as detailed out in Section 5 (refer Paras 5.77 to 5.83) of this Tariff Order.

7.49 Accordingly, the loan amount and the interest on loan as approved by the Commission for FY 2011-12, after taking in to consideration the Opening GFA for FY 2011-12 on the basis of the audited accounts of FY 2010-11, is summarized below:

Table 98: Approved Interest on Loan for PTPS (Rs Cr)

Particulars	Submitted by JSEB	Approved by the Commission
Normative Opening Loan	1731.69	37.60
Normative Closing Loan	2595.97	207.41
Normative Average Loan	**2163.83**	**122.50**
Rate of Interest	13.00%	13.00%
Gross Interest on loan	**134.38**	**15.93**
Less: IDC	107.59	0.00
Net Interest on Normative loans	26.79	15.93
Net Interest on Loan	**18.75 ***	**15.93**

Note: * Considered to be 70% of 26.79 (i.e. 134.38 less 107.59)

7.50 Similarly, the below table details the interest on loan approved by the Commission for FY 2011-12 for SHPS.

Table 99: Approved Interest on Loan for SHPS (Rs Cr)

Particulars	Submitted by JSEB	Approved by the Commission
Normative Opening Loan	105.80	5.38
Normative Closing Loan	105.80	10.27
Normative Average Loan	**52.90**	**7.83**

Rate of Interest	13.00%	13.00%
Gross Interest on loan	**4.91**	**1.02**
Less: IDC	3.93	0.00
Net Interest on Normative Loan	0.98	1.02
Net Interest on Loan	**0.69 ***	**1.02**

Note: * Considered to be 70% of 0.98 (i.e. 4.91 less 3.93)

7.51 The Commission has noted that the Net fixed asset funded through loans, after deducting the amount of consumer contribution and accumulated depreciation from the Gross fixed assets, is much less than the loan amount shown by the Petitioner in the accounts as well as the proposal for future years. In such a scenario, the Commission views that the Interest during Construction (IDC) should be considered as part of the GFA, as and when it is capitalized. Accordingly the Commission has not approved any cost towards IDC for FY 2011-12 onwards.

Interest on Working Capital (IWC)

Petitioner's submission

7.52 The Petitioner submitted revised interest on working capital as Rs.7.88 Cr and Rs.0.62 Cr for PTPS and SHPS, respectively for FY 2011-12.

Commission's analysis

7.53 The 'Generation Tariff Regulations, 2010' specify the following norms for calculation of interest on working capital for thermal power stations as:

(a) Cost of Coal for 1.5 months for pithead generating stations and for 2 months in non-pithead generating stations for generation corresponding to the Normative Annual Plant Availability Factor;

(b) Cost of secondary fuel oil for two months for generation corresponding to the Normative Annual Plant Availability Factor, and in case of use of more than one secondary fuel oil, cost of fuel oil stock for the main secondary fuel oil;

(c) Maintenance spares @ 20% operation and maintenance expenses

(d) Operation and maintenance expenses for 1 month

(e) Receivables equivalent to 2 months of capacity and energy charges from sale of electricity calculated on the NAPAF.

7.54 'Generation Tariff Regulations, 2010' specify the following norms for calculation of interest on working capital for hydro power stations as:

(a) Maintenance spares @ 15% operation and maintenance expenses

(b) Operation and maintenance expenses for 1 month

(c) Receivables equivalent to 2 months of capacity and energy charges from sale of electricity calculated on the NAPAF.

7.55 Further, the rate of interest on working capital is to be considered as the short-term Prime Lending Rate of State Bank of India as on 1st April of the year for which the tariff is to be determined. The Commission approves the rate of interest on working capital for FY 2011-12 at 13.00% which was the prevailing SBI PLR as on 1st April 2011.

7.56 The following tables summarise the approved interest on working capital for FY 2011-12 for PTPS & SHPS.

Table 100: Approved Interest on Working Capital for PTPS (Rs Cr)

Particulars	Approved by JSERC in TO for FY 2011-12	Submitted by JSEB	Approved by the Commission
Cost of coal- 1.5 months	18.80	5.48	3.79
Cost of secondary oil- 2 months	1.29	2.33	0.76
O&M- 1 month	7.85	37.25	11.25
Maintenance spares @ 20% of O&M	14.14	15.52	27.00
Receivables- 2 months	-	0.00	40.99
Total Working Capital	**42.07**	**60.58**	**83.78**
Interest on Working Capital @13%	**5.57**	**7.88**	**10.89**

Table 101: Approved Interest on Working Capital for SHPS (Rs Cr)

Particulars	Approved by JSERC in TO for FY 2011-12	Submitted by JSEB	Approved by the Commission
O&M- 1 month	1.17	1.70	1.30
Maintenance spares @ 15% of O&M	2.10	3.05	2.33
Receivables- 2 months	-	-	3.24
Total Working Capital	**3.27**	**4.75**	**6.87**
Interest on Working Capital	**0.43**	**0.62**	**0.89**

7.57 The Interest on Working capital as approved by the Commission in the aforesaid tables is higher than the submission of the Petitioner, as the Petitioner has not considered the receivables component for computing working capital for Generation Business of PTPS and SHPS and instead has considered the same in its computation of interest on working capital for distribution function, whereas, the Commission has computed the interest on working capital after considering the receivables for generation function, in line with the provisions of the 'Generation Tariff Regulations, 2010'.

Return on Equity (RoE)

Petitioner's submission

7.58 The Petitioner submitted return on equity for FY 2011-12 to be Rs.47.42 Cr and Rs.2.20 Cr for PTPS and SHPS, respectively.

Commission's analysis

7.59 As per 'Generation Tariff Regulations, 2010' the return on equity shall be calculated on pre-tax basis at the base rate of 15.50% to be grossed up the with the normal tax rate applicable to the generating company.

7.60 The Commission has considered a pre-tax rate of return on equity i.e. 15.50% for FY 2011-12 as the Audited annual accounts of the Petitioner for FY 2010-11 does not show any assessable income or payment/ provision made towards income tax. Accordingly the pre-tax rate of return on equity has not been grossed up with the applicable tax rate. The opening equity for FY 2011-12 is equal to the closing equity for FY 2010-11 as per the audited accounts submitted by the Petitioner and the methodology approved by the Commission in previous Tariff Order. The following tables summarises the approved return on equity for PTPS & SHPS for FY 2011-12.

Table 102: Approved Return on Equity for PTPS (Rs. Cr.)

Particulars	Submitted by JSEB	Approved by the Commission
Average Equity	**244.92**	**254.17**
Rate of return on equity	19.36%	15.50%
Return on equity	**47.42**	**39.40**

Table 103: Approved Return on Equity for SHPS (Rs. Cr.)

Particulars	Submitted by JSEB	Approved by the Commission
Average Equity	**11.36**	**14.17**
Rate of return on equity	19.36%	15.50%
Return on equity	**2.200**	**2.196**

Non Tariff Income

Petitioner's submission

7.61 The Petitioner submitted non-tariff income as Rs. 1.05 Cr for PTPS and SHPS each for FY 2011-12.

Commission's analysis

7.62 The Commission has scrutinized the details of Non Tariff Income submitted by the Petitioner and approves the Non Tariff Income as Rs. 1.05 Cr for PTPS and SHPS each for FY 2011-12 as was proposed by the Petitioner, subject to final true up on the basis of audited annual accounts.

Cost of secondary fuel oil for PTPS

Petitioner's submission

7.63 The Petitioner has submitted the cost of secondary fuel oil as Rs. 13.97 Cr, however same has been included in the fuel cost as given in para 7.26 of this Tariff Order.

Commission's analysis

7.64 As explained in Paras 7.27 & 7.28 of this Tariff Order, the cost of secondary fuel oil is to be considered a part of the annual fixed cost component. Accordingly, the Commission has calculated the weighted average cost of furnace oil and light diesel oil as Rs 5.54 Cr for FY 2011-12 in accordance with the Generation Tariff Regulations, 2010.

Summary of ARR for PTPS & SHPS for FY 2011-12

7.65 The following tables provide a summary of ARR for FY 2011-12 for PTPS and SHPS as approved by the Commission in the Tariff Order of FY 2011-12, submitted now by the Petitioner and approved now by the Commission.

Table 104: ARR for PTPS for FY 2011-12

Particulars	Approved in Tariff Order for FY 2011-12	Submitted now by Petitioner	Approved now by the Commission
O&M charges	94.25	186.27	135.00
Depreciation	12.87	10.96	9.93
Interest on Loan	15.51	18.75	15.93
Return on Equity	48.23	47.42	39.40
Interest on Working Capital	5.57	7.88	10.89

Cost of secondary fuel oil (FO + LDO)	0.00*	0.00 *	5.54
Less Non-tariff Income	(0.87)	(1.05)	(1.05)
Total Fixed cost	**175.56**	**270.22**	**215.64**
Energy charges (Fuel Cost)	165.81	57.82	30.28 **
Net ARR	**341.40**	**328.04**	**245.92**
Gap/ (Surplus) for the year ***	0.00	0.00	0.00
ARR including Gap	**341.40**	**328.04**	**245.92**

Note: * Cost of secondary fuel oil is included in energy charges; ** Estimated on the basis of ECR and projected net generation as submitted by the Petitioner; *** Gap/ (Surplus) for the year would be estimated on basis of audited annual accounts for FY 2011-12 with next Tariff Petition.

Table 105 : ARR for SHPS for FY 2011-12

Particulars	Approved by the Commission in the TO of FY 2011-12	Submitted by JSEB in the Petition	Now Approved by the Commission
O&M charges	14.0	20.36	15.54
Depreciation	0.76	0.88	0.84
Interest on Loan	1.09	0.69	1.02
Return on Equity	3.38	2.200	2.196
Interest on Working Capital	0.43	0.62	0.89
Less Non-tariff Income	(0.87)	(1.05)	(1.05)
Total Fixed cost	**18.8**	**23.70**	**19.43**
Gap/ (Surplus) for the year *	0	0	0
ARR including Gap	**18.8**	**23.70**	**19.43**

Note: * Gap/ (Surplus) for the year would be estimated on basis of audited annual accounts for FY 2011-12 with next Tariff Petition.

7.66 The Commission has not computed the revenue gap for the Petitioner for FY 2011-12 on provisional basis. The revenue gap for FY 2011-12 along with the carrying cost, shall be computed and allowed by the Commission in the tariff for the next financial year when the audited accounts for FY 2011-12 are made available by the Petitioner.

7.67 The carrying cost shall be allowed by the Commission in accordance with Clause 6.16, 6.17 and 6.18 of 'Generation Tariff Regulations, 2010' as quoted below.

"6.16 If the Tariff already recovered is more than the Tariff determined after true up, the Generating Company shall refund to the Beneficiaries the excess amount so recovered along with simple interest at the rate equal to short term prime lending rate of State Bank of India as on 1st April of the respective Year.

6.17 Similarly, in case the Tariff already recovered is less than the Tariff determined after true up, the Generating Company shall recover from the Beneficiaries, the less recovered amount along with simple interest at the rate equal to short term prime lending rate of State Bank of India as on 1st April of the respective Year/Years subject to adhering to the timelines specified by the Commission for filling of True-up application. In case, it is found that the filling of True-up is delayed due to the reasons attributable to the Generating Company, the under recovery shall not bear any interest expenses.

6.18 The amount under-recovered or over-recovered, along with simple interest, shall be recovered or refunded by the Generating Company, in six equal monthly instalments starting within three months from the date of the tariff order issued by the Commission after the truing up exercise."

Tariff determination for the First Control Period (FY 2012-13 to FY 2015-16) for PTPS

7.68 The Petitioner submitted the petition for determination of generation tariff for PTPS for the first Control Period on the basis of the projection of operational and financial figures for the year.

7.69 The Commission has scrutinized the petition filed by JSEB for determination of Generation Tariff for the first MYT Control Period from FY 2012-13 to FY 2015-16 in accordance with the Generation Tariff Regulations, 2010.

7.70 The component-wise description of the Petitioner's submission and the Commission's analysis thereon is given below.

Own Generation & Fuel cost Determination

Plant Availability Factor (PAF/ PLF)

Petitioner's submission

7.71 The Petitioner has projected the Plant Load Factor (PLF) for each year of the Control Period i.e. from FY 2012-13 to FY 2015-16 as shown in the following table:

Table 106: PLF (%) for PTPS for MYT Control Period as submitted by Petitioner

Particulars	Units	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
PLF	%	34.34%	51.77%	51.81%	51.94%

Commission's analysis

7.72 The Commission has considered Normative Annual Plant Availability Factor (NAPAF) of 82% as specified in the Generation Tariff Regulation, 2010 for estimation of gross generation during each year of the Control Period i.e. from FY 2012-13 to FY 2015-16.

Auxiliary Consumption

Petitioner's submission

7.73 The Petitioner has projected to attain auxiliary consumption of 14.25% for FY 2012-13 which it aims to further reduce to 13.50% by FY 2015-16, and same has been summarised in following table.

Table 107: Auxiliary Consumption (%) for PTPS for MYT Control Period as submitted by Petitioner

Particulars	Units	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Auxiliary consumption	%	14.25%	14.00%	13.50%	13.50%

Commission's analysis

7.74 The Commission has considered normative auxiliary consumption for PTPS at 12.00% for each year of the Control Period i.e. from FY 2012-13 to FY 2015-16 as specified in the Generation Tariff Regulation, 2010.

Gross and Net Generation

Petitioner's submission

7.75 The Petitioner has projected the generation for each year of the Control Period i.e. from FY 2012-13 to FY 2015-16 as shown in the following table:

Table 108: Gross and Net Generation (MU) for PTPS for MYT Control Period as submitted by Petitioner

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
PLF (%)	34.34%	51.77%	51.81%	51.94%
Gross Generation (MU)	722.05	2018.22	2269.20	2320.44
Auxiliary Consumption (%)	14.25%	14.00%	13.50%	13.50%
Net Generation (MU)	**619.16**	**1735.67**	**1962.86**	**2007.18**

Commission's analysis

7.76 The Commission has computed and approved the gross and net generation for each year of the Control Period i.e. from FY 2012-13 to FY 2015-16 considering the de-rated usable installed capacity, NAPAF and normative auxiliary consumption as summarised in the following table.

Table 109: Gross and Net Generation (MU) for PTPS for MYT Control Period as approved by Commission

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
De-rated usable capacity (MW)	640	720	735	750
Normative Availability (%)	82.00%	82.00%	82.00%	82.00%
Gross Generation (MU)	4238.09	4238.09	4238.09	4249.70
Auxiliary Consumption (%)	12.00%	12.00%	12.00%	12.00%
Net Generation (MU)	**3729.52**	**3729.52**	**3729.52**	**3739.74**

Station Heat Rate (SHR)

Petitioner's submission

7.77 The Petitioner submitted the expected Station heat rate for PTPS at 4231 kCal/kWh for the MYT Control period.

Commission's analysis

7.78 The Commission specified the norms of operation for the PTPS in the Clause 8.4 of the 'Generation Tariff Regulations, 2010'. As already noted by the Commission in its previous Tariff Order, the norms of operation were fixed by the Commission after study of the past performance for each plant in the state and as per the data made available by the Generation companies including the Petitioner. Before finalization of the norms, the Commission had also conducted a public hearing in which all the stakeholders, including the Petitioner had participated.

7.79 The Regulations have been notified accordingly and the norms of operation are applicable and binding on each of the generation plants covered under the Regulations. Accordingly, the Commission does not find any merit in allowing relaxation of the norms fixed for SHR in the Generation Tariff Regulations, 2010.

7.80 Thus for the calculation of fuel cost and energy charge rate the Commission has considered the normative SHR for the MYT Control Period as specified in the Generation Tariff Regulation, 2010 and has been summarised in following table.

Table 110: SHR (kCal/kWh) for PTPS for the MYT Control Period as approved by Commission

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Station Heat Rate	3125.00	3100.00	3100.00	3100.00

Specific Oil Consumption

Petitioner's submission

7.81 The Petitioner has submitted that its average specific oil consumption for furnace oil and light diesel oil for the past years has been in the range of 3.26-5.49 ml/kWh. The Petitioner has cited the examples of Barauni Thermal Power Station where the specific oil consumption allowed by the State Electricity Commission is 10 ml/kWh and has requested this Commission not penalise the Petitioner for operating inefficiencies.

7.82 The Petitioner aims to achieve specific oil consumption of 5.49 ml/kWh for furnace oil and 3.74 ml/kWh for LDO during the control period from FY 2012-13 to FY 2015-16. The projected specific fuel consumption trajectory is as follows:

Table 111: Secondary Fuel Oil Consumption (ml/Kwh)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Furnace Oil Consumption (ml/Kwh)	5.49	5.49	5.49	5.49
Light Diesel Oil Consumption (ml/Kwh)	3.74	3.74	3.74	3.74

Commission's analysis

7.83 As mentioned in Paras 7.78 & 7.79 of this Tariff Order, the Commission finds no merit in relaxing the norms as given in the Generation Tariff Regulations 2010, and accordingly approves normative specific oil consumption at 3.50 ml/kWh for PTPS station for the MYT control period.

Gross Calorific Value (GCV)

Petitioner's submission

7.84 The Petitioner projected the GCV for of coal at 4230 kCal/kg for the MYT Control Period. The Petitioner has submitted that even though it had entered into an agreement to purchase Grade "D" coal with calorific value of approx. 4201 kCcal/kg, the plant is receiving Grade "E" & "F" coal only which has a lower calorific value and higher ash content in comparison to Grade "D" coal.

7.85 The Petitioner projected the GCV for secondary fuel oil to be 10500 kCal/lt for the MYT control period.

Commission's analysis

7.86 The 'Generation Tariff Regulations, 2010' specifies that the GCV of coal and GCV of oil consumed by the generating company shall be taken based on the actual of the weighted average gross calorific value for three preceding months and in the absence of weighted average gross calorific value for three preceding months, latest weighted average gross calorific value for the generating station, before the start of the year.

7.87 The Petitioner was required to submit the consumption and GCV of coal oil for the month of January 2012, February 2012 and March 2012 being the preceding three months from the start of FY 2012-13. The information made available by the Petitioner consisted of only the consumption of coal and secondary fuels. It was observed that the Petitioner purchased the whole of FO of LDO in one or two lots in a year.

7.88 Accordingly, the Commission has considered the purchase quantum and GCV of coal from January, February and March 2012 coal bills submitted by the Petitioner, while calculating the weighted average gross calorific value during each year of the Control Period i.e. from FY 2012-13 to FY 2015-16 as follows:

Table 112: Gross Calorific value of coal (Kcal/kg)

Months	Coal Purchased (MT)	CV of coal	CV x Consumption
January 12	4118.68	5044.50	20776681.26
February .12	7850.68	4445.00	34896272.60
March. 12	7899.89	4748.61	37513472.67
Total	**19869.25**	**14238.11**	**93186426.53**
Calorific value of coal for FY 2012-13			**4689.98**

7.89 The Commission has considered the previous year's approved GCV for secondary oil as 10500 kCal/ litre.

Price of Primary Fuel (Coal)

Petitioner's submission

7.90 The Petitioner had submitted that the Cost of coal for FY 2012-13 has been taken on the basis of actual submitted coal price for FY 2011-12 (RE) and escalated at 3.87% for every year. This escalation factor is the CAGR for the coal price over the last 3 years.

Commission's analysis

7.91 The Generation Tariff Regulations, 2010 specifies that the price of coal incurred by the generating company shall be taken based on the actual of the weighted average price for three preceding months and in the absence of weighted average price for three preceding months, latest weighted average procurement price for the generating station, before the start of the year.

7.92 The Commission asked the Petitioner to submit the landed price of coal for the months of January, February and March 2012 being the preceding three months from the start of FY 2012-13. The information was made available by the Petitioner.

7.93 Accordingly, the Commission has considered the price of coal for the months of December 2011, January 2012 and February 2012 while calculating the weighted average landed cost of coal (without transit loss) during each year of the Control Period i.e. from FY 2012-13 to FY 2015-16 as follows:

Table 113: Cost of coal (Rs. /MT)

Landed cost of coal			
Months	**Coal purchased (MT)**	**Cost of coal**	**Cost x Consumption**
January 12	4118.68	1441.94	5938903.16
February 12	7850.68	1299.37	10200915.51
March 12	7899.89	1400.84	11066458.12
Total	**19869.25**	**4142.15**	**27206276.79**
Landed cost of coal for FY 2012-13			**1369.27**

7.94 Also according to Clause 7.37, 8.20 and 8.21 of the Generation Tariff Regulation, 2010, which states that:

"7.37 The cost of fuel in cases covered under clause 7.34 and 7.35 of these Regulations shall be based on the landed cost incurred (taking into account normative transit and handling losses) by the Generating Company and gross calorific value of the fuel as per actual for the three months preceding the first month for which tariff is to be determined and no fuel price escalation shall be provided during the tariff period.

"8.20 The Fuel Price Adjustment (FPA) applicable for calculation of Energy Charges is as follows:

(a) For coal-based generating stations, FPA = A + B

Where,

FPA – Fuel price Adjustment for a month in Paise/kWh Sent out;

A – Fuel price adjustment for Secondary Fuel oil in Paise/kWh sent out;

B – Fuel price adjustment for Coal in Paise/kWh sent out;

$$A = \frac{10}{(100 - AC_n)} * SFC_n * \{(P_{om} - P_{os})$$

$$B = \frac{10}{(100 - AC_n)} * [SHR_n * \{(P_{cm}/K_{cm}) - (P_{cs}/K_{cs})\} - SFC_n * \{(K_{om} * P_{cm} / K_{cm}) - K_{os} * P_{cs}/K_{cs})\}]$$

Where,

SFCn = Normative Specific Fuel Oil consumption in l/kWh;

SHRn = Normative Gross Station Heat Rate in Kcal/kWh;

ACn = Normative Auxiliary consumption in percentage;

Pom = Weighted average price of fuel oil on as consumed basis during the month in Rs. /KL;

Kom = Weighted average Gross Calorific Value of fuel oils fired at boiler front for the month in Kcal/Litre;

Pos = Base value of price of fuel oils as taken for determination of base energy charge in tariff order in Rs. / KL;

Kos = Base value of Gross Calorific Value of fuel oils as taken for determination of base energy charge in tariff order in Kcal/Litre;

Pcm = Weighted average price of coal procured and burnt during the month at the power station in Rs. / MT;

Kcm = Weighted average Gross Calorific Value of coal fired at boiler front for the month in Kcal/kg;
Pcs = Base value of price of coal as taken for determination of base energy charge in tariff order in Rs. /MT

Kcs = Base value of gross calorific value of coal as taken for determination of base energy charge in tariff order in kCal/Kg.

8.21 Any variation in fuel prices on account of change in the Gross Calorific Value (GCV) of coal or gas or liquid fuel shall be adjusted on a monthly basis on the basis of weighted average GCV of coal or gas or liquid fuel in stock, received and burnt and weighted average landed cost incurred by the generating company for procurement of coal, oil, or gas or liquid fuel, as the case may be for a power station.”

7.95 This states that there is a mechanism in place in the Generation Tariff Regulation, 2010 for taking into account the escalation of fuel price and so the base fuel price is kept constant for the control period.

Transit Loss

Petitioner’s submission

7.96 The Petitioner has quoted the provisions and orders of several Regulatory Commissions including CERC, HERC, GERC, PERC and BERC regarding the parameters for transit loss of coal. It has submitted that the Petitioner has no control over the transit loss of coal during transportation by railways. Accordingly, the Petitioner has projected a coal transit loss at 3.87% and requested the Commission to approve the projected Transit Loss.

Commission’s analysis

7.97 The Generation Tariff Regulations, 2010 allow normative transit loss of 0.2% for pithead generating stations and since the Petitioner is a pit head generating station therefore the Commission approves the transit loss of 0.2% for the MYT Control period.

Energy Charge Rate (ECR) and Fuel Cost

Petitioner’s submission

7.98 The Petitioner submitted the following calculation for determining the total fuel cost and the energy charge rate for the Control Period i.e. from FY 2012-13 to FY 2015-16.

Table 114 : Submitted Energy Charge Rate for the Control Period

Workings	Unit	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Station Heat Rate	kCal/ kWh	4,231	4,231	4,231	4,231
Gross Units Generated	MU	722.05	2,018.22	2,269.20	2,320.44
Total Heat Required	Million kCal	3,054,987	8,539,091	9,600,987	9,817,784
Secondary Oil Consumption(FO)	kL	3,966	11,087	12,465	12,747
Secondary Oil Consumption (LDO)	kL	2,698	7,541	8,479	8,671
Heat Generated by Sec fuel	Million kCal	28,330	79,185	89,032	91,042
Heat Required from Coal	Million kCal	3,026,657	8,459,906	9,511,955	9,726,741
Coal Requirement	Million Tons	0.74	2.08	2.34	2.39
Secondary Oil Cost (FO + LDO)	Rs Million	317.05	1,029.89	1,347.23	1,604.62
Coal Cost	Rs Million	915.34	2,730.82	3,277.22	3,576.94

Fuel Cost (Coal + Secondary)	**Rs Million**	**1,232.39**	**3,760.71**	**4,624.45**	**5,181.56**
Fuel Cost / Unit on Gross Generation	**Rs / kWh**	**1.707**	**1.863**	**2.038**	**2.233**

Commission's analysis

7.99 As per the Generation Tariff Regulation, 2010, the energy (variable) charge shall cover primary fuel costs and shall be payable by every beneficiary for the total energy scheduled to be supplied to such beneficiary during a calendar month on ex-power plant basis, at the specified energy charge rate of the month (with fuel price adjustment).

7.100 The Commission observed that the Petitioner has considered the cost of secondary fuel in determining the energy charge rate. As per the Generation Tariff Regulations 2010, the cost of coal alone should have been used for determining the energy charge rate.

7.101 The formula for calculation of energy charge and energy charge rate (ECR) payable to a Generating Company is specified in Clause 8.17 and 8.18 of the Generation Tariff Regulation, 2010 as quoted below:

"8.17 Total Energy charge payable to the Generating Company for a month shall be: = (Energy charge rate in Rs. /kWh) x {Scheduled energy (ex-bus) for the month in kWh.}

8.18 Energy charge rate (ECR) in Rupees per kWh on ex-power plant basis shall be determined to three decimal places in accordance with the following formula:

(a) For coal based stations

$$ECR = (GHR - SFC \times CVSF) \times LPPF \times 100 / \{CVPF \times (100 - AUX)\}$$

Where, AUX - Normative auxiliary energy consumption in percentage

CVPF - Gross calorific value of primary fuel as fired, in Kcal per kg, per litre or per standard cubic metre, as applicable.

CVSF - Calorific value of secondary fuel, in Kcal per ml

ECR - Energy charge rate, in Rupees per kWh sent out.

GHR - Gross station heat rate, in Kcal per kWh.

LPPF - Weighted average landed price of primary fuel, in Rupees per kg, per litre or per standard cubic metre, as applicable, during the month.

SFC - Specific fuel oil consumption, in ml per kWh"

7.102 The Commission has calculated the ECR to be charged by the Petitioner as per the formula stated above and considering the approved values of the various fuel parameters. The following table contains the ECR for each year of the Control Period i.e. from FY 2012-13 to FY 2015-16 as approved by the Commission.

Table 115 : Approved Energy Charge Rate and Fuel cost for the Control Period

Particulars	*Units*	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Gross Generation	*MU*	4238.09	4238.09	4238.09	4249.70
Heat Rate	*Kcal/kWh*	3125	3100	3100	3100
Specific Oil Consumption	*ml/kWh*	3.50	3.50	3.50	3.50
Base Calorific Value of Oil	*Kcal/l*	10500	10500	10500	10500
Auxiliary Consumption	*%*	12.00%	12.00%	12.00%	12.00%
Net Generation	*MU*	3729.52	3729.52	3729.52	3739.74
Base Weighted Average Calorific Value of Coal	*Kcal/kg*	4689.98	4689.98	4689.98	4689.98
Weighted Avg. cost of coal as approved in Table 113	*Rs/ton*	1369.27	1369.27	1369.27	1369.27
Normative Transit Loss	*%*	0.20%	0.20%	0.20%	0.20%
Base Weighted Average cost of Coal after adjusting for normative Transit loss	*Rs/ton*	1372.01	1372.01	1372.01	1372.01
Energy Charge Rate	*Rs/kWh*	**1.027**	**1.018**	**1.018**	**1.018**
Fuel Cost *	*Rs Cr*	**63.56**	**176.75**	**199.88**	**204.40**

Note: * Estimated on the basis of ECR and projected net generation as submitted by the Petitioner

Determination of Fixed Cost

Capital Investment & Capitalization

Petitioner's submission

7.103 The Petitioner has projected capital investment and additional capitalization for each year of the Control Period i.e. from FY 2012-13 to FY 2015-16 in its MYT Business Plan as follows.

Table 116: Submitted Capital Investment & Capitalization for MYT Control Period (Rs Cr)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Total Investment	160.00	317.00	319.00	180.00
Capitalization	545.64	669.66	447.86	132.00

Commission's analysis

7.104 The Commission has scrutinized the information provided by the Petitioner in its MYT Business Plan and has approved capital investment plan and the capitalisation based on their past performance as discussed earlier in Paras 6.4 to 6.15 of this Tariff Order. It is however, pertinent to mention that the Commission has not allowed any capital investment to the Petitioner in development of the coal blocks allotted to it.

7.105 The approved capital investment and capitalization for each year of the control period has also been summarized in the following table:

Table 117: Approved Capital Investment & Capitalization for Control Period (Rs Cr) *

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Capital investment	120.00	265.00	265.00	132.00
Capitalisation	226.49	235.02	241.66	217.37

Note: * As per Table 86 of this Tariff Order

7.106 The Commission shall review the capital expenditure and capitalization actually done by the Petitioner at the end of each year of the Control Period in accordance with Clause 6.8 - 6.10 of the Generation Tariff Regulations, 2010.

7.107 The Petitioner shall submit the actual capital expenditure incurred along with the Annual Performance Review Filing during each year of the Control Period. The Commission shall also conduct a midterm review at the end of second year of the Control Period. In case, the cumulative incurred capital expenditure and/or capitalization deviates from the approved capital expenditure / capitalization by more than 20% (cumulative), the Commission will make necessary changes to capital investment plan for the Control Period and will adjust depreciation and financing cost, which includes cost of debt (interest), working capital interest, cost of equity (return) based on the actual capital expenditure and/or capitalization vis-à-vis approved capital expenditure/capitalization.

Operation & Maintenance Expenses

Petitioner's submission

7.108 The Petitioner has presented the O&M expenses for the Control Period under three broad categories:

(a) Employee Expenses (Salaries, wages, pension contribution, other costs);

(b) Administrative and General costs; and

(c) Repairs and maintenance expenses;

7.109 The Petitioner has projected O&M expenses for each year of the Control Period i.e. from FY 2012-13 to FY 2015-16 in its MYT petition. The submission of the Petitioner regarding O&M expenses is summarized in the following table.

Table 118: Submitted O&M expenses for PTPS for Control Period (Rs Cr)

	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
R&M Expenses	47.66	66.55	79.18	82.90
Employee Expenses	110.52	120.47	131.31	143.13
A&G Expenses	14.52	15.83	17.25	18.80
Total O&M Expenses	**172.71**	**202.84**	**227.74**	**244.83**

7.110 The Petitioner has proposed the employee expenses for FY 2012-13 based on the latest revised estimates for the year 2011-12. It was submitted that there has been substantial increase in the employee expenses in FY 2011-12 owing to the following reasons:

(a) Annual increment including 3% in basic and 18% increase in DA;

(b) Petitioner had started paying sixth pay Commission salaries with effect from May, 2009, pensions continued to be on the old salaries, which are now being paid as per the revised salaries along with arrears since May, 2009;

(c) Several employees have approached for computation of pension which has led to increase in employee expenses for the FY 2011-12 and FY 2012-13;

(d) Payment of 6th pay Commission arrear to the entire employee and the pensioners of Generation function of Board during FY 2011-12 in there installments (30%, 30%, 40%);

7.111 Petitioner has taken the estimated employee expenses for FY 2012-13 as the basis for forecasting the employee expenses for the control period. Further the employee costs for FY 2011-12 (RE) is based on actual employee expenses for first eight (8) months of FY 2011-12. The employee cost for control period excluding arrear has been projected considering an escalation rate of 9.0% based on the combination of the Consumer Price Index (CPI) and the Wholesale Price Index (WPI) over the immediately preceding year.

7.112 The Petitioner has proposed the administrative and general costs for FY 2011-12 (RE) and the control period considering an escalation rate of 9.0% based on the combination of the Consumer Price Index (CPI) and the Wholesale Price Index (WPI) over the immediately preceding year. JSEB has taken the actual A&G expenses for FY 2010-11 as the basis for forecasting the A&G expenses for the control period.

7.113 The Petitioner has submitted that R&M cost for control period has been projected on the basis of percentage of Gross Fixed Assets (GFA). The GFA for each of the divisions has been taken as per actuals from the annual accounts. The JSEB has proposed the norms for the purpose of calculation of R&M costs taking into consideration the average of five (5) years actual value of R&M cost as a percentage of GFA expenses i.e. for the period of FY 2006-07 to FY 2010-11. Accordingly, the Petitioner has used 2.82% for projecting the R&M cost for the control period.

Commission's analysis

7.114 The Commission has analyzed the submissions made by the Petitioner and after proper prudence check approves the O&M expenses on the basis of following methodology explained as under.

Employee Cost

7.115 The Commission has projected the employee expenses for JSEB as whole for the period FY 2012-13 to FY 2015-16 as per the methodology detailed out in para 7.38 of this Tariff Order. The approved employee cost (excluding the amount of arrears paid out on account of wage arrears and terminal benefits) for FY 2011-12 for JSEB as whole by weighted average inflation rate of 8.40% p.a. (i.e. weighted average of WPI & CPI during past 5 years in ratio of 80:20, respectively) to project gross employee cost for FY 2012-13 to FY 2015-16. The projected cost incurred towards terminal benefits during FY 2010-11 is then added back to arrive at net employee cost for the said period for JSEB as whole subject to final true up on the basis of audited annual accounts. The payment towards VIth Pay Commission arrears is projected to be paid out during FY 2011-12, thus no payment has been made under this head during the period FY 2012-13 to FY 2015-16. The total employee cost is then disaggregated between Generation (thermal & hydel), Transmission and Distribution functions of JSEB in the proportion as detailed in para 7.39 of this Tariff Order.

7.116 The following tables summarises the approved employee cost by the Commission for JSEB as whole and for PTPS for the MYT control period for FY 2012-13 to FY 2015-16.

Table 119: Approved Employee cost for JSEB as whole for MYT Control Period

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Gross employee cost excluding arrears & terminal benefits escalated by 8.40% p.a.	244.10	264.61	286.85	310.95
Add: VI Pay Commission arrears to be paid out during FY 2011-12	0.00	0.00	0.00	0.00
Add: Terminal benefits	36.28	36.28	36.28	36.28
Approved employee cost for JSEB	**280.38**	**300.89**	**323.13**	**347.23**

Table 120: Approved Employee cost for PTPS for MYT Control Period

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Approved Employee cost for PTPS	69.39	74.47	79.97	85.94

Repair & Maintenance expenses

7.117 The Commission has approved the R&M expenses for PTPS for the MYT Control period at 2.22% (as given in para 7.41 of this Tariff Order) of the opening GFA for each year. The following table summarises the approved R&M cost for PTPS for MYT Period.

Table 121: Approved R&M cost for PTPS for MYT Control Period

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Opening GFA	975.64	1202.13	1,437.14	1,678.80
R&M as percentage (%) of GFA	2.22%	2.22%	2.22%	2.22%
R&M Cost	**21.63**	**26.66**	**31.87**	**37.22**

Administration & Generation expenses

7.118 The Commission has approved the A&G expenses for PTPS for the MYT Control Period by escalating the approved A&G cost for FY 2011-12 by 8.40% p.a. (i.e. weighted average of WPI & CPI during past 5 years in ratio of 80:20, respectively) subject to final true up based on audited annual accounts. The following table summarises the approved A&G cost for PTPS for the MYT Control Period.

Table 122: Approved A&G cost for PTPS for MYT Control Period

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
A&G Cost	14.36	15.57	16.88	18.30

7.119 The total approved O&M expenses for PTPS for the MYT Control Period from FY 2012-13 to FY 2015-16 has been summarised in following table:

Table 123: Approved O&M expenses for Control Period (Rs Cr)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
R&M Expenses	21.63	26.66	31.87	37.22
Employee Expenses	69.39	74.47	79.97	85.94
A&G Expenses	14.36	15.57	16.88	18.30
Total O&M Expenses	**105.39**	**116.69**	**128.72**	**141.46**

Depreciation

Petitioner's submission

7.120 The Petitioner has submitted depreciation on the Original Project Cost and the additional capitalization proposed for the units during the Control Period.

7.121 The depreciation amount for the units for each year of the Control Period as submitted by the Petitioner is shown in the tables below.

Table 124: Submitted Depreciation for Control Period (Rs Cr)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Depreciation during the year	**17.15**	**24.89**	**32.00**	**35.70**

Commission's analysis

7.122 The Generation Tariff Regulation, 2010 have specified the following methodology for the calculation of depreciation expense for existing generating stations:

(a) Depreciation shall be allowed upto a maximum of 90% of the capital cost of the asset and the salvage value of the asset shall be considered as 10%.

(b) Depreciation shall be calculated annually as per the straight line method and at the rates specified in the Appendix-I of the said Regulations.

(c) In case of existing generating stations, during the transition period, the balance depreciable value as on April 1, 2011 shall be worked out by deducting the cumulative depreciation including AAD as admitted by the Commission upto March 31, 2011 from the gross depreciable value of the assets.

(d) The rate of depreciation shall be continued to be charged at the rate specified in Annexure-I till the cumulative depreciation reaches 70%. Thereafter, the remaining depreciable value shall be spread over the remaining life of the asset such that the maximum depreciation does not exceed 90%.

7.123 Accordingly, the Commission has approved depreciation for PTPS for the MYT Control period on the basis of opening GFA during the year, additions made during the year and the depreciation rates specified in Generation Tariff Regulation, 2010 and has been summarised in following table.

Table 125: Approved Depreciation for PTPS for MYT Control Period (Rs Cr)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Depreciation for the year	12.77	15.48	18.27	20.96

Interest on Loan

Petitioner's submission

7.124 The Petitioner has submitted that it will finance the entire projected additional capitalization for FY 2012-13 to FY 2015-16 through loan from the Government of Jharkhand.

7.125 The Debt-Equity ratio for any project/unit or any additional capitalization incurred has been taken as 70:30 on normative basis in accordance with the Regulations 7.3, 7.13 and 7.14 of Generation Tariff Regulations 2010. Further, for the purpose of computation of interest on loan additional capitalization has been considered at 13.00%.

Table 126 : Submitted Interest on Loan for Control Period (Rs Cr)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Average Loan	**2675.97**	**2914.47**	**3232.47**	**3481.97**
Rate of Interest	13%	13%	13%	13%
Interest on loan	**201.86**	**233.69**	**275.93**	**309.26**
Less: IDC	126.24	92.46	71.84	76.21
Net Interest on Normative loan	75.62	141.23	204.09	233.05
Interest Considered for ARR (@70%)	**52.93**	**98.86**	**142.86**	**163.14**

Commission's analysis

7.126 The Commission has worked out the gross normative loan for FY 2011-12 as per Clause 7.13 and 7.14 of the Generation Tariff Regulation, 2010 as quoted below.

"7.13 In case of the generating station declared under commercial operation prior to 1.4.2011, debt-equity ratio allowed by the Commission for determination of Tariff for the period ending 31.3.2011 shall be considered for determination of tariff for the Transition period.

7.14 For the project declared under commercial operation on or after 1.04.2011, if the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan:

Explanation:- Any expenditure incurred or projected to be incurred on or after 1.04.2011 as may be admitted by the Commission as additional capital investment for determination of tariff, and renovation and modernization expenditure for life extension shall be serviced in the manner specified in clause 7.14 of this Regulation."

7.127 The loan portion of every year, required to fund the GFA, is deducted from corresponding NFA to determine the normative loan for the particular year. Further, the rate of interest on the approved normative loan/debt has been considered at 14.75%.

Table 127: Approved Interest on Loan for the Control Period (Rs. Cr)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Opening Debt for the year	207.41	353.18	502.22	653.11
Additions during the year	158.54	164.51	169.16	152.16
Repayment	12.77	15.48	18.27	20.96
Closing Debt	353.18	502.22	653.11	784.30
Average Loan	**280.30**	**427.70**	**577.66**	**718.71**
Rate of Interest	14.75%	14.75%	14.75%	14.75%
Interest on loan	**41.34**	**63.09**	**85.21**	**106.01**

Interest on Working Capital

Petitioner's submission

7.128 For the purpose of computing Working Capital, the Petitioner has submitted the components of Coal Cost, Secondary Oil Cost and Receivables, which have been computed at Normative Plant Availability for the whole year and apportioned to the months as specified in the Generation Tariff Regulations 2010. Further, as specified in the above Regulations, projected Annual O&M Expenses apportioned to 1 month and the cost of maintenance spares at 20% of Annual O&M Expenses has been considered.

7.129 As specified in Clause 7.38 of Generation Tariff Regulations 2010, rate of interest on working capital has been projected considering the interest rate of 14.75%.

Table 128: Submitted Working Capital for the Control Period (Rs Cr)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Cost of coal for 1.5 months	11.44	34.14	40.97	44.71
Cost of secondary fuel for 2 months	5.28	17.16	22.45	26.74
O&M expenses for 1 month	14.39	16.90	18.98	20.40
Maintenance spares (@20% of O&M Expenses)	34.54	40.57	45.55	48.97
Receivables for 2 months	-	-	-	-
Total Working Capital	**65.66**	**108.77**	**127.95**	**140.83**
Interest rate	14.75%	14.75%	14.75%	14.75%
Interest on Working capital	**9.68**	**16.04**	**18.87**	**20.77**

Commission's analysis

7.130 The Commission has determined the working capital requirement for the Petitioner by considering the following components as per Regulation 7.34 of the Generation Tariff Regulation, 2010:

(a) Cost of Coal for 1.5 months for generation corresponding to the Normative Annual Plant Availability Factor;

(b) Cost of secondary fuel oil for two months for generation corresponding to the Normative Annual Plant Availability Factor;

(c) Maintenance spares @ 20% of operation and maintenance expenses;

(d) Operation and Maintenance expenses for 1 month; and

(e) Receivables equivalent to two months of capacity charges and energy charges for sale of electricity calculated on the Normative Annual Plant Availability Factor.

7.131 The rate of interest on working capital has been taken as 14.75% i.e. the short-term Prime Lending Rate of State Bank of India as on April 1, 2012.

7.132 Accordingly, the Commission has computed the interest on working capital for each year of the Control Period i.e. from FY 2012-13 to FY 2015-16 as shown in the tables below.

Table 129: Approved Interest on Working Capital for the Control Period (Rs. Cr)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Cost of coal for 1.5 months	7.95	22.09	24.99	25.55
Cost of secondary fuel for 2 months	1.50	4.20	4.75	4.85
O&M expenses for 1 month	8.78	9.72	10.73	11.79
Maintenance spares (@20% of O&M Expenses)	21.08	23.34	25.74	28.29
Receivables for 2 months	49.43	80.61	93.62	102.65
Total Working Capital	**88.73**	**139.96**	**159.83**	**173.13**
Interest rate	14.75%	14.75%	14.75%	14.75%
Interest on Working capital	**13.09**	**20.64**	**23.57**	**25.54**

Return on Equity (RoE)

Petitioner's submission

7.133 A Post-tax 'return on equity' of 19.36% has been considered by the Petitioner on equity component of the Original Project Cost and Additional Capitalization for FY 2010-11 i.e. till 1st April 2011.

7.134 The debt-equity ratio for any Project/Unit/or any additional capital investment incurred has been considered as per the Clause 7.3, 7.13 & 7.14 of Generation Tariff Regulations 2010 i.e. 70:30.

7.135 The net equity additions during the year have been considered at 30% of the capitalized assets during the years of the control period.

Table 130: Submitted Return on Equity for the Control Period (Rs Cr)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Average Equity	423.32	624.22	758.58	798.18
Rate of RoE	19.36%	19.36%	19.36%	19.36%
Return on Equity	**81.96**	**120.85**	**146.86**	**154.53**

Commission's analysis

7.136 The Commission has deducted the consumer contribution from the GFA value for each year and considered 30% of this amount to reach at the normative equity for each year.

7.137 Further, the Commission has considered a pre-tax rate of return on equity i.e. 15.50% as the latest available Audited annual accounts of the Petitioner for FY 2010-11 does not show any assessable income or payment/ provision made towards income tax. Accordingly the pre-tax rate of return on equity has not been grossed up with the applicable tax rate. The following table contains the return on equity approved for FY 2011-12.

Table 131 : Approved Return on Equity for the Control Period (Rs Cr)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Opening equity	292.69	360.64	431.14	503.64
Addition to the equity	67.95	70.51	72.50	65.21
Closing equity	360.64	431.14	503.64	568.85
Average equity	**326.66**	**395.89**	**467.39**	**536.25**
Rate of Return (pre tax rate)	15.50%	15.50%	15.50%	15.50%
Return on equity	**50.63**	**61.36**	**72.45**	**83.12**

Cost of Secondary Fuel

Petitioner's submission

7.138 The Petitioner has submitted the cost of secondary fuel under the head for determination of energy charges.

Commission's analysis

7.139 The Commission has observed that the Petitioner has projected the cost of secondary fuel under the heads for energy charges as variable charge.

7.140 The Commission has projected the cost of secondary fuel oil in accordance with Regulation 7.49 of the Generation Tariff Regulations, 2010 as quoted below:

"7.49 Expenses on secondary fuel oil in Rupees shall be computed corresponding to normative secondary fuel oil consumption (SFC) specified in clause 8.4, 8.6 of these Regulations, in accordance with the following formula:

= SFC x LPSFi x NAPAF x 24 x NDY x IC x 10

Where, SFC – Normative Specific Fuel Oil consumption in ml/kWh

LPSFi – Weighted Average Landed Price of Secondary Fuel in Rs./ml considered initially

NAPAF – Normative Annual Plant Availability Factor in percentage

NDY – Number of days in a year

IC - Installed Capacity in MW

7.50 Initially, the landed cost incurred by the Generating Company on secondary fuel oil shall be taken based on actuals of the weighted average price of the three preceding months and in the absence of landed costs for the three preceding months, latest procurement price for the generating station, before the start of the year."

7.141 Accordingly, the consumption of secondary fuel oil has been projected considering the gross generation corresponding to the NAPAF (i.e. 82%) and Specific Normative Fuel Oil Consumption (i.e. 3.5 ml/kWh) and the price of secondary fuel oil has been projected considering the weighted average cost of secondary fuel oil from December 2011 to March 2012.

7.142 The normative cost of secondary fuel oil approved by the Commission for the Control Period i.e. from FY 2012-13 to FY 2015-16 is shown in the tables below:

Table 132 : Approved Cost of Secondary Fuel Oil for the Control Period (Rs Cr)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Specific oil consumption (ml/kWh)	3.50	3.50	3.50	3.50
Weighted average landed price of secondary fuel (Rs./ml)	0.05	0.05	0.05	0.05
Annual plant availability factor (%)	82%	82%	82%	82%
Number of days in a year	365.00	365.00	365.00	366.00
Installed capacity (MW)	640.00	720.00	735.00	750.00
Expenses on secondary fuel	**10.93**	**30.65**	**34.66**	**35.44**

Non Tariff Income

Petitioner's submission

7.143 The Non-tariff income as submitted by the Petitioner for the MYT control period has been summarised below.

Table 133: Submitted NTI for the Control Period (Rs Cr)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Non-tariff income	1.14	1.00	1.00	1.02

Commission's analysis

7.144 The Commission has scrutinized the details of Non Tariff Income submitted by the Petitioner. In the absence of any justification or proper plan for utilization of the non-tariff income, the Commission accepts the basis of projection for various components of non-tariff income and approves the non-tariff income as projected by the Petitioner and has been summarised below.

Table 134: Approved NTI for the Control Period (Rs Cr)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Non-tariff income	1.14	1.00	1.00	1.02

Summary of ARR for PTPS for MYT Control Period

Petitioner's submission

7.145 The ARR as submitted by the Petitioner for each year of the Control Period is shown in the following table.

Table 135: Submitted ARR for PTPS for Control Period (Rs. Cr)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
O&M expenses	172.71	202.84	227.74	244.83
Depreciation	17.15	24.89	32.00	35.70
Interest on Loan	52.93	98.86	142.86	163.14
Return on Equity	81.96	120.85	146.86	154.53
Interest on Working Capital	9.68	16.04	18.87	20.77
Less: Non Tariff Income	(1.14)	(1.00)	(1.00)	(1.02)
Total Fixed Charges	**333.29**	**462.49**	**567.34**	**617.94**
Add: Energy charges (including secondary fuel cost)	123.24	376.07	462.44	518.16
Total ARR	**456.52**	**838.56**	**1029.78**	**1136.10**

Commission's analysis

7.146 The ARR as approved by the Commission for each year of the Control Period are shown in the following tables:

Table 136: Approved ARR for Control Period (Rs. Cr)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
O&M expenses	105.39	116.69	128.72	141.46
Depreciation	12.77	15.48	18.27	20.96
Interest on Loan	41.34	63.09	85.21	106.01
Return on Equity	50.63	61.36	72.45	83.12

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Interest on Working Capital	13.09	20.64	23.57	25.54
Cost of Secondary fuel oil	10.93	30.65	34.66	35.44
Less: Non Tariff Income	(1.14)	(1.00)	(1.00)	(1.02)
Total Fixed Charges	**233.02**	**306.91**	**361.87**	**411.50**
Add: Energy charges (based on normative ECR & projected net generation)	63.56	176.75	199.88	204.40
Total ARR	**296.58**	**483.66**	**561.75**	**615.90**
Add: Past Revenue Gap/ (Surplus) from True up of FY 2003-04 to FY 2010-11 (as provided in Table 240 of this Order)	(63.99)	0.00	0.00	0.00
Net ARR	**232.59**	**483.66**	**561.75**	**615.90**

7.147 The Petitioner would recover the capacity charges in accordance with the Clause 8.10 to Clause 8.15 of the 'Generation Regulations, 2010' on the basis of the actual monthly availability.

Tariff determination for the First MYT Control Period for SHPS

7.148 The Petitioner submitted the petition for determination of generation tariff for SHPS for the first Control Period on the basis of the projection of operational and financial figures for the year.

7.149 The Commission has scrutinized the petition filed by JSEB for determination of Generation Tariff for the first Control Period of FY 2012-13 to FY 2015-16 in accordance with the Generation Tariff Regulations, 2010. The component-wise description of the Petitioner's submission and the Commission's analysis thereon is given below.

Own Generation & Fuel cost Determination

Plant Availability Factor (PAF)

Petitioner's submission

7.150 The Petitioner has not projected any PAF for the FY 2012-13 to FY 2015-16.

Commission's analysis

7.151 The Commission has considered Normative Annual Plant Availability Factor (NAPAF) of 75% as specified in the 'Generation Tariff Regulation, 2010' for projection of Availability during each year of the Control Period i.e. from FY 2012-13 to FY 2015-16.

Auxiliary Consumption

Petitioner's submission

7.152 The Petitioner has projected to maintain an auxiliary consumption of 3.84% for the FY 2012-13 to FY 2015-16, 2010 as follows:

Table 137: Auxiliary Consumption (%)

Particulars	Units	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Aux. Consumption	%	3.84%	3.84%	3.84%	3.84%

Commission's analysis

7.153 The Commission has considered normative auxiliary consumption at 0.70% for each year of the Control Period i.e. from FY 2012-13 to FY 2015-16 as specified in the Generation Tariff Regulation, 2010.

Gross and Net Generation

Petitioner's submission

7.154 The Petitioner has projected the generation for each year of the Control Period i.e. from FY 2012-13 to FY 2015-16 as shown in the following table:

Table 138 : Submitted Gross and Net Generation for the Control Period

	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Gross Generation (MU)	159	159	159	159
Auxiliary Consumption (%)	3.84%	3.84%	3.84%	3.84%
Net Generation (MU)	152.89	152.89	152.89	152.89

Commission's analysis

7.155 The Commission has computed and approved the gross and net generation for each year of the Control Period i.e. from FY 2012-13 to FY 2015-16 considering the approved values of PAF and auxiliary consumption as shown in the following table. The gross units generated for different years during the control period have been taken equal to the actual gross units generated in FY 2011-12 because of improved generation.

Table 139 : Approved Gross and Net Generation for the Control Period

	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Normative Availability (%)	75%	75%	75%	75%
Auxiliary Consumption (%)	0.70%	0.70%	0.70%	0.70%
Gross Generation (MU)	287.55	287.55	287.55	287.55
Net Generation (MU)	**285.54**	**285.54**	**285.54**	**285.54**

Determination of Fixed Cost

Capital Investment & Additional Capitalization

Petitioner's submission

7.156 The Petitioner has projected capital investment and additional capitalization for each year of the Control Period i.e. from FY 2012-13 to FY 2015-16 in its MYT Business Plan as follows:

Table 140 : Submitted Capital Investment & Additional Capitalization for Control Period (Rs Cr)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Capital Investment	30.00	80.00	0.00	0.00
Capitalization	24.98	68.31	40.00	0.00

Commission's analysis

7.157 The Commission has scrutinized the information provided by the Petitioner in its MYT Business Plan and has approved capital investment plan based on their past performance as discussed earlier in Section 6 of this Tariff Order (refer Table 87 of this Tariff Order). The approved capital investment and additional capitalization for each year of the control period has also been summarized in the following table:

Table 141 : Approved Capital Investment & Additional Capitalization for Control Period (Rs Cr)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Capital investment	30.00	80.00	0.00	0.00
Additional Capitalisation	13.55	29.89	22.54	17.00

7.158 The Commission shall review the capital expenditure and capitalization actually done by the Petitioner at the end of each year of the Control Period in accordance with Clause 6.8 - 6.10 of the Generation Tariff Regulations, 2010.

7.159 The Petitioner shall submit the actual capital expenditure incurred along with the Annual Performance Review Filing during each year of the Control Period. The Commission shall also conduct a midterm review at the end of second year of the Control Period. In case, the cumulative incurred capital expenditure and/or capitalization deviates from the approved capital expenditure / capitalization by more than 20% (cumulative), the Commission will make necessary changes to capital investment plan for the Control Period and will adjust depreciation and financing cost, which includes cost of debt (interest), working capital interest, cost of equity (return) based on the actual capital expenditure and/or capitalization vis-à-vis approved capital expenditure/capitalization.

Operation & Maintenance Expenses

Petitioner's submission

7.160 The Petitioner has presented the O&M expenses for the Control Period under three broad categories:

(a) Salaries, wages, pension contribution and other employee costs i.e. Employee Expenses;

(b) Administrative and General costs;

(c) Repairs and maintenance expenses; and

7.161 The Petitioner has projected O&M expenses for each year of the Control Period i.e. from FY 2012-13 to FY 2015-16 in its MYT petition. The submission of the Petitioner regarding O&M expenses is summarized in the following table.

Table 142 : Submitted O&M expenses for Control Period (Rs Cr)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
R&M Expenses	2.20	4.13	5.26	5.26
Employee Expenses	13.54	14.76	16.09	17.53
A&G Expenses	1.78	1.94	2.11	2.30
Total O&M Expenses	**17.52**	**20.83**	**23.46**	**25.09**

7.162 The Petitioner has proposed similar methodology as proposed for PTPS for determining the R&M expenses, employee expenses and A&G expenses for the control period from FY 2012-13 to FY 2015-16.

Commission's analysis

7.163 The Commission has analyzed the submissions made by the Petitioner and after proper prudence check approves the O&M expenses on the basis of following methodology explained in the following paragraphs.

Employee expenses

7.164 The Commission has projected the employee expenses for JSEB as whole for the period FY 2012-13 to FY 2015-16 as per the methodology detailed out in para 7.38 of this Tariff Order. The total employee cost is then disaggregated between Generation (thermal & hydel), Transmission and Distribution functions of JSEB in the proportion as detailed in para 7.39 of this Tariff Order.

7.165 The following table summarises the approved employee cost by the Commission for SHPS for the MYT control period for FY 2012-13 to FY 2015-16.

Table 143: Approved Employee cost for SHPS for MYT Control Period

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Approved Employee cost for SHPS	8.50	9.12	9.80	10.53

Repair & Maintenance expenses

7.166 The Commission has approved the R&M expenses for SHPS for the MYT Control period at 2.22% (as given in para 7.41 of this Tariff Order) of the opening GFA for each year. The following table summarises the approved R&M cost for SHPS for MYT Control Period.

Table 144: Approved R&M cost for SHPS for MYT Control Period

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Opening GFA	51.31	64.86	94.75	117.29
R&M as percentage (%) of GFA	2.22%	2.22%	2.22%	2.22%
R&M Cost	**1.14**	**1.44**	**2.10**	**2.60**

Administration & General Expenses

7.167 The Commission has approved the A&G expenses for SHPS for the MYT Control Period by escalating the approved A&G cost for FY 2011-12 by 8.40% p.a. (i.e. weighted average of WPI & CPI during past 5 years in ratio of 80:20, respectively) subject to final true up based on audited annual accounts. The following table summarises the approved A&G cost for SHPS for the MYT Control Period.

Table 145: Approved A&G cost for SHPS for MYT Control Period

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
A&G Cost	1.76	1.91	2.07	2.24

7.168 The total approved O&M expenses for SHPS for the MYT Control Period from FY 2012-13 to FY 2015-16 has been summarised in following table:

Table 146: Approved O&M expenses for Control Period (Rs Cr)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Employee Expenses	8.50	9.12	9.80	10.53
R&M Expenses	1.14	1.44	2.10	2.60
A&G Expenses	1.76	1.91	2.07	2.24
Total O&M Expenses	**11.40**	**12.47**	**13.97**	**15.37**

Depreciation

Petitioner's submission

7.169 The Petitioner has submitted depreciation on the Original Project Cost and the additional capitalization proposed for the units during the Control Period.

7.170 The depreciation amount for the units for each year of the Control Period as submitted by the Petitioner is shown in the tables below.

Table 147 : Submitted Depreciation for Control Period (Rs Cr)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Depreciation for the year	**1.22**	**2.11**	**3.16**	**3.54**

Commission's analysis

7.171 The Generation Tariff Regulation, 2010 have specified the following methodology for the calculation of depreciation expense for existing generating stations:

(a) Depreciation shall be allowed upto a maximum of 90% of the capital cost of the asset and the salvage value of the asset shall be considered as 10%.

(b) Depreciation shall be calculated annually as per the straight line method and at the rates specified in the Appendix-I of the said Regulations.

(c) In case of existing generating stations, during the transition period, the balance depreciable value as on April 1, 2011 shall be worked out by deducting the cumulative depreciation including AAD as admitted by the Commission upto March 31, 2011 from the gross depreciable value of the assets.

(d) The rate of depreciation shall be continued to be charged till the cumulative depreciation reaches 70%. Thereafter, the remaining depreciable value shall be spread over the remaining life of the asset such that the maximum depreciation does not exceed 90%.

7.172 The depreciation approved for the Control Period i.e. FY 2012-13 to FY 2015-16 on Original Project Cost and additional capitalization is given in the tables below:

Table 148: Approved Depreciation for Control Period (Rs Cr)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Depreciation for the year	**1.03**	**1.41**	**1.88**	**2.23**

Interest on Loan

Petitioner's submission

7.173 The Petitioner has submitted that it will finance the entire projected additional capitalization for FY 2012-13 to FY 2015-16 through loan from the Government of Jharkhand.

7.174 The Debt-Equity ratio for any project/unit or any additional capitalization incurred has been taken as 70:30 on normative basis in accordance with the Clause 7.3, 7.13 and 7.14 of Generation Tariff Regulations 2010.

7.175 Further, for the purpose of computation of interest on loan additional capitalization has been considered at 13.00%.

Table 149 : Submitted Interest on Loan for Control Period (Rs Cr)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Average Loan	67.90	107.90	107.90	107.90
Rate of Interest	13%	13%	13%	13%
Interest on loan	**7.57**	**12.95**	**18.60**	**24.64**
Less: IDC	4.13	5.87	4.72	2.59
Net Interest on Normative loans	3.44	7.08	13.88	22.04
Interest considered for ARR (@ 70%)	**2.41**	**4.96**	**9.72**	**15.43**

Commission's analysis

7.176 The Commission has worked out the gross normative loan for FY 2011-12 as per Clause 7.13 and 7.14 of the Generation Tariff Regulation, 2010 as quoted below.

"7.13 In case of the generating station declared under commercial operation prior to 1.4.2011, debt-equity ratio allowed by the Commission for determination of Tariff for the period ending 31.3.2011 shall be considered for determination of tariff for the Transition period.

7.14 For the project declared under commercial operation on or after 1.04.2011, if the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan:

Explanation:- Any expenditure incurred or projected to be incurred on or after 1.04.2011 as may be admitted by the Commission as additional capital investment for determination of tariff, and renovation and modernization expenditure for life extension shall be serviced in the manner specified in clause 7.14 of this Regulation."

7.177 The Commission has deducted the equity portion of the GFA from the NFA, to determine the normative loan for a particular year. The opening loan for FY 2012-13 has been taken as per the revised approved estimates for FY 2011-12.

7.178 The rate of interest on the approved normative debt has been considered to be 14.75%.

Table 150 : Approved Interest on Loan for the Control Period (Rs. Cr)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Opening Debt for the year	10.27	18.07	38.24	52.14
Additions during the year	9.48	20.92	15.78	11.90
Repayment	1.03	1.41	1.88	2.23
Closing Debt	18.73	38.24	52.14	61.81
Average Loan	**14.50**	**28.48**	**45.19**	**56.97**
Rate of Interest	14.75%	14.75%	14.75%	14.75%
Interest on loan	**2.14**	**4.20**	**6.66**	**8.40**

Interest on Working Capital

Petitioner's submission

7.179 For the purpose of computing Working Capital, the Petitioner has submitted the components of Coal Cost, Secondary Oil Cost and Receivables, which have been computed at Normative Plant Availability for the whole year and apportioned to the months as specified in the Generation Tariff Regulations 2010. Further, as specified in the above Regulations, projected Annual O&M Expenses apportioned to 1 month and the cost of maintenance spares at 20% of Annual O&M Expenses has been considered.

7.180 As specified in Regulation 7.38 of Generation Tariff Regulations 2010, rate of interest on working capital has been projected considering the interest rate of 14.75%.

Table 151 : Submitted Working Capital for the Control Period (Rs Cr)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
O&M expenses for 1 month	1.46	1.74	1.95	2.09
Maintenance spares (@15% of O&M Expenses)	2.63	3.12	3.52	3.76
Receivables for 2 months	-	-	-	-
Total Working Capital	**4.09**	**4.86**	**5.47**	**5.86**
Interest rate	14.75%	14.75%	14.75%	14.75%
Interest on Working capital	**0.60**	**0.72**	**0.81**	**0.86**

Commission's analysis

7.181 The Commission has determined the working capital requirement for the Petitioner by considering the following components as per Regulation 7.34 of the Generation Tariff Regulation, 2010:

(a) Maintenance spares @ 15% of operation and maintenance expenses;

(b) Operation and Maintenance expenses for 1 month; and

(c) Receivables equivalent to two months of fixed cost.

7.182 The rate of interest on working capital has been taken as 14.75% i.e. the short-term Prime Lending Rate of State Bank of India as on April 1, 2012.

7.183 Accordingly, the Commission has computed the interest on working capital for each year of the Control Period i.e. from FY 2012-13 to FY 2015-16 as shown in the tables below.

Table 152: Approved Interest on Working Capital for the Control Period (Rs. Cr)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
O&M expenses for 1 month	0.95	1.04	1.16	1.28
Maintenance spares (@15% of O&M Expenses)	1.71	1.87	2.09	2.31
Receivables for 2 months	2.82	3.63	4.60	5.36
Total Working Capital	**5.48**	**6.54**	**7.86**	**8.94**
Interest rate	14.75%	14.75%	14.75%	14.75%
Interest on Working capital	**0.81**	**0.96**	**1.16**	**1.32**

Return on Equity (RoE)

Petitioner's submission

7.184 A Post-tax 'return on equity' of 15.5% has been considered by the Petitioner on equity component of the Original Project Cost and Additional Capitalization for FY 2010-11. (till 1st April 2011).

7.185 The debt-equity ratio for any Project/Unit/or any additional capital investment incurred has been considered as per the Clause 7.3, 7.13 & 7.14 of Generation Tariff Regulations 2010 i.e. 70:30.

7.186 The net equity additions during the year have been considered at 30% of the normative equity determined after deducting the consumer contribution from the GFA.

Table 153: Submitted Return on Equity for the Control Period (Rs Cr)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Average Equity	19.56	40.05	52.05	52.05
Rate of RoE	19.36%	19.36%	19.36%	19.36%
RoE	**3.79**	**7.75**	**10.08**	**10.08**

Commission's analysis

7.187 The Commission has allowed return on equity on normative equity for the year which is 30% of the closing GFA for the year. Further, the Commission has considered a pre-tax rate of return on equity i.e. 15.50% for the MYT Control period as the Audited annual accounts of the Petitioner for FY 2010-11 does not show any assessable income or payment/ provision made towards income tax. Accordingly the pre-tax rate of return on equity has not been grossed up with the applicable tax rate. The following table contains the return on equity approved for FY 2011-12.

Table 154: Approved Return on Equity for the Control Period (Rs Cr)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Opening equity	15.39	19.46	28.42	35.19
Addition to the equity	4.06	8.97	6.76	5.10
Closing equity	19.46	28.42	35.19	40.29
Average equity	**17.42**	**23.94**	**31.81**	**37.74**
Rate of Return	15.50%	15.50%	15.50%	15.50%
Return on equity	**2.70**	**3.71**	**4.93**	**5.85**

Non Tariff Income

Petitioner's submission

7.188 The Petitioner submitted a total non-tariff income of Rs. 4.16 Cr for the control period as per the given details:

Table 155: Submitted NTI for the Control Period (Rs Cr)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Non-tariff income	1.14	1.00	1.00	1.02

Commission's analysis

7.189 The Commission has scrutinized the details of Non Tariff Income submitted by the Petitioner. In the absence of any justification or proper plan for utilization of the non-tariff income, the Commission accepts the basis of projection for various components of non-tariff income and approves the same at Rs. 4.16 Cr for the control period as follows:

Table 156: Approved NTI for the Control Period (Rs Cr)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Non-tariff income	1.14	1.00	1.00	1.02

Summary of ARR for SHPS for MYT Control Period

Petitioner's submission

7.190 The ARR for SHPS as submitted by the Petitioner for each year of the Control Period are shown in the following tables:

Table 157: Submitted ARR for SHPS for Control Period (Rs. Cr)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
O&M expenses	17.52	20.83	23.46	25.09
Depreciation	1.22	2.11	3.16	3.54
Interest on Loan	2.41	4.96	9.72	15.43
Return on Equity	3.79	7.75	10.08	10.08
Interest on Working Capital	0.60	0.72	0.81	0.86
Less: Non Tariff Income	(1.14)	(1.00)	(1.00)	(1.02)
Total Fixed Charges	**24.39**	**35.37**	**46.21**	**53.99**

Commission's analysis

7.191 The ARR for SHPS as approved by the Commission for each year of the Control Period are shown in the following table.

Table 158 : Approved Annual Fixed Charges for Control Period (Rs. Cr)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
O&M expenses	11.40	12.47	13.97	15.37
Depreciation	1.03	1.41	1.88	2.23
Interest on Loan	2.14	4.20	6.66	8.40
Return on Equity	2.70	3.71	4.93	5.85
Interest on Working Capital	0.81	0.96	1.16	1.32
Less: Non Tariff Income	(1.14)	(1.00)	(1.00)	(1.02)
Gross ARR	**16.93**	**21.76**	**27.59**	**32.14**
Add: Past Revenue Gap/ (Surplus) from True up of FY 2003-04 to FY 2010-11 as per Table 240 of this Order	(4.49)	0.00	0.00	0.00
Net ARR	**12.44**	**21.76**	**27.59**	**32.14**

7.192 The Petitioner would recover the capacity charges in accordance with the Clause 8.10 to Clause 8.15 of the 'Generation Regulations, 2010' on the basis of the actual monthly availability.

SECTION 8: APPROVAL OF REVISED ESTIMATION FOR FY 2011-12 AND ARR & TARIFF DETERMINATION FOR TRANSMISSION BUSINESS FOR FY 2012-13

Revised Estimation for FY 2011-12

8.1 The Petitioner has filed the revised ARR for FY 2011-12 along with the ARR & Tariff Petition for FY 2012-13.

8.2 The Commission has carried out the revision based on the information submitted by the Petitioner although the same shall be trued-up when the audited accounts for the said year are made available.

8.3 This section covers the component-wise Petitioner's submission and Commission's analysis for revised estimation for Transmission business of Petitioner for FY 2011-12.

Fixed Cost Determination

Operation & Maintenance Expenses

Employee Cost

Petitioner's Submission

8.4 The Petitioner in the Tariff Petition submitted the employee cost of Rs 57.61 Cr for FY 2011-12.

8.5 The Petitioner submitted that the employee expenses proposed for FY 2011-12 are based on the latest revised estimates for the year. It has also submitted that there is a substantial increase in the employee expenses in FY 2011-12 owing to the following reasons:

(a) The annual increment including 3% in basic and 18% increase in DA thereon;

(b) While the Petitioner had started paying sixth pay Commission salaries with effect from May, 2009, pensions continued to be on the old salaries, which were paid in FY 2011-12 as per the revised salaries along with arrears for the period May, 2009 onwards.

(c) Several employees have approached for commutation of pension which has led to increase in employee expenses for the year 2011-12.

Commission's analysis

8.6 The Commission has projected the employee cost for FY 2011-12 for JSEB as whole as per the methodology approved in para 7.38 of this Tariff Order. The total employee cost is then disaggregated between Generation (thermal & hydel), Transmission and Distribution functions of JSEB in the proportion as detailed in para 7.39 of this Tariff Order.

8.7 Accordingly the Commission has approved Rs.43.33 Cr as employee cost for Transmission function of JSEB for FY 2011-12.

Repair & Maintenance (R&M) Expenses

Petitioner's submission

8.8 The Petitioner, in the ARR Petition for FY 2012-13 submitted the revised estimates for the R&M cost at Rs 20.34 Cr for FY 2011-12.

8.9 The Petitioner submitted that it has considered the actual trend of expenses observed over the period FY 2006-07 to FY 2010-11.

Commission's analysis

8.10 The Commission has approved the R&M expenses for Transmission function of JSEB for the FY 2011-12 at 2.22% (as given in para 7.41 of this Tariff Order) of the opening GFA for each year as summarised in following table.

Table 159: Approved R&M cost for Transmission function for FY 2011-12

Particulars	Amount (Rs Cr)
Opening GFA	433.89
R&M as percentage (%) of GFA	2.22%
R&M Cost	**9.62**

Administrative & General Expenses

Petitioner's submission

8.11 The Petitioner in the Tariff Petition submitted the A&G expenses of Rs 5.46 Cr based on the revised estimates for FY 2011-12.

Commission's analysis

8.12 The Commission has approved the A&G expenses for Transmission function of JSEB for FY 2011-12 by escalating the actual A&G cost approved for FY 2010-11 by 8.40% p.a. (i.e. weighted average of WPI & CPI during past 5 years in ratio of 80:20, respectively) subject to final true up based on audited annual accounts. Accordingly the Commission approves Rs.5.43 Cr as the A&G cost for Transmission function for FY 2011-12 subject to final true up based on audited annual accounts.

8.13 The total approved O&M expenses for Transmission function for FY 2011-12 has been summarised in following table:

Table 160: Approved O&M expenses for Transmission function for FY 2011-12 (Rs Cr)

Particulars	FY 2012-13
Employee Expenses	43.33
R&M Expenses	9.62
A&G Expenses	5.43
Total O&M Expenses	**58.38**

Capital Expenditure & Capitalisation

Petitioner's submission

8.14 The Petitioner has submitted that construction of eight new grid substations and one mini grid substation as well as the associated transmission lines have been funded by REC loan routed through the State Government. Additional schemes for strengthening of the transmission network and connectivity are in the process of being added by the Petitioner.

8.15 The Petitioner has submitted a capital expenditure plan of Rs. 747.7 Cr on the basis of revised estimates for FY 2011-12. Further, the Petitioner has proposed to capitalise Rs.287 Cr during the year.

Commission's analysis

8.16 In the Tariff order for FY 2011-12, the Commission had approved the capital expenditure plan at Rs. 1671.5 Cr, as submitted by the Petitioner, for Transmission Business. However, the capitalisation for the year was approved at Rs. 149.81 Cr after due diligence of the schemes submitted by the Petitioner as well as the historical trends of capitalizations achieved during a year.

8.17 As per the prudence check of revised schemes submitted by the Petitioner for FY 2011-12 this year, the Commission approves 45% of the capital expenditure (Capex) plan as submitted by the Petitioner for FY 2011-12 at Rs. 334.46 Cr after taking into consideration the past performance of the Petitioner. The figure of 45% has been determined on the basis of the ratio of revised capital expenditure plan as submitted by the Petitioner for FY 2011-12 and the approved capital expenditure for FY 2011-12 as per previous Tariff Order for FY 2011-12.

8.18 Further, after due diligence of the schemes submitted by the Petitioner and the previous years capitalisation rate, the Commission approves the capitalization at Rs. 177.63 Cr, which shall be subjected to true up once the audited accounts are submitted for FY 2011-12 with the next ARR Petition.

8.19 The capital expenditure plan and capitalization for FY 2011-12, as approved by the Commission has been summarised in the following table:

Table 161: Capital Expenditure Plan and capitalisation (Cr) for FY 2011-12

Plan Outlay/ Proposed Schemes	Capex	Capitalization
Transmission function	334.46	177.63

Gross Fixed Asset

Petitioner's submission

8.20 The Petitioner has submitted the total closing GFA of Rs 721.23 Cr for FY 2011-12.

Commission's analysis

8.21 In Tariff Order for FY 2011-12, the Commission had projected the aggregated GFA figures for FY 2011-12 by considering the capitalization approved for the year.

8.22 Using the same approach as used in the Tariff Order for FY 2011-12 and considering the capitalization approved for FY 2011-12 in this Tariff Order, the Commission has approved the revised closing GFA figures for FY 2011-12 for transmission function as depicted in the table given below:

Table 162: Approved GFA for FY 2011-12 (Rs Cr)

Particulars	Approved GFA
Opening GFA	433.9
Additions in GFA	177.63
Closing GFA	**611.53**
Less: Accumulated depreciation	137.53
Net Fixed Assets	**473.99**

8.23 For funding of above GFA, the Commission has considered normative debt equity ratio of 70:30 as provided in Clause 7.10 of the Transmission Tariff Regulation, 2010. Moreover, consumer contribution grants and subsidies for capital assets are to be first netted off from gross fixed assets and the normative debt equity ratio is applied on the remaining gross fixed assets only.

8.24 The normative net loans are estimated after deducting accumulated depreciation from the value of gross assets.

8.25 Thus the approved sources of funding for the approved GFA of Rs 611.53 Cr for FY 2011-12 is tabulated hereunder:

Table 163: Approved Sources for FY 2011-12 (Rs Cr)

Approved Sources	FY 2011-12
Equity	183.46
Loan	290.54
Gross Total	**473.99**
Accumulated Dep	**137.64**
GFA	**611.53**

8.26 In accordance with the Transmission Tariff Regulations, 2010, the return on funds deployed in usable assets has been tabulated hereunder:

Table 164: % of Return on Funds for FY 2011-12 (%)

Approved Sources	Return
Equity	15.5%
Loan	13.00%

Return on Equity (RoE)

Petitioner's submission

8.27 The Petitioner submitted that the equity for the purpose of calculating Return on Equity has been calculated in accordance with the 'Transmission Tariff Regulations, 2010'. The Petitioner has proposed Rs 30.53 Cr as RoE for FY 2011-12.

Commission's analysis

8.28 Based on the methodology as mentioned in Para's 8.23 to 8.26 of this Tariff Order, the Commission approves the RoE of Rs 24.31 Cr for FY 2011-12, as tabulated hereunder:

Table 165: Approved Return on Equity for FY 2011-12 (Rs Cr)

Particular	
Opening Balance	130.17
Deemed Additions	53.29
Closing Balance	183.46
Average Normative Equity	**156.81**
Return on Equity (%)	15.50%
Return on Equity	**24.31**

8.29 The Commission has considered a pre-tax rate of return on equity i.e. 15.50% for FY 2011-12 as the Audited annual accounts of the Petitioner for FY 2010-11 does not show any assessable income or payment/ provision made towards income tax. Accordingly the pre-tax rate of return on equity has not been grossed up with the applicable tax rate.

Interest and Other Finance Charges

Petitioner's submission

8.30 The Petitioner in the ARR Petition for FY 2012-13 has submitted the revised estimates of interest and other finance charges as Rs 26.44 Cr for FY 2011-12 as given in following table:

Table 166: Interest & Finance Charges (Rs Cr)

Interest Expenses	Transmission
Interest on normative loans	116.31
Less: IDC	78.54
Net Interest	37.77
Interest considered for ARR (70%)	**26.44**

Commission's analysis

8.31 On the basis of the methodology mentioned in Paras 8.23 to 8.26 of this Tariff Order, the Commission approves the interest and other finance charges at Rs 30.73 Cr for FY 2011-12, as given in the following table:

Table 167: Approved Interest & Finance Charges (Rs Cr)

Particulars	Interest & Finance
Normative Opening Balance	182.29
Deemed Addition during the year	124.34
Deemed Repayments during the year	16.10
Normative Closing Balance	290.54
Normative Average balance during FY 2011-12	**236.41**

Rate of Interest	13.00%
Interest on Normative Loans	**30.73**

8.32 Further, as mentioned in Paras 5.77 to 5.83 of this Tariff Order, the Commission has noted that the Net fixed asset funded through loans, after deducting the amount of consumer contribution and accumulated depreciation from the Gross fixed assets, is much less than the loan amount shown by the Petitioner in the accounts as well as the proposal for future years. In such a scenario, the Commission views that the Interest during Construction (IDC) should be considered as part of the GFA, as and when it is capitalized. Accordingly the Commission has not approved any cost towards IDC for FY 2011-12 onwards. The Commission shall true-up the interest and finance charges once the audited accounts are submitted by the Petitioner.

Interest on Working Capital

Petitioner's submission

8.33 The Petitioner has submitted the interest on Working Capital as per the 'Transmission Tariff Regulation, 2010'. Accordingly, one month O&M, maintenance spares at 15% of O&M and receivables (two months of transmission charges) has been considered for calculation of working capital.

8.34 The Petitioner submitted that the rate of interest on working capital is calculated at the SBI PLR bank rate.

Table 168 : Interest on Working Capital submitted by the Petitioner for FY 2011-12 (Rs Cr)

Particulars	Approved expenses
1 month O&M	6.95
Maintenance Spares	12.5
Receivables	0.0
Total Working Capital requirement	**19.46**
Interest rate (SBI PLR)	13.00%
Interest on Working Capital	**2.53**

Commission's analysis

8.35 The Commission has considered the interest on working capital as per the norms specified in the 'Transmission Tariff Regulations, 2010'.

8.36 As per 'Transmission Tariff Regulations, 2010, the working capital requirements shall be determined as per the following norms:

(a) Operation & Maintenance expenses for one month.

(b) Maintenance spares @ 15% of operation and maintenance expenses

(c) Receivables equivalent to two months of fixed cost

8.37 The summary of interest on working capital for FY 2011-12 is shown in the following table:

Table 169: Approved Interest on Working capital for FY 2011-12 (Rs Cr)

Particulars	Approved expenses
1 month O&M	4.87
Maintenance Spares	8.76
Receivables	22.19
Total Working Capital requirement	**35.81**
Interest rate (SBI PLR)	13.00%
Interest on Working Capital	**4.66**

Depreciation

Petitioner's submission

8.38 The Petitioner has submitted the revised estimated depreciation of Rs 19.23 Cr for FY 2011-12.

Commission's analysis

8.39 The Commission has scrutinized the depreciation expenses submitted in the petition and found it to be in line with the earlier methodology followed for approval of depreciation. However, depreciation on addition in fixed assets has been considered on the basis of approved capitalisation.

8.40 As per the above methodology, the Commission approves the net depreciation charge of Rs 16.10 Cr for FY 2011-12.

Non Tariff Income (NTI)

Petitioner's submission

8.41 The Petitioner has submitted that it has used the same approach as used by the Commission in the Tariff order for FY 2011-12 for determination of non-tariff income.

8.42 The details of non-tariff income submitted by the Petitioner for FY 2011-12 is given in the following table:

Table 170: Non Tariff Income submitted by the Petitioner (Rs Cr)

Particulars	FY 2011-12
Interest from advance to Supplier/ Contractor	0.22
Interest from Bank (Other Than FD)	0.39
Income from trading	0.44
Misc. Receipt	0.0
Total NTI	**1.05**

Commission's analysis

8.43 After scrutinizing all components submitted by the Petitioner, the Commission has approved the Non-Tariff Income as projected by the Petitioner.

8.44 The component-wise break-up of approved Non-Tariff Income as per prudence check for FY 2011-12 is summarised in the table given below:

Table 171: Approved Non Tariff Income (Rs Cr)

Particulars	FY 2011-12
Interest from advance to Supplier/ Contractor	0.22
Interest from Bank (Other Than FD)	0.39
Income from trading	0.44
Misc. Receipt	0.0
Total NTI	**1.05**

Summary of ARR for Transmission Business for FY 2011-12

8.45 The summary of ARR for Transmission Business as submitted by Petitioner and approved by the Commission for FY 2011-12 is summarised in the following table:

Table 172: Summary of ARR for FY 2011-12 (Rs Cr)

Annual Revenue Requirement	Submitted by the Petitioner	Approved by the Commission
Employee	57.61	43.33
Repair & Maintenance	20.34	9.62
Admin & General	5.46	5.43
Interest & financing charges	26.44	30.73
Interest on Working capital	2.53	4.66
Depreciation	19.23	16.10
Total Cost	**131.60**	**109.87**
Add: Reasonable return	30.53	24.31
Less: Non Tariff Income	(1.05)	(1.05)
ARR	**161.08**	**133.12**

Tariff Determination for Transmission Business for FY 2012-13

8.46 This section covers the component-wise Petitioner's submission and Commission's analysis for the ARR petition of FY 2012-13.

8.47 The Commission has carried out the projections based on the information submitted by the Petitioner although; the same shall be revised when the provisional accounts are made available.

Fixed Cost Determination

Operational & Maintenance Expenses

Employee Cost

Petitioner's Submission

8.48 The Petitioner in the Tariff Petition submitted the employee cost of Rs 45.26 Cr for FY 2012-13.

8.49 The Petitioner submitted that the employee expenses proposed for FY 2012-13 are based on the latest revised estimates for the year. It has also submitted that there is a substantial increase in the employee expenses in FY 2012-13 owing to the following reasons:

(a) The annual increment including 3% in basic and 18% increase in DA thereon;

(b) While the Petitioner had started paying sixth pay Commission salaries with effect from May, 2009, pensions continued to be on the old salaries, which are now being paid as per the revised salaries along with arrears for the period May, 2009 onwards.

(c) Several employees have approached for commutation of pension which has led to increase in employee expenses for the year 2012-13.

Commission's analysis

8.50 The Commission has projected the employee expenses for JSEB as whole for FY 2012-13 as per the methodology detailed out in para 7.38 of this Tariff Order. The total employee cost is then disaggregated between Generation (thermal & hydel), Transmission and Distribution functions of JSEB in the proportion as detailed in para 7.39 of this Tariff Order.

8.51 Accordingly, the approved employee cost for FY 2012-13 for transmission function has been Rs. 28.42 Cr.

Repair & Maintenance (R&M) Expenses

Petitioner's submission

8.52 The Petitioner, in the ARR Petition for FY 2012-13 submitted the projections for the R&M cost at Rs 49.14 Cr for FY 2012-32.

8.53 The Petitioner submitted that it has considered the actual trend of expenses observed over the period FY 2006-07 to FY 2010-11.

Commission's analysis

8.54 The Commission has approved the R&M expenses for Transmission function for FY 2012-13 at 2.22% (as given in para 7.41 of this Tariff Order) of the opening GFA for each year as summarised in following table.

Table 173: Approved R&M cost for Transmission function for FY 2012-13

Particulars	FY 2012-13
Opening GFA	611.53
R&M as percentage (%) of GFA	2.22%
R&M Cost	**13.56**

Administrative & General Expenses

Petitioner's submission

8.55 The Petitioner in the Tariff Petition submitted the A&G expenses of Rs 5.95 Cr for FY 2012-13.

Commission's analysis

8.56 The Commission has approved the A&G expenses for Transmission function of JSEB for FY 2012-13 by escalating the approved A&G cost for FY 2011-12 by 8.40% p.a. (i.e. weighted average of WPI & CPI during past 5 years in ratio of 80:20, respectively) subject to final true up based on audited annual accounts.

8.57 Accordingly, the Commission approves A&G cost of Rs.5.91 Cr for Transmission function of the Petitioner for FY 2012-13.

Capital Expenditure & Capitalisation

Petitioner's submission

8.58 The Petitioner has submitted that construction of eight new grid substations and one mini grid substation as well as the associated transmission lines have been funded by REC loan routed through the State Government. Additional schemes for strengthening of the transmission network and connectivity are in the process of being added by the Petitioner. The Petitioner has submitted a capital expenditure plan of Rs. 2786 Cr. Further, the Petitioner has proposed capitalisation of Rs. 1021.34 Cr during the year.

Commission's analysis

8.59 As per the prudence check of schemes submitted by the Petitioner, the Commission approves 45% of the capital expenditure (Capex) plan for FY 2012-13, keeping in mind their past performance of the Petitioner. The figure of 45% has been determined on the basis of the ratio of revised capital expenditure plan as submitted by the Petitioner for FY 2011-12 and the approved capital expenditure plan as approved by the Commission in the Tariff order for FY 2011-12.

8.60 After due diligence of the schemes submitted by the Petitioner and the previous year's conversion levels, the Commission approves the capex of Rs.1246.22 Cr and capitalization at Rs. 484.98 Cr, which shall be subject to final true up once the provisional accounts are submitted for FY 2012-13.

8.61 The capital expenditure plan and capitalization, as approved by the Commission has been summarised in the following table:

Table 174: Capital Expenditure Plan and capitalisation (Cr) for FY 2012-13

Plan Outlay/ Proposed Schemes	Capex	Capitalization
Transmission function	1246.22	484.98

Gross Fixed Asset

Petitioner's submission

8.62 The Petitioner has submitted the total closing GFA of Rs 1742.57 Cr for FY 2012-13.

Commission's analysis

8.63 The Closing GFA for FY 2012-13 for transmission function has been estimated by adding the approved capitalisation during the year to the closing GFA for FY 2011-12 as depicted in the table given below:

Table 175: Approved GFA for FY 2012-13 (Rs Cr)

Particulars	Approved GFA
Opening GFA	611.53
Additions in GFA	484.98
Closing GFA	**1096.50**
Less: Accumulated depreciation	163.83
Net Fixed Assets	**932.67**

8.64 For funding of above GFA, the Commission has considered at normative debt equity ratio of 70:30 as provided in regulation 7.10 of the Transmission Tariff Regulation, 2010. Moreover, consumer contribution grants and subsidies for capital assets are to be first netted off from gross fixed assets and the normative debt equity ratio is applied on the remaining gross fixed assets only. However, for the Transmission function, consumer contribution grants and subsidies as deployed in GFA has been considered as nil.

8.65 The normative net loans are estimated after deducting accumulated depreciation from the value of gross assets.

8.66 Thus the approved sources of funding for the approved GFA of Rs 1096.50 Cr for FY 2012-13 is tabulated hereunder:-

Table 176: Approved Sources for FY 2012-13 (Rs Cr)

Approved Sources	FY 2012-13
Equity	328.95
Loan	603.72
Total	**932.67**
Accumulated Dep	**163.83**
GFA	**1096.50**

8.67 In accordance with the Transmission Tariff Regulations issued 2010, the return on funds deployed in usable assets has been tabulated hereunder:-

Table 177: % of Return on Funds for FY 2012-13 (%)

Approved Sources	Return
Equity	15.5%
Loan	14.75%

Return on Equity (RoE)

Petitioner's submission

8.68 The Petitioner submitted that the equity for the purpose of calculating Return on Equity has been calculated in accordance with the Transmission Tariff Regulations, 2010 and by considering normative equity at 30% of the gross fixed assets less consumer contribution.

8.69 Accordingly, the Petitioner has proposed Rs 85.81 Cr as RoE for FY 2012-13.

Commission's analysis

8.70 Based on the methodology as mentioned in Paras 8.64 & 8.67 of this Tariff Order, the Commission approves the RoE of Rs 39.71 Cr for FY 2012-13, as tabulated hereunder:

Table 178: Approved Return on Equity for FY 2012-13 (Rs Cr)

Particular	
Opening Balance	183.46
Deemed Additions	145.49
Closing Balance	328.95
Average Normative Equity	**256.20**
Return on Equity (%)	15.50%
Return on Equity	**39.71**

Interest and Other Finance Charges

Petitioner's submission

8.71 The Petitioner in the ARR Petition for FY 2012-13 has submitted the projections for interest and other finance charges as Rs 71.81 Cr for FY 2012-13 as given in the following table.

Table 179: Interest & Finance Charges (Rs Cr)

Interest Expenses	Transmission
Interest on normative loans	346.76
Less: IDC	244.17
Net Interest	102.59
Interest considered for ARR (70%)	**71.81**

Commission's analysis

8.72 On the basis of the methodology mentioned in Paras 8.64 & 8.67 of this Tariff Order, the Commission approves the interest and other finance charges at Rs 65.95 Cr for FY 2012-13, as given in the following table:-

Table 180: Approved Interest & Finance Charges (Rs Cr)

Particulars	
Normative Opening Balance	290.54
Deemed Addition during the year	339.48
Deemed Repayments during the year	26.30
Normative Closing Balance	603.72
Normative Average balance during FY 2011-12	**447.13**
Rate of Interest	14.75%
Interest on Normative Loans	**65.95**

8.73 The Commission shall true-up the interest and finance charges once the audited accounts are submitted by the Petitioner.

Interest on Working Capital

Petitioner's submission

8.74 The Petitioner has submitted the interest on Working Capital as per the 'Transmission Tariff Regulations, 2010'. Accordingly, one month O&M, maintenance spares at 15% of O&M and receivables (two months of transmission charges) has been considered for calculation of working capital. The Petitioner submitted that the interest on working capital is calculated at the SBI PLR bank rate.

Table 181 : Interest on Working Capital submitted by the Petitioner for FY 2012-13 (Rs Cr)

Particulars	
1 month O&M	8.36
Maintenance Spares	15.05
Receivables	0.0
Total Working Capital requirement	**23.42**
Interest rate (SBI PLR)	14.75%
Interest on Working Capital	**3.45**

Commission's analysis

8.75 The Commission has considered the interest on working capital as per the norms specified in the JSERC (Terms and Conditions for Transmission Tariff) Regulations, 2010.

8.76 As per 'Transmission Tariff Regulations, 2010, the working capital requirements shall be determined as per the following norms:-

(a) Operation & Maintenance expenses for one month.

(b) Maintenance spares @ 15% of operation and maintenance expenses

(c) Receivables equivalent to two months of fixed cost

8.77 The summary of interest on working capital for FY 2012-13 is shown in the following table:-

Table 182: Approved Interest on Working capital for FY 2012-13 (Rs Cr)

Particulars	Approved expenses
1 month O&M	3.99
Maintenance Spares	7.18
Receivables	30.82
Total Working Capital requirement	**41.99**
Interest rate (SBI PLR)	14.75%
Interest on Working Capital	**6.19**

Depreciation

Petitioner's submission

8.78 The Petitioner submitted the projections for depreciation of Rs 41.02 Cr for FY 2012-13.

Commission's analysis

8.79 The Commission has scrutinized the depreciation expenses submitted in the petition and found it to be in line with the earlier methodology followed for approval of depreciation. However, depreciation on addition in fixed assets has been considered on the basis of approved capitalisation.

8.80 As per the above methodology, the Commission approves the net depreciation charge of Rs 26.30 Cr for FY 2012-13.

Non Tariff Income (NTI)

Petitioner's submission

8.81 The Petitioner has submitted that it has used the same approach as used by the Commission in the Tariff order for FY 2011-12 for determination of non-tariff income. The details of non-tariff income submitted by the Petitioner for FY 2012-13 is given in the following table:

Table 183: Non Tariff Income submitted by the Petitioner (Rs Cr)

Particulars	FY 2012-13
Interest from advance to Supplier/ Contractor	0.27
Interest from Bank (Other Than FD)	0.47
Income from trading	0.41
Misc. Receipt	0.0
Total NTI	**1.14**

Commission's analysis

8.82 After scrutinizing all components submitted by the Petitioner, the Commission has approved the Non-Tariff Income as projected by the Petitioner. The component-wise break-up of approved Non-Tariff Income as per prudence check for FY 2012-13 is summarised in the table given below:

Table 184: Approved Non Tariff Income (Rs Cr)

Particulars	FY 2012-13
Interest from advance to Supplier/ Contractor	0.27
Interest from Bank (Other Than FD)	0.47
Income from trading	0.41
Misc. Receipt	0.0
Total NTI	**1.14**

Summary of ARR for Transmission Business for FY 2012-13

8.83 The summary of ARR for Transmission Business as submitted by Petitioner and as Approved by the Commission for FY 2012-13 is below:

Table 185: Summary of ARR for FY 2012-13 (Rs Cr)

Description	Submitted by Petitioner	Approved by JSERC
Employee	45.26	28.42
Repair & Maintenance	49.14	13.56
Admin & General	5.95	5.91
Interest & financing charges	71.81	65.95
Interest on Working capital	3.45	6.19
Depreciation	41.02	26.30
Total Cost	**216.63**	**146.34**
Add: Reasonable return	85.81	39.71
Less: Non Tariff Income	(1.14)	(1.14)
ARR	**301.30**	**184.91**
Add: Past Revenue Gap/ (Surplus) from True up of FY 2003-04 to FY 2010-11	0.00	(17.74)
Net ARR	**301.30**	**167.17**

SECTION 9: APPROVAL OF REVISED ESTIMATES FOR FY 2011-12 AND DETERMINATION OF ARR & TARIFF FOR DISTRIBUTION BUSINESS FOR FY 2012-13

Revised Estimates for FY 2011-12

9.1 The Petitioner has submitted the ARR for FY 2011-12 on the basis of six months provisional figures and the remaining six months on the basis of estimation. However, by the time Commission sought additional information based on scrutiny and the discrepancies in the ARR and Tariff Petition of the Petitioner, some of the provisional annual data for FY 2011-12 was available and was submitted to the Commission.

9.2 Accordingly, the Commission has carried out the revision based on the information submitted by the Petitioner although the same shall be trued-up when the audited annual accounts are made available.

9.3 This section covers the component-wise Petitioner's submission and Commission's analysis for revised estimation for FY 2011-12.

Commercial Components & Power Purchase Cost

Energy Sales

Petitioner's submission

9.4 To arrive at the revised estimation of sales for FY 2011-12, the Petitioner applied a Five-year Compounded Annual Growth Rate (CAGR) growth rate on the actual consumer category-wise sales of the FY 2010-11.

9.5 The proposed growth in the number of Kutir Jyoti/ BPL consumers on account of the large scale electrification of rural areas under the RGGVY scheme undertaken by the Petitioner have been incorporated in the sales projections over and above the growth observed as per historical trends.

9.6 The Petitioner had also submitted a revised figure for inter-state sales of 405.53 MU for FY 2011-12. The proposed consumer category-wise energy sales for FY 2011-12 (revised estimates) has been summarised in following table:

Table 186: Projected Sales for FY 2011-12 (RE)

Category of Consumer	5-Year CAGR applied by JSEB	Sales (MUs)
Domestic	22.5%	3063.42
Non domestic	15.0%	372.03
Low Tension	8.9%	163.76
Irrig. & Agricultural	2.9%	70.42
HT	6.6%	2355.99
Railway Traction	6.6%	653.47
Street Lgt. Service	12.0%	158.66
MES	6.6%	16.64
Inter-State Sales		405.53
Overall/ Total	-	**7259.93**

Commission's analysis

9.7 While scrutinizing the revised estimates for FY 2011-12, the Commission sought the latest category-wise sales figures available with the Petitioner for FY 2011-12. In response, the Petitioner submitted the category-wise actual sales data for the first nine months of FY 2011-12, excluding sales for Jamshedpur and Ranchi circles, citing the reason that the data for these two circles is not available with the Petitioner.

9.8 In the absence of the sales figures for FY 2011-12 for Jamshedpur and Ranchi Circles, the Commission directed the Petitioner to submit sales details for Jamshedpur and Ranchi Circles for previous 5 years i.e. FY 2006-07 to FY 2010-11. The Commission computed the sales for FY 2011-12 and FY 2012-13 for Ranchi & Jamshedpur on the basis of the data submitted by the Petitioner and added it to the provisional data for nine months actual sales and three months estimated sales for FY 2011-12 of other circles as submitted by the Petitioner. However, the Commission observed that estimated sales so obtained for the said years were not consistent with the sales of previous years and there were many anomalies in sales of some of the categories.

9.9 Therefore, The Commission decided to determine the sales figures for FY 2011-12 by applying last five year's CAGR on category-wise sales over actual sales for FY 2010-11. The approved energy sales for FY 2011-12 is tabulated hereunder:

Table 187: Energy Sales approved by the Commission for FY 2011-12 (in MU)

Category of Consumer	Sales Approved in Previous Tariff Order	5 Year CAGR applied by the Commission	Approved now by JSERC
Domestic	3,052.0	22.5%	3,063.42
Non domestic	355.2	15.0%	372.03
Low Tension	163.8	8.9%	163.75
Irrig. & Agricultural	84.8	2.9%	70.43
HT Service	2,229.5	6.6%	2,292.07
Railway Traction	627.2	6.6%	653.47

Street Lgt. Service	184.7	12.0%	158.66
MES	79.0	1.8%	16.64
Bulk Supply	0.0	-	0.0
Total Intra-state Sales	**6776.2**		**6790.46**
Inter-state sales	785.0	-	405.53
Total Energy Sales	**7,561.2**	**-**	**7,195.99**

9.10 The sales figures approved by the Commission shall be subject to true-up, as and when the actual sales data as per the audited accounts are submitted by the Petitioner.

Distribution Losses

Petitioner's submission

9.11 The Petitioner calculated the distribution losses on the basis of actual power purchase and revised estimates of sales available for FY 2011-12. The transmission losses in the State transmission system which is owned and operated by the Petitioner have been taken at 5%, as approved by the Commission in the previous Tariff Order for FY 2011-12.

9.12 The Petitioner has submitted the Distribution loss details as follows

(a) Power Purchase from Outside JSEB- 5636.43 MU

(b) Loss in external- 3.04%

(c) Net Outside Purchase- 5465.08 MU

(d) Own generation- 808.30 MU

(e) Transmission Loss- 5%

(f) Net Energy Sent to Distribution- 6632.63 MU

(g) Direct input at distribution voltage (33 kV)- 3352.05 MU

(h) Total Energy available to Distribution- 9984.68 MU

(i) Sales (including inter-state sales of 405.53 MU)- 7259.86 MU

(j) Distribution Loss(%)- 27.29%

(k) Overall T&D Loss- 30.89%

9.13 The Petitioner stated that massive electrification work has been undertaken under the RGGVY scheme. It also stated that this significant expansion of the network has not only led to increase in the technical losses in the system, but has also rendered the system porous and prone to theft of electricity. Due to both these reasons, the Petitioner is not able to achieve the loss targets set by the Hon'ble Commission.

9.14 The Petitioner also submitted that in order to reduce distribution losses and to enforce discipline in the erring consumers, the Petitioner consistently enhanced its focus on conducting raids at consumer premises.

Commission's analysis

9.15 The Commission appreciates the steps taken by the Petitioner to reduce Distribution losses in its area of operation, but it is matter of grave concern that the actual level of Distribution losses submitted by the Petitioner are still far exceeding the norms set by the Commission. The Commission is of the view that such high loss levels due to Petitioner's inefficiency cannot be passed on to the consumers.

9.16 In compliance to the APTEL's direction 10 in appeal no. 129 of 2007, the Commission, while issuing the Tariff Order for FY 2010-11, had directed the Petitioner to submit its own loss reduction trajectory but the Petitioner failed to respond. In these circumstances, the Commission was compelled to work out a loss reduction trajectory for the Petitioner to achieve the Transmission & Distribution loss level of 15% by the end of FY 2016-17. The Commission has also reiterated the same loss reduction trajectory in the 'Distribution Tariff Regulations, 2010'. It is pertinent to mention here that the Distribution Tariff Regulations 2010 were notified after wide consultations with all the stakeholders including the Petitioner.

9.17 Therefore, continuing with its approach from the previous Tariff Order for FY 2011-12, the Commission approves the overall Transmission & Distribution losses at 19% on the basis of the loss reduction trajectory set in the 'Distribution Tariff Regulations, 2010'. Since the Transmission losses have been approved at 5%, the distribution losses approved by Commission for FY 2011-12 are 14.74%, computed on the basis of energy input at T&D interface and transmission loss of 5%.

Energy Requirement

Petitioner's submission

9.18 The Petitioner submitted the total energy requirement of 9427.04 MU on the basis of projected level of intra-state Sales and T&D losses for FY 2011-12.

Commission's analysis

9.19 Based on the approved sales estimates of 6790.46 MU and T&D loss of 19.0% approved by the Commission, the total energy requirement for intra-state consumers for FY 2011-12 comes out to be of 8383.29 MU.

9.20 In addition to above, the Petitioner is allowed an additional power purchase of 405.53 MU for inter-state sale of power, on the basis of the latest information provided by the Petitioner in this regard. Thus, the total energy requirement including inter-state sale approved by the Commission for FY 2011-12 is 8788.82 MU, as tabulated hereunder:

Table 188 : Approved Energy Requirement for FY 2011-12

Particulars	Approved in Previous Tariff Order	Approved now by JSERC
Energy sales to intra-state consumers (MU)	6,776.2	6,790.46
Target T&D Loss (%)	19.0%	19.0%
Transmission Loss	5%	5.0%
Energy at T&D Interface (MU)	7,133	7,147.86
Distribution Loss (on basis of 19% T&D loss and 5% Transmission loss)	14.7%	14.7%
Total Energy Required for Intra-state sale of power	**8,365.7**	**8,383.29**
Inter State Sales (MU)	785	405.53
Total Energy Requirement (MU)	**9,150.7**	**8,788.82**

Power Purchase

Petitioner's submission

9.21 The Petitioner has firm allocations of power from thermal power plants of NTPC, TVNL and DVC and Hydel Power Plants of NHPC and through PTC. In addition to these sources, the Petitioner also has an interconnection point with the WBSEB from where it draws power and it also has a short-term allocation of 100 MW from DVC which is available on Round the Clock (RTC) basis.

9.22 The Petitioner submitted that the cost of power from each source for the FY 2011-12 has been based on the actual cost incurred/bills received for the period April'2011 to October'2011 and for the remaining five months the projections has been made based on the growth in power purchase.

9.23 The Petitioner submitted that the increased cost of power purchase for FY 2011-12 is attributed to steep growth in per unit power purchase cost for NTPC plants allocated to JSEB, which is beyond the control of the Petitioner; also power purchase requirement during the last five months is more as compared to first seven month of the financial years.

9.24 The Petitioner has taken quantum of power purchased from renewable sources as approved by the Hon'ble JSERC in the Tariff Order for FY 2011-12. However, the Petitioner also submitted that as of now it is unable to fulfil the obligation as under JSERC (Renewable Purchase Obligation and its Compliance) Regulations, 2010 for FY 2011-12. The Petitioner submits that it is exploring the opportunities for purchasing the power from renewable sources. The developments on the same are at nascent stage thus making it difficult for the Petitioner to meet the renewable purchase obligation as set by the Commission.

9.25 The Power Purchase Cost submitted by the Petitioner in the Tariff Petition for FY 2011-12 is Rs 3576.33 Cr. The Petitioner submitted the source-wise break up of Quantum and cost, the details of which are given below:-

Table 189: Proposed Power Purchase rate, quantum and cost for FY 2011-12

Source	Unit Rate (Rs/kWh)	MUs	Amt. (Rs Cr)
Farakka	4.97	1076.97	534.84
Kahalgaon	4.58	320.25	146.53
Kahalgaon II	4.34	168.82	73.30
Talcher	2.90	680.74	197.15
WBSEB	7.15	51.92	37.14
DVC	4.40	3300.12	1451.55
Rangit(NHPC)	1.52	33.24	5.06
Teesta(NHPC)	1.34	243.22	32.60
Chukha *	1.59	225.06	41.50
TVNL	2.39	2164.66	517.35
UI Payable *	2.42	207.35	(31.03)
PTC (Tala HEP)	1.84	408.68	75.20
PTC ST	3.62	28.00	10.00
DVC (ST)	2.77	877.68	243.12
Tata power	3.90	3.28	1.28
Solar	5.50	48.70	26.79
Other Renewables	5.00	243.60	121.80
Own Generation		600.95	
PGCIL	-	-	74.90
ERLDC	-	-	17.26
Net Purchase/ Cost	**3.55**	**10082.29**	**3576.33**

Note: *The figures are taken from the additional information and the UI data submitted by the Petitioner

Commission's analysis

9.26 The Commission after scrutinising the Petition noticed that the Petitioner while totalling the power purchase cost has not considered the short-term power purchase quantum and cost from PTC. The error was corrected by the Petitioner and the same was considered by the Commission while approving the power purchase quantum, subject to true-up once the actual figures will be submitted by the Petitioner along with the next Tariff Petition.

9.27 The Commission further asked the Petitioner to submit month-wise actual power purchase units and cost for FY 2011-12. However, the Petitioner submitted random power purchase bills for FY 2010-11 and FY 2011-12 for verification. The Commission again enquired from the Petitioner the discrepancies found in power purchase details and directed to submit the actual bills on which the Petitioner requested the Commission to visit the Board's office to verify the power purchase bills. The representatives of the Commission visited the Board's office and verified the data by randomly cross-checking the bills and further asked the Petitioner to submit the power purchase details as checked.

9.28 However, the Petitioner did not submit any information except for the monthly power purchase figures from ERPC (Eastern Regional Power Committee) website and actual UI (Unscheduled Interchange) payable and receivable details.

9.29 Further, the Petitioner also filed the FPPPA (Fuel Price and Power Purchase Adjustment) Petition for adjustment of actual fuel & power purchase cost for the period October to December 2011 on 4th May 2012 and for the period January-March 2012 on 15th June 2012 along with power purchase bills for FY 2011-12 for the aforesaid periods as verified from the ERPC data. However as the Petitioner's Tariff Petition for the ARR & Tariff determination for Distribution function for FY 2012-13 was already under scrutiny at that time, the Commission has processed the FPPPA petition for last two quarters of FY 2011-12 along with the ARR and Tariff Petition. The review of Power Purchase Cost for FY 2011-12 (including period of Oct to Dec. 2011 & Jan. to Mar. 2012) has been undertaken on the basis of actual data submitted by the Petitioner as additional data from the ERPC Website.

9.30 However the power purchase cost pertaining to first half of FY 2011-12 is subject to true-up once the actual figures are submitted by the Petitioner in its next Tariff Petition.

9.31 Further with respect to the purchase from renewable sources to meet the Renewable Purchase Obligation (RPO), the Petitioner has not made any purchase of power or Renewable Energy Certificates (RECs) to meet its target. The Commission takes note that the Petitioner could not purchase RECs to meet its RPO obligation for the year even though such RECs are readily available on power exchanges and have been used as a tool by other distribution licensees in the state to meet RPO target. Further the Commission is of the view that since the other licensees are making efforts and are able to meet their RPO targets, the Petitioner should also make efforts to do so.

9.32 In view of above, the Commission has decided that the entire quantum of RPO target as approved by the Commission for FY 2011-12 i.e. 292 MU will be carried forward to next year. The markets for RECs are growing and further many Solar & other RE developers are in the process of setting up their plants in Jharkhand; the Commission is of the opinion that the Petitioner shall be able to meet the unmet RPO target for FY 2011-12 along with the target for FY 2012-13. Thus the Commission carries forward the RPO target of 292 MU (49 MU from Solar & 243 MU from non-solar sources) for FY 2011-12 to be added to the FY 2012-13 targets for RPO for the Petitioner.

9.33 Accordingly, the source-wise power purchase approved by the Commission for FY 2011-12 is depicted in the table given below:

Table 190: Approved Power Purchase Quantum, Rate and Cost for FY 2011-12

Source	Power Purchase Approved in Previous Year (Rs Cr)	Unit Rate (Rs/kWh)	Total MUs approved in this Order	Power Purchase Approved in this Order(Rs Cr)
Farakka	408.9	5.93	901.77	447.83
Kahalgaon	66.5	7.17	204.48	93.56
Kahalgaon II	37.2	5.86	125.01	54.28
Talcher	226.2	3.66	539.09	156.13
WBSEB	34.4	7.15	51.92	37.14
DVC	1004.0	4.40	3300.12	1451.55
Rangit(NHPC)	7.7	1.11	45.48	6.92
Teesta(NHPC)	43.4	1.05	310.59	41.63
Chukha	32.0	2.25	184.11	33.95
TVNL	596.8	2.39	2164.66	517.35
UI Payable	0.0	(1.50)	207.35	(31.03)
PTC (Tala HEP)	75.0	1.93	390.41	71.84
PTC ST	0.0	3.57	28.00	10.00
DVC (ST)	41.7	2.77	877.68	243.12
Tata power	-	3.89	3.28	1.28
Solar	26.8	5.50	0	0
Other Renewables	121.8	5.00	0	0
PGCIL	66.5	-	-	74.90
ERLDC	1.2	-	-	17.26

Net Purchase/ Cost from other Source	**2640.6**	**3.46**	**9333.94**	**3227.70**
Own Generation	-	-	600.95	-*
Net Power Purchase (including own generation)	**2640.6**	**-**	**10535.84**	**-**
Disincentive for non-achievement of T&D loss	**535.5**	**-**	**1146.07**	**402.81**
Power Purchase allowed	**2105.0**	**-**	**8788.82**	**2824.89**

Note: * The Generation cost has been separately determined in the ARR for Generation Business in section 7 of this Order.

Disincentive for non-achievement of T&D loss reduction Targets

Petitioner Submission

9.34 The Petitioner has submitted that it is making all efforts to reduce the losses and has requested the Commission to no deduct any amount on account of the Disincentive for non-achievement of T&D loss reduction Targets.

Commission's analysis

9.35 The difference in the actual power purchase and the power purchase requirement approved by the Commission is considered as the 'Disincentive for non-achievement of T&D loss targets'.

9.36 In the previous Tariff Order for FY 2011-12, the Commission had computed the disincentive for non-achievement of T&D loss reduction targets from FY 2006-07 onwards, on the basis of the T&D Loss reduction trajectory set for the respective years. As per the trajectory, the T&D loss reduction target for FY 2011-12 was set at 19.0% on which the Petitioner submission is that it will not be able to achieve the trajectory set by the Commission. Accordingly, as already discussed in Paras 9.15 & 9.17 of this Tariff Order, the Commission has approved the loss levels for FY 2011-12 at 19% and computed the disincentive for non-achievement of T&D loss reduction targets at Rs 365.55 Cr for FY 2011-12, as shown below:

Table 191: Disincentive for non-achievement of T&D loss reduction target for FY 2011-12

Description	Unit (MU)	Per Unit (Rs/kWh)	Cost (Rs Cr)
Power purchased from outside sources	9333.94	3.46	3227.70
Own Generation	600.95	-	-
Power purchase including own generation	10535.84	-	3227.70
Disincentive for non-achievement of T&D loss reduction target	**1146.07**	**3.51***	**402.81**

Note: * Provisionally determined on basis of power purchase from long-term sources. The rate shall be trued up as per actual power purchase expenditure on basis of audited accounts for FY 2011-12.

Other Fixed Cost Components

Operational & Maintenance Expenses

Employee Cost

Petitioner's Submission

9.37 The Petitioner in the Tariff Petition submitted the employee cost of Rs 352.87 Cr for FY 2011-12. The Petitioner further submitted that the employee expenses proposed for FY 2011-12 are based on actual employee expenses for first eight (8) months of FY 2011-12. It has also submitted that the there is a substantial increase in the employee expenses in FY 2011-12 owing to the following reasons:

(a) The annual increment including 3% in basic and 18% increase in DA thereon;

(b) While the JSEB had started paying sixth pay Commission salaries with effect from May, 2009, pensions continued to be on the old salaries, which are now being paid as per the revised salaries along with arrears for the period May, 2009 onwards.

(c) Several employees have approached for commutation of pension which has led to increase in employee expenses for the year 2011-12.

(d) Payment of VIth Pay Commission arrears to the entire employee and the pensioners of the Board during FY 2011-12 in three installments (30%, 30%, 40%).

9.38 The following table summarises the projected employee cost for the Distribution function as submitted by the Petitioner for FY 2011-12.

Table 192: Proposed Employee cost for FY 2011-12

Particulars	Amount
No. of Employees	3522
Employee cost	352.87

Commission's analysis

9.39 The Commission has projected the employee cost for FY 2011-12 for JSEB as whole as per the methodology approved in para 7.38 of this Tariff Order. Further, the total employee cost is then disaggregated between Generation (thermal & hydel), Transmission and Distribution functions of JSEB in the ratio of number of employees as also proposed by the Petitioner.

9.40 Accordingly the Commission has approved Rs. 265.44 Cr as employee cost for Distribution function of JSEB for FY 2011-12.

Repair & Maintenance (R&M) Expenses

Petitioner's submission

9.41 The Petitioner, in the ARR & Tariff Petition for FY 2012-13 submitted the revised estimates for the R&M cost at Rs 42.26 Cr for FY 2011-12.

9.42 The Petitioner submitted that it has considered the actual trend of expenses observed over the period FY 2006-07 to FY 2010-11.

9.43 The following table summarises the disaggregated R&M expenses submitted by the Petitioner for FY 2011-12:

Table 193: Proposed R&M expenses for FY 2011-12 (Rs Cr)

Particulars	Amount
R&M Expenses	42.26

Commission's analysis

9.44 The Commission has approved the R&M expenses for Distribution function of JSEB for the FY 2011-12 at 2.22% (as per the methodology given in para 7.41 of this Tariff Order) of the opening GFA for each year as summarised in following table.

Table 194: Approved R&M cost for Distribution function for FY 2011-12

Particulars	Amount (Rs Cr)
Opening GFA	1,156
R&M as percentage (%) of GFA	2.22%
R&M Cost	**25.63**

Administrative & General Expenses

Petitioner's submission

9.45 The Petitioner in the Tariff Petition submitted the A&G expenses of Rs 33.42 Cr for FY 2011-12 considering an escalation rate of 9.0% based on the combination of the Consumer Price Index (CPI) and the Wholesale Price Index (WPI) over the year FY 2010-11. The following table summarises the disaggregated A&G cost and number of employees engaged in each function submitted by the Petitioner for FY 2011-12.

Table 195: Proposed A&G expenses for FY 2011-12

Particulars	Amount (Rs Cr)
No. of employees	3522
A&G Cost	33.42*

Note: * This is revised figure submitted by the Petitioner in additional information

Commission's analysis

9.46 The Commission has approved the A&G expenses for Distribution function of JSEB for FY 2011-12 by escalating the actual A&G cost approved for FY 2010-11 by 8.40% p.a. (i.e. weighted average of WPI & CPI during past 5 years in ratio of 80:20, respectively) subject to final true up based on audited annual accounts. Accordingly the Commission approves Rs.33.24 Cr as the A&G cost for Distribution function for FY 2011-12 subject to final true up based on audited annual accounts.

9.47 The total approved O&M expenses for Distribution function of JSEB for FY 2011-12 has been summarised in following table:

Table 196: Approved O&M expenses for Distribution Function for FY 2011-12 (Rs Cr)

Particulars	Approved in previous Tariff Order	Approved now by JSERC
Employee Expenses	184.5	265.44
R&M Expenses	23.54	25.63
A&G Expenses	29.0	33.24
Total O&M Expenses	**237.04**	**324.31**

Capital Expenditure & Capitalisation

Petitioner's submission

9.48 The Petitioner submitted investments related to distribution system improvement have been funded mostly through PFC/ REC loan and loan from the State Government under state plan. The Petitioner further submitted that it has taken up substantial IT and network strengthening related works under the Part-A and Part-B of the R-APDRP scheme introduced by the Ministry of Power for the distribution function.

9.49 The Petitioner submits that it has undertaken large scale electrification works under the centrally funded RGGVY Scheme which is aimed at creation of Rural Electrification Backbone (REDB), electrification of villages and providing electricity connectivity to 100% BPL households. The scheme is being implemented by NTPC, DVC and the Petitioner in the entire State with a revised estimated cost of Rs 3534.9 Cr. The planned capital expenditure and the proposed capitalisation during FY 2011-12 as submitted by the Petitioner has been summarized in the following below:-

Table 197: Capital Expenditure Plan for FY 2011-12 (Rs Cr)

Plan Outlay/ Proposed Schemes	Capex	Capitalisation
Distribution	977.85	511.92

Commission's analysis

9.50 The Commission asked the Petitioner to submit the segregated scheme-wise details of actual expenditure incurred and additions to GFA made under distribution function for FY 2011-12. It also directed the Petitioner to provide scheme wise capex details, actual status of the scheme and likely date of completion for each scheme. The Petitioner in its reply submitted the revised additions to GFA under distribution function but showed its inability in submitting segregated scheme-wise details of actual expenditure, status of the scheme and completion schedule.

9.51 The Commission after analysing the submission by the Petitioner approves the capital expenditure (Capex) plan as per the submission by the Petitioner for FY 2011-12. Further, the Commission noted that the Petitioner have been able to capitalise only 25% of its total opening CWIP and GFA additions during previous year. Hence, the Commission approved capitalization of Rs 467.34 for FY 2011-12 (i.e. 25% of the sum of opening CWIP of Rs 891.51 Cr & approved capex during the year of Rs 977.85 Cr).

9.52 However, the approved Capex and capitalization figures shall be subjected to true up once the annual accounts are submitted for FY 2011-12 with the next Tariff Petition.

9.53 The capital expenditure plan as approved by the Commission has been summarised in the following table:

Table 198: Capital Expenditure Plan and capitalisation for FY 2011-12

Plan Outlay/ Proposed Schemes	Capex	Capitalization
Distribution	977.85	467.34

Gross Fixed Asset

Petitioner's submission

9.54 The Petitioner submitted closing GFA of Rs 1667.65 Cr for FY 2011-12 as given below:

Table 199: GFA for distribution function as submitted by the Petitioner (Rs Cr)

Particulars	FY 2011-12
GFA for Distribution Function	1667.65*

Note: *Revised as per additional information submitted to the Commission

Commission's analysis

9.55 The Commission found that the GFA additions submitted by the Petitioner are not matching with the capitalisation done during the year. Hence, the Commission directed the Petitioner to verify the figures submitted by it on which the Petitioner in its reply submitted the revised figures. The Commission after scrutinising the details submitted by the Petitioner, approves the Gross Fixed Asset (GFA) and Net Fixed Asset (NFA) of Rs 1623.07 and 1372.08 Cr respectively for FY 2011-12.

Table 200: Approved GFA for FY 2011-12 (Rs Cr)

Particulars	FY 2011-12
Opening GFA	1155.73
Additions in GFA	467.34
Closing GFA	1623.07
Less: Accumulated depreciation	250.99
Net Fixed Assets	**1372.08**

9.56 For funding of above GFA, the Commission has considered the normative debt equity ratio of 70:30 as provided in the 'Distribution Tariff Regulation, 2010'. Meanwhile, in line with the methodology adopted in Tariff Order for FY 2011-12, the consumer contribution grants and subsidies for capital assets are first netted off from gross fixed assets and the normative debt equity ratio is applied on the remaining GFA only.

9.57 The Petitioner has not provided any details of addition in consumer contribution, grants and subsidies for capital assets in its Tariff Petition for FY 2011-12. Therefore, the Commission has estimated the addition during FY 2011-12 on the basis of past trend. The normative net loans are estimated after deducting accumulated depreciation from the value of gross loans. Thus the approved sources of funding for the NFA for FY 2011-12 is tabulated hereunder:

Table 201: Approved Sources for FY 2011-12 (Rs Cr)

Approved Sources	FY 2011-12
Consumer contribution, grants and subsidies deployed in GFA	938.92
Equity	205.25
Loan	227.92
Total NFA	**1372.08**

9.58 The Commission notes with concern that the Petitioner is diverting its long-term fund for the purposes of meeting its deficit caused due to its own inefficiencies. The Commission directs the Petitioner to avoid the diversion of funds meant for creating long-term assets. In accordance with the Tariff Regulations issued by the Commission in 2010, the Petitioner is entitled to the return on funds actually deployed in usable assets, as tabulated hereunder:

Table 202: % of return on approved sources of funds for FY 2011-12 (Rs Cr)

Approved Sources	Return
Consumer contribution, grants and subsidies deployed in GFA	0%
Equity	15.50%
Loan	13%

Return on Equity (RoE)

Petitioner's submission

9.59 The Petitioner submitted that the equity for the purpose of calculating Return on Equity (RoE) has been calculated in accordance with the approvals made by the Commission in FY 2011-12 Tariff Order and the Terms and Conditions of Distribution Regulations, 2010; normative equity of 30% is estimated by taking the gross fixed assets less consumer contribution. Accordingly, the Petitioner has proposed Rs 63.44 Cr as RoE for FY 2011-12.

Commission's analysis

9.60 As per the Distribution Tariff Regulations, 2010, the rate of return on equity for the transition period shall be considered at post-tax rate of 15.50% p.a. Further the regulations also provide that the normative income tax shall be limited to return on equity. As there is no tax liability of the Petitioner in Distribution Business, the Commission has considered the above mentioned rate of 15.50% and based on the methodology mentioned in Paras 9.56 to 9.58 of this Tariff Order, and accordingly has approved the RoE of Rs 22.17 Cr for FY 2011-12, as tabulated hereunder:

Table 203: Approved Return on Equity for FY 2011-12 (Rs Cr)

Particular	Approved in previous Tariff Order	Approved now by JSERC
Opening Balance of Normative Equity	-	80.76
Deemed Additions	-	124.49
Closing Balance of Normative Equity	327.68	205.25
Average Equity	**-**	**143.0**
Return on Equity (%)	19.36%	15.50%
Return on Equity	**63.44**	**22.17**

Interest and Finance Charges

Petitioner's submission

9.61 The Petitioner in the ARR & Tariff Petition for FY 2012-13 submitted the interest on loans as Rs 278.65 Cr for FY 2011-12 as given in the following table:

Table 204: Interest & Finance Charges (Rs Cr)

Interest Expenses	FY 2011-12
Interest on normative Loan	554.42
Less: IDC	156.34
Net Interest	398.08
Interest considered for ARR (70%)	278.65

Commission's analysis

9.62 On the basis of the methodology mentioned in Paras 9.56 to 9.58 of this Tariff Order, the Commission estimates the aggregate interest and other finance charges at Rs 13.90 Cr for FY 2011-12, as given in the following table:

Table 205: Approved Interest & Finance Charges (Rs Cr)

Particulars	Approved now by JSERC
Closing Balance of normative loan	227.92
Average Loan	106.94
Interest Expense @ 13%	**13.90**

9.63 The Commission shall true-up the interest and finance charges, based on the above mentioned methodology, once the annual accounts for the respective years are submitted by the Petitioner.

Interest on Working Capital

Petitioner's submission

9.64 The Petitioner submitted the interest on Working Capital as per the 'Distribution Tariff Regulation, 2010'. Accordingly, 1/12th of O&M, maintenance spares at 1% of opening GFA, two months expected revenue from sale of power at existing tariff minus amount held as security deposits minus one month equivalent of cost of power purchase has been considered for calculation of working capital.

9.65 The Petitioner submitted that the interest on working capital is calculated at the bank rate.

Table 206 : Interest on Working Capital submitted by the Petitioner for FY 2011-12 (Rs Cr)

Particulars	FY 2011-12
1 month O&M	35.71
Maintenance Spares	9.87
Receivables	733.89
Less: 1 month cost of power purchase	300.94
Less: Security Deposit from Customers	195.72
Total Working Capital requirement	**282.81**
Interest on Working Capital @ 13%	**36.77**

Commission's analysis

9.66 The Commission has considered the interest on working capital as per the norms specified in the 'Distribution Tariff Regulations, 2010', for computing the interest on working capital for the distribution function.

9.67 The 'Distribution Tariff Regulations, 2010' states that the interest on Working capital during the transition period shall be calculated on the basis of the following:

(a) One-twelfth of the amount of Operation and Maintenance expenses for such financial year; plus

(b) Maintenance spares at 1% of Opening GFA; plus

(c) Two months equivalent of the expected revenue from sale of electricity at the prevailing tariffs; minus

(d) Amount held as security deposits under clause (a) and clause (b) of subsection (1) of Section 47 of the Act from consumers and Distribution System Users; minus

(e) One month equivalent of cost of power purchased, based on the annual power procurement plan.

9.68 The Commission while computing the Interest on Working Capital found that security deposit and power purchase cost, which are to be deducted from the other components of working capital, are higher than the cost elements of working capital, and that the Petitioner used consumer security deposits as source of funds and the working capital was negative. Thus, the Commission has not allowed any interest on working capital for the distribution business.

Interest on Consumer Security Deposit

Petitioner's submission

9.69 The Petitioner has proposed the Interest on consumer security deposits (CSD) in accordance with 'Jharkhand Electricity Supply Code Regulations, 2005'. The interest on CSD has been calculated at an interest rate of 6%.

9.70 The Petitioner has projected the Consumer Security Deposit on the basis of 5 year actual CAGR observed during the period 2005-06 to 2010-11. The interest on CSD for each of the years has been considered at the average of opening and closing balance of CSD. The interest on security deposit has been proposed at Rs 12.52 Cr for FY 2011-12.

Commission's analysis

9.71 In accordance with the 'Jharkhand Electricity Supply Code Regulations, 2005', the Commission approves the interest on consumer security deposits on the basis of the interest rate of 6% subject to final true up based on the prevailing RBI bank rate. The Commission has considered the Consumer Security Deposit on the basis of the past trend of contribution and accordingly an amount of Rs 14.50 Cr has been approved for FY 2011-12.

Depreciation

Petitioner's submission

9.72 The Petitioner submitted the revised estimated depreciation of Rs 50.50 Cr for FY 2011-12 as given below:

Table 207 : Depreciation submitted by the Petitioner for FY 2011-12 (Rs Cr)

Particulars	FY 2011-12
Depreciation	50.50

Commission's analysis

9.73 The Commission has scrutinized the depreciation expenses submitted in the petition and found it to be in line with the earlier methodology followed for approval of depreciation. The Petitioner has considered the average depreciation rates for each category of assets under Distribution function for the past five (5) years i.e. from the period of FY 2006-07 to FY 2010-11.

9.74 The depreciation charge as calculated on the above basis is proportionately reduced by the amount of depreciation on assets funded from capital contribution, grants and subsidies, to arrive at the net depreciation charge for distribution function.

9.75 The calculation of depreciation charges approved by the Commission for FY 2011-12 is detailed in the table given below:

Table 208 : Depreciation approved for FY 2011-12 (Rs Cr)

Particulars	Approved in previous Tariff Order	Approved now by JSERC
Depreciation	54.2	48.52

9.76 As per the above calculations, the Commission approves the depreciation charges of Rs 48.52 Cr for distribution function for FY 2011-12.

Non Tariff Income (NTI)

Petitioner's submission

9.77 The Petitioner in its submission stated that it has adopted the same approach of realisable D.P.S @ 10% of the total D.P.S. as non-tariff income for the purpose of ARR for FY 2012-13. The details of non-tariff income submitted by the Petitioner for FY 2011-12 is given in the following table:

Table 209: Non Tariff Income submitted by the Petitioner (Rs Cr)

Particulars	FY 2011-12
Interest on Staff Loan & Advance	0.00
Income from Investment (F.D)	5.81
Interest on loans and advances to licensee	0.14
D.P.S from Consumer	24.08

Interest on advance to Supplier/Contractor	0.22
Interest from Bank (Other then F.D)	0.39
Income from trading	0.44
Income from staff Welfare Activities	0.01
Miscellaneous Receipt.	44.77
Meter Rent	5.48
Miscellaneous Charges from Consumers	(3.01)
Total	**78.32**

Commission's analysis

9.78 The Commission views the delayed payment surcharge (DPS) should be considered as per the policy followed for DPS in accounts. In view of this, the Commission has considered DPS from consumers for FY 2011-12 as per the audited accounts for FY 2010-11 subject to true-up once the actual audited accounts will be submitted by the Petitioner. Accordingly, after scrutinizing other components submitted by the Petitioner, the Commission has approved the Non-Tariff Income of Rs 239.72 Cr for FY 2011-12.

9.79 The component-wise break-up of approved Non-Tariff Income for FY 2011-12 is summarised in the table given below:

Table 210: Approved Non Tariff Income (Rs Cr)

Particulars	Approved in Previous Tariff Order	Approved now by JSERC
Interest on Staff Loan & Advance	0.00	0.00
Income from Investment (F.D)	6.0	5.81
Interest on loans and advances to licensee	0.00	0.14
D.P.S from Consumer	308.0	185.47
Interest on advance to Supplier/Contractor	0.00	0.22
Interest from Bank (Other then F.D)	0.4	0.39
Income from trading	0.5	0.44
Income from staff Welfare Activities	0.0	0.01
Miscellaneous Receipt.	47.4	44.77
Meter Rent	-	5.48
Miscellaneous Charges from Consumers	-	(3.01)
Total	**361.9**	**239.72**

Provision for Bad & Doubtful Debts

Petitioner's submission

9.80 The Petitioner has stated that it shall make all efforts to achieve 100% collection efficiency during 2010-11 in accordance with the applicable JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2010. However, it is submitted that while other utilities in the State have enjoy a favourable consumer mix and operate in limited supply areas, the Petitioner submitted that it is the distribution Licensee for the entire State of Jharkhand including rural and far flung areas. The Petitioner has requested the Commission to relook the target of 100% collection efficiency given by the Hon'ble Commission for all Petitioners in the State consideration the ground realities of difference in consumer mix and the geographical spread of its license area.

9.81 The Petitioner has further submitted that it shall submit its petition for truing-up of provision for bad debts, if any for the purpose of truing-up based on actual, after finalization of annual accounts for FY 2011-12 and FY 2012-13.

Commission's analysis

9.82 The Commission views that it is the obligation of the Petitioner to supply power to the consumers as per their requirement. Similarly, it is the responsibility of the Petitioner to ensure that it collects the amount for energy billed and supplied to the consumers In case the consumers do not pay, the Petitioner has full right to disconnect the supply by following requisite procedures. However, if the Petitioner is not able to collect the amount billed from any consumer, it has no right to pass on its inefficiency to the paying consumers. The collection efficiency of 100% is fixed in the 'Distribution Tariff Regulations, 2010'. In view of the above, the Commission disallows any provision for doubtful debt.

Revenue from Existing Tariff

Petitioner's submission

9.83 The Petitioner submitted revenue at existing tariffs at Rs 2420.30 Cr for FY 2011-12.

Commission Analysis

9.84 The Commission has approved the revenue at existing tariffs as per the approved sales and the applicable energy and demand charges for FY 2011-12. The revenue at existing tariff is computed at Rs 2468.67 Cr along with the revenue of Rs 83.13 Cr from inter-state sale to consumers.

9.85 The Commission has also considered a resource gap of Rs. 450 Cr for FY 2011-12, in line with the resource gap received by the Petitioner for FY 2010-11. The Commission would true up the amount of resource gap as per the audited accounts of FY 2011-12.

Summary of ARR for Distribution Business for FY 2011-12

9.86 The summary of ARR for distribution Business as submitted by Petitioner and as approved by the Commission for FY 2011-12 is summarised in the following table:

Table 211: Summary of the ARR for Distribution Function for FY 2011-12 (Rs Cr)

Annual Revenue Requirement	ARR approved in Previous Tariff Order	Submitted by the Petitioner for FY 2011-12	Approved now by JSERC
Power Purchase	2640.6	3,611.23	2,824.89
Employee	184.5	352.87	265.44
Repair & Maintenance	23.5	42.26	25.63
Admin & General	29.0	33.42	33.24
Interest and financing charges	24.8	278.65	13.90
Interest on working capital	2.75	36.77	-
Depreciation	54.2	50.50	48.52
Provision for bad & doubtful debts	0.0	-	-
Interest on consumer security deposit	12.2	12.52	14.50
Less: Disincentive for T&D Loss	535.5	-	-
Total Distribution Costs	**2436.0**	**4,418.23**	**3,226.12**
Reasonable return/RoE	77.2	63.44	22.17
Less: Non Tariff Income	(361.9)	(78.32)	(239.72)
ARR	**2151.3**	**4,403.35**	**3008.56**
Thermal ARR	341.4		245.92
Hydel ARR	18.8		19.43
Transmission ARR	77.9		133.12
Total ARR	**2589.4**		**3,407.04**
Revenue from SoP	2136.8	2,420.30	2468.67
Revenue from inter-state sales	-		83.13
Revenue Gap	**452.1**	**1983.05**	**855.24**
Resource Gap	**-**		450
Net Gap	**452.1**		**405.24**

9.87 The Commission approves the net revenue gap of Rs 405.24 Cr for FY 2011-12.

Tariff Determination for Distribution Function for FY 2012-13

9.88 This section details the component-wise Petitioner's submission and Commission's analysis for the Tariff Petition and ARR for FY 2012-13.

9.89 The Commission carried out the projections based on the information submitted by the Petitioner although; the same shall be revised when the provisional annual accounts are made available by the Petitioner.

Energy Sales

Petitioner's Submission

9.90 The Petitioner proposed the total energy sales of 7831.94 MUs for FY 2012-13 by applying growth rate on the estimated sales figures for FY 2011-12 (RE) for the intra-state consumers. For all the categories, the Petitioner has considered category-wise CAGR for past 5 years for projections for FY 2012-13. The inter-state sales have been considered at 600 MUs. The net energy sale is submitted at 8431.94 MUs.

9.91 The Petitioner has proposed the additions to the Kutir Jyoti category as per its base case considerations for the purpose of projecting sales growth.

9.92 The Petitioner provided sales for FY 2012-13 (projections) for each of the consumer/tariff categories as per the following table:

Table 212: Projected number of Sales for FY 2012-13

Category of Consumer	5 Year CAGR applied by JSEB	Sales projected by the Pettitioner (MUs)
Domestic	22.5%	3753.00
Non domestic	15.0%	424.69
Low Tension	8.9%	178.27
Irrig. & Agricultural	2.9%	72.48
HT Service	6.6%	1794.76
HT-special Service	6.6%	716.39
Railway Traction	6.6%	696.86
Street Lgt. Service	12.0%	177.76
MES	6.6%	17.73
Total Intra-state sales		**7831.94**
Inter-state sale	-	600
Overall/ Total	**-**	**8431.94**

Commission's Analysis

9.93 The Commission has projected the energy sales for FY 2012-13 using the method adopted by the Petitioner and applying 4 year category-wise CAGR on the approved sales of FY 2011-12. The Commission has also allowed the inter-state sales of 600 MUs, after scrutinizing the details submitted by the Petitioner. The net energy sales approved at 8400.57 MUs, as shown below:

Table 213: Approved Energy Sales (MU)

Category	4 Year CAGR applied by the Commission	Approved Energy Sales for FY 2012-13
Domestic	22.63%*	3756.64
Commercial	15.05%*	428.01
Public Lighting	27.40%	202.12
Irrigation	0.79%	70.98
MES	-36.12%	10.63
Low-Tension Industrial & Medium Power Services	5.98%	173.54
High Tension Voltage Supply Service (HTVSS)	7.37%	2461.03
Railway	6.75%*	697.61
Bulk Supply	-	-
Energy Sales to Intra state Consumers	**-**	**7800.57**
Inter-state sale	-	600.00
Net Energy Sales	**-**	**8,400.57**

Note: *The Commission has applied 5 year CAGR to arrive at Sales for FY 2012-13 for these consumer categories

Distribution Losses

Petitioner's submission

9.94 The Petitioner stated that the losses for the FY 2012-13 have been projected taking into consideration the recommendations of the Abraham Committee Report on restructuring of the APDRP. Accordingly, a reduction of over 2% with respect to the distribution losses assessed in the year FY 2009-10 has been proposed by the Petitioner.

9.95 The Petitioner submitted that the power purchase/ energy input required for the FY 2012-13 have been worked out in the reverse manner considering the sales, targeted distribution loss reduction and the past trend of losses observed in the system at higher levels including state level transmission system and that in the regional/ inter-regional transmission systems beyond the State boundaries.

9.96 The following table summarises the overall distribution loss levels submitted by the Petitioner for FY 2012-13:-

Table 214: Distribution losses submitted by the Petitioner

Description	FY 2012-13
Power Purchase from Outside JSEB Boundary	6,696.73
Loss in external systems (%)	3.04%
MU's lost in external system	203.58
Net Outside State Power Purchase	6,493.15
Energy Input Directly to State Transmission System	838.19
Own Generation	772.04
UI Payable	237.11
Energy available for onward transmission	8,340.49
Transmission loss (%)	5.0%
Transmission loss (MUs)	417.02
Net Energy Sent to Distribution (MUs)	7,923.46
Direct input at distribution voltage (33 kV)	3,378.67
Total Energy Available for Distribution	11,302.13
Inter-state sales (MUs)	600.00
Sales (MUs)	8,434.78
Distribution loss (MUs)	2,867.35
Distribution loss (%)	25.37%
Overall T&D Losses	**29.25%**

9.97 The Petitioner submitted that driven by the targets and directives given by the Hon'ble Commission, the JSEB has made concerted efforts to reduce distribution losses which has already come down significantly during the last three to four years.

9.98 The Petitioner has also stated that, in order to reduce distribution losses and to enforce discipline in the erring consumers, the JSEB has consistently enhanced its focus on conducting raids at consumer premises.

9.99 The Petitioner is also taking the following initiatives to reduce T&D losses in the system:

(a) Tele-metering for HT and LT industrial consumers

(b) Conversion of LT line into Arial Bunch Cable (ABC)

(c) Energy accounting and audit under R-APDRP scheme

(d) Routine maintenance of distribution transformers and power transformers to control technical loss

(e) Tightening of jumpers at power substations

(f) Replacement of gas kit to avoid oil flow from transformer on regular basis

(g) Strengthening of HT and LT Lines

(h) Shortening of LT lines by providing additional pole between the span to maintain HT-LT ratio.

9.100 The Petitioner further submitted that it is making all efforts to reduce distribution losses by metering of consumers, introduction of AMR/ Remote Metering, introducing spot billing, undertaking network up-gradation/ improvement projects, undertaking R-APDRP projects in 30 towns etc.

9.101 The Petitioner submitted that the significant disallowances on grounds of assumed sales of power in the past Tariff Order issued by Hon'ble Commission had an adverse impact on the revenue of the Petitioner. It also mentioned that such basis is not reflective of the prudent cost of supply calculated in accordance with guiding principles laid by the NTP and the recommendations of Abraham Committee Task Force.

9.102 The Petitioner prayed that the disincentive for non-achievement of Distribution losses be discontinued and reversed with retrospective effect in the current petition for FY 2012-13. As it has not only been adversely impacting the financial viability of the Petitioner but has also encouraged inefficient usage/ wastage of power in the State.

Commission's analysis

9.103 The Commission appreciates the steps taken by the Petitioner to reduce Distribution losses in its area of operation, but it is matter of grave concern that the actual level of Distribution losses submitted by the Petitioner are still far exceeding the norms set by the Commission. The Commission is of the view that such high loss levels due to Petitioner's inefficiency cannot be passed on to the consumers.

9.104 In compliance to the APTEL's direction 10 in appeal no. 129 of 2007, the Commission, while issuing the Tariff Order for FY 2010-11, had directed the Petitioner to submit its own loss reduction trajectory but the Petitioner failed to respond. In these circumstances, the Commission was compelled to work out a loss reduction trajectory for the Petitioner to achieve the Transmission & Distribution loss level of 15% by the end of FY 2016-17. The Commission has also reiterated the same loss reduction trajectory in the 'Distribution Tariff Regulations, 2010'. It is pertinent to mention here that the Distribution Tariff Regulations 2010 were notified after wide consultations with all the stakeholders including the Petitioner.

9.105 The Commission had approved the Transmission losses at 5% for FY 2011-12, in the Previous Tariff for FY 2011-12. Since the transmission network strengthening is yet to take place, the Commission retain the transmission losses at 5% for FY 2012-13. Accordingly, the Distribution losses, after considering the target T&D losses of 18% and transmission losses at 5%, the distribution losses would work out to be 13.68%.

9.106 In view of the above, the Commission approves the distribution losses for FY 2012-13, as detailed hereunder:

Table 215 : Approved Distribution Losses for FY 2012-13

Description	FY 2012-13
Overall T&D loss	18.00%
Transmission Loss	5%
Distribution Loss	13.68%

Energy Requirement

Petitioner's submission

9.107 The Petitioner submitted the total energy requirement of 11094.36 MU on the basis of projected level of Sales (including inter-state sales) and T&D losses for FY 2012-13.

Commission's analysis

9.108 Based on the approved intra state sales projections of 7800.57 MU, inter-state sales of 600.00 MUs and overall T&D loss of 18.00% by the Commission, the total energy requirement during FY 2012-13 is approved at 10112.89 MUs, as shown hereunder:

Table 216 : Approved Energy Requirement for FY 2012-13 (in MU)

Energy Balance	FY 2012-13
Energy sales to intra-state consumers (MU)	7,800.57
Target T&D Loss (%)	18.00%

Transmission Loss	5.00%
Energy at T&D Interface (MU)	8,211.12
Distribution Loss (on basis of 18% T&D loss and 5% Transmission loss)	13.68%
Total Energy Required for Intra-state sale of power	**9,512.89**
Inter State Sales (MU)	600.00
Total Energy Requirement (MU)	**10,112.89**

Power Purchase Cost

Petitioner's submission

9.109 The power purchase cost submitted by the Petitioner in the Tariff Petition for FY 2012-13 is Rs 5046.67 Cr.

9.110 The Petitioner submitted that in accordance with Regulation 5, clause 5.2 of the 'JSERC Renewable Purchase Obligation and its Compliance, Regulations, 2010', it has considered a total purchase of 3% from Renewable/ Non-Conventional energy sources which includes 0.5% from solar power generation plants.

9.111 The Petitioner submitted that it has taken due considerations of the loss reduction targets in accordance with Abraham Committee Recommendations for arriving at the power purchase requirement for the FY 2012-13.

9.112 The Petitioner submitted that the cost of power from various sources for FY 2012-13 is based on the growth in cost observed during the last two years.

9.113 The Petitioner submitted that the increase in power purchase cost for FY 2012-13 is attributed to:

a) Steep growth in per unit power purchase cost for NTPC plants allocated to JSEB, which is beyond the control of the Petitioner;

b) The fuel mix is skewed towards the coal based sources. As per the actual data available for the period of FY 2008-09 to FY 2011-12 (upto Oct'11)

9.114 The Petitioner further submitted that it plans to procure power from solar and other non-renewable sources in FY 2012-13 in compliance of the renewable purchase obligation put forth under JSERC (Renewable Purchase Obligations and its Compliance) Regulations, 2010. In accordance with Regulation 5, clause 5.2 of the Renewable Purchase Obligation and its Compliance, Regulations, 2010, JSEB has to purchase power to the extent of 4% from Renewable/ Non-Conventional energy sources including 1% from solar power generation plants.

9.115 The Petitioner submitted the details of source-wise break up of Quantum and cost. The details of which are given below:

Table 217: Power Purchase Cost Projected by the Petitioner for FY 2012-13

Source	MUs	Amt. (Rs Cr)
Farakka	1340.63	919.09
Kahalgaon	517.18	397.91
Kahalgaon II	231.15	129.89
Talcher	791.17	301.73
WBSEB	-	-
DVC	3,378.67	1,882.00
Rangit(NHPC)	40.44	5.56
Teesta(NHPC)	293.21	34.81
PTC	318.89	53.40
TVNL	2,344.76	605.00
UI Payable	237.11	53.00
Tata Power	3.28	1.28
Power traded through IEX	-	-
PTC (Tala HEP)	408.68	75.00
DVC (ST)	877.68	243.00
Solar	107.22	59.00
Other renewable	321.65	161.00
PGCIL	-	99.00
ERLDC	-	26.00
Purchase/ Cost	**11,211.7**	**5,046.67**

Commission's analysis

9.116 For projecting the power purchase cost for FY 2012-13, the Commission has considered the power purchase projections as submitted by the Petitioner for FY 2012-13 except for the UI payable details. However, the same will be revised along with the next year's Tariff Order once the actual power purchase cost will be submitted by the Petitioner.

9.117 The Commission considered the approved per unit power purchase cost for FY 2011-12 while calculating the power purchase cost for FY 2012-13 which is subject to true-up once the revised figures will be submitted by the Petitioner along with the next Tariff Petition.

9.118 The Commission has also approved the purchase from solar and non-solar sources as proposed by the Petitioner which is 1.0% and 3.08% of the total energy requirement respectively and is in line with the Renewable Purchase Trajectory set by the Commission in its Renewable Purchase Obligation and its compliance Regulations, 2010. In addition to the RPO target for FY 2012-13, the carried forward target for FY 2011-12 of 292 MU (i.e. 49 MU from solar & 243 MU from non-solar sources) has been added to FY 2012-13 RPO targets. Accordingly the total RPO target for FY 2012-13 is 673 MU of which 144 MU has to be purchased through solar sources and remaining from non-solar sources.

9.119 The approved power purchase cost for FY 2012-13 is shown below:

Table 218: Approved Power Purchase Cost for FY 2012-13

Sources	MUs	Amt. (Rs Cr)
Farakka	2587.82	665.77
Kahalgaon		236.64
Kahalgaon II		100.36
Talcher		242.88
DVC	3378.67	1575.27
Rangit(NHPC)	40.44	5.56
Teesta(NHPC)	293.21	34.81
Chukha	257.89	50.41
PTC (ST)	61.00	23.09
TVNL	2344.76	594.02
UI Payable *	0.00	0.00
Power traded through IEX	-	-
PTC (Tala HEP)	408.68	79.71
DVC (ST)	877.68	243.12
Tata Power	3.28	1.35
Solar	143.85	79.12
Other renewable	529.00	264.50
PGCIL	-	98.95
ERLDC	-	26.28
Payable	**10974.59**	**4336.42**
Receivable	0.00	
Purchase/ Cost	**10974.59**	**4336.42**
Own Generation	906.45	
Net Power Purchase (including own generation)	**11881.04**	
Disincentive for non-achievement of T&D loss	**1719.83**	**604.47**
Power Purchase allowed	**10112.89**	**3731.95**

Note: *UI payable to be considered in the next tariff order when actual data will be submitted by the Petitioner

Disincentive for non-achievement of T&D loss reduction Targets

Petitioner Submission

9.120 The Petitioner has submitted that it is making all efforts to reduce the losses and has requested the Commission to no deduct any amount on account of the Disincentive for non-achievement of T&D loss reduction Targets.

Commission's analysis

9.121 The difference in the actual power purchase and the power purchase requirement approved by the Commission is considered 'Disincentive for non-achievement of T&D loss targets'.

9.122 In the previous Tariff Order for FY 2011-12, the Commission had computed the disincentive for non-achievement of T&D loss reduction targets from FY 2006-07 onwards, on the basis of the trajectory set for the respective years.

9.123 As per the trajectory, the transmission & distribution loss reduction target for FY 2012-13 is set at 18.0% whereas the Petitioner has proposed at target of 25.37%. Accordingly, the Commission has computed the disincentive for non-achievement of T&D loss reduction targets at Rs 784.18 Cr for FY 2012-13, as shown below:

Table 219: Disincentive for non-achievement of T&D loss reduction targets

Description	Unit (MU)	Per Unit (Rs/kWh)	Cost (Rs Cr)
Power purchased from outside sources	10974.59	3.97	4336.42
Own Generation	906.45		
Power purchase including own generation	11881.04		
Disincentive for non-achievement of T&D loss reduction targets	**1719.83**	**3.51***	**604.47**

Note: * Provisionally determined on basis of rate as approved for FY 2011-12. The rate shall be trued up as per provisional power purchase expenditure on basis of approval in next Tariff Order.

Other Fixed Cost Components

Operational & Maintenance Expenses

Employee Cost

Petitioner's Submission

9.124 The Petitioner, in the Tariff Petition had submitted the employee cost of Rs 277.25 Cr for FY 2012-13. The Petitioner submitted the employee cost for FY 2012-13 excluding the arrears and considered an escalation rate of 9% based on the combination of the Consumer Price Index (CPI) and the Wholesale Price Index (WPI) over the immediately preceding year.

9.125 The Commission asked the Petition to submit disaggregated employee cost along with the basis of segregation for FY 2012-13. The Petitioner requested the Commission to condone the requirement of function wise breakup of the number of employees for the FY 2012-13. However, the Petitioner has requested to consider the number of employees based on the information available for FY 2011-12.

9.126 The following table summarises the disaggregated employee cost and number of employees submitted by the Petitioner for FY 2012-13:

Table 220: Employees Cost Proposed for FY 2012-13 (Rs Cr)

Particulars	FY 2012-13
No. of Employees	**3522**
Employee cost	277.25

Commission's analysis

9.127 The Commission has projected the employee expenses for JSEB as whole for FY 2012-13 as per the methodology detailed out in para 7.38 of this Tariff Order. The total employee cost is then disaggregated between Generation (thermal & hydel), Transmission and Distribution functions of JSEB in the proportion as detailed in para 7.39 of this Tariff Order. Accordingly, the approved employee cost for FY 2012-13 for Distribution function works out to be Rs. 174.07 Cr.

Repair & Maintenance (R&M) Expenses

Petitioner's submission

9.128 The Petitioner, in the Tariff Petition submitted the R&M cost for FY 2012-13 at Rs 64.47 Cr based on the revised estimates for FY 2011-12.

9.129 The R&M expenses for Distribution function have been projected on the basis of the projected closing GFA for FY 2012-13.

9.130 The following table summarises the disaggregated R&M expenses submitted by the Petitioner for FY 2012-13:

Table 221 : R&M costs submitted by Petitioner for FY 2012-13

Particulars	FY 2012-13 (Rs Cr)
R&M Expenses	64.47

Commission's analysis

9.131 The Commission has approved the R&M expenses for distribution function for FY 2012-13 at 2.22% (as given in para 7.41 of this Order) of the opening GFA for each year as summarised in following table.

Table 222 : Approved R&M costs for FY 2012-13 (Rs Cr)

Particulars	FY 2012-13
Opening GFA	1623
R&M as a percentage of opening GFA	2.22%
Disaggregated R&M	**35.99**

Administrative & General Expenses

Petitioner's submission

9.132 The Petitioner in the Tariff Petition submitted the A&G expenses of Rs 36.43 Cr for FY 2012-13 considering an escalation rate of 9.0% based on the combination of the Consumer Price Index (CPI) and the Wholesale Price Index (WPI) over the year FY 2011-12.

9.133 The following table summarises the disaggregated A&G cost and number of employees submitted by the Petitioner for FY 2012-13:

Table 223: Disaggregated A&G cost Projected by the Petitioner for FY 2012-13 (Rs Cr)

Particulars	FY 2012-13
No. of Employees	**3522**
A&G Cost	36.43*

Note: *This is revised figure submitted by the Petitioner in additional information, the Petitioner submitted Rs 33.42 Cr in its tariff petition

Commission's analysis

9.134 The Commission has approved the A&G expenses for Distribution function of JSEB for FY 2012-13 by escalating the approved A&G cost for FY 2011-12 by 8.40% p.a. (i.e. weighted average of WPI & CPI during past 5 years in ratio of 80:20, respectively) subject to final true up based on audited annual accounts.

9.135 Accordingly, the Commission approves A&G cost of Rs.36.04 Cr for Distribution function of the Petitioner for FY 2012-13.

Capital Expenditure & Capitalisation

Petitioner's submission

9.136 The Petitioner submitted that under R-APDRP, major expenditure amounting Rs 543 Cr has been planned under Hardware installation and other relevant works, payments to IT Consultant, Development Infrastructure, and R-APDRP Manpower. The Petitioner submitted that for FY 2012-13 they have planned Rs 148 Cr of expenditure under RGGVY. Also, the Petitioner has projected an expenditure of Rs 312 under ADP and Rs 100 Cr under civil and restructuring.

9.137 The planned capital expenditure outlay of the Petitioner for distribution has been summarized in the following table:

Table 224: Capital Expenditure Plan for FY 2012-13 (Rs Cr)

Plan Outlay/ Proposed Schemes	Capex	Capitalisation
Distribution	1103	787.67 *

*Revised submitted by the Petitioner on 7 June 2012

Commission's analysis

9.138 The Commission notes that, considering past trends, the Petitioner have been able to capitalised only 25% of its total opening CWIP & GFA additions during the year.

9.139 Thus, considering the same ratio, the Commission has approved asset capitalisation during FY 2012-13 to be Rs. 626.26 Cr (i.e. 25% of the sum of the opening CWIP of Rs. 1402.02 Cr and approved capex during the year Rs. 1103.00 Cr)

9.140 The capex and capitalization shall be subjected to revision, once the Petitioner will submit the latest information with the next Tariff Petition.

9.141 The capital expenditure plan as approved by the Commission has been summarised in the following table:

Table 225: Capital Expenditure Plan & Capitalization for FY 2012-13 (Rs Cr)

Plan Outlay/ Proposed Schemes	Capex	Capitalization
Distribution	1103.00	626.26

Gross Fixed Assets

Petitioner's submission

9.142 The Petitioner submitted the closing GFA of Rs 2455.31 Cr for FY 2012-13 as given below:

Table 226: GFA for distribution function as submitted by the Petitioner (Rs Cr)

Particulars	FY 2012-13
Distribution	2,455.32*

*The figure is taken from the revised formats submitted by the Petitioner on 7 June 2012

Commission's analysis

9.143 The Commission found that the GFA additions submitted by the Petitioner are not matching with the capitalisation done during the year. Hence, the Commission directed the Petitioner to verify the figures submitted by it on which the Petitioner in its reply submitted the revised figures.

9.144 The Commission after scrutinising the submitted details; approved the Gross Fixed Asset (GFA) and Net fixed Assets (NFA) of Rs 2249.33 Cr and Rs 1930.61 Cr respectively for FY 2012-13 as per the capitalization approved for the year.

Table 227: Approved GFA, Equity and Loan for FY 2012-13 (Rs Cr)

Particulars	FY 2012-13
Opening GFA	1623.07
GFA Additions	626.26
Closing GFA	**2249.33**
Less: Accumulated depreciation	318.17
Net Fixed Assets	**1930.61**

9.145 For funding of above GFA the Commission has considered the normative debt equity ratio of 70:30 as provided in MYT Regulations, 2010 of all the functions. Meanwhile, in line with the methodology followed in the Tariff Order for FY 2011-12, the consumer contribution grants and subsidies for capital assets have been first netted off from gross fixed assets and the normative debt equity ratio is applied on the remaining gross fixed assets only.

9.146 The Petitioner has not provided any details of addition in consumer contribution, grants and subsidies for capital assets in its Tariff Petition. Therefore, the Commission has estimated the addition during FY 2012-13 on the basis of past trend. The normative net loans are estimated after deducting accumulated depreciation from the value of gross loans.

9.147 Thus the approved sources of funding for the approved NFA of Rs 1930.61 Cr. for FY 2012-13 is tabulated hereunder:

Table 228: Approved Sources for FY 2012-13 (Rs Cr)

Approved Sources	FY 2012-13
Consumer contribution, grants and subsidies deployed in GFA	982.10
Equity	380.17
Loan	568.34
Total	**1930.61**

9.148 The Commission notes with concern that the Petitioner is diverting its long-term funds for the purpose of meeting its deficit caused due to its own inefficiencies. The Commission directs the Petitioner to avoid from diversion of funds meant for creating long-term assets. In accordance with the regulations, the return on funds actually deployed in usable assets should be as tabulated hereunder.

Table 229: Approved Sources for FY 2012-13 (Rs Cr)

Approved Sources	Return
Consumer contribution, grants and subsidies deployed in GFA	0%

Equity	15.50%
Loan	14.75%

Return on Equity (RoE)

Petitioner's submission

9.149 The Petitioner submitted that the equity for the purpose of calculating Return on Equity (RoE) has been calculated in accordance with the approvals made by the Commission in FY 2011-12 Tariff Order and the Terms and Conditions of Distribution Regulations, 2010; normative equity of 30% is estimated by taking the gross fixed assets less consumer contribution.

9.150 The Petitioner has proposed Rs 112.58 Cr for FY 2012-13 as given in following table

Table 230: Return on Equity Proposed by the Petitioner for FY 2012-13 (Rs Cr)

Return on Equity	FY 2012-13
Distribution	112.58

Commission's analysis

9.151 As per the Distribution Tariff Regulations, 2010, the rate of return on equity for the transition period shall be considered at post-tax rate of 15.50% p.a. Further the regulations also provide that the normative income tax shall be limited to return on equity. As there is no tax liability of the Petitioner in Distribution Business, the Commission has considered the above mentioned rate of 15.50% and based on the methodology mentioned in Paras 9.145 to 9.148 of this Tariff Order, and accordingly has approved the RoE of Rs 45.37 Cr for FY 2012-13, as tabulated hereunder:

Table 231: Approved Return on Equity for FY 2012-13 (Rs Cr)

Particulars	FY 2012-13
Opening Balance of Normative Equity	205.25
Deemed Additions	174.92
Closing Balance of Normative equity	380.17
Average Equity	292.71
Return on Equity (%)	15.50%
Return on Equity	**45.37**

Interest and Other Finance Charges

Petitioner's submission

9.152 The Petitioner in the Tariff Petition submitted the interest on loans as Rs 278.54 Cr for FY 2012-13 as explained in the table given below:-

Table 232: Interest & Finance Charges (Rs Cr)

Interest Expenses	FY 2012-13
Interest on normative loans	630.31
Less: IDC	232.40
Net Interest	397.91
Interest considered for ARR (70%)	**278.54**

Commission's analysis

9.153 Based on the methodology mentioned in Paras 9.145 to 9.148 of this Tariff Order, the Commission has computed the aggregate interest and other finance charges at Rs 58.72 Cr for FY 2012-13, as given in the following table:

Table 233: Approved Interest & Finance Charges (Rs Cr)

Particulars	FY 2012-13
Closing Balance of normative loans	568.34
Average normative loans	398.13
Interest Rate %	14.75%
Interest on Normative loans	**58.72**

9.154 The Commission has considered loans employed to GFA hence, no capitalisation has been considered while calculating interest and finance charges for FY 2012-13. The Commission shall revise the interest and finance charges, subject to prudence check, as per the latest information made available for FY 2012-13 with the next Tariff Petition.

Interest on Working Capital

Petitioner's submission

9.155 The Petitioner submitted the interest on Working Capital as per the 'Terms and Condition for determination of distribution tariff, 2010'. Accordingly, 1/12th of O&M, maintenance spares at 1% of opening GFA, two months expected revenue from sale of power at existing tariff minus amount held as security deposit minus one month equivalent of cost of power purchase has been considered for calculation of working capital.

9.156 The Petitioner submitted that the interest on working capital is calculated at the bank rate.

Table 234 : Interest on Working Capital submitted by the Petitioner for FY 2012-13 (Rs Cr)

Particulars	FY 2012-13
1 month O&M	31.51
Maintenance Spares	16.68
Receivables	983.65
Less: 1 month cost of power purchase	420.56
Less: Security Deposit from Customers	219.83
Total Working Capital requirement	**391.46**
Interest on Working Capital @ 14.75%	**57.74**

Commission's analysis

9.157 The Commission has considered the interest on working capital as per the norms specified for computation of working capital requirements in the 'Distribution Tariff Regulations, 2010'.

9.158 The 'Distribution Tariff Regulations, 2010' specify the computation of working capital as per the following norms:-

(a) One-twelfth of the amount of Operation and Maintenance expenses for such financial year; plus

(b) Maintenance spares at 1% of Opening GFA; plus.

(c) Two months equivalent of the expected revenue from sale of electricity at the prevailing tariffs; minus

(d) Amount held as security deposits under clause (a) and clause (b) of subsection (1) of Section 47 of the Act from consumers and Distribution system users; minus

(e) One month equivalent of cost of power purchased, based on the annual power procurement plan.

9.159 The Commission while computing the Interest on Working Capital found that security deposit and power purchase cost, which are to be deducted from the other components of working capital, are higher than the cost elements of working capital, and that the Petitioner used consumer security deposits as source of funds. While computing the total working capital, the Commission found working capital on negative side and thus has not allowed any interest on working capital for the distribution business.

Interest on Consumer Security Deposit

Petitioner's submission

9.160 The Petitioner has proposed the Interest on Consumer Security Deposits (CSD) in accordance with 'Jharkhand Electricity Supply Code Regulations, 2005'. The interest on CSD has been calculated at an interest rate of 6%.

9.161 The Petitioner has projected the Consumer Security Deposit on the basis of 5 year actual CAGR observed during the period 2005-06 to 2010-11. The interest on CSD for each of the years has been considered at the average of opening and closing balance of CSD. The interest on consumer security deposit has been proposed at Rs 12.47 Cr for FY 2012-13.

Commission's analysis

9.162 The Petitioner is mandated to pay interest on Consumer Security Deposit as per bank rates prescribed by Reserve Bank of India (RBI) from time to time. Thus the Commission has approved the interest on Consumer Security Deposit at 6% p.a. for FY 2012-13 as submitted by the Petitioner, however the same is subject to final true up based on the prevailing bank rate prescribed by RBI.

9.163 The Commission has considered the Consumer Security Deposit on the basis of increase in consumer deposit as per past trend and accordingly an amount of Rs 16.26 Cr has been approved for FY 2012-13.

Depreciation

Petitioner's submission

9.164 The Petitioner submitted the revised estimated depreciation of Rs 73.76 Cr for FY 2012-13 as given below:-

Table 235 : Depreciation submitted by the Petitioner for FY 2012-13 (Rs Cr)

Particulars	FY 2012-13
FY 2012-13	73.76

Commission's analysis

9.165 The Commission has scrutinized the depreciation expenses submitted in the petition and found it to be in line with the earlier methodology followed for approval of depreciation. However, depreciation on addition in assets during the year has been considered as per the capitalization approved by the Commission for FY 2012-13.

9.166 The assets created out of consumer contribution have also been deducted from the gross depreciation of the distribution function, to arrive at the net depreciation charge for distribution function.

9.167 The depreciation charges approved by the Commission for FY 2012-13 is detailed in the table given below:

Table 236 : Depreciation approved for FY 2012-13 (Rs Cr)

Particulars	FY 2012-13
FY 2012-13	**67.72**

9.168 As per the above calculations, the Commission approves the depreciation charge of Rs 67.72 Cr for FY 2012-13.

Non Tariff Income (NTI)

Petitioner's submission

9.169 The Petitioner has attributed the entire non-tariff income earned by it to the Distribution function for FY 2011-12. The Petitioner has considered proposed income from Meter rent by applying 5 year CAGR on the actual information available in the annual accounts for the FY 2010-11.

9.170 The Petitioner has considered proposed income from miscellaneous receipts as the five (5) year average income under the same head in the approved annual accounts for the period FY 2005-06 to FY 2010-11.

9.171 Details of the non-tariff income submitted by the Petitioner for FY 2012-13 is given in the following table:-

Table 237: Non-tariff Income submitted by the Petitioner for FY 2012-13 (Rs Cr)

Particulars	FY 2012-13
Interest on Staff Loan & Advance	0.00
Income from Investment (F.D)	4.51
Interest on loans and advances to licensee	0.03
D.P.S from Consumer	22.84
Interest on advance to Supplier/Contractor	0.27
Interest from Bank (Other then F.D)	0.47
Income from trading	0.41

Income from staff Welfare Activities	0.01
Miscellaneous Receipt.	25.90
Meter Rent	6.06
Miscellaneous Charges from Consumers	(2.51)
Total	**57.99**

Commission's analysis

9.172 The Commission views that the delayed payment surcharge (DPS) should be considered as per the policy followed for DPS in accounts. In view of this, the Commission has considered DPS from consumers for FY 2012-13 as per the audited accounts for FY 2010-11 subject to true-up once the actual audited accounts will be submitted by the Petitioner. Accordingly, after scrutinizing other components submitted by the Petitioner, the Commission has approved the Non-Tariff Income of Rs 223.13 Cr for FY 2012-13.

9.173 The approved Non-Tariff Income for FY 2012-13 is summarised in the table given below:

Table 238: Approved Non Tariff Income (Rs Cr)

Particulars	FY 2012-13
Interest on Staff Loan & Advance	0.00
Income from Investment (F.D)	4.51
Interest on loans and advances to licensee	0.03
D.P.S from Consumer	185.47
Interest on advance to Supplier/Contractor	0.27
Interest from Bank (Other then F.D)	0.47
Income from trading	0.41
Income from staff Welfare Activities	0.01
Miscellaneous Receipt.	25.9
Meter Rent	**6.06**
Miscellaneous Charges from Consumers	**0**
Total	**223.13**

Provision for Bad & Doubtful Debts

Petitioner's submission

9.174 The Petitioner has stated that it shall make all efforts to achieve 100% collection efficiency during 2010-11 in accordance with the applicable JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2010. However, it is submitted by the Petitioner that while other utilities in the State enjoy a favourable consumer mix and operate in limited supply areas, the Petitioner is the distribution Petitioner for the entire State of Jharkhand including rural and far flung areas.

9.175 The Petitioner has requested the Commission to relook the target of 100% collection efficiency given by the Hon'ble Commission for all Petitioners in the State consideration the ground realities of difference in consumer mix and the geographical spread of its license area.

9.176 The Petitioner has further submitted that it shall submit its petition for truing-up of provision for bad debts, if any for the purpose of truing-up based on actual, after finalization of annual accounts for the year FY 2012-13.

Commission's analysis

9.177 The Commission views that it is the obligation of the Petitioner to supply power to every consumer as per their requirement and to ensure that it collects the amount for energy billed and supplied to the consumers. In case, the consumers do not pay, then the Petitioner has full right to disconnect the supply by following requisite procedures. However, if the Petitioner is not able to collect the amount billed from any consumer, it has no right to pass on its inefficiency to the paying consumers.

9.178 The collection efficiency of 100% was fixed in the 'Distribution Tariff Regulations, 2010' in consideration of the above mentioned philosophy of the Commission. Accordingly, the Commission disallows any provision for doubtful debt.

Revenue from Existing Tariff

Petitioner's submission

9.179 The Petitioner submitted revenue at existing tariffs at Rs 3865.03 Cr for FY 2012-13.

Commission Analysis

9.180 The Commission has approved the revenue at existing tariffs as per the approved sales and the existing energy and demand charges. The revenue at existing tariff is computed at Rs 2826.99 Cr along with the revenue of Rs 123.00 Cr from inter-state sale to consumers.

9.181 The Commission has also considered a resource gap funding from the State Government of Rs. 1000 Cr for FY 2012-13, in line with the submission of the Petitioner.

Summary of ARR for Distribution Business for FY 2012-13

9.182 The summary of ARR for distribution function as submitted by Petitioner and as approved by the Commission for FY 2012-13 is summarised in the following table:

Table 239: Summary of the ARR for Distribution Function for FY 2012-13 (Rs Cr)

Annual Revenue Requirement	Submitted by the Petitioner	Approved by JSERC
Power Purchase	5,046.67	3,731.95
Employee Cost	277.25	174.07
Repair & Maintenance	64.47	35.99
Admin & General	36.43	36.04
Interest and financing charges	278.54	58.72
Interest on working capital	57.74	-
Depreciation	73.76	67.72
Provision for bad & doubtful debts	-	-
Interest on consumer security deposit	12.47	16.26
***Less:* Disincentive for T&D Loss**	-	-
Total Distribution Costs	**5,847.33**	**4,120.75**
Reasonable return	112.58	45.37
***Less:* Non Tariff Income**	(57.99)	(223.13)
ARR for Distribution Function	**5,901.92**	**3942.99**
Thermal Generation Cost	456.52	296.58*
Hydel Generation Cost	24.39	16.93*
Transmission Cost	301.30	184.91*
Total ARR	**6684.13**	**4,441.41**
Revenue from sale of power/(at existing tariff)	3865.03	2826.99
Revenue from inter-state sales		123.00
Revenue Gap	**2819.10**	**1,491.42**
Resource Gap Funding from State Government	1000	1000
Net Revenue Gap	**1819.10**	**491.42**

* These are gross figures without considering the gap/surplus of previous years, which has been directly considered in Table 240.

9.183 The Commission approved the net revenue gap of Rs 491.42 Cr for FY 2012-13.

SECTION 10: TREATMENT OF REVENUE GAP

10.1 The Commission has approved a revenue surplus of Rs.448.37 Cr after the final truing up of ARR for FY 2003-04 to FY 2010-11. The revenue surplus is further segregated amongst the Generation (thermal & hydel), Transmission and Distribution functions of the Board in the ratio of opening GFA/ approved functionally disaggregated ARR. The following table summarises the functionally disaggregated revenue surplus from true up of past years.

Table 240: Revenue Gap/ (surplus) approved by the Commission for past years (Rs Cr)

FY	Generation – Thermal	Generation – Hydel	Transmission	Distribution	Total
2003-04	(37.77)	(2.20)	(7.75)	(25.34)	(73.05)
2004-05	33.18	1.90	6.75	25.32	67.16
2005-06	(2.90)	(0.17)	(0.60)	(2.51)	(6.18)
2006-07	(32.11)	(1.82)	(6.73)	(30.92)	(71.57)
2007-08	2.33	0.23	1.03	31.13	34.72
2008-09	(6.42)	(0.52)	(2.06)	(57.34)	(66.34)
2009-10	(12.87)	(1.02)	(4.10)	(138.69)	(156.69)
2010-11	(7.45)	(0.90)	(4.28)	(163.80)	(176.43)
Total	**(63.99)**	**(4.49)**	**(17.74)**	**(362.14)**	**(448.37)**

10.2 In addition to above, the revenue gap related to FY 2011-12 and FY 2012-13, as approved by the Commission, is Rs. 405.24 Cr and Rs. 491.42 Cr, respectively.

10.3 Thus the cumulative revenue gap upto FY 2012-13 for JSEB, as approved by the Commission has been summarised in following table.

Table 241: Cumulative Revenue Gap/(surplus) approved by the Commission for JSEB as a whole (Rs Cr)

Annual Revenue Requirement	Amount
Revenue Gap/ (Surplus) for past years from FY 2003-04 to FY 2010-11	(448.37)
Revenue Gap/ (Surplus) for FY 2011-12	405.24
Revenue Gap/ (Surplus) for FY 2012-13	491.42
Cumulative Revenue Gap/ (Surplus) upto FY 2012-13	**448.30**

10.4 The Commission has decided to update the tariff for various categories on the basis of the following:

(a) Cumulative Revenue Gap of Rs 448.30 Cr, as approved by the Commission;

(b) The Tariff proposal of Petitioner for various categories;

(c) Provisions of Section 61(g) of the Electricity Act,2003 for reducing the cross subsidies;

(d) The National Tariff Policy; and

(e) National Electricity Policy.

10.5 As mentioned above, the Commission has approved a cumulative revenue gap of **Rs.448.30 Cr** upto FY 2012-13. However this gap has been arrived at after adjusting the proposed resource gap funding of Rs.1000 Cr for FY 2011-12 committed by the State Government. The Commission is of the view that it would be beneficial for the Petitioner-JSEB as well as consumers that the Government of Jharkhand (GoJ) continues with the resource gap funding to the Petitioner at the same level in the coming years so that the Petitioner-JSEB is able to recover from the accumulated financial distress.

SECTION 11: APPROVED TARIFFS FOR FY 2012-13

Generation Tariff

11.1 Based upon the analysis done by the Commission in the previous sections, the approved Annual Fixed Charges and Energy Charge Rate for FY 2012-13 for PTPS & SHPS is summarized in the following table.

Table 242: Approved Generation Tariff for FY 2012-13 (Rs. Cr)

Particulars	Unit	PTPS	SHPS
Energy Charge Rate (ECR)	**Rs/kWh**	**1.027**	**0.000**
Annual Fixed Charges (AFC)			
Approved AFC	Rs Crs	233.02	16.93
Add: Revenue Gap/ Surplus for previous years	Rs Crs	(63.99)	(4.49)
AFC recoverable during the year	**Rs Crs**	**169.03**	**12.44**

11.2 It is to be noted that the Petitioner would recover the capacity charges in accordance with the Clause 8.10 to Clause 8.15 of the 'Generation Regulations, 2010' on the basis of the actual monthly availability.

Transmission Tariff

11.3 The Commission has determined the tariff for the transmission business on the basis of the approved energy available at the transmission system. The Transmission losses have been approved at 5%. The summary of the approved transmission tariff for FY 2012-13 is depicted below.

Table 243: Approved Transmission Tariff for FY 2012-13

Particulars	Unit	Transmission
Net energy available at Transmission level	MU	9512.89
Transmission losses	%	5%
Net energy available at Distribution level	**MU**	**9037.24**
Approved AFC for Transmission Business	Rs Cr	184.91
Add: Revenue gap/ (surplus)	Rs Cr	(17.74)
AFC recoverable	Rs Cr	**167.17**
Transmission tariff	**Rs/kWh**	**0.18**

Distribution- Wheeling Tariff

11.4 The Commission has determined the wheeling tariff for the distribution business of the licensee on the basis of the approved energy available at the distribution level and the distribution cost pertaining to the wheeling business of the licensee. In the Tariff order for FY 2010-11, the Commission had considered the applicable distribution cost for wheeling charges at 50% of the total distribution cost of the licensee, since there was no bifurcation available into wheeling and retail business of JSEB. The Petitioner has also not provided the segregation details of the distribution business in to retail and wheeling business during the Transition Period.

11.5 As per the Clause 5.4 of the 'Distribution Tariff Regulation, 2010',

"The Licensee shall segregate the accounts of the Licensed Business into Wheeling Business and Retail Supply Business. The ARR for Wheeling Business shall be used to determine Wheeling Tariff and the ARR for Retail Supply Business to determine Retail Supply Tariff;"

11.6 In view of the above, the Commission shall consider separate ARR for wheeling and retail supply business of the Distribution licensees from the Control Period (FY 2013-14 to FY 2015-16). Since FY 2012-13 lies under the transition period and as mentioned above, the Petitioner has not yet done the segregation of distribution business in the wheeling and retail supply business, the Commission has decided to again consider the applicable distribution cost for wheeling charges at 50% of the total distribution cost of the licensee for FY 2012-13 as depicted below:

Table 244: Approved Wheeling tariff for FY 2012-13

Description	Unit	Wheeling Business
Net energy available at Distribution level	MU	9037.24
Distribution cost	%	50%
Employee	Rs. Cr	174.07
Repair & Maintenance	Rs. Cr	35.99
Admin & General	Rs. Cr	36.04
Interest and financing charges	Rs. Cr	58.72
Interest on working capital	Rs. Cr	0.00
Depreciation	Rs. Cr	67.72
Provision for bad & doubtful debts	Rs. Cr	0.00
Interest on consumer security deposit	Rs. Cr	16.26
Add: Reasonable return	Rs. Cr	45.37
less: Non Tariff Income	Rs. Cr	223.13
Total Distribution Cost	***Rs. Cr***	*211.04*
Applicable Distribution cost (@ 50%)	**Rs. Cr**	**105.52**
Wheeling Tariff	**Rs/Unit**	**0.12**

Distribution- Retail Supply Tariff

11.7 As mentioned above, the Commission has determined the revenue gap of **Rs 448.30 Cr** up to FY 2012-13. In line with the Tariff principles mentioned in Section 14 of this Tariff Order, the Commission has determined the category wise retail tariffs for FY 2012-13, as depicted in the following table:

Table 245: Existing and Approved Tariff

Category	Units for Fixed Charge	Existing Fixed Charge	Approved Fixed Charges	Existing Energy Charge (Rs/Kwh)	Approved Energy Charge (Rs/Kwh)
Domestic					
DS-I (a), Kutir Jyoti (metered) (0-50)	Rs/ Conn/Month	12	15	1.10	1.20
DS-I (a), Kutir Jyoti (metered) (50-100)	Rs/ Conn/Month	12	15	1.10	1.20
DS-I (a), Kutir Jyoti (Unmetered)	Rs/ Conn/Month	35	40	0.00	0.00
DS-I (b), metered (0-200)	Rs/ Conn/Month	20	25	1.25	1.40
DS-I (b), metered (above 200)	Rs/ Conn/Month	0	25	1.25	1.50
DS-I (b), unmetered	Rs/ Conn/Month	85	100	0.00	0.00
DS-II, <= 4 KW					
0-200	Rs/ Conn/Month	35	40	1.90	2.40
201 & above	Rs/ Conn/Month	50	60	2.40	2.90
DS-III, Above 4 KW	Rs/ Conn/Month	90	100	2.40	3.00
DS HT	Rs/kVA/Month	65	75	2.00	2.60
Non-Domestic					
NDS-I, metered (<= 2 Kw) (0-100)	Rs/ Conn/Month	25	30	1.50	1.75
NDS-I, metered (<= 2 Kw) (above 100)	Rs/ Conn/Month	25	30	1.50	1.75

NDS-I, unmetered (<= 2 KW)	Rs/kW/Month	Rs 150 per kW per month or part thereof for connected load up to 1kW and Rs 60 per kW per month for each additional 1kW or part thereof	Rs 175 per kW per month or part thereof for connected load up to 1kW and Rs 60 per kW per month for each additional 1kW or part thereof	0.00	0.00
NDS-II	Rs/kW/Month	Rs. 150 per kW per Month or part thereof	Rs. 175 per kW per Month or part thereof	4.80	5.25
NDS-III (Advertisement & Hoardings)	Rs/Conn/Month	-	150	0.00	6.00
LTIS	Rs/HP/Month	110	130	4.10	4.90
Irrigation & Agricultural					
IAS-I	Rs/HP/Month	0	0	0.55	0.60
IAS-I Unmetered	Rs/HP/Month	60	70	0.00	0.00
IAS-II	Rs/HP/Month	0	0	0.85	1.00
Agriculture-IAS-II (unmetered)	Rs/HP/Month	240	280	0.00	0.00
HTS					
11 KV & 33 KV	Rs/kVA/Month	205	235	4.90	5.40
132 KV	Rs/kVA/Month	205	235	4.90	5.40
HT Special S					
11 KV	Rs/kVA/Month	370	410	2.85	3.25
33 KV	Rs/kVA/Month	370	410	2.85	3.25
132 KV	Rs/kVA/Month	370	410	2.85	3.25
Traction					
RTS	Rs/kVA/Month	205	220	4.85	5.40
Street Light Service					
SS-I	Rs/ Conn/Month	30	35	3.85	4.45
SS-II	Rs/ Conn/Month	Rs. 125 per 100 watt lamp and Rs.30 for every additional 50 watt	Rs. 140 per 100 watt lamp and Rs.30 for every additional 50 watt	0.00	0.00
REC		0	0	0.77	0.90
MES	Rs/kVA/Month	180	205	3.50	4.05

Reduction in cross subsidy

11.8 The Commission strongly believes that a cost based tariff structure promotes efficiency, economic investment and rational consumption. Section 61 (g) of the Electricity Act, 2003 also states that tariffs should progressively reflect the cost of supply of electricity and the Commission should reduce cross subsidies gradually within a specified period. Section 61 (d) of the Act provides for safeguarding of the consumers' interest and at the same time recovery of the cost of electricity in a reasonable manner.

11.9 The existing tariff structure in Jharkhand is not based on the consumer category-wise cost of supply and the commercial and industrial consumers have been cross subsidizing other consumers like domestic and agricultural to a great extent. The Commission intends to move in the direction of removing this distortion in a phased manner.

11.10 For this purpose, the Commission has used the average cost of supply due to lack of reliable data on the category-wise cost of supply. The average cost of supply as approved by the Commission for FY 2012-13 is Rs 5.69 per kWh.

Table 246: Reduction in Cross Subsidy

Category	Sales	Avg. Current Tariff	Avg. Cost of Supply (CoS)	Rev. at existing tariff	Rev. at Avg. CoS	Cross Subsidy Generated/ Utilized	Rev. at Proposed Tariff	Avg. Approved Tariff	Cross Subsidy Generated/ Utilized (at Approved Tariff)
Domestic	3,756.64	1.88	5.69	704.91	2138.9	-1434.02	887.01	2.36	-1251.91
Non-Domestic	428.01	5.28	5.69	226.03	243.7	-17.67	254.77	5.95	11.08
Low Tension	173.54	5.73	5.69	99.52	98.8	0.71	118.57	6.83	19.76
Irrigation & Agricultural	70.98	0.65	5.69	4.62	40.4	-35.79	5.23	0.74	-35.18
High Tension service	1,758.94	5.97	5.69	1049.39	1001.5	47.90	1,165.46	6.63	163.97
HT Special S	702.09	4.76	5.69	334.30	399.8	-65.45	382.51	5.45	-17.24
Traction	697.61	5.41	5.69	377.28	397.2	-19.92	425.73	6.10	28.53
Street Light	202.12	1.30	5.69	26.32	115.1	-88.76	30.48	1.51	-84.60
MES	10.63	4.36	5.69	4.64	6.1	-1.41	5.35	5.03	-0.70
Total	**7800.57**			**2826.99**	**4441.41**	**-1614.42**	**3275.12**		**-1166.29**
Cross Subsidy Generated						-1663.03			-1389.63
Cross Subsidy Utilized						48.61			223.34

SECTION 12: TARIFF RELATED OTHER ISSUES

Tariff Proposal

12.1 The Petitioner has submitted a revenue gap of Rs 9989.83 Cr from FY 2003-04 upto FY 2012-13. The Petitioner has proposed a tariff hike of 36% over the existing revenue while for the remaining revenue gap; the Petitioner has proposed creation of regulatory asset.

12.2 The proposed tariff structure submitted by the Petitioner is given as below:

Table 247: Tariff Proposal of JSEB for FY 2012-13

Category	Existing Fixed Charges	Proposed Fixed Charges	Existing Energy Charge (Rs/kWh)	Proposed Energy Charges (Rs/kWh)
Domestic				
DS-I (a), Kutir Jyoti (Unmetered)	Rs.35 per conn. per Month	Rs.50 per conn. per Month	Nil	Nil
DS-I (a), Kutir Jyoti (metered)	Rs.12 per conn. per Month	Rs.25 per conn. per Month	1.10 (0-50 units)	1.20 (0-50 units)
			1.10 (Above 50 units)	1.20 (Above 50 units)
DS-I (b), Other Rural Domestic Connections (Unmetered)	Rs.85 per conn. per Month	Rs.200 per conn. per Month	Nil	Nil
DS-I (b), Other Rural Domestic Connections (Metered)	Rs.20 per conn. per Month	Rs.40 per conn. per Month	1.25	1.50 (0 - 200 units)
				1.50 (Above 200 units)
DS-II	Rs.35 per conn. per Month	Rs.70 per conn. per Month	1.90 (0-200 units)	2.95 (0-200 units)
	Rs.50 per conn. per Month	Rs.120 per conn. per Month	2.40 (Above 200 units)	3.95 (Above 200 units)
DS-III	Rs.90 per conn. per Month	Rs.200 per conn. per Month	2.40	3.95
DS HT	Rs.65 per kVA per Month	Rs.100 per kVA per Month	2.00	3.75
NDS-I, Metered	Rs.25 per conn. per Month	Rs.100 per conn. per Month	1.50	2.50
NDS-I unmetered	Rs.150 per conn. per Month upto 1 kW and Rs.60 per kW per month for each additional 1 kW or part thereof	Rs.300 per conn. per Month upto 1 kW and Rs.60 per kW per month for each additional 1 kW or part thereof	Nil	Nil
NDS-II	Rs.150 per kW per Month or part thereof	Rs.195 per kW per Month or part thereof	4.80	5.50
NDS-III *	NA	Rs.200 per conn per month	NA	10.00

LTIS	Rs.110 per HP per month	Rs.150 per HP per Month	4.10	4.90
Irrigation & Agricultural				
IAS-I Metered	Nil	Rs.50 per HP per month	0.55	1.00
IAS-I Unmetered	Rs.60 per HP per month	Rs.100 per HP per month	Nil	Nil
IAS-II Metered	Nil	Rs.100 per HP per month	0.85	4.00
IAS-II Unmetered	Rs.240 per HP per month	Rs.500 per HP per month	Nil	Nil
High Tension Service	Rs.205 per kVA per month	Rs.300 per kVA per month	4.90	5.50
HT Special Service	Rs.370 per kVA per month	Rs.400 per kVA per month	2.85	3.90
RTS	Rs.205 per kVA per month	Rs.300 per kVA per month	4.85	5.50
SS-I	Rs.30 per conn. per month	Rs.150 per conn. per month nth	3.85	6.50
SS-II	Rs.125 per 100 watt lamp and Rs.30 for each additional 50 watts	Rs.250 per 100 watt lamp and Rs.100 for each additional 50 watts	Nil	Nil
REC	Nil	Nil	0.77	2.00
MES	Rs.180 per kVA per month	Rs.240 per kVA per month	3.50	5.00

* New Category proposed by JSEB for Advertisement & Hoardings Consumers

Commission's analysis

12.3 The Commission has computed the cumulative revenue gap of Rs 448.30 Cr on the basis of true up from FY 2003-04 to FY 2010-11, revised estimation for FY 2011-12 and review of ARR for FY 2012-13.

12.4 To bridge the aforementioned revenue gap, the Commission has increased the tariff by an average of about 16%, after considering the proposal of the Petitioner and ensuring reduction in cross-subsidy level vis-à-vis the cross subsidy levels at existing tariffs. The approved tariff structure for FY 2012-13 is as shown in Table 245 of this Tariff Order, while the cross subsidy has been shown in Table 246 of this Tariff Order.

Changes in Tariff schedule

12.5 The Petitioner as well as the other Licensees proposed several changes in the Terms & Conditions of Supply. The JSERC (Electricity Supply Code) Regulations, 2005 provides the Terms & Conditions of Supply. The Commission is contemplating a comprehensive review of the aforesaid regulations to bring uniformity across all licensees in the State of Jharkhand and as such the Commission is not considering any of suggested/ proposed amendments by the Petitioner/ JSEB in this Tariff Order except those specifically mentioned in Sections 13 & 14 of this Tariff Order.

SECTION 13: TARIFF SCHEDULE FOR FY 2012-13

APPLICABLE FROM 1ST AUGUST 2012[1]

Domestic Service (DS)

Applicability:

Domestic Service–I, Domestic Service–II, Domestic Service–III and Domestic Service HT

This schedule shall apply to all residential premises for domestic use for household electric appliances such as Radios, Fans, Televisions, Desert Coolers, Air Conditioner, etc. and including Motors pumps for lifting water for domestic purposes and other household electrical appliances not covered under any other schedule.

This rate is also applicable for supply to religious institutions such as Temples, Gurudwaras, Mosques, Church and Burial/Crematorium grounds and other recognised charitable institutions, where no rental or fees are charged whatsoever. If any fee or rentals are charged, such institution will be charged under Non domestic category.

Rural drinking water schemes which are managed by Panchayats and User's Co-operatives are also included under this Category and corresponding Tariff would be charged depending upon the load of Pumping motors as applicable to the DS category.

Category of Services:

(a) Domestic Service – DS-1 (a): For Kutir Jyoti Connection only for connected load up to 100 Watt for Rural Areas.

(b) Domestic Service – DS-I (b): For rural areas not covered by area indicated under DS-II for connected load upto 2 kW, including rural drinking water schemes having motor pumps with load upto 2 kW.

(c) Domestic Service – DS-II: For Urban areas covered by notified Area Committee / municipality / Municipal Corporation / All District Town / All sub-divisional Town / All Block Headquarters / Industrial Area / contiguous sub-urban area all market places urban or rural and for connected load upto 4 kW, including rural drinking water schemes having motor pumps with load above 2 kW but not exceeding 4 kW.

[1] This schedule shall remain in force till March 31, 2013 or till the next tariff schedule is issued by the Commission, whichever is later.

(d) Domestic Service – DS-III: For Urban areas covered by notified Area Committee / municipality / Municipal Corporation / All District Town / All sub-divisional Town / All Block Headquarters / Industrial Area / contiguous sub-urban area all market places urban or rural and for connected load exceeding 4 kW and upto 85.044 KW, including rural drinking water schemes having motor pumps with load exceeding 4 kW.

(e) Domestic service – HT (DS – HT): This Schedule shall apply for Domestic Connection in Housing Colonies / Housing Complex / Houses of multi storied buildings purely for residential use for single point metered supply, with power supply at 11 kV voltage level and load above 85.044 kW.

Service Character:

(i) For DS-I (a): AC, 50 Cycles, Single phase at 230 volts for Kutir Jyoti connection for load upto 100 Watt

(ii) For DS-I (b): AC, 50 Cycles, Single Phase at 230 Volts for load upto 2 kW.

(iii) For DS-II: AC, 50 Cycles, Single Phase at 230 Volts for installed load up to 4 kW.

(iv) For DS-III: AC, 50 Cycles, three Phase at 400 Volts for installed load exceeding 4 kW and upto 85.044 KW.

(v) For DS-HT: AC, 50 Cycles, at 11 kV for installed load above 85.044 kW.

Tariff:

Consumer Category	Fixed Charges		Energy Charges
Domestic	**Unit**	**Rate**	**Rate (Rs/kWh)**
DS-I (a), Kutir Jyoti (metered) (0-50)	Rs/ Conn/Month	15	1.20
DS-I (a), Kutir Jyoti (metered) (50-100)	Rs/ Conn/Month	15	1.20
DS-I (a), Kutir Jyoti (Unmetered)	Rs/ Conn/Month	40	Nil
DS-I (b), metered (0-200)	Rs/ Conn/Month	25	1.40
DS-I (b), metered (above 200)	Rs/ Conn/Month	25	1.50
DS-I (b), unmetered	Rs/ Conn/Month	100	Nil
DS-II, <= 4 kW Total			
0-200	Rs/ Conn/Month	40	2.40
201 & above	Rs/ Conn/Month	60	2.90
DS-III, Above 4 kW	Rs/ Conn/Month	100	3.00
DS HT	Rs/kVA/Month	75	2.60

Delayed Payment Surcharge: In accordance with Clause IV of Terms & Conditions of Supply as provided in Section 14 of this Tariff Order.

Non–Domestic Service (NDS)

Applicability:

This schedule shall apply to all consumers, using electrical energy for light, fan and power loads for non-domestic purposes like shops, hospitals (govt. or private), nursing homes, clinics, dispensaries, restaurants, hotels, clubs, guest houses, marriage houses, public halls, show rooms, workshops, central air-conditioning units, offices (govt. or private), commercial establishments, cinemas, X-ray plants, schools and colleges (govt. or private), boarding/ lodging houses, libraries (govt. or private), research institutes (govt. or private), railway stations, fuel – oil stations, service stations (including vehicle service stations), All India Radio / T.V. installations, printing presses, commercial trusts / societies, Museums, poultry farms, banks, theatres, common facilities in multi-storied commercial office/buildings, Dharmshalas, and such other installations not covered under any other tariff schedule.

Service Category:

Non-Domestic Service (NDS)–I, Rural: For Rural Areas not covered by area indicated for NDS-II and for connected load upto 2 kW.

Non-Domestic Service (NDS)–II, Urban: For Urban Areas covered by Notified Areas Committee / municipality / Municipal Corporation / All District Town / All Sub-divisional Town / All Block Hqrs. /Industrial Area & Contiguous Sub-urban area, market place rural or urban & connected load up to 85.044 KW (100 kVA), except for categories covered under NDS-III. This schedule shall also apply to commercial consumer of rural area having connected load above 2 kW.

Non-Domestic Service (NDS)-III: For electricity supply availed through separate (independent) connections for the purpose of advertisements, hoardings and other conspicuous consumption such as external flood light, displays, neon signs at public places (roads, railway stations, airports etc.), departmental stores, commercial establishments, malls, multiplexes, theatres, clubs, hotels and other such entertainment/ leisure establishments.

Provided that the electricity, that is used for the purpose of indicating/ displaying the name and other details of the shops or Commercial premises, for which electric supply is rendered, shall not be covered under NDS-III Consumer Category. Such usage of electricity shall be covered under the prevailing tariff of such shops or commercial premises.

Service Character:

NDS – I: AC 50 Cycles, Single phase at 230 Volts for load up to 2 kW

NDS - II: AC 50 Cycles, Single phase at 230 Volts or Three Phase at 400 Volts for load exceeding 2 kW and upto 85.044 kW

NDS- III: AC 50 Cycles, Single phase at 230 Volts for loads up to 2 kW & AC 50 Cycles, Three Phase at 400 Volts for load exceeding 2 kW

Tariff:

Consumer Category	Fixed Charges		Energy Charges
Non-Domestic	Unit	Rate	Rate (Rs/kWh)
NDS-I, metered (<= 2 kW) (0-100)	Rs/ Conn/Month	30	1.75
NDS-I, metered (<= 2 kW) (above 100)	Rs/ Conn/Month	30	1.75
NDS-I, unmetered (<= 2 KW)	Rs/kW/Month	Rs 175 per kW per month or part thereof for connected load up to 1kW Rs 60 per kW per month for each additional 1kW or part thereof	Nil
NDS-II	Rs/kW/Month	Rs 175 per kW per month or part thereof	5.25
NDS-III (Advertising & Hoardings)	Rs/ Conn/Month	150	6.00

Delayed Payment Surcharge: In accordance with Clause IV of Terms & Conditions of Supply as provided in Section 14 of this Tariff Order.

Installation of Shunt capacitors: In accordance with Clause VII of Terms & Conditions of Supply as provided in Section 14 of this Tariff Order.

Low Tension Industrial & Medium Power Service (LTIS)

Applicability:

This schedule shall apply to all industrial units applying for a load of less than or equal to 100 kVA (or equivalent in terms of HP or kW).

The equivalent HP for 100 kVA shall be 114 HP and the equivalent kW for 100 kVA shall be 85.044 kW.

Service Character:

AC, 50 Cycles, Single Phase supply at 230 Volts or 3 Phase Supply at 400 volts. Demand Based tariff/Installation based tariff for sanctioned load upto 85.044 kW.

Tariff:

Installation Based Tariff: All consumers under this category and opting for Installation based tariff shall be required to pay fixed charges per HP as per the applicable tariff rates for this category. If the inspecting officer during the inspection of a premises finds excess load (more than 114 HP) then the inspecting officer has to serve one month notice to the consumer for regularisation of excess load (above 114 HP). After the expiry of the said one month, the inspecting officer will inspect the premises again and if he still finds un-regularized load in the premises, action may be taken as per law.

Consumer Category	Fixed Charges		Energy Charges
LTIS	Unit	Rate	Rate (Rs/kWh)
LTIS (Installation based Tariff)	Rs/HP/Month	130	4.90

Demand Based Tariff: All consumers under this category and opting for Demand Based tariff shall be required to pay Demand charges per kVA at the rate applicable to HT consumers drawing power at 11 kV. The restriction of connected load will not apply to consumers opting for Demand Based Tariff.

Consumer Category	Demand Charges		Energy Charges
LTIS	Unit	Rate	Rate (Rs/kWh)
LTIS (Demand based Tariff)	Rs/kVA/Month	235	4.90

Note: The billing demand shall be the maximum demand recorded during the month or 50% of contract demand whichever is higher. In case actual demand is recorded at more than 100 kVA in any month, the same shall be treated as the new contract demand for the purpose of billing of future months and the consumer will have to get into a new Agreement under the HTS category for the revised contracted demand with the Petitioner as per the terms and conditions of HT supply.

Delayed Payment Surcharge: In accordance with Clause IV of Terms & Conditions of Supply as provided in Section 14 of this Tariff Order.

Power Factor Penalty/ Rebate: In accordance with Clause II of Terms & Conditions of Supply as provided in Section 14 of this Tariff Order.

Installation of Shunt capacitors: In accordance with Clause VII of Terms & Conditions of Supply as provided in Section 14 of this Tariff Order.

Irrigation & Agriculture Service (IAS)

Applicability:

This schedule shall apply to all consumers for use of electrical energy for Agriculture purposes including tube wells and processing of the agricultural produce, confined to Chaff-Cutter, Thresher, Cane crusher and Rice-Hauler, when operated by the agriculturist in the field or farm and does not include Rice mills, Flour mills, Oil mills, Dal mills, Rice-Hauler or expellers.

Service Category:

IAS – I: For private tube wells and private lift irrigation schemes.

IAS – II: For State Tube-wells and State lift Irrigation schemes.

Service Character:

AC 50 Cycles, Single Phase at 230 volts / 3 Phase at 400 volts

Tariff:

Consumer Category	Fixed Charges		Energy Charges
Irrigation & Agricultural (IAS)	Unit	Rate	Rate(Rs/kWh)
IAS-I (metered)	Rs/HP/Month	Nil	0.60
IAS-I (unmetered)	Rs/HP/Month	70	Nil
IAS-II (metered)	Rs/HP/Month	Nil	1.00
Agriculture-IAS-II (unmetered)	Rs/HP/Month	280	Nil

Delayed Payment Surcharge: In accordance with Clause IV of Terms & Conditions of Supply as provided in Section 14 of this Tariff Order.

Power Factor Penalty/ Rebate: In accordance with Clause II of Terms & Conditions of Supply as provided in Section 14 of this Tariff Order.

Installation of Shunt capacitors: In accordance with Clause VII of Terms & Conditions of Supply as provided in Section 14 of this Tariff Order.

High Tension Voltage Supply Service (HTS)

Applicability:

The schedule shall apply for consumers having contract demand above 100 kVA.

Service Character:

50 Cycles, 3 Phase at 6.6 kV / 11 kV / 33 kV / 132 kV / 220 kV / 400 kV

Tariff:

Consumer Category	Demand Charges		Energy Charges
HTS	Unit	Rate	Rate (Rs/kWh)
11 kV & 33 kV	Rs/kVA/Month	235	5.40
132 kV & above	Rs/kVA/Month	235	5.40

Note: The billing demand shall be the maximum demand recorded during the month or 75% of contract demand whichever is higher. The penalty on exceeding billing demand will be applicable in accordance with Clause I of Terms & Conditions of Supply as provided in Section 14 of this Tariff Order.

Voltage Rebate: In accordance with Clause V of Terms & Conditions of Supply as provided in Section 14 of this Tariff Order.

Load Factor Rebate: In accordance with Clause VI of Terms & Conditions of Supply as provided in Section 14 of this Tariff Order.

Delayed Payment Surcharge: For High tension service category, the Delayed Payment Surcharge will be charged on a weekly basis at the rate of 0.4% per week. The due date for making payment of energy bills or other charges shall be fifteen days from the date of serving of bill. The bill should be generated and delivered on monthly basis. In case, the licensee defaults in generating and delivering bills on monthly basis, DPS will not be charged for the period of default by licensee.

Power Factor Penalty/ Rebate: In accordance with Clause II of Terms & Conditions of Supply as provided in Section 14 of this Tariff Order.

TOD Tariff for HTS Consumers: In accordance with Clause VIII of Terms & Conditions of Supply as provided in Section 14 of this Tariff Order.

HT Special Service (HTSS)

Applicability:

This tariff schedule shall apply to all consumers who have a contracted demand of 300 KVA and more for induction/arc Furnace. In case of induction/arc furnace consumers (applicable for existing and new consumers), the contract demand shall be based on the total capacity of the induction/arc furnace and the equipment as per manufacturer technical specification and not on the basis of measurement. This tariff schedule will not apply to casting units having induction furnace of melting capacity of 500 Kg or below.

Service Character:

50 Cycles, 3 Phase at 11 kV / 33 kV / 132 kV / 220 kV / 400 kV

Tariff:

Consumer Category	Demand Charges		Energy Charges
HT Special Service	Unit	Rate	Rate (Rs/kWh)
11 kV	Rs/kVA/Month	410	3.25
33 kV	Rs/kVA/Month	410	3.25
132 kV & above	Rs/kVA/Month	410	3.25

Note: The billing demand shall be the maximum demand recorded during the month or 75% of contract demand whichever is higher. The penalty on exceeding billing demand will be applicable in accordance with Clause I of Terms & Conditions of Supply as provided in Section 14 of this Tariff Order.

Voltage Rebate: In accordance with Clause V of Terms & Conditions of Supply as provided in Section 14 of this Tariff Order.

Load Factor Rebate: In accordance with Clause VI of Terms & Conditions of Supply as provided in Section 14 of this Tariff Order.

Delayed Payment Surcharge: For High tension special service category, the Delayed Payment Surcharge will be charged on a weekly basis at the rate of 0.4% per week. The due date for making payment of energy bills or other charges shall be fifteen days from date of serving of bill. The bill should be generated and delivered on monthly basis. In case, the licensee defaults in generating and delivering bills on monthly basis, DPS will not be charged for the period of default by licensee.

Power Factor Penalty/ Rebate: In accordance with Clause II of Terms & Conditions of Supply as provided in Section 14 of this Tariff Order.

Railway Traction Service (RTS)
Applicability

This tariff schedule shall apply for use of railway traction only.

Service Character:

AC, 50 cycles, Single phase at 25 kV or 132 kV.

Tariff:

Consumer Category	Demand Charges		Energy Charges
Traction	Unit	Rate	Rate(Rs/Kwh)
RTS	Rs/kVA/Month	220	5.40

Note: The billing demand shall be the maximum demand recorded during the month or 75% of contract demand whichever is higher. The penalty on exceeding billing demand will be applicable in accordance with Clause I of Terms & Conditions of Supply as provided in Section 14 of this Tariff Order.

Maximum Demand for RTS

The demand charge shall be applied on maximum demand recorded or 75% of the contract demand whichever is higher at any fifteen minutes time block for which the meter installed should have 15 minutes integration time.

Delayed Payment Surcharge: In accordance with Clause IV of Terms & Conditions of Supply as provided in Section 14 of this Tariff Order.

Power Factor Penalty/ Rebate: In accordance with Clause II of Terms & Conditions of Supply as provided in Section 14 of this Tariff Order.

Street Light Service (SS)

Applicability

This tariff schedule shall apply for use of Street Lighting system, including single system in corporation, municipality, notified area committee, panchayats etc. and also in areas not covered by municipalities and Notified Area Committee provided the number of lamps served from a point of supply is not less than 5.

Service Character:

AC, 50 cycles, Single phase at 230 Volts or three phase at 400 Volts.

Category of Service:

S.S-I: Metered Street Light Service

S.S-II: Unmetered Street Light Service

Tariff:

Consumer Category	Demand Charges		Energy Charges
Street Light Service	Unit	Rate	Rate(Rs/kWh)
SS-I (metered)	Rs/ Conn/Month	35	4.45
SS-II (unmetered)	Rs/ Conn/Month	Rs. 140 per 100 watt lamp and Rs. 30 for every additional 50 watt	Nil

Delayed Payment Surcharge: In accordance with Clause IV of Terms & Conditions of Supply as provided in Section 14 of this Tariff Order.

Rural Electric Co-operative (REC)/ A Small Housing Group (SHG)

Applicability

This tariff schedule shall apply for use in Electric Co-operatives (licensee) for supply at 33 kV or 11kV. It also includes village Panchayats where domestic and non-domestic rural tariff is not applicable.

Service Character: AC, 50 cycles, Three phase at 11 kV.

Tariff:

Consumer Category	Energy Charges
	Rate(Rs/kWh)
REC	0.90

Delayed Payment Surcharge: In accordance with Clause IV of Terms & Conditions of Supply as provided in Section 14 of this Tariff Order.

Bulk Supply to Military Engineering Service (MES)

Applicability

This tariff schedule shall apply to Military Engineering Services (MES) for a mixed load in defence cantonment and related area.

Tariff:

Consumer Category	Fixed Charges		Energy Charges
MES	Unit	Rate	Rate(Rs/kWh)
MES	Rs/kVA/Month	205	4.05

Note: The billing demand shall be the maximum demand recorded during the month or 75% of contract demand whichever is higher. The penalty on exceeding billing demand will be applicable in accordance with Clause I of Terms & Conditions of Supply as provided in Section 14 of this Tariff Order.

Delayed Payment Surcharge: In accordance with Clause IV of Terms & Conditions of Supply as provided in Section 14 of this Tariff Order.

Schedule for Miscellaneous Charges

S.No.	Purpose	Scale of Charges	Manner in which payment will be realized
1	**Application fee**		
	Agriculture	10	Application should be given in standard requisition form of the Board which will be provided free of cost. Payable in cash in advance along with the intimation
	Street light	20	
	Domestic	15 (Kutir Jyoti) 20 (Others)	
	Commercial	20	
	Other LT categories	50	
	HTS	100	
	HTSS, EHTS, RTS	100	
2	**Revision of estimate when a consumer intimates changes in his requirement subsequent to the preparation of service connection estimate based on his original application**		
	Agriculture	10	Payable in cash in advance along with the intimation for revision
	Domestic	30	
	Commercial	30	
	Other LT categories	50	
	HT Supply	150	
3	**Testing of consumers Installation**		
	First test and inspection free of charge but should any further test and inspection be necessitated by faults in the installation or by not compliance with the conditions of supply for each extra test or inspection	100	Payable in cash in advance along with the request for testing
4	**Meter test when accuracy disputed by consumer**		
	Single phase	40	To be deposited in cash in advance. If the meter is found defective within the meaning of the Indian Electricity Rules 1956, the amount of advance will be refunded and if it is proved to be correct within the permissible limits laid down in the Rules, the amount will not be refunded.
	Three phase	100	
	Trivector/ special type meter	650	
5	**Removing/ Refixing of meter**		
	Single phase	50	Payable in cash in advance along with the intimation for revision
	Three phase	100	
	Trivector/ special type meter	300	
6	**Changing of meter /meter equipment/fixing of sub meter on the request of the consumer/fixing of sub meter**		
	Single phase	50	Payable in cash in advance along with the intimation for revision
	Three phase	100	
	Trivector/ special type meter	300	
7	**Resealing of meter when seals are found broken**		

S.No.	Purpose	Scale of Charges	Manner in which payment will be realized
	Single phase	25	Payable with energy bill
	Three phase	50	
	Trivector/ special type meter	100	
8	**Replacement of meter card, if lost or damaged by consumer**	**10**	Payable with energy bill
9	**Fuse call – Replacement**		
	Board fuse due to fault of consumer	15	Payable with energy bill
	Consumer fuse	15	
10	**Disconnection/ Reconnection**		
	Single phase	30	Payable in cash in advance along with the request by the consumer. If the same consumer is reconnected/ disconnected within 12 months of the last disconnection/ reconnection, 50% will be added to the charges
	Three phase	75	
	LT Industrial Supply	300	
	HT Supply	500	
11	**Security Deposit**		**As per clause 10.0 of the JSERC (Electricity Supply code) Regulations, 2005**

SECTION 14: TERMS AND CONDITIONS OF SUPPLY

Besides the Terms and Conditions provided in the JSERC (Electricity Supply Code), Regulations, 2005, the Commission approves the following additional terms & conditions of supply.

Clause I: Penalty for exceeding Billing/ Contract Demand

In case of the actual demand exceeding 110% of the contract demand, the consumer shall pay penal charges for the exceeded demand. The penal charges would be charged as follows:

If the recorded demand exceeds 110% of Contract Demand, then the demand charge upto 110% of contract demand will be charged as per the normal tariff rate. The remaining recorded demand over and above 110% will be charged @ 1.5 times the normal tariff rate.

In case actual demand is higher than the contract demand for three continuous months, the same shall be treated as the new contract demand for the purpose of billing of future months and the consumer will have to get into a new agreement for the revised contract demand with the licensee.

Once the actual demand is recorded to be higher than contract demand for two continuous months, the licensee would serve notice to the consumer after the end of the second month for enhancement of the contract demand. The consumer would be liable to respond within 15 days of receipt of such notice and submit application for enhancement of contract demand to the licensee. The licensee would, within 15 days of receipt of response from the consumer, finalise the new agreement after making necessary changes at consumer's installations.

In case the consumer fails to respond within 15 days, the licensee would have the right to initiate enhancement of load as per the last recorded contract demand. While, in case the consumer provides an undertaking that the actual demand shall not exceed the contract demand again for a period of atleast six months from the last billing, the licensee shall continue to bill the consumer as per the existing contract demand and billing demand.

Provided that if the consumer fails to adhere to the undertaking and the actual demand exceeds the contract demand within the subsequent six months of the undertaking, the consumer shall have to pay a penal charge of 2 times the normal tariff for a period of three consecutive months and the licensee shall, after serving 7 days notice to the consumer, enhance the contract demand of the consumer as per the last recorded actual demand.

Clause II: Power factor Penalty/Rebate

Power Factor Penalty:

Power Factor Penalty will be applicable in case of maximum demand meters.

In case average power factor in a month for a consumer falls below 0.85, a penalty @ 1% for every 0.01 fall in power factor from 0.85 to 0.60; plus 2% for every 0.01 fall below 0.60 to 0.30 (up to and including 0.30) shall be levied on both demand and energy charges; plus 3% for every 0.01 fall below 0.30.

Power Factor Rebate:

Power Factor rebate will be applicable in case of maximum demand meters.

In case average power factor as maintained by the consumer is more than 85%, a rebate of 1% and if power factor is more than 95%, a rebate of 2% on demand and energy charges shall be applicable.

Clause III: Jharkhand Electricity Duty

The charges in this tariff schedule do not include charges on account of Electricity Duty/ Surcharge to the consumers under the Jharkhand Electricity Duty Act, 1948 and the rules framed there under as amended from time to time and any other Statutory levy which may take effect from time to time after making corrections for the loss in the distribution system.

Clause IV: Delayed Payment Surcharge

The delayed payment surcharge will be at the rate of 1.5% per month and part thereof. The due date for making payment of energy bills or other charges shall be fifteen days from the date of serving of bill. The bill should be generated and delivered on monthly basis. In case, the licensee defaults in generating and delivering bills on monthly basis, DPS will not be charged for the period of default by licensee.

Clause V: Voltage Rebate

Voltage rebate will be applicable on both demand and energy charges as given below:

Consumer Category	Voltage Rebate
HTS - 33 kV	3.00%
HTS - 132 kV	5.00%
HTS - 220 kV	5.50%
HTS - 400 kV	6.00%

Note: The above rebate will be available only on monthly basis and consumer with arrears shall not be eligible for the above rebates. However, the applicable rebates shall be allowed to consumers with outstanding dues, wherein such dues have been stayed by the appropriate authority/Courts.

Clause VI: Load Factor Rebate

Load Factor rebate will be applicable on both demand and energy charges as given below:

Load Factor	Load Factor Rebate
40-60%	Nil
60-70%	7.5%
70-100%	10%

Note: The above rebate will be available only on monthly basis and consumer with arrears shall not be eligible for the above rebates. However, the applicable rebates shall be allowed to consumers with outstanding dues, wherein such dues have been stayed by the appropriate authority/Courts.

Clause VII: Installation of Shunt capacitors

All consumers having aggregate inductive load greater than 3 HP (2.2 kW) and above (except domestic and street lights), shall install capacitors of required KVAR rating provided in the following table:

Rating of individual Inductive Load in HP	kVAR rating of LT capacitors
3 to 5	1
5 to7.5	2
7.5 to10	3
10 to 15	4
15 to 20	6
20 to 30	7
30 to 40	10
40 to 50	10 – 15
50 to 100	20 – 30

For existing consumer, the Petitioner should first serve one month's notice to all such consumers who do not have or have defective shunt capacitors. In case the consumers does not get the capacitor installed/replaced within the notice period, the consumer shall be levied a surcharge at 5% on the total billed amount charge (metered or flat), till they have installed the required capacitors.

No new connection shall be released for any consumer having aggregate inductive load greater than 3 HP (2.2 kW) unless the capacitors of suitable rating are installed.

Clause VIII: TOD Tariff

TOD tariff proposed shall be applicable as follows-

- Off Peak Hours: 10:00 PM to 06:00 AM: 85% of normal rate of energy charge.
- Peak Hours: 06:00 AM to 10:00 AM & 06:00 PM to 10:00 PM: 120% of normal rate of energy charge

Clause IX: Other Terms & Conditions

Point of Supply

The Power supply shall normally be provided at a single point for the entire premises. In certain categories like coal mines power may be supplied at more than one point on request of consumer subject to technical feasibility. But in such cases metering and billing shall be done separately for each point.

Dishonoured Cheques

In the event of dishonored cheque for payment against a particular bill, the Licensee shall charge a minimum of Rs 300 or 0.5% of the billed amount, whichever is higher. The DPS shall be levied extra as per the applicable terms and conditions of DPS for the respective category.

Stopped/ defective meters

In case of existing consumers with previous consumption pattern, the provisional average bill shall be issued on the basis of average of previous twelve months consumption.

In case of meter being out of order from the period before which no pattern of consumption is available, the provisional average bill shall be issued on the basis of sanctioned/ contract load on following load factor applicable to respective categories**,** as shown below:

Consumer Category	Load Factor
Domestic & Religious Institution	0.10
Non-Domestic	0.20
LTIS/ PHED LT	0.15
DS-HT	0.15
HTS	
11 KV	0.25
33 KV	0.30
132/220/400 KV	0.50
HTSS	0.50
RTS	0.25

Sale of energy

No consumer shall be allowed to sell the electricity purchased from the Licensee to any other person/ entity.

Release of new connections

No new connections shall be provided without appropriate meter. The tariff for un-metered connections shall be applicable only to the existing un-metered connections, until they are metered.

Conversion factors

The following shall be the conversion factors, as and where applicable**:** (PF=0.85):

1 Kilowatt (KW) = 1.176 Kilovolt ampere (kVA)

1 Kilowatt (KW) = 1 / 0.746 Horse Power (HP)

1 Horse Power (1 HP) = 0.878 Kilovolt ampere (KVA)

Fuel & Power Purchase Cost Adjustment (FPPCA)

Applicable as per the Clause 6.59 to 6.65 of the 'Distribution Tariff Regulations, 2010' and as amended by the Commission from time to time.

SECTION 15: STATUS OF THE DIRECTIVES ISSUED BY THE COMMISSION PREVIOUS IN TARIFF ORDER

Directives as per Tariff Order 2003-04

Directives as per Tariff Order FY 2003-04	JSEB's Response in the Petition of FY 2006-07	Commission's View in the Tariff Order of FY 2006-07	JSEB's Response in the Tariff Petition of FY 2008-09	Commission's View in the Tariff Order of FY 2010-11	JSEB's Response in the Petition of FY 2011-12	Commission's View in the Tariff Order of FY 2011-12	JSEB's Response in the Petition of FY 2012-13	Commission views in this Tariff Order
Metering and Kutir Jyoti scheme The Commission directed the Board to submit an action plan for complete metering and not to issue any new connection without a meter from the date of issue of Tariff Order for FY 2003-04. With regards to Kutir Jyoti (KJ) the Board was directed to undertake strict measures to check the consumption level in KJ and to bring all consumers drawing more	The Board submitted that it has been undertaking metering of all categories of its consumers except rural domestic and agriculture consumers. The Board requested the Commission to provide an extension of two years for correct metering of rural domestic and agriculture consumers. Further, the Board submitted that instructions have been issued to the field officers for quarterly checking of	The Commission is of the view that the Board should have provided an action plan for complete metering within the stipulated time frame. However, the Board has failed to do so. The current request of the Board holds no merit as already three years have passed. A significant progress could have been achieved in such a long time. Further the Commission feels that Boards inaction regarding consumer metering has	JSEB submits that it has been taking steps to curb the theft by replacing the non-performing/ defective meters on a regular basis. It is further in the process of replacement of defective meters actively and would replace all the defective meter	The Petitioner has not complied with the directive. The Petitioner is directed to prepare and submit the comprehensive metering plan for Kutir Jyoti connections within three months of this Order.	The Petitioner has submitted that it has released connections under the Kutir Jyoti/ BPL category and are only being given with meters and so far, 4,36,106 connections have been released under the scheme. The Petitioner has also submitted that it has purchased additional 50,000 meters for replacement of defective meters. Out of the same 5,000 meters have been allotted for installation of meters for Kutir Jyoti	The Petitioner is directed to submit a phase wise metering plan for metering of Kutir Jyoti connection within three months of the issue of this order and subsequently submit quarterly progress reports to the Commission.	JSEB submits that as per the direction given by Hon'ble Commission, no service connection to BPL consumers has been released without meter. Fifty thousand (50000) new meters has been purchased by the board majorly to meter the unmetered consumers in rural areas. These meters have been installed on the priority basis in rural areas and replacement of burnt/ defective meters in urban areas as well	The Petitioner has complied with the Directive.

Directives as per Tariff Order FY 2003-04	JSEB's Response in the Petition of FY 2006-07	Commission's View in the Tariff Order of FY 2006-07	JSEB's Response in the Tariff Petition of FY 2008-09	Commission's View in the Tariff Order of FY 2010-11	JSEB's Response in the Petition of FY 2011-12	Commission's View in the Tariff Order of FY 2011-12	JSEB's Response in the Petition of FY 2012-13	Commission views in this Tariff Order
power than the permissible level to the next domestic category.	connected load of the consumers under Kutir Jyoti category.	caused T&D loss levels to rise further. Further, the Commission has observed that the Board has provided no details regarding the results and findings of the strict measures for controlling the sales under the KJ category. This proves that the Board has no monitoring process as such.			connections in the first phase and more meters are being purchased to achieve complete metering.		Order for procurement of single phase meter for providing rural connection are in progress	
Performance of PTPS The Commission directed the Board to undertake necessary steps to reduce SHR and increase the PLF to its optimal level and to separately account the consumption in the nearby areas	The Board submitted that it has signed an agreement with NTPC on 30th August 2005 under partners in Excellence Program of Ministry of Power, GOI. Under this programme, NTPC has deputed its seven engineers for	The Commission has observed that no step have been taken to carry out the directions of the Commission. This is evident from the fact that PLF and other operating parameters of PTPS have deteriorated further making it the most costly power for	The Board submitted that it has taken up overhauling and repairing work for almost all the units of PTPS and the timeliness for Commissioning of each is submitted with the proposal.	The Petitioner has not given any overhauling plan for each of its Unit, within a period of three months.	The Petitioner has submitted that it has assessed the cost of R&M for various units of PTPS: Unit-I: 50 MW: Under shut down due to jamming of rotor: Cost of restoration Rs 5.3 Crs. Unit 2: 50 MW:	The Commission has allowed the total investment plan as proposed by the Petitioner from carrying out R&M works for various units of PTPS. The Commission directs the	JSEB submits that in compliance to the directive given by the Hon'ble Commission, Unit 4 and 6 of PTPS are operational and generating around 75 to 80 MW. Unit 10 of 100 MW is likely to	The Commission views that the Petitioner has been taking steps for improvement in operational performance of PTPS. However, it is still not in the line with the targets set in 'Distribution Tariff Regulations,

Directives as per Tariff Order FY 2003-04	JSEB's Response in the Petition of FY 2006-07	Commission's View in the Tariff Order of FY 2006-07	JSEB's Response in the Tariff Petition of FY 2008-09	Commission's View in the Tariff Order of FY 2010-11	JSEB's Response in the Petition of FY 2011-12	Commission's View in the Tariff Order of FY 2011-12	JSEB's Response in the Petition of FY 2012-13	Commission views in this Tariff Order
of PTPS and estimate auxiliary consumption net of this level. The Commission also directed the Board to step up its supervision to reduce the coal transit losses. The Board was further directed to submit an action plan within three months for proper fuel management system to improve the efficiency of plant.	two years to improve the performance of PTPS. The Board has requested to the Commission to provide time till March 2007 to install meters and measure the net auxiliary consumption of PTPS. The Board submitted that the scope available to it to reduce coal transit losses is limited. The reason for high coal transit losses lie with other entities party in the transaction, viz. Coal India and Indian Railways. The Board submitted that it intends to appoint consultants for	Jharkhand. For pit head generating plants transit loss should be 0.3 % as per the JSERC norms. However the Board has proposed a transit loss of 4% for PTPS. The Commission is of the view that the Board instead of identifying the causes for transit losses has been passing on its responsibilities to other entities. The Board request for time till March 2007 to install meters for measurement of auxiliary consumption proves a slow progress on tracking down and removing its inefficiencies .March 2007 has already elapsed			Under shut down due to boiler explosion, Cost of restoration Rs 5 Crs Unit 3: 50 MW: Is planned to be phased out in accordance with CEA recommendation Unit 4: 50 MW: Running: Cost of restoration Rs 3 Crs. - Unit 5: Is planned to be phased out in accordance with CEA recommendation Unit 6: 100 MW: Running with one boiler: Cost of restoration Rs 64 Crs. Unit 7: 110 MW: Under shut down since 30.09.2010 due to earth fault in stator: Cost of restoration Rs 271 Crs.	Petitioner to submit the quarterly progress report in respect of R&M works carried out in various units of PTPS.	come by Oct'12 which will add 110 MW generations to the existing generation.	2010'. Thus, the Petitioner is directed to prepare action and implementation plan for ensuring performance as per targets set by Commission and also submit quarterly progress reports in respect of R&M works carried out in various units of PTPS.

Directives as per Tariff Order FY 2003-04	JSEB's Response in the Petition of FY 2006-07	Commission's View in the Tariff Order of FY 2006-07	JSEB's Response in the Tariff Petition of FY 2008-09	Commission's View in the Tariff Order of FY 2010-11	JSEB's Response in the Petition of FY 2011-12	Commission's View in the Tariff Order of FY 2011-12	JSEB's Response in the Petition of FY 2012-13	Commission views in this Tariff Order
	developing the Fuel Management System.	the Board may provide details of progress made.			Unit 8: 110 MW: Under shut down since August "03. M/s Evonik is consultant. : Heavy investment is required for restoration; decision on the same is yet to be taken. Unit 9 & 10: 110 MW each: Damaged in fire incident on 10.08.06. Restoration is being done: Cost of restoration Rs 331.11 Crs. The total restoration/ R&M cost thus stands at Rs 1045.41 crs. The Petitioner has stated that it has already commenced work against			

Directives as per Tariff Order FY 2003-04	JSEB's Response in the Petition of FY 2006-07	Commission's View in the Tariff Order of FY 2006-07	JSEB's Response in the Tariff Petition of FY 2008-09	Commission's View in the Tariff Order of FY 2010-11	JSEB's Response in the Petition of FY 2011-12	Commission's View in the Tariff Order of FY 2011-12	JSEB's Response in the Petition of FY 2012-13	Commission views in this Tariff Order
					Units 9 & 10 and the same are expected to be completed by February, 2012 and October, 2011 respectively. Also, the CEA has already recommended retirement of units 3 & 5 and it will phase out these units with effect from April, 2012.			
Evacuating 100% power from TVNL Station The Commission directed the Board to undertake necessary capital and R&M expenditure to augment its transmission capacity for evacuating 100% power from TVNL station, and an action	The Board submitted that the 400 kV TTPS-PTPS line is currently under restoration and it is planning to construct the following lines: - 400 KV double circuit TTPS Ranchi line 220KV TTPS Haldia (Ranchi) double ckt transmission line 220kv	The Commission would like to highlight that progress of the Board has been slow on this front. Such a slow progress could further jeopardize the already fragile power situation in the State.	The Board has not submitted any response in regards to this directive in the Tariff Petition of FY 2008-09.	The Petitioner is directed to give the status report within three months of this order	The Petitioner has submitted that TVNL has awarded the construction of 400 kV bays at TTPS to Power Grid Corporation of India Limited (PGCIL) and with the completion of this work, the evacuation of this power at 400 KV at TTPS would start.	The Commission notes that the Petitioner has submitted action plan of TVNL, while keeping silent on its own action plan for evacuation of power. The Commission directs the Petitioner to give the status report of its	JSEB submits that in compliance to the directives given by the Hon'ble Commission, it has submitted the proposal to the Govt. Of Jharkhand for approval.	The Commission directs the Petitioner to take it up on urgent basis with the GoJ and update the status to the Commission with next tariff Petition.

Directives as per Tariff Order FY 2003-04	JSEB's Response in the Petition of FY 2006-07	Commission's View in the Tariff Order of FY 2006-07	JSEB's Response in the Tariff Petition of FY 2008-09	Commission's View in the Tariff Order of FY 2010-11	JSEB's Response in the Petition of FY 2011-12	Commission's View in the Tariff Order of FY 2011-12	JSEB's Response in the Petition of FY 2012-13	Commission views in this Tariff Order
plan in this regard was to be submitted to the Commission within three months from the date of issue order for FY 2003-04.	double ckt TTPS Govindpur transmission line					preparedness within a month of this Order		

Directives as per Tariff Order 2006-07

Directives as per TO 2006-07	JSEB's Response in Tariff Petition of FY 2008-09	Commission's View in the Tariff Order of FY 2010-11	JSEB's Response in the Petition of FY 2011-12	Commission's View in the Tariff Order of FY 2011-12	JSEB's Response in the Petition of FY 2012-13	Commission views in this Tariff Order
Sales Estimates and Projections The Commission directed the Petitioner to undertake a detailed study for load research and demand forecast in order to correctly workout its short term and long term energy requirement	The Petitioner submitted that load research and demand forecast requires huge database and information to arrive at meaningful result. Therefore, it is making all the efforts to improve its database through various IT initiatives and manual interfaces. JSEB submits that it is in the process of finalization of RFP for undertaking consumer indexing and also in the process of implementing Billing Revenue and Energy Management System (BREMS). The Petitioner submits that once the database is strong enough to support the scientific study it would appoint a consultant to undertake the load research and demand forecast.	The Commission directs the Petitioner to submit the status report within 3 months of this Order. The Commission also directs the Petitioner to submit the status report on the RFP for BREMS within three months of the issue of this order.	The Petitioner has submitted that it had engaged a consultant in compliance to the Commission's directive but the findings in the report submitted by the consultant were found to be inappropriate for using for the purpose of projections of power purchase as there were gross variations in the projections made by the consultant with the actual. The Petitioner submitted that it is in the process of streamlining the accounting procedure, it has started collecting monthly sales/revenue data from the computerised billing agencies appointed for each circles. Therefore, the estimates submitted for FY 2011-12 are fairly accurate. The Petitioner has also submitted that it is in the process of appointing another consultant for putting in place a process for long-term and short-term demand forecast for enabling a planned approach	The Commission is displeased with the reply submitted by the Petitioner. The directive was issued in FY 2006-07 and more than four years have already passed, the Petitioner is not able to comply with the Commission's directives. The Commission also takes a serious note of the casual attitude shown by the JSEB by not getting the work done successfully. The Commission directs the Petitioner to explain in detail, within three months of the Order, why was the earlier study unsuccessful, the cost borne on the unsuccessful work and also explain why should the consumers of the state bear the cost of unsuccessful work? The Commission further directs the Petitioner to get the work done within three months of	The Petitioner submitted that the task has been taken under R-APDRP scheme where the first part called Part-A covers complete IT enabled system to be completed by Sep'12. As regards to the rural areas, the selection of franchisee is under process.	The Commission directs the Petitioner to provide status updates to the Commission on quarterly basis.

Directives as per TO 2006-07	JSEB's Response in Tariff Petition of FY 2008-09	Commission's View in the Tariff Order of FY 2010-11	JSEB's Response in the Petition of FY 2011-12	Commission's View in the Tariff Order of FY 2011-12	JSEB's Response in the Petition of FY 2012-13	Commission views in this Tariff Order
			to power purchase.	the issue of this Order and submit the compliance report to the Commission with the next Tariff Petition.		
Circle level category-wise consumption The Commission directed the Petitioner to collect and submit the data on number of hours supplied per week to the HTS consumers on a quarterly basis. The Commission also directed the Petitioner that in the next Tariff Petition, the Petitioner should provide category-wise and slab-wise data on sales, number of consumers and connected load and detailed calculations of its revenue	The Petitioner submits that circle wise consumption for different categories and number of hours of supply to various categories has been sought but the information is very detailed and requires large amount of time and manpower for the compilation. The Petitioner states that data collected is inaccurate and inconsistent as it is the first set of data which has been received and further discussions with the field officers would lead to refinement of data. The Petitioner has submitted the raw data to the Commission which it states that is in the crude form and may be inconsistent.	The Commission views that since the Petition was filed last year, the Petitioner had sufficient time since then to get the required data compiled. The Commission directs the Petitioner to start submitting the data within three months of this Order and in every quarter subsequently.	The Petitioner has stated that it has already submitted the estimated provisional category-wise consumption and load for FY 2009-10 and FY 2010-11on November 30, 2010	The Commission has observed that the Petitioner has not submitted the information as per the directive. The Petitioner is directed to submit the actual data for FY 2010-11 including category and slab wise sales, load, revenue as well as number of hours supplied per week to the HTS consumers on a quarterly basis the within three months of this order and then regularly submit quarterly information to the Commission within three months of the end of each quarter.	The Petitioner submitted that the circle wise category wise consumption of energy with slabs, load and revenue would be made available once the Ranchi, Gumla, Jamshedpur and Chaibasa Electric Supply Circle is accomplished with the total data. The Petitioner mentioned that in these four circles the spot billing has been started and entire commercial data for these supply areas have yet to be generated by them. It is expected that within 3-4 months the Board would be in a position to submit the required data for all circle.	The Commission has observed that the Petitioner has not provided sales information for FY 2011-12 for Jamshedpur and Ranchi circles despite repeated reminders by the Commission. The Petitioner is directed to ensure the information is available from next tariff petition, failing which penal action would be taken against the Petitioner.

Directives as per TO 2006-07	JSEB's Response in Tariff Petition of FY 2008-09	Commission's View in the Tariff Order of FY 2010-11	JSEB's Response in the Petition of FY 2011-12	Commission's View in the Tariff Order of FY 2011-12	JSEB's Response in the Petition of FY 2012-13	Commission views in this Tariff Order
estimates with the next Tariff Petition.	The Petitioner further submits that it is in the process of finalization of RFP for undertaking consumer indexing and also in the process of implementing Billing Revenue and Energy management services (BREMS).					
T&D Loss Estimate The Commission directed the Petitioner to formulate a task force for supervising the T&D loss in the state. The Commission also directed the Petitioner to carry out energy audit of its system and provide quarterly reports to the Commission regarding the progress of energy audit, action taken to	The Petitioner submitted that keeping in view the huge target of rural electrification, release of KJ connection and expansion of LT network a huge loss reduction is unachievable. The Petitioner further submitted that it has created Anti Power Theft (APT) cell headed by an officer of the rank of Superintending engineer (SE) and its major role is to monitor the energy consumption patterns of various consumers taking into account the information of	The Commission feels the steps taken by the Petitioner are not sufficient as no quantitative results can be seen. The Petitioner is directed to prepare a detailed plan for the reduction of T&D losses including capital investment required to achieve the same. The plan should be submitted to the Commission within six months of the issue of the order. Regarding T&D loss reduction the Commission directs the Petitioner to	The overall T&D loss level including external losses beyond the State boundary estimated by the Petitioner for the last 4years is summarized in the following table: FY 2007-08: 42.73% FY 2008-09: 42.79% FY 2009-10: 36.51% FY 2010-11 (Sept'10): 34.92% As can be seen from the table above, the T&D losses in the JSEB‟s system have reduced by over 13.51% since 2005-06. This reduction is significantly better than the overall T&D loss reduction achieved at the	The Commission shows its displeasure on the inability of the Petitioner to prepare a T&D loss reduction plan. In compliance to the APTEL's direction 10 in appeal no. 129 of 2007, the Commission, while issuing the Tariff Order for FY 2010-11, had directed the Petitioner to submit its own loss reduction trajectory but the Petitioner failed to respond. In these circumstances, the Commission was compelled to work out a loss reduction trajectory for the Petitioner to achieve the T&D loss level of 15% by the end	JSEB submitted that it is making all efforts to reduce the T&D losses as directed by Hon'ble Commission. But to achieve the assigned target of 18% in FY 2012-13, appears to be non-achievable in view of the fact that there is still a gap of 11.25%. However, the Petitioner submitted that it will continue to put its all effort to stand to the expectation of Hon'ble Commission by the end of FY 2016-17.	The Commission again shows its displeasure on the inability of the Petitioner to prepare a T&D loss reduction plan. It is a matter of grave concern that the Petitioner is not able to provide an actionable T&D loss reduction plan on year to year basis. In this regard, the Commission has issued a fresh directive in Section 16 of this Tariff Order.

Directives as per TO 2006-07	JSEB's Response in Tariff Petition of FY 2008-09	Commission's View in the Tariff Order of FY 2010-11	JSEB's Response in the Petition of FY 2011-12	Commission's View in the Tariff Order of FY 2011-12	JSEB's Response in the Petition of FY 2012-13	Commission views in this Tariff Order
reduce T&D loss and results achieved. The Petitioner was also directed to reduce its T&D loss by 4% every year till normative T&D loss level is reached.	consumers involved in the theft from external sources. The Petitioner submitted that energy audit for all voltage levels, circles and division is undertaken by the energy audit cell of the Petitioner and the report on the same would be submitted as soon as the accurate results are achieved. The Petitioner also submitted that increase in LT network would encourage theft of electricity in the rural as well as the urban areas. However, all the efforts are being made to reduce the losses. The Petitioner has also submitted that it has constituted special task force of two teams headed by an ESE. The Petitioner has submitted that it expects to reach the	follow the trajectory given in Section 7 & 11 of this Order. The results of steps taken be informed every three months	national level during the same period.	of FY 2016-17. The Commission has also reiterated the same loss reduction trajectory in the 'JSERC Distribution Tariff Regulations, 2010'. The Commission now directs the Petitioner to follow the loss reduction trajectory and submit a rolling capital investment plan to ensure reduction of losses to 15% by FY 2016-17. The plan should be submitted within three months of the issue of this Order.		

Directives as per TO 2006-07	JSEB's Response in Tariff Petition of FY 2008-09	Commission's View in the Tariff Order of FY 2010-11	JSEB's Response in the Petition of FY 2011-12	Commission's View in the Tariff Order of FY 2011-12	JSEB's Response in the Petition of FY 2012-13	Commission views in this Tariff Order
	normative levels by FY 2014-15.					
Metering Plan The Commission directed the Petitioner to formulate and submit a metering plan within a period of three months from the date of issue of order. The Commission also directed the Petitioner to report the number of non-performing /defective meters category-wise in the system and an action to replace all such meters with in a period of three months.	JSEB submits that it has been taking steps to curb the theft by replacing the non-performing/ defective meters on a regular basis. It is further in the process of replacement of defective meters actively and would replace all the defective meter	The Petitioner has not complied with the directive of submitting the Metering Plan. The Petitioner is directed to prepare and submit the comprehensive metering plan along with the technical specifications of meters to be installed at various network levels with the next Tariff Petition. The Petitioner shall ensure that the Metering plan is synchronized with the T&D loss reduction plan.	In compliance to the directives issued by the Hon' ble Commission, the JSEB has established a metering plan which includes the following elements: (A) Metering of un-metered connections: - Connections to BPL consumers under the Kutir Jyoti category under the RGGVY scheme are being released only with meters. - The JSEB has released 4,36,106 connections under the scheme so far . All connections have been released with meters. - The JSEB has also purchased 50,000 meters for replacement of defective meters. Out of the same 5,000 meters have been allotted for installation in rural areas against Kutir Jyoti connections in the first phase. - The JSEB is targeting metering of all consumers including domestic/ commercial and the	The Petitioner is directed to submit a copy of the metering plan within three months of the issue of this order. Thereafter, the Petitioner is required to update the Commission on the progress made on a quarterly basis.	The Petitioner submitted it has floated the Tender for appointment of consultant to complete the works given by the Hon'ble Commission as directives for the following studies: 1) Cost of service study and determination of specific subsidies. 2) Manpower planning for generation function. 3) Business plan and tariff Petition for the generation function. 4) Actuarial study for tariff Petition. 5) Study on the feasibility of metering infrastructure and potential savings. 6) Category wise and voltage wise T & D loss and cost of supply. 7) Detailed study for load research and demand forecast. 8) Feasibility study for	The Commission has observed that even though the Petitioner has initiated several studies for system improvement, it has not furnished report on category-wise defective/ non-performing meters and action plan to replace such meters and accordingly the Commission has issued a fresh directive regarding this in Section 16 of this Order.

Directives as per TO 2006-07	JSEB's Response in Tariff Petition of FY 2008-09	Commission's View in the Tariff Order of FY 2010-11	JSEB's Response in the Petition of FY 2011-12	Commission's View in the Tariff Order of FY 2011-12	JSEB's Response in the Petition of FY 2012-13	Commission views in this Tariff Order
			Irrigation & Agricultural categories by March, 2012. (B) Replacement of defective meters: - The JSEB has approximately 80,000 defective meters in the urban areas which are planned to be replaced by December, 2011. - The JSEB has launched incentive schemes for encouraging consumers to get burnt/ defective/ stopped meters replaced. In response to the same, 3806 meters were received from consumers, which have already been replaced		ToD tariff implementation. The JSEB shall submit the report at the earliest.	
Feasibility Study for ToD tariff implementation The Commission directed JSEB to conduct a study on the feasibility (including requirement of metering infrastructure) and potential savings that will accrue from the	JSEB submitted that it would undertake such study with the motive to provide positive results in due course of time.	The Commission directs the Petitioner to conduct the study within six months of this Order.	The JSEB is in the process of appointing consultants for undertaking the study on feasibility of Time-of-Day (ToD) tariff implementation in its license area. The JSEB shall submit the report which is targeted to be completed by June, 2011	The Commission is disappointed that the Petitioner is not sticking to the timelines given by the Commission. The Commission expects to get a copy of the report by end of June, 2011 as submitted by the Petitioner.	The Petitioner submitted it has floated the Tender for appointment of consultant to complete the works given by the Hon'ble Commission as directives for the following studies: 1) Cost of service study and determination of specific subsidies. 2) Manpower planning for generation function. 3) Business plan and	The Commission directs the Petitioner to provide status update to the Commission with the next tariff petition.

Directives as per TO 2006-07	JSEB's Response in Tariff Petition of FY 2008-09	Commission's View in the Tariff Order of FY 2010-11	JSEB's Response in the Petition of FY 2011-12	Commission's View in the Tariff Order of FY 2011-12	JSEB's Response in the Petition of FY 2012-13	Commission views in this Tariff Order
introduction of ToD tariffs for categories of LT industrial consumers.					tariff Petition for the generation function. 4) Actuarial study for tariff Petition. 5) Study on the feasibility of metering infrastructure and potential savings. 6) Category wise and voltage wise T & D loss and cost of supply. 7) Detailed study for load research and demand forecast. 8) Feasibility study for ToD tariff implementation. The JSEB shall submit the report which is targeted to be completed by April, 2012 except for the Generation Business plan which would be submitted by 15th Feb'12.	
Cost of Supply study The Commission directed the Petitioner to carry out	The Petitioner submitted that it has undertaken few sample study of feeders supplying power to only rural consumers on a test basis and the	The Commission directs the Petitioner to submit the action taken report in this regard within three months of the issue of	The JSEB is in the process of appointing consultants for undertaking the study on category wise/ voltage wise Cost-of- Supply (CoS). The JSEB shall submit the report which is targeted to be	The Commission directs the Petitioner to submit the latest position with regard to appointment of consultants to conduct cost of supply study.	The Petitioner submitted it has floated the Tender for appointment of consultant to complete the works given by the Hon'ble Commission	The Commission directs the Petitioner to provide status update to the Commission with the next tariff

Directives as per TO 2006-07	JSEB's Response in Tariff Petition of FY 2008-09	Commission's View in the Tariff Order of FY 2010-11	JSEB's Response in the Petition of FY 2011-12	Commission's View in the Tariff Order of FY 2011-12	JSEB's Response in the Petition of FY 2012-13	Commission views in this Tariff Order
appropriate studies to determine category wise and voltage wise T&D losses and cost of supply and submit it to the Commission within a period of six months from the date of issue of order	results of the study will be made available to the Commission. The Petitioner is also in the process of hiring the services of experienced consultant to undertake the study	this order.	completed by September, 2011.	Further, the Commission expects the report on COS to be submitted by the end of September, 2011 as submitted by the Petitioner.	as directives for the following studies: 1) Cost of service study and determination of specific subsidies. 2) Manpower planning for generation function. 3) Business plan and tariff Petition for the generation function. 4) Actuarial study for tariff Petition. 5) Study on the feasibility of metering infrastructure and potential savings. 6) Category wise and voltage wise T & D loss and cost of supply. 7) Detailed study for load research and demand forecast. 8) Feasibility study for ToD tariff implementation. The JSEB shall submit the report which is targeted to be completed by April, 2012 except for the Generation Business plan which would be submitted by 15th	petition.

Directives as per TO 2006-07	JSEB's Response in Tariff Petition of FY 2008-09	Commission's View in the Tariff Order of FY 2010-11	JSEB's Response in the Petition of FY 2011-12	Commission's View in the Tariff Order of FY 2011-12	JSEB's Response in the Petition of FY 2012-13	Commission views in this Tariff Order
					Feb'12.	
Performance of Self owned power plants The Commission directed the Petitioner to undertake necessary measures for increasing the PLF to its optimal level and to reduce SHR from the existing level and appropriately benchmark the working units with plants of similar background and age. The Commission directed the Petitioner to step up its supervision to reduce the transit loss. The Commission directed the Petitioner to look	The Petitioner submitted that it has taken up overhauling and repairing work for almost all the units of PTPS and the timeliness for Commissioning of each is submitted with the proposal. JSEB submitted that CCL was supplying +200 mm sized coal which was lumpy and oversized mixed with stones due to which coal handling plant of PTPS used to get damaged frequently, including tearing of conveyor belt etc. During FY 2005-06, CCL arranged crushing of coal at their end and PTPS requested CCL authority for loading of 100% crushed coal of PTPS.CCL agreed and supplied crushed coal to PTPS at the crushed coal rate.	The Commission directs the Petitioner to submit quarterly reports on the operational parameters i.e. PLF,SHR, Auxiliary Consumption, Price of Coal and oil, GCV of Coal and oil, transit losses for the generating stations to the Commission. The Commission also directs the Petitioner to submit the action taken report on the tendering process for O&M of Getalsud Water Project within three months of the issue of this order.	In compliance to the directive given by the Hon"ble Commission, the JSEB has assessed the cost of R&M for restoration of the various units of the PTPS are summarized below: - Unit 1: 50 MW: Under shut down due to jamming of rotor.: Cost of restoration Rs 5.3 Crs. - Unit 2: 50 MW: Under shut down due to boiler explosion. Cost of restoration Rs 5 Crs. - Unit 3: 50 MW: Is planned to be phased out in accordance with the recommendation of the CEA. - Unit 4: 50 MW: Running: Cost of restoration Rs 3 Crs. - Unit 5: Is planned to be phased out in accordance with the recommendation of the CEA. - Unit 6: 100 MW: Running	The Commission directs the Petitioner to submit quarterly report on progress made under R&M schemes of the respective units. The Commission once again directs the Petitioner to submit the action taken report on the tendering process for O&M of Getalsud Water Project within three months of the issue of this order.	The Petitioner submitted that in compliance to the directive given by the Hon'ble Commission, it has assessed the cost of R&M for restoration of the various units of the PTPS and the necessary action is being taken by the Board.	The Commission directs the Petitioner to submit action taken report in the next tariff petition.

Directives as per TO 2006-07	JSEB's Response in Tariff Petition of FY 2008-09	Commission's View in the Tariff Order of FY 2010-11	JSEB's Response in the Petition of FY 2011-12	Commission's View in the Tariff Order of FY 2011-12	JSEB's Response in the Petition of FY 2012-13	Commission views in this Tariff Order
into the matter of silting immediately and resolve the conflicts, if any, on priority to improve generation from this plant.	Since then the transit loss has been declining and has come down to 2-2.5% with respect to 5.5% in FY 2003-04. JSEB submitted that there was a meeting regarding the silting problem and it was decided that a competent agency would be engaged to carry out the operation and maintenance of Getalsud Water Project and therefore, an EOI will be issued for engaging a competent agency.		with one boiler: Cost of restoration Rs 64 Crs. - Unit 7: 110 MW: Under shut down since 0.09.2010 due to earth fault in stator: Cost of restoration Rs 271 Crs. - Unit 8: 110 MW: Under shut down since August "03. M/s Evonik is consultant. : Cost of restoration Rs 256 Crs. - Unit 9 & 10: 110 MW each: Damaged in fire incident on 10.08.06. Restoration is being done. Cost of restoration Rs 331.11 Crs. The total restoration/ R&M cost thus stands at Rs 1045.41 crs. JSEB has already commenced work against Units 9 & 10 and the same is expected to be completed by February, 2012 and October, 2011 respectively. The CEA has already recommended retirement of units 3 & 5. The JSEB is yet to take a decision on the retirement of the units in accordance to the			

Directives as per TO 2006-07	JSEB's Response in Tariff Petition of FY 2008-09	Commission's View in the Tariff Order of FY 2010-11	JSEB's Response in the Petition of FY 2011-12	Commission's View in the Tariff Order of FY 2011-12	JSEB's Response in the Petition of FY 2012-13	Commission views in this Tariff Order
			recommendations of the CEA. In case, it is decided that these units shall be retired, the R&M expenses estimate will not be incurred by the JSEB. In view of the above, JSEB prays to the Hon"ble Commission to calculate the PLF based only on the operational units of the plant, that is, units 1, 2, 4, 6 and 7. A comparison of the efficiency levels of the PTPS along with those allowed for the Barauni (BTPS) by the Hon"ble Bihar Electricity Regulatory Commission have been elaborated in the Chapter on True Up provided in this Petition earlier. PUT ON SIKIDRI The JSEB has no control over the availability of water which is grossly dependent on rains. Waterways department make available water only after ensuring adequate			

Directives as per TO 2006-07	JSEB's Response in Tariff Petition of FY 2008-09	Commission's View in the Tariff Order of FY 2010-11	JSEB's Response in the Petition of FY 2011-12	Commission's View in the Tariff Order of FY 2011-12	JSEB's Response in the Petition of FY 2012-13	Commission views in this Tariff Order
			drinking water for months Together.			
Actuarial Studies The Commission directed the Petitioner to provide details of actuarial studies being undertaken by it with the next Tariff Petition, as any revision in the terminal benefits would have to be based on the same.	The Petitioner submits that that it has appointed an individual actuarial and LIC for conducting actuarial studies for JSEB. It states that it has already provided the preliminary data to LIC and has not yet received any preliminary report on the same. JSEB further states that whenever the analysis is done and first hand results are available, a brief report would be submitted to the Commission.	The Commission directs the Petitioner to follow up with the actuarial for the submission of the report and the status report is submitted to the Commission within 3 months of the date of the issue of this order.	In compliance to the directive given by the Hon‟ble Commission, the JSEB had earlier appointed an independent Actuary and LIC for conducting actuarial studies for the JSEB. However, the same has resulted in no outcome so far despite persistent pursuance by the JSEB. The JSEB intends terminate the contracts awarded earlier for the work and award fresh contract to a new agency. The progress on appointment of the new Actuarian shall be reported to the Hon‟ble Commission by March, 2012.	Till date the Petitioner has not submitted any information with respect to appointment of actuary for carrying out actuarial valuation. The Commission is also concerned of the unsuccessful outcome of the earlier study and directs the Petitioner to explain in detail, within one month, the reason for the failure of the study and the cost involved in the study. The Commission directs the Petitioner to appoint the actuary on a priority basis, after ascertaining its technical capability and submit its report within a period of three months from the issue of this order.	The Petitioner submitted it has floated the Tender for appointment of consultant to complete the works given by the Hon'ble Commission as directives for the following studies: 1) Cost of service study and determination of specific subsidies. 2) Manpower planning for generation function. 3) Business plan and tariff Petition for the generation function. 4) Actuarial study for tariff Petition. 5) Study on the feasibility of metering infrastructure and potential savings. 6) Category wise and voltage wise T & D loss and cost of supply. 7) Detailed study for load research and demand forecast. 8) Feasibility study for	The Commission directs the Petitioner to submit action taken report in next tariff petition.

Directives as per TO 2006-07	JSEB's Response in Tariff Petition of FY 2008-09	Commission's View in the Tariff Order of FY 2010-11	JSEB's Response in the Petition of FY 2011-12	Commission's View in the Tariff Order of FY 2011-12	JSEB's Response in the Petition of FY 2012-13	Commission views in this Tariff Order
					ToD tariff implementation. The JSEB shall submit the report which is targeted to be completed by April, 2012 except for the Generation Business plan which would be submitted by 15th Feb'12.	
Capitalization and Asset Registers The Commission directed the Petitioner to declare its capitalization policy and to provide the details regarding CWIP in the next Tariff Petition. The Commission therefore, directs the Petitioner to provide data related to fixed assets and maintain an asset register	JSEB submitted that it has already declared the capital expenditure plan for FY 2008-09 along with the ARR JSEB further submitted that the asset registers are not readily available due to the bifurcation from the erstwhile Bihar and huge effort will be required to create it.	The Commission directs the Petitioner to conduct study and creation of Fixed Asset Registers (FAR). The Fixed Assets register should be prepared within the time bound manner and the Petitioner should submit the action taken report to the Commission in this regard within six months of the issue of this Order.	The JSEB has been following the prescribed accounting policies for capitalization of expenses of capital nature. In accordance with the same any capital expenditure against any particular work is accounted as capital work in progress (CWIP) until the same is Commissioned/ put to use. The JSEB in compliance to the directives issued by the Hon‟ble Commission in its previous Tariff Order has streamlined its annual accounts. The annual accounts upto FY 2009-10 have already been approved by the board of the JSEB and are at different stages of	The Commission is satisfied with the response of the Petitioner and directs the Petitioner to submit report every half yearly.	JSEB has submitted that in the present tariff Petition the capitalization of assets which are under commercial operation as on date. As regards to the Assets register, the Consultant for the same are under appointment process	The Commission directs the Petitioner to provide status update to the Commission in next tariff petition.

Directives as per TO 2006-07	JSEB's Response in Tariff Petition of FY 2008-09	Commission's View in the Tariff Order of FY 2010-11	JSEB's Response in the Petition of FY 2011-12	Commission's View in the Tariff Order of FY 2011-12	JSEB's Response in the Petition of FY 2012-13	Commission views in this Tariff Order
classifying assets on the basis of appendix II of, JSERC Regulations, 2004.			progress of being audited by the CAG. The JSEB has already formulated its capitalization policy, which has been circulated to the field offices for compliance. JSEB has formed committee"s for physical verification stores and emphasis is being given to proper record keeping. The task of physical verification of stores has already been completed for some places. The Capital Works in Progress (CWIP) both opening and closing values are provided in the annual accounts for each year and have been used for the purpose of determination of aggregate revenue requirement in the this Petition. It is submitted that the JSEB was formed after the bifurcation of the BSEB on formation of the separate State of Jharkhand and the asset registers have not been maintained at the field			

Directives as per TO 2006-07	JSEB's Response in Tariff Petition of FY 2008-09	Commission's View in the Tariff Order of FY 2010-11	JSEB's Response in the Petition of FY 2011-12	Commission's View in the Tariff Order of FY 2011-12	JSEB's Response in the Petition of FY 2012-13	Commission views in this Tariff Order
			offices for long. The JSEB in compliance to the directives of the Hon"ble Commission has issued firm instructions to all its concerned field offices. It is to be noted that as the process is being streamlined by the JSEB, the results of the same may take some time. The JSEB shall submit status on the creation/ progress on the issue of asset registers every six months.			
Audited Accounts The Commission directed the Petitioner to submit the audited annual accounts and asset registers for the previous years with detailed explanation and clarification. The Commission also directed the Petitioner to submit both of	The Petitioner submits that the audit of annual accounts is underway and the delay in finalisation is partly due to the decision on finalisation of opening balance of the balance sheet of JSEB. The Petitioner states that it has already approved provisional annual accounts till FY 2005-06 and has submitted the same to CAG for audit. The audit of accounts by CAG is underway and	The Commission directs the Petitioner to file the next Tariff Petition for FY 2011-12 by 1st November 2010 along with the audited accounts.	The JSEB in compliance to the directives issued by the Hon"ble Commission in its previous Tariff Order has streamlined its annual accounts. The annual accounts upto FY 2009-10 have already been approved by the board of the JSEB and are at different stages of progress of being audited by the CAG.	The Commission in the public interest as well as in the interest of the Petitioner has determined the ARR and Tariff Order of the Petitioner for FY 2010-11. However, for ensuing years the Commission directs the Petitioner to pursue with the CAG for timely audit of annual accounts for all the previous years so that the final truing up can be conducted on that basis. Progress report should be submitted to the	The Petitioner submits that it has streamlined its annual accounts in compliance to the directives issued by the Hon'ble Commission in its previous Tariff Order and submitted the same upto FY 2010-11.	The Commission commends the effort of the Petitioner.

Directives as per TO 2006-07	JSEB's Response in Tariff Petition of FY 2008-09	Commission's View in the Tariff Order of FY 2010-11	JSEB's Response in the Petition of FY 2011-12	Commission's View in the Tariff Order of FY 2011-12	JSEB's Response in the Petition of FY 2012-13	Commission views in this Tariff Order
these along with the next Tariff Petition otherwise the Commission in view of data uncertainty will not allow any return on equity in the next Tariff Order.	would be submitted to the Commission upon approval of finalised Annual accounts by CAG.			Commission on quarterly basis.		
Delayed Payment Surcharge The Commission directed the Petitioner to make all efforts to collect the DPS promptly and also maintain complete records of the same, which should be submitted along with the next Tariff Petition	The Petitioner states that the recovery of DPS becomes difficult as it is mostly disrupted. However, it is making all the efforts to collect DPS amount at the earliest and the details of the same would be provided to the Commission in due course of time	The Commission directs the Petitioner to submit half yearly reports on the collection and arrears of DPS. The Commission also directs the Petitioner to formulate measures for resolving the problem of collection of DPS and submit the report within six months of the issue of this Order.	The JSEB in compliance to the directives given by the Commission has been making concerted efforts for recovery of Delayed Payment Surcharge from consumers. However, it is submitted that a large portion of the DPS is on account of long-pending/ disputed bills of certain consumers most of which either pertain to Government installations or consumers who have gone to courts. Therefore, the overall collection against the same has remained negligible against over the years.	The Commission is displeased with the efforts of the Petitioner on the issue. The Commission again directs the Petitioner to take appropriate action on live consumers not paying DPS and also prepare a strategy for collection of DPS from disconnected consumers and submit the same to the Commission within three months of the issue of this Order.	The Petitioner submits that it is planning for deploying franchisee to take care of collection of arrear amount on incentive basis. Apart from that the JSEB is also planning for new metering initiative such as pre-paid meter to recover the arrear including the DPS from the defaulting consumers in the state.	The Commission directs the Petitioner to provide status update to the Commission in next tariff petition.
Standard of Performance	The Petitioner submitted that it is in the process of	The Commission directs the Petitioner to implement the	In compliance to the directive given , the JSEB has implemented the	The Commission appreciates the progress made in this regard by	JSEB submits that that it has started taking cognizance of	The Commission is of the view that this is a

Directives as per TO 2006-07	JSEB's Response in Tariff Petition of FY 2008-09	Commission's View in the Tariff Order of FY 2010-11	JSEB's Response in the Petition of FY 2011-12	Commission's View in the Tariff Order of FY 2011-12	JSEB's Response in the Petition of FY 2012-13	Commission views in this Tariff Order
The Commission directed JSEB to implement the Standards of Performance Regulations by 1st January 2008 and submit the compliance report to the Commission thereafter. If the Petitioner fails to implement this, the energy charge for all categories may be reduced by 2.5% from that date.	strengthening the network and has also awarded work for operation of fuse call centres, Zonal Call Centres. The Petitioner further submits that the tenders are under process for establishing Call Centres, peripheral meters, consumer indexing etc. The Board has requested for review of the penalty for non-performance and suitable time be given for cent percent performance.	Standards of Performance with immediate effect, failing which the penalty as specified in the Tariff Order for FY 2006-07 will be increased from 2.5% to 3%.	Standards of Performance, Regulations issued by the Hon"ble Commission.	the Petitioner and has decided to relax the penalty on SoP from FY 2010-11 onwards. However, the Petitioner needs to give regular updates to the Commission as per the information sought in the JSERC Standards if Performance Regulations, 2005. The Commission Petitioner directs the Petitioner to comply with the SoP Regulations and submit information in the timelines as specified in the said regulation. The failure to do so would reinstate the Penal charges for the period of non-compliance.	consumer grievances in compliance to the directives given by the Hon'ble Commission. A customer care center has been established at the JSEB headquarter which takes care of the consumers complaint throughout the state in the quickest possible time. Further there is a scope in R-APDRP scheme as well for the said purpose. The Board further states that its officers and staffs are available round the clock to meet the emergencies requirement if any. As such the Board is providing its all-out support to the consumer grievances and intends to enhance the support in times to come.	continuous activity and accordingly has issued a fresh directive in Section 16 of this Order.
Rural Consumers	The Petitioner states that it has already collected information on supply of rural	The Commission directs the Petitioner to submit the information on supply	The JSEB is clubbing determination of CoS for rural consumers as a separate task in the overall	The Commission once again directs the Petitioner to submit the information on supply	The Petitioner submits that it is clubbing determination of CoS for rural consumers as	The Commission directs the Petitioner to provide status

Directives as per TO 2006-07	JSEB's Response in Tariff Petition of FY 2008-09	Commission's View in the Tariff Order of FY 2010-11	JSEB's Response in the Petition of FY 2011-12	Commission's View in the Tariff Order of FY 2011-12	JSEB's Response in the Petition of FY 2012-13	Commission views in this Tariff Order
The Commission directed JSEB to undertake a cost of service study specifically for rural consumers, in order to determine the level of specific subsidies and support needed for incentivizing the rural.	feeders and submitting the results to the Commission. However, the cost of service study would be detailed out and submitted to the Commission in due course of time.	of rural feeders as well as action taken on Cost of Service (CoS) study within three months of the issue of this order.	CoS study which is proposed to be conducted through appointment of consultants which has already been elaborated earlier.	of rural feeders. The Commission has already directed the Petitioner to submit the latest position with regard to appointment of consultants to conduct cost of supply study. Further, the Commission expects the report on COS to be submitted by the end of September, 2011.	a separate task in the overall CoS study which is proposed to be conducted through appointment of consultants. The Petitioner has floated the Tender for appointment of consultant to complete the works given by the Hon'ble Commission as directives for the following studies: 1) Cost of service study and determination of specific subsidies. 2) Manpower planning for generation function. 3) Business plan and tariff Petition for the generation function. 4) Actuarial study for tariff Petition. 5) Study on the feasibility of metering infrastructure and potential savings. 6) Category wise and voltage wise T & D loss and cost of supply. 7) Detailed study for load research and demand forecast.	update to the Commission in next tariff petition.

Directives as per TO 2006-07	JSEB's Response in Tariff Petition of FY 2008-09	Commission's View in the Tariff Order of FY 2010-11	JSEB's Response in the Petition of FY 2011-12	Commission's View in the Tariff Order of FY 2011-12	JSEB's Response in the Petition of FY 2012-13	Commission views in this Tariff Order
					8) Feasibility study for ToD tariff implementation. The JSEB shall submit the report which is targeted to be completed by April, 2012 except for the Generation Business plan which would be submitted by 15th Feb'12.	
Rural Electric Co-operative (Bulk Supply) The Commission directed the Petitioner to send the details of Rural Electric Co-operative category (Bulk Supply) to all potential rural consumers especially to Village Panchayats and then assess whether this category should be continued in future or not.	JSEB submitted that it does not have any consumer under this tariff category because of non-existence of Panchayats in the state and can be promoted once the Panchayat elections are over. The Petitioner opines that this category may be retained as in future such consumers may request for a connection under this category.	The Commission views that since sufficient time has passed since the Tariff Petition was filed so the Petitioner should submit a status report whether any consumer has applied under this category and also whether the Petitioner has been able to identify any potential consumers. The directive should be complied within three months of this order failing which this category will be deleted .	The JSEB has instructed its field officials to share and discuss the details of the Rural Electric Co-operative category tariff with potential rural consumers/ village panchayats. JSEB is of the view that due to high level of losses in the rural feeders/ areas across the State, consumers do not appear to be welcoming the tariff approved by the Hon‟ble Commission at the approved discounts with respect to the individual connections under the DS-1/ Kutir Jyoti category. It is proposed that a higher discount on the Rural Electric Co -	The Commission directs the Petitioner to generate awareness among the consumers of the subsidized rates and government subsidy available under this category.	JSEB submits that it obeys the direction of Hon'ble Commission in this regard and it is trying to generate awareness among the consumers of the subsidized rates and government subsidy available under this category.	The Petitioner has complied with the directive of the Commission.

Directives as per TO 2006-07	JSEB's Response in Tariff Petition of FY 2008-09	Commission's View in the Tariff Order of FY 2010-11	JSEB's Response in the Petition of FY 2011-12	Commission's View in the Tariff Order of FY 2011-12	JSEB's Response in the Petition of FY 2012-13	Commission views in this Tariff Order
			operative (Bulk Supply) category as proposed in the Tariff Petition will encourage consumers to shift under the new category introduced by the Hon"ble Commission. The JSEB has also proposed Government Subsidy for this tariff in accordance with the tripartite agreement entered into between the State Government, the REC and the JSEB.			

Directives as per Tariff Order 2010-11

Directives as per Tariff Order of FY 2010-11	Petitioner's Response in the Tariff Petition of FY 2011-12	Commission's View in the Tariff Order of FY 2011-12	Petitioner's Response in the Tariff Petition of FY 2012-13	Commission views in this Tariff Order
Timely Energisation of new connection The Commission had directed the Petitioner to take all the steps to implement the standards of performance and ensure the new connections are given on time as per the Standards of Performance Regulations, 2005.	In compliance to this directive, the JSEB has apprised its concerned field officials regarding the Clause 6 of Supply Code issued by the Hon"ble Commission. All officials have been instructed to ensure compliance against the timelines prescribed therein. During three month long camps in September - November, 2010, new connection forms were being accepted and sanctioned then and there following due process. JSEB has received reports from its field offices that the same is being complied with. However, as a matter of practice the JSEB has been repeatedly instructing its field officials to comply with the said regulation and also report if there is any exception along with detailed reasoning for the same.	The Commission directs the Petitioner to submit the latest progress report on number of applications received for new connections and number of connections energised since January 1, 2011 within three months of the issue of this Tariff Order.	The Petitioner submits that it is releasing connection to various category of Consumers as per the direction given under the Regulation under Distribution Supply code, 2005.	The Petitioner has complied with the directive of the Commission.
Camps for providing new connections in uncovered areas The Commission directed the Petitioner to ensure that it conducts survey of such areas, develops a marketing and awareness program for such areas and provide new connections through special camps. The Commission directed the Petitioner to develop an action plan for the above and submit the same to the Commission within six months of the Order.	It is submitted that the JSEB is already undertaking mass scale electrification and release of connections to rural/ BPL consumers under the RGGVY scheme which is presently under implementation. In compliance to the directive given by the Hon"ble Commission the JSEB had in the recent past organized three months camps for "Load Disclosure Scheme", which was a multipurpose camp and consumers were allowed/ encouraged to submit applications for new connections also. In view of the good response received in the camps organized, the JSEB intends to continue the process of organizing camps in identified areas on a regular basis.	The Petitioner is directed to submit the progress report on the activity on a quarterly basis.	The Petitioner submits that all field officers have been directed to organize atleast one camp at an interval of fifteen (15) days by AEE, at 30 days by EEE, 60 days by ESE, 90 days by GM-cum-CE as directed by the Hon'ble Commission. It is hoped that the Board will stand upto the expectation of Hon'ble Commission expection with regard to bill disputes, delay in connection etc.	The Petitioner has complied with the directive of the Commission.

Directives as per Tariff Order 2011-12

Directives as per Tariff Order of FY 2011-12	Petitioner's Response in the Tariff Petition of FY 2012-13	Commission views in this Tariff Order
Complaint Redressal Mechanism The Commission directed the Petitioner to implement the complaint redressal mechanism at the grass root level within six month of the issue of the Order and submit the compliance report to the Commission within the time frame	In compliance to the directive given, the JSEB submits that it has started taking cognizance of consumer grievances. A customer care center has been established at the JSEB headquarter which takes care of the consumers complaint throughout the state in the quickest possible time. Further there is a scope in R-APDRP scheme as well for the said purpose. The Board further states that its officers and staffs are available round the clock to meet the emergencies requirement if any. As such the Board is providing its all-out support to the consumer grievances and intends to enhance the support in times to come.	The Petitioner has complied with the directive of the Commission; however the Commission directs the Petitioner to submit progress reports on quarterly basis to the Commission.
Consumer Grievance Redressal Forum (CGRF) The Commission directed the Petitioner to set-up new unit(s) of CGRF within six months of the issue of this Order.	JSEB has already established four (4) nos.of CGRF excluding CGRF at Ranchi as per the Compliance issued by the Hon'ble Commission	The Petitioner has complied with the directive of the Commission.
Bill Payment Mechanism The Commission directed the Petitioner to initiate the drop-box facility for bill deposition and also develop a plan for online payment of bills. The Petitioner was also directed to tie-up with various Banks for availing the facility of collection of payments through Banks. The compliance in this respect was to be reported within six months of the Order.	The JSEB submits that it appreciates the direction given by Hon'ble Commission in this regard and is exploring other facilities for bill payment mechanism for the Consumers of JSEB.	The Commission is displeased with the lack of action by the Petitioner on the directive. There has also been many objections raised in this regard by the consumers during public hearing. Thus the Commission has issued a fresh directive in Section 16 of this Order.
Billing related issues The Petitioner is directed to develop a comprehensive metering plan. The Petitioner should also ensure that it strengthens its metering,	JSEB submits that with induction of four more CGRF in the state there will be quick disposal of billing related disputes. As directed by Hon'ble Commission all field	The Petitioner has complied with the directive of the Commission.

billing and collection mechanism, especially in the loss affected areas.	officers have been directed to organize atleast one camp at an interval of fifteen (15) days by AEE, at 30 days by EEE, 60 days by ESE, 90 days by GM-cum-CE. It is hoped that the Board will stand upto the expectation of Hon'ble Commission expection with regard to bill disputes, delay in connection etc.	
Manpower planning study for PTPS Plant The Hon'ble Commission directed the JSEB to conduct the manpower planning study for the generation function, keeping in view its existing and planned performance.	The Petitioner has appointed consultants to complete the works given by the Hon'ble Commission as directives for the following studies: 1) Cost of service study and determination of specific subsidies 2) Manpower planning for generation function. 3) Business plan and tariff Petition for the generation function. 4) Actuarial study for tariff Petition. 5) Study on the feasibility of metering infrastructure and potential savings. 6) Category wise and voltage wise T & D loss and cost of supply. 7) Detailed study for load research and demand forecast. 8) Feasibility study for ToD tariff implementation. The JSEB shall submit the report to the Hon'ble Commission soon. Out of these, the Board has already submitted the Generation Business plan to the Hon'ble Commission.	The Petitioner has complied with the directive of the Commission.
Separate filling for each function The Hon'ble Commission directed the JSEB to file the separate ARR for generation, transmission and distribution functions from next Year as required by the Tariff Regulations, 2010. It may also be noted that business plan is required to be filed in respect of generation function as the next year will be the first year for the control period. In respect of transmission and generation function, next year will be the base year for the control period starting from FY2013- 14, the Petitioner is required to submit its baseline data in accordance with the relevant regulations in respect of transmission and	The Petitioner submits that as per the directives issued by the Hon'ble Commission, the Board is filing separate ARR and tariff Petitions for generation, transmission and distribution functions for FY 2012-13.	The Petitioner has complied with the directive of the Commission.

distribution functions.		
Uploading of the Tariff Petition on the website The Commission has noticed that the Petitioner has uploaded the present Tariff Petition on the website of Government of Jharkhand instead of its own website. The Petitioner in future is directed to upload the tariff Petition on its own website also. It has also been noticed that the website of the Petitioner is not fully functional and also not updated. The Petitioner is directed to update its website and upload all the relevant information on it.	JSEB submits that it has already stated the work of upgrading its website to include all the recent development in the Board which will facilitate the consumers to access data/ information related to Distribution and supply of electricity in the State of Jharkhand as per the directive issued by the Hon'ble Commission. The JSEB is also planning to upload current tariff Order issued by the Hon'ble Commission for the information of its Consumers. The tariff petition once filed to the Hon'ble Commission shall also be uploaded on the Official website of the Board.	The Commission has observed that many objectors have raised objections on the error in downloading of the tariff petition from the website. The Commission notes this with serious concern and has accordingly issued a fresh directive in this regards in Section 16 of this Order.
Interest on Consumer Deposit During the course of public hearing, lot of consumers have raised concern on the rate at which the interest on consumer security deposit is to be paid by the Petitioner. The regulations specify that interest on consumer security deposit is to be paid at the bank rate. The Commission specifies that the rate at which the interest on consumer security is to be paid will be the prevailing bank rate of RBI.	JSEB submits that it has been paying interest on amount held as security deposit to its consumers in accordance with clause 10.6 of the JSERC (Electricity Supply Code), Regulations 2005. However if there is any specific case of an inadvertent error, the JSEB should be pleased to take necessary corrective action. Also the JSEB shall make all efforts to identify and correct such cases, if any, on a proactive basis.	The Commission takes serious note of non-compliance of the directive by the Petitioner, as observed from the objections raised by various consumers during public hearings and accordingly issues a fresh directive in Section 16 of this Order and any failure in compliance would invite penal action.
Tariff for HTSS Consumer During FY 2010-11, the Commission has specified that the tariff for consumers using induction or arc furnace should be on the basis of the specification given by the manufacturer of the furnace and not on the basis of the measurement. During the course of the public hearing, several consumers raised this issue that the direction given in this regard is not followed by the Petitioner for the old furnaces and the plea of the Petitioner is since the Tariff Order was	JSEB submits that it has issued the necessary instruction to the field officer for the same.	The Petitioner has complied with the directive of the Commission.

for FY 2010-11, this direction will be followed only for the new furnaces and for the old furnace, measurement procedure will be followed. The Commission clarifies that irrespective of the fact whether the furnace is new or existing, the tariff is to be determined as per the specification given by the manufacturer of the furnace and not on the basis of measurement.		
Online filing of the application for new connection The Commission directs the Petitioner to introduce online filing of the application for new connection and also to provide the applicant with the details like the application fees, amount of security deposit, service connection charges before releasing the connection. The Licnesee should also ensure that the entire process from the date of application to providing the connection including consumer allotment number should not take more than the time stipulated as per the JSERC (Electrcity Supply code) Regulations, 2005. The licensee is directed to also ensure that while releasing the connection, consumer/service connection number should be given to the consumer and these details should be passed on to billing section for timely issuance of the bills.	JSEB submits that the initiative for Online filing of the application for new connection as soon as the IT system improves through R-APDRP scheme in the state.	The Commission directs the Petitioner to provide status update to the Commission with the next tariff petition.
Meter Reading Related Issues During the Public hearing, the consumers complained that during the meter reading exercise, they are not made aware of the previous reading of the meter due to which the consumers are not able to know the units consumed by them during the billing period. The consumers stated that due to the lack of awareness they are not able to point out wrong reading cases at the time of readings and have to	JSEB submits that it has floated the Tender for appointment of consultant to complete the works given by the Hon'ble Commission as directives for the following studies: 1) Cost of service study and determination of specific subsidies. 2) Manpower planning for generation function. 3) Business plan and tariff petition for the generation function. 4) Actuarial study for tariff petition. 5) Study on the feasibility of metering infrastructure	The Commission directs the Petitioner to provide status update to the Commission with the next tariff petition.

go through harassment of wrong billings later on. The Consumers suggested that a 'Meter Reading Card' be pasted near the meter of the consumers and the meter reader writes the reading on the meter reading card as well while taking the reading so that the consumer is aware of the consumption pattern on the meter every time the meter is read. The Commission appreciates the concerns of the consumers and directs the Petitioner to consider the suggestions made by the consumers or any other alternative arrangements to ensure the consumer is made aware of the consumption at the time of reading of their meters. The Petitioner is directed to submit a action taken report within six months of the issue of this Order.	and potential savings. 6) Category wise and voltage wise T & D loss and cost of supply. 7) Detailed study for load research and demand forecast. 8) Feasibility study for ToD tariff implementation. The JSEB shall submit the report which is targeted to be completed by April, 2012 except for the Generation Business plan which would be submitted by 15th Feb'12.	
Overtime Expenses The Commission has noticed that the Petitioner is claiming a substantial amount towards the overtime given to its employees. The Commission is of the view that the amount claimed by the Petitioner on this account is on a higher side therefore, the Commission directs the Petitioner to keep a check on the overtime expenses being claimed by the employees. The Petitioner should ensure that the overtime is given only in extreme cases and should also record the reason for keeping the employee engaged which should be signed by the supervisor.	JSEB submits it is examining such claims as per the directions of Hon'ble Commission.	The Commission is not pleased with the response of the Petitioner and directs the Petitioner to reduce the overtime expenses and issues a fresh directive in Section 16 of this Order. The Commission directs the Petitioner to take necessary steps and submit action taken report with the next tariff petition failing which the Commission will not allow any cost under overtime expenses.
Payment of dues to TVNL & Revision of PPA The Commission has observed that the Petitioner has to pay huge sum of money to TVNL on account of power purchased from it. The Commission in its previous Tariff Order had directed the Petitioner to renegotiate its PPA and get the same ratified by the Commission. TVNL has submitted to the Commission that it has already sent the PPA to JSEB vide letter no.	The Petitioner submits that it has decided to enhance the LC amount of TVNL by Rs. 15 Cr. The PPA submitted by the TVNL is under examination with the Board.	The Commission is displeased that the Petitioner has not yet signed the PPA with the TVNL. The Commission directs the Petitioner to execute the PPA within three months of the Order (including ratification by the Commission). The failure to execute the PPA within the timelines would invite penal action against the Petitioner.

742/10-11 dated 11th October, 2010, for its comments but even after repeated reminders, it has not received any response from JSEB. The Commission directs the Petitioner and TVNL to execute the PPA within three months of the issue of this Tariff Order.		
Data adequacy in next Tariff Petition and timelines The Commission has observed lot of discrepancies in the Tariff Petition filed by the Petitioner for FY 2011-12. The Commission directs the Petitioner to come up with the next Tariff Petition for FY 2012-13 removing the various data deficiencies highlighted above along with the provisional accounts for FY 2010-11 and latest actual figures of FY 2011-12. The Commission also directs the Petitioner to file the Business Plan and MYT Tariff Petition for the generation function for the control period FY 2012-13 onwards within the stipulated time.	JSEB submits that it has taken utmost care for eliminating data deficiencies in this tariff petition as per the compliance to the directives given by the Hon'ble Commission. The provision accounts for FY 2010-11 and latest actual figures of FY 2011-12 have been submitted along with this petition. Regarding the Business Plan and MYT Tariff Petition for the generation function, the board is in the process of preparing the Business plan for Generation function and prays the Hon'ble JSERC to grant an extension till 15th Feb'2012 for submitting the Business plan.	The Commission has observed lot of discrepancies in the Tariff Petition filed by the Petitioner for FY 2012-13. Infact the discrepancies have been even more than previous year. The Commission directs the Petitioner to take steps to come up with the next Tariff Petition for FY 2013-14 after removing the various data deficiencies highlighted above along with the provisional accounts for FY 2011-12 and latest actual figures of FY 2012-13. The Commission also directs the Petitioner to file the Business Plan and MYT Tariff Petition for the distribution function for the control period FY 2013-14 to FY 2015-16 onwards within the stipulated time.

SECTION 16: NEW DIRECTIVES

Strengthening of Transmission & Distribution Network

16.1 The Commission directs the Petitioner to take appropriate steps in order to strengthen the Transmission & Distribution network. The Petitioner is directed to submit a detailed plan with expected benefits with the next tariff petition.

16.2 In addition the Commission directs the Petitioner to implement safety measures in its network to avoid accidents which not only disrupt supply but also lead to loss of human life. The Commission also directs the Petitioner to update and implement its Safety Manual in line with the Provisions of Indian Electricity Rules to avoid such disruptions.

Energy Audit & T&D Loss Reduction Plan

16.3 The Commission directs the Petitioner to conduct its division-wise Energy Audit & prepare circle-wise T&D Reduction Plan and submit the same to the Commission within six months of issue of this Tariff Order.

SoP Implementation

16.4 The Commission directs the Petitioner to submit progress reports on the implementation of Standards of Performance as per the JSERC (Standard of Performance) Regulations, 2005.

Power Procurement Plan

16.5 The Commission views that the short-term and long-term Power Purchase planning needs to be ratified by the Commission before implementation by the Petitioner, hence it directs the Petitioner to submit to the Commission a detailed Power Procurement Plan before the start of every financial year so that the Commission can review the need for purchasing and selling power and approve accordingly.

Revenue from Free Power to Employees

16.6 The Commission directs Petitioner to provide details of free power along with revenue not billed for such free power to employees in all subsequent audited accounts. Also, the Commission points out that no consideration in revenue will be allowed to the Petitioner on account of free power supplied by the Petitioner to its employees.

Interest on Consumer Security Deposit

16.7 The Commission directs the Petitioner to submit the action taken report on actual interest paid to consumers on security deposits along with details of rate of interest considered to the Commission with the next tariff Petition, failure to do so will invite penal action.

16.8 The Commission also directs the Petitioner to prepare a list of consumers who have not been paid at the prevailing bank rate and clear the dues pending on the Petitioner with immediate effect.

Metering Plan

16.9 The Commission directs the Petitioner to provide status update to the Commission regarding category-wise defective/ burnt/ non-performing meters and action plan on replacement of these with the next tariff petition. The Commission also directs to prepare a metering plan to provide meters to all the unmetered consumers and also ensure that no new connection is released without a meter.

Bill Payment Mechanism

16.10 The Commission directs the Petitioner to strengthen the bill payment mechanism within six months of this Order, the failure to do so will invite penal action. The Petitioner should find ways and means to simplify the payment procedure and provide alternatives to the consumers such as online payment, payments through ATP machines, payment at multiple Banks, Kiosks etc

Reduction in Overtime Expenses

16.11 The Commission directs the Petitioner to take necessary steps to reduce the overtime expenses and submit action taken report with the next tariff petition, failing which the Commission will not allow any cost under overtime expenses.

Uploading of the Tariff Petition on Website

16.12 The Commission has observed that many objectors have raised objections on the error in downloading of the tariff petition from the website. The Commission notes this with serious concern and directs the Petitioner to ensure such errors are not repeated again in future.

Order is signed and issued by the Jharkhand State Electricity Regulatory Commission on this the 2nd day of August, 2012.

Date: 2nd August, 2012

Place: Ranchi

Sd/-	Sd/-
(T.MUNIKRISHNAIAH)	(MUKHTIAR SINGH)
MEMBER (E)	CHAIRPERSON

SECTION 17: ANNEXURES

Annexure-I

List of participating members of public in the public hearing

Sl. No.	Name (S/Shri)	Address / Organisation
1	Mritunjay Sukla	Khairant, Lesliganj, Medninagar
2	Shayam Bihari Sinha	Khairant, Lesliganj, Medninagar
3	Aditya Kumar Sukla	Khairant, Lesliganj, Medninagar
4	Brajesh Kumar Sukla	Khairant, Lesliganj, Medninagar
5	Ajay Kumar	Hamidganj, Medninagar
6	Dinanath Mahto	Delha, Tahansi, Medninagar
7	Bashishtha Mahto	Delha, Tahansi, Medninagar
8	R.N. Singh	JSEB
9	Md. Sayadelun	JSEB
10	Paras Nath Tiwari	JSEB
11	Rama Kant Sharma	JSEB
12	B.K. Tripathi	JSEB
13	Nurul Hoda Ansari	Manjholi, Medninagar
14	Rajeshawar Yadav	Cheri, Lesliganj
15	Sharawan Uraon	Manjhlijharia, Lesliganj
16	Jageshwar Uraon	Manjhlijharia, Lesliganj
17	Binod Uraon	Manjhlijharia, Lesliganj
18	Jayram Pal	Rela, Medninagar
19	Pramod Kumar	Daltonganj
20	Bhai Govind Singh	Kamdih, Medninagar
21	Raju Kumar Sukla	JSEB
22	Prem Kumar Tiwari	JSEB
23	Santosh Prajapati	Regania, Chhatarpur, Palamu
24	Dhanesh Yadav	Regania, Chhatarpur, Palamu
25	Praveen Ranjan Singh	Dainik Bhaskar
26	Amit Kumar	Rastriya Navin Mail
27	A.K. Vishwakarma	Daltonganj
28	Prasun Kumar	Palamu
29	S.C. Mishra	Chief Eng. (C&R), JSEB
30	Alok Sharan	Member (F), JSEB
31	Subhash Kumar Singh	G.M. Cum CE, Medninagar
32	Sanjeev Kumar	DDA, Medninagar
33	Hari Narayan Ram	EEE/MRT/ Daltonganj
34	Mirjunjay Prasad Singh	AO, Medninagar
35	Pramod kumar Tulsyan Naval	G.S. Palamu Zila Vyavsaya Singh
36	Shyam Kumar	AEE/Japla

37	A.K. Singh	ESE, JSEB, Doltonganj
38	Prakash Kumar	Tr. J.L.M., Daltonganj, JSEB
39	Harishankar Mahto	Tr. JCM, Daltonganj, JSEB
40	Mukul Kumar	AEE/C, JSEB
41	Naresh Kumar Agarwal	S.K. JSEB
42	Ajendra	Raki Khurd, Rakikala, Palamu
43	Urmila Kumari	Satbarwa Prakhand Pramukh
44	Jagnarayan Ram	Shahpur
45	Jitendra Singh	Chetma
46	L.B. Jain	Palamu
47	Ashok Bayapati	Palamu
48	Ralendra Mehta	Pipra Tand
49	Shambhu Singh	Palamu
50	Bindeshwari Singh	Add/Dulasulama
51	Bindeshari Singh	Chetma
52	Dr. C.B. Prasad	Principle, DAV Ins. Doltonganj
53	Ajay Kuamar Mehta	Raki Khurd, Rakikala, Palamu
54	Bhagwati Kumar Ram	Raki Khurd, Rakikala, Palamu
55	Dhananjay Paswan	Raki Khurd, Rakikala, Palamu
56	Hiralal Kumar	Raki Khurd, Rakikala, Palamu
57	B.K. Singh	P.M., Maa Durga Vikash Samiti
58	M.P. Singh	Daltonganj
59	J.D. Choudhary	Electric Supply Div. Garhwa
60	S. Kumar	JEE/Electric Supply Section, Garhwa
61	S.K. Ram	JSEB, Garhwa
62	Naryan Jha	JEE/Nagar Untari
63	S. Kumar Tiwari	Reprentative M.L.A.
64	Sheth Prasad	Garhwa
65	Yadubansh Mishra	Semra
66	Girilal Yadav	Piyanki
67	Laxaman Ram	Kalapahar, Patan
68	Dilip Yadav	Loenga, Patan
69	Binod Yadav	Loenga, Patan
70	Raushan Kumar Sharma	Sudna
71	Ravindra Singh	Kundmuhsla
72	prashant Lochan	Daltonganj
73	Surendra Kumar	Daltonganj
74	Om Prakash	Daltonganj
75	Upendra Kumar	Daltonganj
76	Jai Prakash Giri	Daltonganj
77	Ajit Kumar	Daltonganj
78	Ashok Kumar	Daltonganj
79	M.K. Nirala	JEE/JSEB
80	Hiranand Pathak	Sua P.O. Sua, Daltongang
81	V.N. Pathak	Vill. Karrar Kala Patan
82	Niranjay Pandey	Vill. Karrar Kala Patan
83	Om Prakash Gupta	Daltonganj

84	Prabhat Kumar Agarwal	Aadyasha, Palamu Zila Vayavasayi Shangh
85	Manoj Kumar Sharma	Daltonganj
86	Udit Kumar Singh	Pandu
87	Pradeep Kumar	Patan, Palamu
88	Kaushal Kishor Ram	Daltonganj
89	B.N. Sukla	Redma
90	Harendra Prasad	Chainpur
91	Ram Prasad	Chainpur
92	S.K. Shahi	Nawa Bazar
93	S. Yadav	Daltonganj
94	Pankaj Kumar Sinha	Hamidganj, Medninagar
95	Indal Kumar Mahto	Kera Kala
96	Smt. Pratima Devi	Mukhia, Utaki Panchayat,
97	Ashish Kumar Rajak	Samartar, Shahpur, Chainpur
98	Vinod Kumar	SGVK, Palamu
99	Mukul Kumar	JSEB, Ranchi
100	Pramod Kumar Sinha	Deloitte, Gurgaon
101	Tarkeshwar Singh	Santhal Pargana Chamber of Commerce & Industries, Deoghar
102	Pradeep Bajla	Santhal Pargana Chamber of Commerce & Industries, Deoghar
103	Ranjan Kumar Jha	R 402, Ambe Garden, Karanibag, Deoghar
104	Ajay Kumar Paliwar	Shivganj Lane, Deoghar
105	R.N. Sharma	Santhal Paragana Small Industries Association, Caster Town, B.Deoghar-814112.
106	O.P. Chhawcharia	Sita Ram Shop works, Deoghar
107	Dhanesh Jha	E.S.E/Dumka
108	N.K. Gupta	AEE/APT/ESA, Dumka
109	S.C. Mishra	Chief Engineer (C&R), JSEB, Ranchi
110	Binod Newar	Castair's Town
111	Vikromatic Steels (p) Ltd.	Deoghar
112	P.L.Gulgutia	Madhupur
113	Pradeep Kumar Sharma	La Opala RG. Ltd.
114	Shyam Bihari Sharma	JSEB
115	Rahul Kumar	Williams Town
116	Sanjeev	Prabhat Khawar
117	Ajay Parihast	Dainik Jagran
118	D. Trivedi	JSEB
119	Narayan Kumar Tibrewal	Ram Janki Mandir, Deoghar
120	S.R. Singh	JSEB
121	K.K. Paswan	JSEB, Pakur
122	Vishal Mundra	Madan Rice Mill
123	Dev Kumar Jha	Deoghar Mill
124	Binod Kumar Sultanj	Chamber of Commerce & Indistries
125	Bajrang Lal Bathwal	N.Rice Mill, Deoghar
126	Ashok Agrawal	Santhal Pargana Chamber of Commerce & Industries, Deoghar

127	Alok Kumar Mallick	Santhal Pargana Chamber of Commerce & Industries, Deoghar
128	N.K. Jha	Castair Town, Deoghar
129	S.J. Bathwal	SRV Foods, Deoghar
130	Pankaj Singh Bhadolia	Vahavir Colony, Satsang Nagar, Deoghar
131	B. Das	Deoghar
132	Ajit Kumar	Saket Vihar, Barmasia
133	Kamla Pal	JSEB
134	Ganesh Pal	Deoghar
135	R.K. Jha	JSEB
136	Gopal	JSEB
137	S. Choudhary	JSEB
138	P.R. Ranjan	JSEB
139	R.V. Mishra	Deoghar
140	Gaurav Kumar	Deoghar
141	Mahesh Kumar	Nandan Pahar
142	S. Shol	JSEB
143	Sunil Kumar	JSEB
144	Pawan	JSEB
145	Rajvindendar	JSEB
146	Dilip Kumar Mardy	JSEB
147	Rajeev Ranjan Upadhayay	VIP Chowk
148	Manish Sharma	Baidyanath Real food Pvt. Ltd.
149	Rajeev Mudra	SYA Pvt. Ltd
150	Surendra Lal Baranwal	Phoota Bandh, Jasidih
151	Prem Swaroop Modi	Phoota Bandh, Jasidih
152	Prof. Ramnandan Singh	Ram Mandir Road
153	Rip Narayan Dube	Mahua News
154	Vikash Kumar	Sadhna News
155	Sanjay Kumar Thakur	Chitolodia
156	Bablu Thakur	Simra Khas
157	Arun Kumar Tiwari	Karnibad
158	Naresh Yadav	Sarwan
159	Sunil Ram	Deoghar
160	Ajit Sah	Deoghar
161	Brajesh Kumar	Deoghar
162	P. Rajak	Deoghar
163	Tapan Kumar Vattachaya	Deoghar
164	Anil Kumar Singh	Deoghar
165	S. Prashad	EEE/S/Dumka
166	R.S. Ram	EEE/S/Jamtara
167	Ashok Shaaff	Chairman, Bharat Vikash Parishad, Deoghar Shakha
168	Jayanti Prasad Singh	VP BVP Jharkhand
169	Pappu Kapri	Deoghar
170	Arun Kumar Paswan	Deoghar
171	Pradeep Kumar Singh	Dainik Jagran
172	Munnam Sanjay	DCC President

173	Prof. Uday Prakash	Vice President Deoghar Congress Committee.
174	Mukesh Kumar Singh	Deoghar
175	Sanjay Kumar Sinha	Deoghar
176	Suraj Kumar Jha	Deoghar
177	Gautam Mukharjee	AEE
178	BIA	Dumka
179	Sunil	Dumka
180	Manoj Agarwal	Dumka
181	Anand Kumar	Dumka
182	Pawan Bhalo.	Dumka
183	Ajay Kumar Paliwar	Dumka
184	Anand Kumar	Adhunik Ast Udyog Pvt. Ltd.
185	Patanjali Narayan Suman	Belabagan Durgabari, Deoghar
186	Ganesh Saw	Chatatand Bazar, Dhanbad
187	K.C. Goyal	Chatatand Bazar, Dhanbad
188	Ranjit Kumar Gupta	High School Road, Gridih
189	Radheshyam Mahata	Mahuda, Dhanbad
190	Vishal Prasad	Renuka Ispat Pvt. Ltd., Rajganj
191	Anuj Khaitan	Renuka Ispat Pvt. Ltd., Rajganj
192	Md. Sahahsada Hussain	Dhanbad
193	Ram Sewak Singh	Dhanbad
194	D.K. Singh	EEE/JSEB
195	Er. G.C. Shet	EEE/JSEB, Nirsa
196	Umesh Kumar Ram	EEE/T Elec. Sup. Cir., Dhanbad
197	R.K. Choudhary	EEE/S/Loyabad
198	Basudeo Sah	AEE/S/Loyabad
199	B. C. Pal	EEE/S/Jharia
200	Sunil Verma	AEE/S/Sanda
201	B.P. Bhagat	AEE/S
202	S. Prasad	AEE/S/Mahuda
203	K.K. Singh	AEE/S/Digwadih
204	Ajay Kumar Sinha	AEE/S/Nirsa-2
205	L Choudhary	AEE/Katras
206	P.N. Singh	AEE/S/Kerkend
207	Sumesh Kumar	Dhanbad
208	Nawal Kishore Singh	Bank More, Dhanbad
209	Rajesh Kumar Sinha	Bank More, Dhanbad
210	Anad Kumar Pandey	Nunudih, Digwadih
211	Sushil Singh	Kumardubi
212	Nishat Chhabra	Kumardubi
213	Prof. Dinesh Prasad	Kumardubi
214	Md. Rafique Ansari	Putki Bazar
215	Sahdev Kumar Barnwal	Putki Bazar
216	S.C. Mishra	Chief Engineer (C&R), JSEB
217	B. Jalan	General Secy.- Jharkhand Refectory Manufacturing Association.

218	P. L. Raksht	Joint Secy., Jharkhand Refectory Manufacturing Association.
219	A. Shah	Executive, Jharkhand Refectory Manufacturing Association.
220	S. Gadhayan	Executive, Jharkhand Refectory Manufacturing Association.
221	Michal Boniface Soren	A/A Dhanbad Circle
222	Pramod Kumar Sinha	Deolite, Gurgaon
223	Ajay Agarwalla	Jharia Firebricks (P) Ltd.
224	Mukesh Kumar	Dhanbad
225	M.K. Pandey	Dhanbad
226	M.P. Thakur	Dhanbad
227	S. K. Singh	EEE/S/Chas
228	Kailash Agarwal	Gomoh Chamber of Commerce
229	Shivashish Pandey	Saraidhela, Dhanbad
230	James Kujur	AEE/S/JSEB
231	Kalam Siddique	Maithon Road
232	Om Prakash	Kendua Bazar
233	Birendra Roy	Ridhi Sidhi Iron Pvt. Ltd.
234	Amitesh Sahay	M/s Narayani Fuel Pvt. Ltd.
235	Prabhu Singh	M/s Jai Prabhuji Iron Pvt. Ltd.
236	Nawdeep Khaithan	M/s Jai Prabhuji Iron Pvt. Ltd.
237	Krishana Kumar Singh	AEE/MRT/Dhanbad
238	R.N. Singh	EE (Civil), Desa
239	Rajiv Sharma	President District Chamber of Commerce
240	Arjun Singh	Bank More, Dhanbad
241	R.C. Agrawal	Bartand, Dhanbad
242	Rajesh Kumar Gupta	Kendua Bazar
243	Ravi Kumar	Godhar, Dhanbad
244	Ashok Verma	Prabhat Khabar
245	Shankar Chourasia	Dhanbad
246	Vikash Pd. Agarwal	Ward Member, Mahuda
247	Pankaj Kumar Agarwal	Maduda, Bazar
248	Alok Sharan	Member (F), JSEB
249	Arjun Prasad	Housing Colony
250	Dilip Kumar Mishra	Prof. Colony
251	Ajay Lal	President of P.B. Chamber of Commerce
252	Sohrab	Secy. of P.B. Chamber of Commerce
253	A.K. Bihany	Marshal Alloys
254	A. Roy Choudhury	Usha Martin Ltd.
255	Naveen Kumar Singh	AEE/ADP-2, JSEB
256	D.K. Singh	JSEB/EEE/MRT/Chaibasa
257	R.N. Prasad	JSEB/AEE/Rev./Jamshedpur
258	R.K. Singh	EEE/S/Saraikela, JSEB
259	P.N. Tiwari	Jamshedpur
260	Gautam Rana	AEE/S/CKU
261	Ravi Prakash	AEE/S/Rusn

262	Rajesh Rajwar	AEE/S/CBSA
263	Md. Shamshad Alam	AEE/R/CBSA
264	Kunal Kishore	AEE/Adityapur-1
265	K.K. Singh	AEE Area Board
266	S.M. Sharma	Kamsa Steel (P) Ltd.
267	Mahesh Sonthalia	Hindustan Steel Pvt. Ltd.
268	S.C. Mishra	CE (C&R), JSEB
269	Ravi Srivastava	Usha Martin Ltd.
270	Qaiyum Ansari	AAP. No. 1
271	Suresh Sonthalia	Singhbhum Chamber of Commerce & Industry
272	Santosh Kumar Sinha	AEE/Chandil
273	S.K. Singh	AEE/Mango
274	Narayan Pal	Secretary SIA
275	Sanjay Kumar	JEE, Adityapur & Sakchi
276	Rajesh Kumar	Sonari]
277	Raj S Chakraborty	ACC Ltd., Chabasa Cement Works
278	R.K. Sharma	ACC Ltd., Chabasa Cement Works
279	S.R .Singh	Jamshedpur
280	Anad Kumar Choudhary	Laghu Udyog Bharti
281	Satish Kumar Choudhary	Laghu Udyog Bharti
282	V.P. Singh	Laghu Udyog Bharti
283	M. Ram	BNC
284	Dashrath Upadhyay	ASIA
285	Dipak Dokania	ASIA
286	C.D. Kumar	Member, JSEB
287	Binay Kuamr	EEE/Ghatsila
288	Janardan Singh	AEE/CHH
289	Ashok Kumar Singh	AEE/S/Chaibasa, JSEB
290	K.N. Oddar	AEE/Ghatsila
291	Nitin Agarwal	A.O. CBSA
292	N.P. Singh	EEE
293	Ajay Kumar	DDA
294	Satish Kumar	Under Secretary cum Ragistrar, VUSNF
295	Umesh Das	EEE/S/JSR
296	M.M. Singh	EEE/S/ADP
297	S.C.Sahai	Retd. ESE/JSEB
298	M.K. Jha	EEE/KCP
299	P.Ram	EEE/(C&R), Chaibasa
300	Arvind Kumar	EEE/MNT, JSR
301	Praveen Kumar	AEE/Jugsalai
302	K.L. Agarwal	SUPL
303	P.K. Singh	Singhbhum Industry Association
304	P.K. Barua	Kadma
305	D.K. Chaurasia	G.M. Tr. JSR
306	K. Anand	Prabhat Khabar, JSR
307	Subhash Mishra	ESE, T.C, Chaibasa
308	Suresh Kumar	JSEB

309	N.K. Patodia	FJCCI, Ranchi
310	M.S. Mittal	Sr. Advocate, Ranchi
311	Santosh Khetan	ASIA
312	Inder Agarwal	ASIA
313	Ravindra Gupta	ASIA
314	Vinod Sharma	SCCI
315	R.N. Singh	EE (Civil) Jamshedpur
316	Anirudh Singh	AEE/ Tech, Chaibasa
317	Dilip Jaiswal	Shankar Ferro Alloys (P) Ltd.
318	R.K. Sinha	ASIA
319	A.P. Singh	ESE/Jamshedpur
320	Sanjay Sashul	Aruch Metal
321	Jeetendra Agarwal	Gajanan Ferro
322	R. Rupam	Maa Tara
323	Rajan Singh	Maa Tara
324	Pankaj Agarwal	Royal Steel
325	A.K. Srivastava	Dianik Jagran
326	Anil Modi	JTVVS
327	S. K. Kabra	Jugsalai
328	Nirmal Kabra	Jugsalai
329	Sudhir Singh	Steel City
330	Sandeep Jaiswal	Syyamlal Iron & Steel Co
331	Sameer Singh	ASIA
332	Praveen Gutgutia	ASIA
333	J. Topno	JSEB
334	R.Khavara	K. India
335	Nirmal Prasad	Chamkta Aina
336	M. Kumar	ASIA
337	N. Agarwal	ASIA
338	Anurag Kumar	EEFCO/ASIA
339	Alok Sharan	Member (F), JSEB
340	G.P. Singh	ASIA
341	Sandeep Bafna	Member MEW, Suspension
342	Satyanarayan Agarwal	Secy. Singhbhum Chamber
343	Bishnu Kumar Agarwal	Jugsalai
344	Prakash Khemani	V.P. Inudstry, Singhbhum Chamber
345	D. Choudhary	Secy. SCCI, Tax
346	Chandra Bhushan	JSEB
347	Ashok Gupta	Jamshedpur
348	Rajpal Singh	Sardul Auto Works Pvt.
349	Nitesh	Jamshedpur Furnishers
350	A.K. Rajan	Kadma
351	Arvind Kumar	Gamharia
352	Pramod Kumar Sinha	Deloitte, Gurgaon
353	Ankur Satiya	Deloitte, Gurgaon
354	Kedar Nath Lal Das	Jharkhand Tech, BIT, Mesra
355	Anand Lal Singh	Assistant Engg., JSEB

356	Vijay Prasad Mahto	J.E., JSEB, Vikas
357	Bajrang Keshri	Palkat, Gumla
358	Suresh Uraon	Palkat, Gumla
359	Abhishek Shastri	Mahua, News
360	R.J. Singh	GM-cum-CE, Ranchi, JSEB
361	Subhash Kumar	JEE/Ormanjhi
362	B.N.P. Singh	SE-3, Annoda Apartment
363	Lalji Mahto	JSEB
364	Satyendra Kumar	EEE, Gumla, JSEB
365	Tulsi Das Mahto	JEE/Uppar bazar, JSEB
366	Rajan Shahu	Tatisilwe
367	Anil Kumar Singh	EEE(S), NC Div.
368	Rajesh Tiwari	Prabhat Khabar
369	S.C. Mishra	CE/JSEB
370	A.S. Das	EEE/JSEB
371	Anita Prasad	EEE/JSEB
372	Mukul Kumar	AEE/JSEB
373	Sushil Singh	Dhanbad
374	Ashok Kumar Biyani	Tata
375	Dilip Singh	Tata
376	Mahesh Santholiya	Tata
377	Kipak Dokaniya	Tata
378	Vinod Sharma	Tata
379	Sawarmal Jee	Tata
380	Jagdeo Mahto	JEE/Tatisilwai/JSEB
381	S.K. Kashyop	EEE/S/Ranchi (East), JSEB
382	S.P. Singh	AEE/Ormanjhi, JSEB
383	Gandhi Rajwar	JEE/Silli
384	Upendra	JEE/Namkum
385	Shashank Bhardway	FJCCI
386	Gaurav Kumar	AEE/S/Tatisilwai, JSEB
387	P.K. Gupta	Chairman CGRF/JSEB, Ranchi
388	Arun Khemka	JSIA, Ranchi
389	B.K. Tulsyan	Tupudana, Ranchi
390	Anijay Pacheriwala	JSIA
391	Mayank Maheswari	JSIA
392	Sidharth Jhawar	JSIA
393	Hari Bhdhia	Bihar Foundry Castings Ltd.
394	Abhishek Kumar	AEE/JSEB, Main Road, Ranchi
395	Ajeet Kumar	EEE/JSEB/Kokar
396	Krishana Prasad Gupta	Basia, Konbir, Gumla
397	Philip Matthews	JSIA
398	S.N. Prasad	EEE, Gumla
399	Thakur Choudhary	EEE/S/Gumla
400	Sharkar Das	SE, Main circle, Ranchi
401	Amit Kumar	J.E., JSEB
402	Anup Kumar Mahto	JEE/JSEB

403	Sanjay Kumar	EEE/JSEB
404	S.N. Singh	JEE/JSEB
405	Y. Jhawar	Kanke Road, Ranchi
406	Irshad Alam	Azad Basti
407	Prem Kataruka	Ranchi
408	Ranjit Tibrewal	JSIA
409	P.K. Jaiswal	JE, JSEB
410	Vishal Kumar	AEE, Harmu, JSEB
411	R.N. Paswan	JEE/Krishanagar, JSEB
412	Rabi Shankar	AEE/S/Lalpur, JSEB
413	Ajay Kumar	JEE, JSEB
414	Yogendra Bhagat	Ranchi
415	CBK Singh	Member (VUSNF)
416	Mahesh Poddar	JSIA
417	R.K. Singh	S.E., Railway
418	A.K. Raha	S.E., Railway
419	Tarkeshwar Singh	President Sociatist Party
420	Raju Sahu	Chairman, VWSC, Kamdara, Gumla
421	Budhram Bhagat	J.E., Basia, Gumla
422	Durga Pahan	Mukhiya P.-Basia, Gumla
423	K.D. Prasad	Retired Chief Engg., JSEB
424	Nisha Devi	Jal Sahiya Basia
425	Samir Mundu	EEE/Lohardaga, JSEB
426	O.P. Agrawal	FICCI
427	Sunil Khalkho	A.E.Dus. & Sub Div. Gumla
428	R.Sahu	G,M. TTPS, Lalpania
429	S.K. Choudhary	EEE, TVNL, Ranchi
430	S.R. Singh	EEE, TVNL, Ranchi
431	R.K. Tibrewal	31 circular Road, Ranchi
432	Philip Mathur	Jharkhand small Industries Association
433	Jajay Kumar	Humanity Argora, Ranchi
434	M.K. Prasad	TVNL, Ranchi
435	D.N. Paswan	Nagrik Kalyan Samity
436	Karun	Dainik Jagran
437	Manik Boss	Dainik Bhaskar
438	B. Prasad	AEE/Ratu, JSEB
439	Nadeem Khan	DYFI- Ranchi
440	Hardeep Singh	Telegraph, Ranchi
441	Amit Kumar	Ranchi
442	Ajay Lal	E TV
443	Karmbir/Shakir	DD News
444	J.P.N. Singh	AEE/RMCh, JSEB
445	R.K. Verma	JEE/Morabadi, JSEB
446	Pradeep Singh	Dainik Jagran
447	Niranjan Aind	Basia, Konbir, Gumla
448	Jaideep Modi	Nirman Febricutors & Engg. Pvt., Ranchi
449	Rudra Biswas	Telegraph, Ranchi

450	Subhankar Jha	Ex. Engg., JSEB
451	Ranjana Mishra	Rajbhavah IAS
452	Dr. A.K. Pandey	Rajbhavah IAS
453	Kumar Abhay Kant	Dy. Kukhiya, Tatisilway
454	Sharad Poddar	V. P. JSIA
455	Shafique Ansari	Sanmarg, Ranchi
456	H.K. Jha	Simdega
457	Rajesh Kumar	Doranda
458	Mukesh Oraon	South Bharno
459	Prem Bandhan Kachhap	JE D.W & S Ramgarh
460	S. Pahan	Ramgarh
461	Anand Murti Dishit	JEDW & S Div., Ramgarh
462	Bimlendra Prasad	JEDW & S Div., Ramgarh
463	Surendra Prasad Singh	JEDW & S Div., Ramgarh
464	Bhagirath Mahto	Gola, Ramgarh
465	Md. Moiruddin	Chari G.P. Mukhia
466	Jilani Ashraf	Chari Gola, Ramgarh
467	R.Jhan	Jal Sahiya, Chari, Panchayat Gola
468	Ajay Rungta	Ranchi
469	Sanjay Kumar	EEE/MRT/Ranchi
470	Divya Surin	Jal Sahia, Basia, Konbir, Gumla
471	Prakash Surin	Jal Sahia, Basia, Konbir, Gumla
472	S. Oraon	Girai
473	Sakhdeo Oraon	Sisai