

Jharkhand State Electricity Regulatory Commission

**Provisional
Tariff Order
on
Annual Revenue Requirement
for
Financial Years 2010-11, 2011-12 & 2012-13
and
Determination of Distribution Tariff
for
Financial Year 2012-13
for
SAIL-Bokaro**

Ranchi

August 2012

CONTENTS

A1: INTRODUCTION	5
JHARKHAND STATE ELECTRICITY REGULATORY COMMISSION	5
STEEL AUTHORITY OF INDIA LIMITED, BOKARO	7
SCOPE OF THE PRESENT ORDER.....	8
A2: PROCEDURAL HISTORY	9
BACKGROUND.....	9
INVITING PUBLIC RESPONSE.....	13
SUBMISSION OF OBJECTIONS AND CONDUCT OF PUBLIC HEARING.....	14
A3: SUMMARY OF ARR AND TARIFF PETITION	15
A4: PUBLIC CONSULTATION PROCESS	17
SUBMISSION OF COMMENTS/SUGGESTIONS AND CONDUCT OF PUBLIC HEARING	17
COST OF DISTRIBUTION BUSINESS.....	17
HIGH DISTRIBUTION LOSSES	18
DELAYED PAYMENT SURCHARGE	19
QUALITY OF SUPPLY	20
PLOT-WISE LOAD ESTIMATION.....	20
POWER FROM CAPTIVE POWER PLANT	21
SERVICE TAX	21
ENERGY AUDITOR APPROVED DATA.....	22
METER TESTING CHARGES	22
TARIFF COMPARISON	23
TARIFF FOR COMMERCIAL CUM RESIDENTIAL PLOTS.....	24
TARIFF HIKE.....	24
METER INSTALLATION AND READING	25
ACCOUNTS OF THE ELECTRICITY DISTRIBUTION BUSINESS.....	26
METERING OF STREETLIGHTS	26
A5: ANNUAL REVENUE REQUIREMENT FOR FY 2010-11, FY 2012-13 AND FY 2012-13	28
ENERGY SALES.....	29
DISTRIBUTION LOSSES	33
ENERGY BALANCE	35
POWER PURCHASE COST	37
EMPLOYEE EXPENSES.....	39
REPAIR & MAINTENANCE EXPENSES	41
ADMINISTRATIVE & GENERAL EXPENSES	42
CAPITAL INVESTMENT PLAN	44
DEPRECIATION	46
INTEREST ON LOAN.....	47
OTHER INTEREST & FINANCE CHARGES.....	49
INTEREST ON WORKING CAPITAL.....	49
RETURN ON EQUITY	51
REVENUE FROM EXISTING TARIFF.....	52
TREATMENT OF STEEL PLANT	53
SUMMARY OF ARR	55
A6: TREATMENT OF REVENUE GAP	57
A7: TARIFF RELATED OTHER ISSUES	59
TARIFF RATIONALIZATION AND LOAD MANAGEMENT	59
A8: TARIFF SCHEDULE	61
DOMESTIC SERVICE (DS)	61
NON-DOMESTIC SERVICE (NDS).....	62
LOW TENSION INDUSTRIAL & MEDIUM POWER SERVICE (LTIS)	63
HIGH TENSION VOLTAGE SUPPLY SERVICE (HTS).....	64
STREET LIGHT SERVICE (SS).....	65

SCHEDULE FOR MISCELLANEOUS CHARGES.....	65
A9: TERMS AND CONDITIONS OF SUPPLY	67
A10: STATUS OF EARLIER DIRECTIVES.....	71
A11: DIRECTIVES.....	77
SEGREGATION OF ACCOUNTS OF THE ELECTRICITY DISTRIBUTION BUSINESS AND AUDIT OF ACCOUNTS	77
MAINTENANCE OF FIXED ASSET REGISTER.....	77
TIMELINESS AND DATA ADEQUACY IN NEXT TARIFF PETITION	78
SALES ESTIMATES AND PROJECTIONS	78
DISTRIBUTION LOSSES	78
COMPLAINT REDRESSAL MECHANISM.....	79
CAPITAL INVESTMENTS	79
BILLING AND METERING RELATED ISSUES.....	79
COST OF SUPPLY STUDY (COS).....	80
SEPARATE CONNECTIONS TO CONSUMERS OF THE COOPERATIVE HOUSING SOCIETY.....	80
QUALITY OF SUPPLY	80
ENERGY AUDIT	81
SOURCES OF POWER PURCHASE	81
PRESENTATION DURING THE PUBLIC HEARING.....	81
CONSUMER SECURITY DEPOSIT.....	81
A12: ANNEXURE I.....	82
LIST OF PARTICIPATING MEMBERS OF PUBLIC IN THE PUBLIC HEARING.....	82

List of Abbreviations

Abbreviation	Description
A&G	Administrative and General
ATE	Hon'ble Appellate Tribunal of Electricity
ARR	Annual Revenue Requirement
CWIP	Capital Work in Progress
DPS	Delayed Payment Surcharge
DNW	Distribution Network
DS	Domestic Service
DS HT	Domestic Service High Tension
DVC	Damodar Valley Corporation
ETL	Electro-Technical laboratory
FAS	Financial Accounting System
FY	Financial Year
GFA	Gross Fixed Assets
GoI	Government of India
HT	High Tension
JSEB	Jharkhand State Electricity Board
JSERC	Jharkhand State Electricity Regulatory Commission
JUSCO	Jamshedpur Utilities and Services Company Ltd
LT	Low Tension
kV	Kilovolt
kVA	Kilovolt-ampere
kW	Kilowatt
kWh	Kilowatt-hour
MMC	Monthly Minimum Charges
MU	Million Units
NTI	Non Tariff Income
O&M	Operations and Maintenance
PLR	Prime Lending Rate
PPA	Power Purchase Agreement
R&M	Repair and Maintenance
RoE	Return on Equity
SAIL	Steel Authority of India Limited
SBI	State Bank of India
SERC	State Electricity Regulatory Commission
SLM	Straight Line Method
TA	Town Administration
TSL	Tata Steel Limited

A1: INTRODUCTION

Jharkhand State Electricity Regulatory Commission

- 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 August 22, 2002. The Commission became operational w.e.f. April 24, 2003. The Electricity Act, 2003 (hereinafter referred to as “the Act” or “EA, 2003”) came into force w.e.f. June 10, 2003; and the Commission is now deemed to have been constituted and functioning under the provisions of the Act.
- 1.2 The Government of Jharkhand vide its notification dated August 22, 2002 defined the functions of JSERC as per Section 22 of the Electricity Regulatory Commission Act, 1998 to be the following, namely:-
- (a) to determine the tariff for electricity, wholesale, bulk, grid or retail, as the case may be, in the manner provided in section 29;
 - (b) to determine the tariff payable for the use of the transmission facilities in the manner provided in Section 29;
 - (c) to regulate power purchase and procurement process of the transmission utilities and distribution utilities including the price at which the power shall be procured from the generating companies, generating stations or from other sources for transmission, sale, distribution and supply in the State;
 - (d) to promote competition, efficiency and economy in the activities of the electricity industry to achieve the objects and purposes of this Act.
- 1.3 With the Electricity Act, 2003 being brought into force, the earlier Electricity Regulatory Commission Act of 1998 stands repealed and the functions of JSERC are now defined as per Section 86 of the Act.
- 1.4 In accordance with the Act, the JSERC discharges the following functions: -
- (a) determine the tariff for generation, supply, transmission and wheeling of electricity, wholesale, bulk or retail, as the case may be, within the State;
- Provided that where open access has been permitted to a category of consumers under Section 42, the State Commission shall determine only the wheeling charges and surcharge thereon, if any, for the said category of consumers;
- (b) regulate electricity purchase and procurement process of distribution licensees including the price at which electricity shall be procured from the generating companies or licensees or from other sources through agreements for purchase of power for distribution and supply within the State;

- (c) facilitate intra-state transmission and wheeling of electricity;
- (d) issue licences to persons seeking to act as transmission licensees, distribution licensees and electricity traders with respect to their operations within the State;
- (e) promote 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 licensee;
- (f) adjudicate upon the disputes between the licensees and generating companies; and to refer any dispute for arbitration;
- (g) levy fee for the purposes of this Act;
- (h) specify State Grid Code consistent with the Grid Code specified under Clause (h) of sub-section (1) of Section 79;
- (i) specify or enforce standards with respect to quality, continuity and reliability of service by licensees;
- (j) fix the trading margin in the intra-state trading of electricity, if considered, necessary;
- (k) discharge such other functions as may be assigned to it under this Act.

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

- (a) promotion of competition, efficiency and economy in activities of the electricity industry;
- (b) promotion of investment in electricity industry;
- (c) reorganisation and restructuring of electricity industry in the State;
- (d) matters concerning generation, transmission, distribution and trading of electricity or any other matter referred to the State Commission by that Government.

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

- 1.7 In discharge of its functions, the State Commission is guided by the National Tariff Policy 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.

Steel Authority of India Limited, Bokaro

- 1.8 Steel Authority of India Limited, (Bokaro Steel Plant) (hereinafter referred to as “SAIL-Bokaro” or “the Petitioner”) is a company incorporated in the year 1964 under the provisions of the Companies Act, 1956 and is a wholly owned subsidiary of Steel Authority of India Limited, New Delhi.
- 1.9 SAIL-Bokaro was the sanction holder of power supply in Bokaro Steel City under section 28(1) of the erstwhile Indian Electricity Act 1910 and has been managing the power distribution in Bokaro Steel City since its inception.
- 1.10 Post the enactment of Electricity Act, 2003, as per the provisions of Section 14 of the Act, Distribution License has been granted by the Commission to SAIL-Bokaro (No.01 of 2005-06) w.e.f. July 28, 2004.
- 1.11 The area of supply of the Petitioner, including the Bokaro Steel Plant and the Bokaro township, is the whole of the area bounded as follows:

North: River Damodar

South: River Garga

East: River Garga

West: Bokaro Steel City Railway Station

- 1.12 The Town Administration department of SAIL-Bokaro is responsible for providing various municipal services to Bokaro Steel City, including horticulture, water supply, construction and maintenance of roads etc. The Town Administration Electrical Department (TA-Electrical) manages the power distribution system of the licensed area.

Scope of the Present Order

- 1.13 This Order relates to the ARR and tariff petition filed by the Petitioner before the Commission for approval of the ARR for FY 2012-13 and determination of distribution tariff for FY 2012-13. In its tariff petition, the Petitioner submitted the actual expenses for FY 2010-11, the revised estimates of the expenses for FY 2011-12 and the projected expenses for FY 2012-13.
- 1.14 The Commission after thorough scrutiny of the petition and additional information submitted by the Petitioner has covered the following in this Tariff Order:
- (a) Provisional truing up for FY 2010-11 of the ARR of the Petitioner based on the latest data submitted by the Petitioner, trajectory for operational parameters set by the Commission in its previous Tariff Orders and in 'Jharkhand State Electricity Regulatory Commission (Terms and Conditions for determination of Distribution Tariff) Regulations, 2004' (hereinafter referred to us '**Distribution Tariff Regulations, 2004**').
 - (b) Revision exercise for FY 2011-12 of the ARR of the Petitioner based on the latest data submitted by the Petitioner, trajectory for operational parameters set by the Commission in its previous Tariff Order and in 'Jharkhand State Electricity Regulatory Commission (Terms and Conditions for determination of Distribution Tariff) Regulations, 2010' (hereinafter referred to us '**Distribution Tariff Regulations, 2010**').
 - (c) Determination of ARR and tariff for FY 2012-13, based on the ARR and tariff petition filed by the Petitioner, and trajectory for operational parameters for various tariff components set by the Commission in the 'Distribution Tariff Regulations, 2010'.
- 1.15 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 'Distribution Tariff Regulations, 2004'; for purposes of provisional truing up of FY 2010-11;
 - (e) Principles laid down in the 'Distribution Tariff Regulations, 2010'. These Regulations have been referred to for revision of ARR for FY 2011-12 and determination of ARR and tariff of FY 2012-13.

A2: PROCEDURAL HISTORY

Background

- 2.1 The Petitioner had filed its first ARR and tariff petition for FY 2007-08 in February 2007. After examining the petition, the Commission directed the Petitioner to submit its tariff petition for the licensed area as per the Tariff Regulations issued by the Commission from time to time, after separating the accounts of electricity distribution business from the consolidated audited accounts of the company. However, the Petitioner was unable to segregate the accounts of the electricity distribution business from the consolidated audited accounts of company. The Petitioner was also not able to provide the requisite data to the Commission for determining the ARR and Tariff for FY 2007-08.
- 2.2 Consequently, the Commission vide its order dated November 2, 2007, decided to allow a provisional tariff for FY 2007-08 for the licensed area of the Petitioner. The approved tariff was the same as was approved for Jharkhand State Electricity Board (JSEB) in FY 2006-07.
- 2.3 The Commission further directed the Petitioner to submit the tariff petition for determination of the ARR for FY 2008-09 after segregating accounts of its electricity distribution business from the consolidated accounts of the company. However, the Petitioner requested the Commission, vide SAIL-BSL letter no. DGM I/c(TE-Elect)/2009-840 dated August 13, 2009, to give it three months to file the ARR for FY 2008-09. The Commission vide its letter no. JSERC/51/209 dated August 19, 2009 accepted the Petitioner's plea.
- 2.4 The Petitioner was again unable to file the ARR and tariff petition by the said date. It was submitted by the Petitioner that as the cost of power purchased from DVC was under dispute at the Appellate Tribunal for Electricity (ATE), New Delhi, it would not be possible for it to file a petition. It thus requested the Commission, vide SAIL-BSL letter no TA/DGM/ (Elect Maint)/860 dated November 19, 2009, for further eight weeks to submit the tariff petition which was accepted by the Commission vide letter no. JSERC/51/347 dated November 24, 2009.
- 2.5 Since the judgement of the Hon'ble ATE was still pending by the said date, the Petitioner requested further extension till May 15, 2010 for filing the ARR and tariff petition. Considering it to be a special case, the Commission accepted the Petitioner's plea vide letter no. JSERC/51/43 dated April 23, 2010.
- 2.6 The Petitioner filed the petition for determination of ARR and tariff for FY 2010-11 on May 14, 2010. The Tariff Order for the same was issued by the Commission on October 9, 2010.
- 2.7 The petition for determination of ARR and tariff for FY 2011-12 was filed by the Petitioner on March 30, 2011. The Tariff Order for the same was issued by the Commission on September 28, 2011.

- 2.8 The Petitioner was required to file the petition for determination of ARR and tariff for FY 2012-13 by November 1, 2011. The Petitioner, however, vide its letter dated October 28, 2011, requested for an extension of the deadline upto January 31, 2012. Considering that the previous Tariff Order was issued only in September 2011, the Commission extended the deadline for submission of the tariff petition for FY 2012-13 to December 31, 2011, which was further extended to February 22, 2012 at the request of the Petitioner.
- 2.9 The Petitioner filed the petition for determination of ARR and tariff for FY 2012-13 on February 9, 2012. The Commission undertook a detailed examination of the petition and observed major data gaps in the petition, which were communicated to the Petitioner.
- 2.10 The Commission asked the Petitioner to furnish additional information regarding sales, power purchase, O&M cost, capital expenses and revenue to supplement the petition data provided by them and other relevant information. Further the information provided by the Petitioner was not as per the regulatory formats prescribed by the Commission. While the Petitioner provided additional data in response to the queries raised by the Commission, the same was also found to be incomplete. The Commission on several occasions asked the Petitioner to furnish further information/clarifications.
- 2.11 The various discrepancies noticed by the Commission in the data submitted were communicated to the Petitioner vide letter no:
- (a) JSERC/Legal/36/2011/870 dated March 14, 2012
 - (b) JSERC/Legal/36/2011/115 dated May 7, 2012
 - (c) JSERC/Legal/2011/352 dated May 18, 2012
 - (d) JSERC/Legal/36 of 2011/267 dated June 19, 2012
 - (e) JSERC/Legal/36 of 2011/285 dated June 28, 2012
 - (f) JSERC/Legal/36 of 2011/321 dated July 7, 2012
 - (g) JSERC/Legal/36 of 2011/353 dated July 18, 2012
 - (h) JSERC/Legal/36 of 2011/368 dated July 23, 2012
 - (i) JSERC/Legal/36 of 2011/369 dated July 23, 2012
 - (j) JSERC/Legal/36 of 2011/371 dated July 24, 2012
- 2.12 The additional data submitted by the Petitioner with respect to various parameters which has also been considered by the Commission for the purpose of this Tariff Order.

- 2.13 The Commission's representatives interacted with the Petitioner to obtain clarifications regarding the submissions made by the Petitioner; and also visited the office of the Petitioner in Bokaro to validate the data submitted in the tariff petition. The data provided by the Petitioner during the validation sessions has also been considered for the purpose of this Order.
- 2.14 It is pertinent to mention that the Petitioner has not been able to submit the audited, segregated annual accounts for the electricity distribution business. The annual accounts for FY 2009-10 and FY 2010-11 submitted by the Petitioner have been merely extracted from the main accounts of Bokaro Steel Plant. The assumptions made in preparation of electricity accounts out of Bokaro Steel Plant's main accounts, as submitted by the Petitioner, are as follows:

Balance Sheet Items

- (a) Loan Funds: This is the balancing figure in the balance sheet. This forms the capital for the electricity business.
- (b) Fixed Assets: The figures appearing here only pertain to TA-Electrical as DNW is not in a position to segregate the assets from the consolidated sheet. Further gross fixed asset is highly undervalued and once the revaluation is done, its value will undergo upward revision.
- (c) Sundry debtors: Since separate debtors for electricity business has not been maintained, ratio of electricity component in bills of FY 2010-11 has been considered.
- (d) Current liabilities: Liability for DVC, TA-Electrical has been taken in totality, whereas liability of DNW & ETL has been taken on the assumption that work done by them for Township areas is 8% & 10% respectively of their total job. Further liability of DVC & Electricity duty has been taken in a ratio of units of electricity consumed by Township vis-a-vis total electricity consumed,
- (e) Provisions: Provisions have been calculated in the ratio of Employees Remuneration of electricity business vis-a-vis Total Employees Remuneration of BSL.

Profit & Loss Account Items

- (a) Income from distribution of Electricity: This constitutes of bills raised in electricity business, unbilled units consumed by BSL facilities itself for township purposes.
- (b) Employee Remuneration & Benefits: This has been calculated after considering total expenses on this account for TA-Electrical & 8% of total expenses on this account for DNW and 10% for ETL. Expenditure on account of provisions has been made in the ratio of Employees Remuneration & benefits of electricity business vis a vis Total Employees Remuneration & benefits of BSL.

- (c) Stores & spares consumed: This has been calculated after considering total expenses on this account for TA-Electrical & 8% of total expenses on this account for DNW and 10% for ETL.
- (d) Power & Fuel: This consists of expenditure of DVC plus electricity duty paid.
- (e) Repair & Maintenance: This has been calculated after considering total expenses on this account for TA-Electrical & 8% of total expenses on this account for DNW and 10 % for ETL.
- (f) Other Expenses: This has been calculated after considering total expenses on this account for TA-Electrical & 8% of total expenses on this account for DNW and 10% for ETL.
- (g) Deficit of Corporate Office: This has been calculated based on the ratio of Income from Electricity business vis a vis Sales of Bokaro Steel Plant.
- (h) Interest & finance charges: Total interest and finance charges of BSL have been allocated in ratio of income from electricity business vis a vis Sales of Bokaro Steel Plant.
- (i) Depreciation: Assets earmarked by TA-Electrical for electricity distribution has only been considered. As regards DNW & ETL, it is not possible to clearly identify the assets related to electricity distribution of township.

2.15 As can be seen from the above, the extraction of accounts of the electricity distribution business from the accounts of the Bokaro Steel Plant has been done on a normative basis only. For example, for arriving at the employee expenses for FY 2010-11, the Petitioner has considered 100% expenses incurred on account of TA-Electrical, 8% of expenses incurred on account of DNW and 10% of expenses incurred on account of ETL. The rationale behind considering 8% and 10% of expenses of DNW & ETL respectively has been submitted as “*total volume of electrical work handled by DNW and ETL w.r.t the value of electrical distribution work for township*”. Whereas the Commission in its previous Orders has directed the Petitioner to maintain separate lists of all the employees who are partially and wholly engaged in the electricity distribution business, along with their role and responsibility and salary drawn during the year.

2.16 As such the Commission believes that such extraction of expenses, on a normative basis, is not scientific and does not represent the complete picture of expenses of the distribution business. This method of preparation of accounts has not been accepted by the Commission even in its previous Tariff Orders for FY 2010-11 and FY 2011-12. The Commission in its Order for FY 2010-11 had stated that:

“2.9 It is pertinent to mention that the Petitioner has not been able to submit the audited segregated data for the electricity distribution business. Moreover, the Commission has observed many discrepancies in the information provided by the Petitioner. In view of this, the Commission has decided to only provisionally approve the ARR for FY 2008- 09, FY 2009-10, FY 2010-11 and Tariff for FY 2010-11 till the time the Petitioner is able to give audited information for each of the ARR components.”

- 2.17 In its previous Tariff Order for FY 2011-12 also, the Commission continued with the same approach and, approved the ARR for FY 2009-10, FY 2010-11 and FY 2011-12 on a provisional basis.
- 2.18 In view of the above, and the various discrepancies observed in the information provided by the Petitioner, the Commission has decided to continue with the approach adopted by it in its previous Tariff Orders and has approved the revised ARR for FY 2010-11 and FY 2011-12 and ARR and Tariff for FY 2012-13 on provisional basis; till such time the Petitioner is able to provide segregated, audited accounts for its electricity distribution business for each component of the ARR.
- 2.19 The basis for approval of each of the expense items and the ARR of the Petitioner, on a provisional basis, has been detailed in Section 5 of this Order. The expenses allowed to the Petitioner have been arrived at after scrutiny of the information provided by the Petitioner and taking into account the Regulations of the Commission.

Inviting Public Response

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

Table 1: List of Newspapers and Dates on which the Public Notice Appeared

Newspaper	Date
Hindustan (Hindi)	29.3.12 & 30.3.2012
Dainik Bhaskar (Hindi)	29.3.12 & 30.3.2012
Dainik Jagran (Hindi)	29.3.12 & 30.3.2012
The Times of India, (English)	28.3.12 & 29.3.2012
The Pioneer (English)	28.3.12 & 29.3.2012
Hindustan Times	28.3.12 & 29.3.2012

- 2.21 A period of 21 days was provided for submitting the comments/suggestions. Five persons filed written suggestions/comments on the tariff petition; and their comments have been dealt with in the Section on Public Consultation Process.
- 2.22 The Commission also issued an advertisement on its website, www.jserc.org, and various newspapers for conducting the public hearing on the petition filed by the Petitioner. The newspapers in which the advertisement for public hearing was issued by the Commission are detailed hereunder:

Table 2: List of Newspapers and Dates on which the Public Hearing Notice of JSERC appeared

Newspaper (Jamshedpur edition)	Date of Publication
Hindustan (Hindi)	18.04.2012
Prabhat Khabar	18.04.2012
Dainik Jagran	18.04.2012
The Times of India	18.04.2012
Quami Tanzeem (Urdu Daily)	18.04.2012
Dainik Bhaskar	21.04.2012
AAJ	21.04.2012
Ranchi Express	21.04.2012
The Hindustan Times (English)	21.04.2012

Submission of Objections and Conduct of Public Hearing

- 2.23 The public hearing was held on Sunday, April 22, 2012 at Kala Kendra, Bokaro and many respondents gave their comments and suggestions on the ARR and tariff petition filed by the Petitioner. The comments/suggestions of the public as well as Petitioner's response to them are detailed in the Section 4 of this Order.

A3: SUMMARY OF ARR AND TARIFF PETITION

- 3.1 The Petitioner filed the present petition for determination of ARR and tariff for FY 2012-13. In its tariff petition, the Petitioner submitted the actual expenses for FY 2010-11, the revised estimates of the expenses for FY 2011-12 and the projected expenses for FY 2012-13.
- 3.2 The Petitioner submitted that it has attempted to segregate the accounts of the electricity distribution business from the consolidated accounts of the Steel Plant. Since it is not maintaining separate accounts for the electricity business at present, it has extracted accounts for the electricity distribution business from the consolidated accounts of the Steel Plant on the basis of certain norms and assumptions.
- 3.3 The Petitioner submitted that the cost of power purchased from DVC is under dispute and it is not clear at present what will be the final cost of power.
- 3.4 The summary of ARR as submitted by the Petitioner is detailed in the following table.

Table 3: ARR submitted by the Petitioner (Rs Cr)

Particulars	FY 2010-11 (Actual)	FY 2011-12 (Provisional)	FY 2012-13 (Projected)
Power purchase cost	386.57	470.14	493.05
Employees cost	11.26	12.16	13.13
R&M expenses	4.73	5.20	5.20
A&G Expenses	1.20	1.32	1.32
Interest on loans	0.77	0.77	0.77
Interest & Financial charges	0.33	0.39	0.40
Depreciation	0.17	0.17	0.17
ROE	0.64	0.64	0.64
Interest on Working Capital	0.37	0.39	0.40
Total costs	406.03	491.18	515.08
Less: fixed charge collected	2.60	3.61	4.07
ARR (a)	403.44	487.57	511.01
Revenue at present tariff (b)	355.95	431.59	458.74
Revenue (Gap)/Surplus (a) – (b)	(47.48)	(55.98)	(52.27)

- 3.5 It is pertinent to mention that during scrutiny of the petition, the Commission sought additional information and clarification on various components of the ARR. As per the clarification and corrections made by the Petitioner, the petition figures have undergone change as is reflected in the relevant sections of this Order.
- 3.6 The Petitioner also proposed changes in the existing tariff schedule to meet the revenue gap projected by it. The new tariff schedule, as proposed in the petition, is given in the following table.

Table 4: Existing Tariff and Tariff Proposed by the Petitioner for FY 2012-13

Consumer Category	Fixed Charge		Energy Charge		
	Existing	Proposed	Unit	Existing	Proposed
DS – II	Rs 35 per connection per month	Rs 60 per connection per month	Rs/ kWh (0-200 Units)	1.90	3.25
	Rs 50 per connection per month	Rs 75 per connection per month	Rs/ kWh (>200 Units)	2.40	3.90
DS – III	Rs 90 per connection per month	Rs 160 per connection per month	Rs/ kWh	2.40	3.90
DS HT	Rs 65 per kVA per month	Rs 120 per kVA per month	Rs/ kWh	2.00	4.00
NDS II	Rs 120 per kW per Month or part thereof	Rs 180/kW/ Month	Rs/ kWh	4.80	6.00
LTIS	Rs 100 /HP/ month or part thereof	Rs 150/HP/ month	Rs/ kWh	4.10	6.00
HTS 11 KV & 33 KV	Rs 205 per kVA per month	Rs 250 per kVA per month	Rs/ kWh	4.90	6.00
HTS 132 KV	Rs 205 per kVA per month		Rs/ kWh	4.90	
HT/LT Utilities	-	-	Rs/ kWh	-	At Power Purchase Cost

A4: PUBLIC CONSULTATION PROCESS

Submission of Comments/Suggestions and Conduct of Public Hearing

- 4.1 The tariff petition evoked response from several stakeholders. A public hearing was held on April 22, 2012 at Kala Kendra, Bokaro to ensure maximum participation by the public. Many stakeholders put forth their comments and suggestions before the Commission in the presence of the Petitioner. In all fifty three persons participated in the public hearing process. The list of the attendees is attached in Annexure-I.
- 4.2 In the course of the public hearing, the Commission also allowed persons/representatives of entities who had not submitted prior written representations but attended the public hearing 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 made by the stakeholders, along with the replies of the Petitioner and views of the Commission thereon are discussed in this Section.

Cost of Distribution Business

Public Comments/Suggestions

- 4.4 The Stakeholders submitted that the quantum of energy supplied to the domestic consumers is very less as compared to that supplied to the plant and hence, putting the entire revenue gap's burden on domestic consumers is unjust.

Petitioner's Response

- 4.5 The Petitioner submitted that major burden is taken by BSL and only a small portion is shared by other electricity consumer.

Views of the Commission

- 4.6 The Commission shares the concerns of the consumers and in its previous Tariff Orders had directed the Petitioner to maintain separate accounts for its electricity distribution business. However, the Petitioner has not complied with the same. The Commission takes a serious view of this and directs the Petitioner to comply before the filing of the next tariff petition, failing which the Commission will take penal action against the Petitioner.
- 4.7 Meanwhile, for the purpose of this Tariff Order, the Commission has allowed the costs incurred by the Licensee (Operation & Maintenance Expenses, Return on Equity, Depreciation, etc) by taking into account the cost associated with the business of distribution of electricity in the township only.

High Distribution Losses

Public Comments/Suggestions

- 4.8 The Stakeholders submitted that the power distribution system of the Bokaro Township is quite effective and as such the distribution losses cannot be over 2.5% of the total energy supplied to the township. The losses incurred by the Petitioner due to theft or pilferage should not be passed on to the consumers who are being billed for electricity.
- 4.9 The Stakeholders also submitted that it is not possible to calculate exactly what quantum of power is actually consumed, lost as line loss and lost due to unauthorised connections. The Stakeholders also submitted that electricity theft is estimated to be as high as upto 40% of the quantum being supplied to the Township.
- 4.10 Other Stakeholders submitted that about 70% electricity consumption is on account of unauthorized connections by about two lakh unauthorized occupants which should be checked.
- 4.11 The Stakeholders also suggested that in order to reduce the revenue gap the Petitioner must check for the unauthorized connections and the same must be removed.

Petitioner's Response

- 4.12 The Petitioner submitted that it has been working hard to control the Distribution Losses.
- 4.13 The Petitioner also submitted that it is vigilant and is constantly striving to reduce the unauthorized connections and punish those indulging in theft of electricity.

Views of the Commission

- 4.14 The Commission, in the previous Tariff Orders, has given the following directions to the Petitioner with regards to the Distribution Losses:

"Distribution Loss:

12.9 The Commission considers the high level of distribution losses reported by the Petitioner to be unacceptable and directs the Petitioner to constitute a task force for supervising distribution loss mitigation efforts in its licensed area.

12.10 The Petitioner must also prepare a detailed, five year plan for reduction of distribution losses which should include, among others, the following initiatives:

- (a) Establishing Measurement and Control Mechanisms like Feeder Metering, DT Metering, Feeder wise Energy Audit, DT wise Energy Audit and Consumer indexing.*

- (b) *Metering and Associated Infrastructure Improvements like Metering of un-metered consumers, LT CT Meter & Service line Replacement, LT Meter & Service line Replacement and AMI for LT Consumers.*
- (c) *Network Infrastructure Improvements like Re-enforcement of feeders, Feeder bifurcation/ Segregation, Transformer Augmentation, Load Balancing, Reduction of HT/LT Ratio – HVDS (in High loss areas), LT ABC (in High loss DT's) and Capacitor installation.*
- (d) *Commercial & Administrative Measures like Disconnection of defaulters and Consumer education drives.*

The Petitioner must submit this plan to the Commission within six months of issuance of this Tariff Order.”

- 4.15 The Commission takes a serious view of the high level of distribution losses reported by the Petitioner and does not find any justification to pass on the inefficiencies of the Petitioner to the consumers. Accordingly, the Commission has approved distribution losses at only 15% for FY 2012-13, in line with the trajectory set in the ‘Distribution Tariff Regulations, 2010’.
- 4.16 The Commission has also given appropriate directions for the reduction of the losses in the Directives section of this Tariff Order.

Delayed Payment Surcharge

Public Comments/Suggestions

- 4.17 The Stakeholders submitted that consumers are ready to pay the bills as and when required. Hence, delayed payment surcharge should not be levied as proposed by the Petitioner.

Petitioner's Response

- 4.18 The Petitioner submitted that the proposed surcharge is to be levied only on the defaulters and hence does not affect the consumers paying their bills on time.

Views of the Commission

- 4.19 The Commission agrees with the Petitioner's submission. The delayed payment surcharge does not affect the consumers who pay their dues in time. This surcharge is applicable only to the consumers who default in paying the dues. The Petitioner shall thus be allowed to levy a delayed payment surcharge on late payment of dues in line with the relevant clause of terms and conditions of supply approved by the Commission from time to time.

Quality of Supply

Public Comments/Suggestions

- 4.20 The quality of supply in the licensed area is not upto the desired levels. Power supply is erratic, with frequent power cuts and fluctuation in voltage levels.

Petitioner's Response

- 4.21 The Petitioner submitted that the electricity supply does not suffer frequent interruptions and voltage fluctuation.
- 4.22 The Petitioner further submitted that they try to maintain power supply of high standards and ensure round the clock availability except when there is a severe power restriction from the grid.

Views of the Commission

- 4.23 The Commission takes a serious note and views that there is an immediate need to improve the quality of power supply in the licensed area and to have a proper complaint redressal system. The Commission has passed appropriate directions in the Directives section of this Tariff Order.

Plot-wise Load Estimation

Public Comments/Suggestions

- 4.24 The Stakeholders submitted that due to the advancement of technology and the availability of CFL Bulbs has resulted in the reduction of the overall load. Most of the 80 sq meter plots have load between 2 kW - 3 kW but some plots are being charged on the basis of 2 kW, some on the basis of 4 kW and others on the basis of 10 kW. Hence, fresh estimation of plot-wise connected load should be carried out with as per mutual consensus between the licensee and the consumer.

Petitioner's Response

- 4.25 The Petitioner submitted that the load assessment work of various categories of consumers has been taken up. At present load assessment of NDS II and LTIS consumers is being done in phased manner. The billing thereafter shall be accordingly complied with.

Views of the Commission

- 4.26 Correct estimation of the sanctioned load of the consumers is essential for maintaining an efficient distribution network and is in the interests of the consumers and the Petitioner. The Petitioner should expedite the process of assessment of load of the consumers of all categories.

- 4.27 A consumer, on its own, may also apply for enhancement and reduction of Contract Demand/Sanctioned Load as per the guidelines specified in Clause 9 of Jharkhand State Electricity Regulatory Commission (Electricity Supply Code) Regulations, 2005 as amended from time to time.

Power from Captive Power Plant

Public Comments/Suggestions

- 4.28 The Stakeholders submitted that the Petitioner has formed a subsidiary unit known as Bokaro Power Supply (Co.) Ltd., a joint venture of SAIL-Bokaro and Damodar Valley Corporation to meet the peak load demand for operating the Steel Plant units as well as for the distribution of the power to the township.
- 4.29 The Stakeholders further submitted that a main Distribution Sub-Station called MSDS is situated inside the plant periphery of the Bokaro Steel Plant, which is in fact the GRID linking Sub-Station wherefrom the power at 132 kV from both Captive Thermal Power Plant owned by Bokaro Steel Plant and the power purchased from the Damodar Valley Corporation are received and distributed to at the required voltage levels to the entire Steel Plant working units as well as the Township.

Petitioner's Response

- 4.30 The Petitioner clarified that the township area has been supplied with electricity purchased from Damodar Valley Corporation only and not the Captive Power Plant.
- 4.31 It has further submitted that whenever the DVC supply goes off, the township is cut off totally. Captive power of BPSCL is used for emergency load of the Steel Plant only.

Views of the Commission

- 4.32 The Petitioner has in its various submissions before the Commission has submitted that the township area has been supplied with electricity purchased from Damodar Valley Corporation only and not from the Captive Power Plant.
- 4.33 However, in order to address the concerns raised by the Stakeholders, the Commission directs the Petitioner to carry out the Energy Audit of its distribution network. The energy audit should also include study of the network of SAIL-Bokaro, flow of power in the system and load management of the supply to the township.

Service Tax

Public Comments/Suggestions

- 4.34 The Stakeholders submitted that the Petitioner has been levying a component of service tax in the monthly bills which no other distribution company levies. So, this service tax should be removed.

Petitioner's Response

- 4.35 The Petitioner submitted that from July 2012 onwards no service tax is being charged in the electricity bills. The matter of service tax charged earlier from some categories of consumers has been referred to the concerned division of BSL for needful action.

Views of the Commission

- 4.36 The Commission is of the view that the licensee is not entitled to levy any charges apart from the charges prescribed in the Tariff Order. Any amount charged from the consumers that is beyond the charges permitted in the Tariff Order should be refunded by the Petitioner. The Petitioner is also directed to submit a compliance report to the Commission.
- 4.37 The Commission also advises the consumers to approach the Consumer Grievance Redressal Forum (CGRF) at Bokaro in case no appropriate action is taken by the Petitioner.

Energy Auditor approved data

Public Comments/Suggestions

- 4.38 The Stakeholders submitted that the details submitted in the Petition have not been duly audited by the energy auditors, which is mandatory as per the provision of the law. Hence, the Petition should be rejected.

Petitioner's Response

- 4.39 The Petitioner submitted that Energy Auditors are not mandatory auditors for the purpose of ARR and tariff determination.

Views of the Commission

- 4.40 The Commission agrees with the Petitioner's submission that an energy audit is not mandatory for the purpose of ARR and tariff determination. However, an energy audit is essential to estimate the actual distribution losses and consumption (since many of the connections are unmetered/billing is being done on assessment basis) in the licensed area. The Commission directs the Petitioner to carry out the Energy Audit and submit the report of the same with the next tariff petition.

Meter Testing Charges

Public Comments/Suggestions

- 4.41 The Stakeholders submitted that the energy meters are being installed at the consumer premises after due testing by the Petitioner. However, the Petitioner is recovering the testing charges every month from the consumers which is not correct.

- 4.42 The Stakeholders also submitted that the Petitioner has proposed a meter testing fee of Rs 30/month but no regular meter testing is carried out. Hence, this proposal should be rejected.

Petitioner's Response

- 4.43 No meter testing fee is being charged in the monthly bills. Fixed charge as mentioned in the bill has been confused with meter charges.

Views of the Commission

- 4.44 The Petitioner is allowed to levy fixed charges on domestic consumers every month in accordance with the tariff schedule approved by the Commission. Meter testing charges may also be levied by the Petitioner in accordance with Clause 17 of the Jharkhand State Electricity Regulatory Commission (Electricity Supply Code) Regulations, 2005 as amended from time to time.
- 4.45 Meter testing charges may be levied on the consumers when accuracy of the meter is disputed by the consumer. If the meter is found defective within the meaning of the Indian Electricity Rules 1956, the amount of advance is refunded and if the meter is found to be in order within the permissible limits laid down in the Rules, the amount is not to be refunded.
- 4.46 The Commission has scrutinized the sample consumer bills (for April-May 2012) as submitted by the Petitioner and has not found meter testing charges being levied on a monthly basis in the sample bills.
- 4.47 In case there is any irregularity in the electricity bill being raised by the licensee, the Commission advises the consumers to approach the Petitioner in first instance and if not satisfied then to the Consumer Grievance Redressal Forum (CGRF) at Bokaro.

Tariff Comparison

Public Comments/Suggestions

- 4.48 The Stakeholders submitted that the tariff decided for SAIL-Bokaro should not be compared with that for JSEB as their consumers, liabilities, etc are different from that of SAIL-Bokaro. Further, the Stakeholders have also suggested that the comparison should be done with Tata Steel Limited (TSL) instead since both the companies have similar consumer mix and electrical infrastructure.

Petitioner's Response

- 4.49 The Petitioner submitted that SAIL-Bokaro tariff should not be compared with both JSEB and Tata Steel Limited (TSL) since all the three organisations are completely different in terms of consumer mix.

Views of the Commission

- 4.50 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 and has approved the tariff for the Petitioner by taking into account the Annual Revenue Requirement, the total revenue generated and earned by the Petitioner.

Tariff for Commercial cum Residential Plots

Public Comments/Suggestions

- 4.51 The Stakeholders submitted that some of plots are of commercial cum residential type wherein the consumers on the ground floor of such plots are the commercial consumers while those on the rest of the floors are residential consumers. But the Petitioner is not ready to provide separate meters for the commercial and the residential use and to bifurcate the consumption on different heads.

Petitioner's Response

- 4.52 The Petitioner submitted that plots in City Centre and Sector markets have been allotted for the commercial purposes. As per the lease agreement executed between the lessee and SAIL/BSL the plots have been allotted for running the specific trade only. Further, the lessee is free to run any trade/trades of his choice from his premises, subject to the only restriction that no trade put under the restricted trades list shall be allowed without written permission of the lessor. The lessee may run the business either himself/herself or allow somebody else to run the business on their behalf as long as he/she does not sub-lease the premises without obtaining written permission of the lessor company for such sub-leasing. There is no residential demarcation in the lease terms and as such bifurcation of electricity tariff on the basis of residential and commercial use cannot be allowed in this case.

Views of the Commission

- 4.53 As far as the terms and conditions of the lease are concerned, that is a matter between the lessee and the lessor and it cannot be a subject matter of this Tariff Order. But as far as the usage of electricity is concerned the Commission is of the view that billing for electricity use for domestic purpose and commercial purpose should be done separately in accordance with the tariff schedule approved by the Commission. The Petitioner is directed to provide separate meters for commercial and residential use of electricity.

Tariff Hike

Public Comments/Suggestions

- 4.54 The Stakeholders submitted that tariff hike was carried just six months back wherein, the tariff was increased from Rs 1.90/unit to Rs 2.40/unit and the fixed charges increased from Rs 25/consumer to Rs 35/consumer/month and from Rs 35/consumer/month to Rs 50/consumer, resulting in to a tariff hike of 26%. Now, the Petitioner has again proposed to increase the tariff by 62%, which is unjust.

- 4.55 The Stakeholders further proposed that the two categories for tariff must be formed: a) Consumers with monthly consumption of less than 300 units, charged at Rs 2.00/unit with a fixed charge of Rs 35/consumer/month and b) Consumers with monthly consumption of more than 300 units, charged at Rs 2.5/unit with a fixed charge of Rs 50/consumer/month

Petitioner's Response

- 4.56 The Petitioner has not submitted any reply.

Views of the Commission

- 4.57 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 and has approved the tariff for the Petitioner by taking into account the Annual Revenue Requirement, the total revenue generated and earned by the Petitioner. The terms and conditions of the tariff for SAIL-Bokaro are discussed in the relevant sections of this Order.

Meter Installation and Reading

Public Comments/Suggestions

- 4.58 The Stakeholders have submitted that the residential and other consumers do not have electronic meters installed at their premises. Also, at the premises where the meters have been installed, the meter reading officials do not carry out the meter reading on a monthly basis. These consumers are billed on yearly consumption average basis instead of their actual consumption, which is not correct.

Petitioner's Response

- 4.59 The Petitioner submitted that it has already begun the work and will be installing 8000 meters in the coming days to eliminate the unmetered / flat rate billing.

Views of the Commission

- 4.60 The Commission, in the previous Tariff Orders, has given the following directions to the Petitioner with regards to the metering and billing.

*“12.16 The Commission has observed that one of the major reasons for higher distribution losses is the inability of the licensee to bill its consumers. Despite selling energy on regular basis there are cases where the Petitioner has failed to meter the consumption and bill the consumers. The Commission directs the Petitioner to develop a **comprehensive metering plan**. The Petitioner should also ensure that it strengthens its metering, billing and collection mechanism to ensure 100 per cent billing and collection.”*

- 4.61 However, the Petitioner has not complied with the directive yet. The Commission scrutinized the sample bills (for April 2012 - May 2012) of around 4000 consumers submitted by the Petitioner. On scrutiny of the bills it appears that several consumers are being billed for a specified amount of consumption (on a flat rate basis).
- 4.62 The Commission takes serious note of this and directs the Petitioner to ensure 100% metering of all consumer premises. It should also ensure regular and timely reading of meters and billing of consumers as per the actual meter reading.
- 4.63 The Commission has given appropriate directions for metering and billing in the Directives section of this Tariff Order.

Accounts of the Electricity Distribution Business

Public Comments/Suggestions

- 4.64 The Stakeholders submitted that the balance sheet submitted by the Petitioner does not form the capital for the electrical business alone. Hence, it is vexatious and should not be considered.

Petitioner's Response

- 4.65 The Petitioner submitted that the ARR submitted to the Commission is based on the actual available data with the Petitioner and all the financial figures submitted are as per the audited accounts only.

Views of the Commission

- 4.66 As already noted by the Commission in paragraph 2.14, the Petitioner has not been able to submit the audited, segregated annual accounts for the electricity distribution business. The annual accounts for FY 2009-10 and FY 2010-11 submitted by the Petitioner have been merely extracted from the main accounts of Bokaro Steel Plant on the basis of certain norms and assumptions. As such the Commission believes that such extraction of expenses, on a normative basis, is not scientific and does not represent the complete picture of expenses of the distribution business. This method of preparation of accounts has is not acceptable to the Commission.
- 4.67 The Commission has given appropriate directions for segregation of accounts of the electricity distribution business in the Directives section of this Tariff Order.

Metering of Streetlights

Public Comments/Suggestions

- 4.68 The Stakeholders suggested that the Petitioner must try to reduce the consumption for street lights and common places and the same must be strictly monitored.

Petitioner's Response

- 4.69 The Petitioner has not submitted any reply.

Views of the Commission

- 4.70 The Commission is of the view that the Petitioner should meter all the streetlights and other utilities and bill them as per their actual metered consumption. The Commission has given directions in this behalf in the Directives Section of this Tariff Order.

A5: ANNUAL REVENUE REQUIREMENT FOR FY 2010-11, FY 2012-13 AND FY 2012-13

- 5.1 This section deals with the Commission's analysis of the petition filed by the Petitioner for determination of Annual Revenue Requirement for FY 2012-13.
- 5.2 The tariff petition submitted by the Petitioner was found to be incomplete in many respects. The Commission asked the Petitioner to furnish additional information at many a time regarding sales, power purchase, O&M cost, capital expenses and revenue to supplement the petition data provided by them. Further the information provided by the Petitioner was not as per the regulatory formats prescribed by the Commission.
- 5.3 The Commission asked the Petitioner to submit information with respect to category-wise sales, connected load, number of consumers for FY 2009-10, FY 2010-11, FY 2011-12 and FY 2012-13. Further, the Petitioner was asked to submit data regarding power purchase, distribution losses, and item-wise break up of other costs such as administrative and general expenses and repair and maintenance expenses and details regarding employee expenses for FY 2010-11, FY 2011-12 and FY 2012-13 as per the prescribed regulatory formats. The Petitioner was also asked to submit the basis for projecting employee expenses, A&G expenses and R&M expenses for FY 2012-13 and detailed calculation of return on equity, working capital and interest and finance charges. Also the Commission asked the Petitioner to submit a compliance report for the directives issued in the previous Tariff Order.
- 5.4 While the Petitioner provided additional data in response to the queries raised by the Commission, the same was also found to be incomplete. The Commission again asked the Petitioner to furnish further information/clarifications including additional data regarding sales, actual payments made to DVC, the complete list of employees along with total emoluments/salaries paid to them for FY 2011-12, the details of capital investment plan for FY 2010-11 to FY 2012-13 and other relevant information.
- 5.5 The Petitioner was, however, unable to provide the complete information and replies to the various queries raised by the Commission.
- 5.6 The Commission also notes that the Petitioner has been unable to segregate the accounts of the electricity distribution business from the accounts of the Bokaro Steel Plant. The annual accounts for FY 2009-10 and FY 2010-11 submitted by the Petitioner have been merely extracted from the main accounts of Bokaro Steel Plant on basis on certain norms and assumptions. As such, the Commission believes that such extraction of expenses, on a normative basis, is not scientific and does not represent the complete picture of expenses of the distribution business. Therefore, for the purpose of issuance of this Tariff Order, the Commission has decided to carry out a provisional true-up for FY 2010-11 and final true-up will be done when the segregated, audited accounts are made available to the Commission.

- 5.7 The revised ARR for FY 2011-12 and ARR for FY 2012-13 have been approved on the basis of past performance, expected growth and information made available by the Petitioner and in accordance with the 'Distribution Tariff Regulations, 2004' and 'Distribution Tariff Regulations, 2010'. However, as mentioned earlier, since many discrepancies were observed in the data provided by the Petitioner, the Commission has decided to approve provisionally the revised ARR for FY 2011-12 and the ARR and distribution tariff for FY 2012-13.

Energy Sales

Petitioner's submission

- 5.8 The Petitioner has categorized the energy sales in its township in two parts – 'sales on account of HT/LT Utilities (Own Consumption)' and 'sales to Other Consumers'.
- 5.9 Sales to Other Consumers include sales to LT/HT consumers such as domestic consumers (including employees of SAIL/BSL), non-domestic consumers, LTIS consumers and HT consumers. The Petitioner submitted category-wise sales to such consumers for FY 2010-11, FY 2011-12 and FY 2012-13 as shown in Table 5.
- 5.10 Further, with respect to sales to domestic consumers, the Petitioner has submitted that in many of the residential quarters meters are either not working or are malfunctioning due to which billing is being done on flat rate basis (fixed number of units consumed for each type of quarter). The Petitioner stated that it has decided to replace all non-functional meters in a phased manner.
- 5.11 The following tables summarise the category-wise number of consumers, connected load and sales for 'Other Consumers' for FY 2010-11, FY 2011-12 and FY 2012-13 as submitted by the Petitioner.

Table 5: Submitted Energy Sales (MU) for Other Consumers

Category	FY 2010-11 [^]	FY 2011-12 [#]	FY 2012-13 [*]
DS – II	81.91	87.94	86.71
DS – III	-	0.86	0.94
DS HT	6.14	5.91	6.34
NDS II	19.09	11.36	13.28
LTIS	0.18	0.61	0.73
HTS	2.23	2.78	2.74
Total	109.55	109.46	110.74

[^] As per additional information dated June 5, 2012 ^{*}As per additional information dated April 24, 2012 [#]As per additional information dated July 23, 2012

Table 6: Submitted Number of Consumers for Other Consumers

Category	FY 2010-11 [^]	FY 2011-12 [#]	FY 2012-13 [*]
DS – II	37445	37445	37445
DS – III		12	12
DS HT	4	5	5
NDS II	1621	1625	1625
LTIS	37	37	37
HTS	5	4	4

Category	FY 2010-11 [^]	FY 2011-12 [#]	FY 2012-13 [*]
Total	39112	39128	39128

[^] As per additional information dated June 5, 2012 ^{*}As per additional information dated April 24, 2012 [#]As per additional information dated July 23, 2012

Table 7: Submitted Connected Load for Other Consumers

Category	Unit	FY 2010-11 ^{**}	FY 2011-12 [#]	FY 2012-13 [*]
DS – II	kW	93580	91684	91684
DS – III	kW	-	2000	2000
DS HT	kVA	5086	4815	4815
NDS II	kW	14660	9502	9502
LTIS	HP	824	899	899
HTS	kVA	3057	2163	2163

^{**}As submitted in additional information to tariff petition for FY 2011-12. ^{*}As per additional information on April 24, 2012 [#]As per additional information on July 23, 2012

- 5.12 ‘Own Consumption’ consists of energy consumption by utilities such as schools, hospitals, street lighting, pump houses, administration buildings and offices. The Petitioner submitted that electricity consumed for such purposes is not metered or billed and the expense for the same is to be borne by the Steel Plant administration. The energy consumed for such purposes has been estimated on assessment basis.
- 5.13 The Petitioner submitted sales on account of HT/LT Utilities or Own Consumption as 74.49 MU for each of the years, FY 2010-11, FY 2011-12 and FY 2012-13 as shown in the following table.

Table 8: Submitted No of consumers, Load and Energy Consumed for HT/LT Utilities or Own Consumption for each year*

Consumption of HT/LT Utilities or Own Consumption				
Description of Premises	Unit for Connected Load	No. of Premises/ Installations	Connected Load	Total Units Consumed (MU)
Offices	kW	8	6051	15.55
Pump Houses	HP	4	15390	23.64
Medical Services	kW	11	3640	12.43
Schools & Area illumination	kW	88	572	1.64
Street / Area lighting	kW	10685	1633	6.09
Others (Sports Club, Bokaro Club, yoga Kendra, Bokaro Niwas, City Park, etc.	kW	19	3514	15.14
TOTAL	-	10815	-	74.49

*As per additional information on April 24, 2012

Commission's Analysis

- 5.14 The Commission has categorized the energy sales in the Bokaro Township into two parts – ‘sales to HT/LT Utilities (or Own Consumption)’ and ‘sales to Other Consumers’ as per the submission of the Petitioner¹. It has scrutinized the commercial information in relation to the number of consumers, connected load and category-wise units sold.
- 5.15 The Commission directed the Petitioner to submit the break-up of category-wise sales into metered and unmetered sales and the basis of assessment for unmetered sales. The Petitioner submitted that consumption of 14200 consumers (or 45% of the consumers in DS-II category (0-200 units)) is unmetered. About 45% of the total sales in DS-II category (0-200 units) have been billed on assessment basis. As per the submission of the Petitioner, the consumption of all other consumers is metered.
- 5.16 The Petitioner, in its tariff petition, however, submitted that in many of the residential quarters meters are either not working or are malfunctioning due to which billing is being done on flat rate basis (fixed number of units consumed for each type of quarter).
- 5.17 The Commission has also test-checked the sample bills (for April 2012 - May 2012) of around 4000 consumers submitted by the Petitioner. On scrutiny of the bills, it appears that several consumers are being billed on a flat rate basis. Further, such flat rate billing appears for domestic consumers in all types of quarters. For example several consumers in the A type quarters are being billed at 350 units/month, in B type quarters at 290 units/month, in C type quarters at 220 units/month, in D type quarters at 200 units/month etc.
- 5.18 The Commission directed the Petitioner to submit (a) no. of consumers billed on flat rate basis and their total consumption (category-wise and slab wise) (b) no. of consumers billed as per actual metered consumption and their total consumption (category-wise and slab wise). However, no submission has been received from the Petitioner in this regard.
- 5.19 Further, from the data submitted, the Commission observed that the sales to DS-II category have increased substantially from 81.91 MU to 87.94 MU between FY 2010-11 and FY 2011-12 while the number of consumers has remained the same. Further, within the sales to DS-II category, the share of sales to DS-II (0-200 units) category has increased from 66% to 76% and the share of sales to DS-II (0-200 units) category has decreased from 34% to 24%. The Petitioner was unable to explain this trend.
- 5.20 The Commission also observes that the sales to NDS-II category have decreased substantially from 19.09 MU to 11.36 MU between FY 2010-11 and FY 2011-12 while the number of consumers has increased from 1621 to 1625.

¹ The categorization has been used for comparison purpose only. The Commission has not approved any separate category for HT/LT consumers or Own consumption. The sales under the head of ‘Own Consumption’ have been reclassified into HTS, NDS, LTIS and SS for the purpose of calculation of revenue.

- 5.21 In view of the above discrepancies, absence of audited sales and revenue data, lack of metering and billing of many consumers on flat rate basis, the Commission has not approved the sales figures as per the submission of the Petitioner. The number of consumers, connected load and sales to 'Other Consumers' for FY 2010-11 and FY 2011-12 have been retained as that provisionally approved by the Commission in its previous Tariff Order.
- 5.22 For FY 2012-13, the Commission provisionally approves the projected number of consumers and connected load based on the number of consumers and connected load provisionally approved for FY 2011-12. In absence of reliable data regarding historic/long term increase in sales in the licensed area, the Commission, in its previous tariff order, had projected the sales for different categories by considering the approved sales of the previous year. Continuing with the same approach, the Commission approves the sales for FY 2012-13 at the same level as that provisionally approved for FY 2011-12.
- 5.23 The Petitioner has created a category of 'Own Consumption' or 'HT/LT Utilities' for energy supplied to utilities such as schools, hospitals, street lighting, pump houses, administration buildings and offices. The consumption for such purposes is not being metered and has been estimated on assessment basis.
- 5.24 During the data validation sessions, the Commission asked the Petitioner to submit the category-wise details of consumption clubbed under the head of HT/LT Utilities (or Own Consumption) including the basis of assessment of energy consumption of these consumers, which was submitted by the Petitioner in the subsequent submissions made by it.
- 5.25 Since the sales to these HT/LT utilities contribute to about 40% of overall sales of the Petitioner in the township, correct estimation of these sales is essential. The Commission in its previous Tariff Order had directed the Petitioner to ensure 100% metering of the consumption of these consumers so that the actual level of energy sales, revenues and distribution losses in the township can be determined. However, no progress has been made by the Petitioner in this regard. The Commission takes serious note of this and directs the Petitioner to complete the metering of HT/LT utilities within the current financial year failing which penal action may be taken by the Commission.
- 5.26 The Commission has considered sales to HT/LT Utilities as per the submission of the Petitioner. The Commission has considered the information provided by the Petitioner regarding 'Own Consumption' to re-categorize the consumption of office and maintenance posts, schools, recreation, hospitals and health care, pump-houses into Street Light Service, NDS, HTS and LTIS categories.
- 5.27 The following table summarises the number of consumers, connected load and energy sales for the Bokaro township for each of the year, FY 2010-11, FY 2011-12 and FY 2012-13.

Table 9: Approved Number of Consumers, Connected Load and Energy Sales in the Township for each of the year FY 2010-11, FY 2011-12 and FY 2012-13

Category	Unit for Load	No. Of Consumers	Connected Load	Energy Sales (in MU)
DS-II	kW	37441	93580	81.91
DS-HT	kVA	4	5086	6.14
LTIS	HP	41	824	0.18
NDS	kW	1621	14660	19.09
HTS-11 KV	kVA	5	3057	2.23
HT/LT Utilities*	kW	10815	26891	74.49
Total	-	49927	-	184.04

* For the purpose of comparison sales to HT/LT Utilities have been shown separately. However, no such category has been approved by the Commission and the sales under this head have been reclassified into HTS, NDS, LTIS and SS for the purpose of calculation of revenue.

Distribution Losses

Petitioner's submission

5.28 The Petitioner submitted the overall distribution losses for FY 2010-11, FY 2011-12 and FY 2012-13 as shown in the following table:

Table 10: Submitted Distribution losses for FY 2012-13 (MUs)*

Particulars	FY 2010-11	FY 2011-12	FY 2012-13
Total energy input (A)	1310.52	1406.10	1463.67
Energy sale	1249.26	1336.53	1394.10
LT	109.47	109.95	109.95
HT	1139.79	1226.58	1284.15
Total energy sale (B)	1249.26	1336.53	1394.10
Distribution losses (A-B)	61.26	69.57	69.57
Total Losses in %	4.67%	4.9%	4.75%

*as per Table 9 of the tariff petition

5.29 The Commission observed that the distribution losses for FY 2010-11 was submitted as 79.37 MU on page 25 of the tariff petition while the same was calculated as 61.26 MU on page 30. Further, while for calculation of distribution losses (at 4.67%) for FY 2010-11 the energy supplied to the Steel Plant (included in HT sales) was considered at 1065.22 MU, the energy supplied to the Steel Plant was taken as 1053.52 MU for calculation of share of power purchase cost allocated to the Steel Plant.

5.30 In view of the above discrepancies in the information, the Commission directed the Petitioner to re-submit the calculation of distribution losses. Further, the Commission directed the Petitioner to submit the distribution loss figures pertaining to the electricity distribution in the township separately. The same was submitted by the Petitioner for FY 2010-11, FY 2011-12 and FY 2012-13 in additional information as shown in the following table:

Table 11: Distribution losses submitted in additional information for FY 2012-13 (MUs)*

Particulars	FY 2010-11	FY 2011-12	FY 2012-13
Energy Supplied to Township	257.00	254.80	254.80
Billed Units	109.55	110.74	110.74
Utilities	74.49	74.49	74.49
T&D Losses	72.97	69.58	69.58
Losses in %	28.39%	27.31%	27.31%

*As per additional information April 24, 2012

Commission's analysis

- 5.31 The Commission has scrutinized the information submitted by the Petitioner regarding distribution losses. The Commission is of the view that since energy is supplied to the Steel Plant primarily at 132 kV voltage level, the losses on supply of power to the Steel Plant are likely to be negligible. Therefore, the Commission has calculated the distribution losses for the Petitioner on the energy supplied to the township only.
- 5.32 The distribution losses reported by the Petitioner in the township are very high as compared to other licensees of comparable size. The following table details the sales and distribution losses of the Petitioner and some other utilities.

Table 12 : Comparison of Distribution losses

Particulars	Sales (in MUs)	Distribution Losses (in %)
SAIL (for FY 2009-10)*	180.39	32.60
JUSCO (Provisional for FY 2009-10)**	126.65	0.96
JSPL, Raigarh (Actual for FY 2007-08)***	570.50	4.65

Source: * SAIL-BSL tariff petition for FY 2011-12, ** JUSCO Tariff Order for FY 2010-11
*** JSPL Tariff Order for FY 2009-10

- 5.33 As can be seen from the above table, other utilities with comparable sales have lower distribution losses as compared to that of the Petitioner. The Commission is of the view that the consumer and sales base in the township of the Petitioner is comparatively small and it does not find any merit in approving such high losses. The high level of losses is a result of the Petitioner's own inefficiency – lack of metering, billing of consumers on assessment basis and theft of electricity – the burden of which cannot be passed on to the consumers.
- 5.34 Therefore, the Commission approves distribution losses in the township at 19% for FY 2010-11, 17% in FY 2011-12 and 15% for FY 2012-13 as per the loss levels allowed for the respective year in 'Distribution Tariff Regulations, 2010'. The Commission has set a time bound distribution losses reduction trajectory for Petitioner such that it achieves the benchmark distribution loss level of 10% by the end of FY 2015-16.
- 5.35 The following table summarises the trajectory set by the Commission for reduction of distribution loss.

Table 13: Approved Distribution Losses Trajectory

Particulars	Distribution loss
FY 2008-09	25%
FY 2009-10	22%
FY 2010-11	19%
FY 2011-12	17%
FY 2012-13	15%
FY 2013-14	13%
FY 2014-15	11%
FY 2015-16	10%

Energy Balance

Petitioner's submission

- 5.36 The quantum of power purchase required to meet the energy sales (including the energy lost as distribution losses) in the township has been submitted by the Petitioner as 257.00 MU, 254.80 MU and 254.80 MU for FY 2010-11, FY 2011-12 and FY 2012-13 respectively.
- 5.37 The Petitioner submitted that all the energy requirement of the licensed area shall be met through power purchased from Damodar Valley Corporation (DVC).
- 5.38 The following table details the energy balance submitted by the Petitioner for FY 2010-11, FY 2011-12 and FY 2012-13 respectively.

Table 14: Submitted Energy Requirement for Township*

Particulars	FY 2010-11	FY 2011-12	FY 2012-13
Energy Sales (MU)	184.04	185.23	185.23
Distribution Losses	28.39%	27.31%	27.31%
Distribution Losses (MU)	72.97	69.58	69.58
Total Energy Required (MU)	257.00	254.80	254.80

*As per additional information on April 24, 2012

Commission's Analysis

- 5.39 The quantum of power purchase is decided by the approved level of sale of energy by the licensee, as well as the approved loss levels. Higher sales require a greater quantum of power to be purchased. Similarly, higher loss levels also require a proportionately greater amount of power purchase by the licensee because it needs to meet the sales (in MU) after accounting for various losses in the process of supplying electricity.
- 5.40 The energy sales for each year are grossed up by the distribution loss level for the year, to arrive at the required quantum of power purchase for that year in the following manner:

$$\text{Total Energy Requirement (MU)} = \frac{\text{Energy sales}}{(1 - \text{Approved Distribution Losses (\%)})}$$

- 5.41 The following table summarises the approved energy requirement of the township for FY 2010-11, FY 2011-12 and FY 2012-13.

Table 15: Approved Energy Requirement for Township

Particulars	FY 2010-11	FY 2011-12	FY 2012-13
Energy Sales (MU)	184.04	184.04	184.04
Distribution Losses	19.00%	17.00%	15.00%
Distribution Losses (MU)	43.17	37.69	32.48
Total Energy Required (MU)	227.21	221.73	216.51

- 5.42 With regard to availability of power, the Petitioner submitted that it has only one source of power purchase - Damodar Valley Corporation (DVC). The Power Purchase Agreement (PPA) has been entered into with DVC in April, 2001 with a contract demand of 200 MVA. A portion of the power procured from DVC is used to meet the energy requirement of the Bokaro township while the rest of power is consumed in the Bokaro Steel Plant.
- 5.43 The Commission has considered the total approved energy requirement of the Petitioner for FY 2010-11 and FY 2011-12 to be met by power purchased from DVC, as per the actual position during the year.
- 5.44 However, the Commission notes that, as a distribution licensee, as per the JSERC (Renewable Purchase Obligation and its Compliance) Regulations, 2010, the Petitioner was obligated to meet 3.00% (including 0.50% from solar energy sources and 2.50% from non-solar energy sources) of its total power requirement in FY 2011-12 from renewable energy sources. The Commission considered the same while approving the energy availability and power purchase cost for the Petitioner for FY 2011-12 in its previous Tariff Order for FY 2011-12. The Petitioner has however failed to procure energy from any renewable energy sources or renewable energy certificates to meet the renewable purchase obligation (RPO) for the year.
- 5.45 Considering the non-availability of renewable energy certificates for solar and in order to give another opportunity to the Petitioner to meet the renewable purchase obligation (RPO), the Commission has carried forward the energy required to be procured from renewable energy during FY 2011-12 to FY 2012-13.
- 5.46 Further, with regard to FY 2012-13, the energy requirement of the Petitioner is projected to be met by power purchase from DVC and also from renewable sources. In line with the JSERC (Renewable Purchase Obligation and its Compliance) Regulations, 2010, the RPO of the Petitioner for FY 2012-13 has been considered at 4.00% of its projected power requirement of the township during the year including 1.00% from solar energy sources and 3.00% from non-solar energy sources.
- 5.47 If the licensee fails to comply with the obligation to purchase the required percentage of power from renewable energy sources or the renewable energy certificates, it may be liable for penalty as may be decided by the Commission in accordance with JSERC (Renewable Purchase Obligation and its Compliance) Regulations, 2010.

Power Purchase Cost*Petitioner's submission*

- 5.48 The Petitioner submitted that power for distribution is purchased from DVC, whose generation and transmission tariff is determined by the CERC. The cost of power purchase from DVC is, however, under dispute.
- 5.49 The Petitioner submitted in its petition that the CERC determined and notified the tariff for DVC on October 3, 2006 which was effective from April 1, 2006. The order of the CERC was challenged by DVC before the Appellate Tribunal for Electricity (ATE) and the order was remanded to CERC for limited de-novo consideration. The revised order and tariff, after de-novo consideration, was notified by CERC on August 6, 2009, which was again challenged by DVC in the ATE. The ATE pronounced and published order in Appeal No 146 of 2009 on May 10, 2010. DVC thereafter challenged the said order in the Hon'ble Supreme Court of India vide Civil Appeal No 4881 of 2010. The Hon'ble Supreme Court has granted stay on the issue of refund of excess tariff collected by DVC vide its order dated July 9, 2010. No stay has been granted on operation of tariff determined by CERC vide order dated August 6, 2009 and hence this tariff is operational for all consumers taking power from DVC Generating Stations through inter-state transmission lines. The Petitioner is one such consumer out of about 120 other HT consumers. DVC, in compliance of order of the Hon'ble ATE dated May 10, 2010, is raising bills to HT consumers based on the tariff determined by CERC vide order dated August 6, 2009.
- 5.50 Since DVC is billing Capacity Charges on kWh basis instead of kW, the Petitioner has filed a petition for correction of tariff in CERC. CERC order is awaited and in the mean time the Petitioner is paying DVC bills on provisional basis under protest.
- 5.51 The Petitioner submitted that for the purpose of determination of power purchase cost the cost of power purchase has been taken as to what is actually being paid to DVC for the power purchase.
- 5.52 The details of energy procured from DVC and the corresponding costs are summarized in the following table.

Table 16: Submitted Power Purchase Cost (Rs Cr)

Particulars	FY 2010-112 (Actual)	FY 2011-12 (Provisional)	FY 2012-13 (Projected)
Power Purchase Costs (Rs Cr)			
Total Power Purchase	382.95	470.14	493.05
Transfer to Steel plant	308.14	382.96	407.22
Township Supply	74.80	87.18	85.83
Total Average Power Purchase Cost (in Rs/unit)	2.92	3.34	3.37

² As per Table 2 of the tariff petition. However, the total cost of power purchase from DVC for FY 2010-11 has been shown as Rs 386.57 Cr in Table 15 of the tariff petition.

Commission's Analysis

- 5.53 The Commission scrutinized the submissions of the Petitioner regarding power purchase cost in detail. The Commission observes that the Petitioner submitted the power purchase cost (including cost of power supplied to the Steel Plant) for FY 2010-11 as Rs 382.95 Cr in Table 2 of tariff petition. But the total cost of power purchase from DVC for FY 2010-11 has been shown as Rs 386.57 Cr in Table 15 of the tariff petition.
- 5.54 The Commission in its previous Tariff Order has also considered total power purchase cost for FY 2010-11 at Rs 382.95 Cr (based on the month-wise quantum and cost of power purchase) and the same has now been considered to calculate power purchase cost of the energy supplied to the township at Rs 66.39 Cr on basis of the average power purchase cost during the year and the energy supplied to the township.
- 5.55 For calculating the power purchase cost for FY 2011-12, the Commission directed the Petitioner to submit the month-wise quantum of power purchased from DVC, the amount billed by DVC (along with the power purchase bills) and amount paid by the Petitioner to DVC. Further, the Petitioner was directed to segregate the power supplied to the township and the Steel Plant.
- 5.56 The Commission has scrutinized the information submitted by the Petitioner and approves the total power purchase cost for FY 2011-12 as per the actual payment made to DVC during the year. The Commission has calculated the power purchase cost per unit and used the same to arrive at the power purchase cost for the approved energy required for distribution in the township at Rs 80.92 Cr.
- 5.57 The Commission has calculated the power purchase cost for power to be procured from DVC during FY 2012-13 by considering the average rate of power procured from DVC during April-May 2012 i.e. Rs 4.00/unit.
- 5.58 For FY 2012-13, the Commission has also projected purchase of power from renewable sources in line with the renewable purchase obligation (RPO) of the Petitioner for the year as shown in Table 15. The Commission has considered the rate of purchase for solar power at Rs 9.35 per unit which is the levelised tariff for Solar PV as determined by Central Electricity Regulatory Commission (CERC) as per its Order dated March 27, 2012. The rate of power purchase from non-solar renewable energy (RE) sources has been considered at the weighted average rate applicable for purchase of power from various RE sources including biomass, small hydro, wind, etc and projected to be approx. Rs 5.00 per unit subject to true up on basis of actual.
- 5.59 Based on the above, the approved power purchase cost for energy supplied to the township for FY 2010-11, FY 2011-12 and FY 2012-13 is summarized in the following table:

Table 17: Approved Power Purchase Cost (Township Supply)

Particulars	FY 2010-11	FY 2011-12	FY 2012-13			
	DVC	DVC	DVC	Solar Renewable	Non-Solar Renewable	Total
Power Purchase Quantum (MU)	227.21	221.73	201.20	3.27	12.04	216.51
Power Purchase Cost (Rs Cr)	66.39	80.92	80.48	3.06	6.02	89.56
Average Power Purchase Cost (Rs/unit)	2.92	3.65	4.00	9.35	5.00	4.14

Employee Expenses

Petitioner's submission

- 5.60 The Petitioner submitted that the employee expenses for FY 2010-11 have been calculated by considering the employee expenses incurred by TA-Electrical department plus 8% of the employee expenses incurred by DNW and 10% of the employee expenses incurred by ETL.
- 5.61 The Petitioner further submitted through additional information that the employee expenses for FY 2012-13 has been projected by keeping in view the annual increments and the corresponding increase in perks/profit sharing bonus.
- 5.62 The employee expenses claimed by the Petitioner for FY 2010-11 and FY 2011-12 and that projected for FY 2012-13 is summarized in the following table.

Table 18: Submitted Employee expenses (Rs Cr)

Particulars	FY 2010-11 (Actual)	FY 2011-12 (Provisional)	FY 2012-13 (Projected)
Employee expenses	11.26	12.16	13.13

Commission's Analysis

- 5.63 The Commission has scrutinized the submissions made by the Petitioner with regard to employee expenses. The Commission rejects the rationale submitted by the Petitioner for inclusion of cost of employees of DNW and ETL on a normative basis. As directed by the Commission in its previous Tariff Order, the Petitioner must segregate the accounts of its electricity distribution business and its Steel Plant so that the actual expenses pertaining to the distribution business can be determined. Meanwhile, the Commission has approved the employee expenses of the Petitioner on account of only employees directly working in the TA-electrical department which is associated with the electricity distribution business.

- 5.64 The Commission, for the purpose of calculating the employee expenses, directed the Petitioner to furnish the total number of employees, and their salaries working in TA-Electrical department which is managing the electricity supply to the township. The Petitioner submitted that 170 employees are employed in the TA-Electrical department for FY 2010-11. As per the information submitted by the Petitioner in its previous tariff petition, the number of employees working with the TA-Electrical department in FY 2009-10 was only 146. The Petitioner has provided no explanation for the sharp increase in the number of employees from 146 in FY 2009-10 and 170 in FY 2010-11.
- 5.65 The Commission scrutinized the list of employees submitted by the Petitioner for FY 2009-10 and FY 2010-11 and in approving the employee expenses for FY 2010-11 has considered employee expenses for only the 146 employees who were included in the TA-electrical department in FY 2009-10. Hence, the Commission provisionally approves the gross employee expenses for FY 2010-11 at Rs 7.91 Cr.
- 5.66 The Commission also directed the Petitioner to submit the list of employees, and their salaries, working in the TA Electrical department for FY 2011-12 and the projected number of employees for FY 2012-13. However, the list of employees that was submitted for FY 2011-12 through additional information was found to be inconsistent with the data submitted for FY 2009-10 and FY 2010-11. The list of employees for FY 2011-12 contained only 122 employees in the TA-electrical department as opposed to 146 in FY 2009-10 and 170 in FY 2010-11. Further, the salaries submitted in the employee list of FY 2011-12 appeared to be of only one month and not for the entire year.
- 5.67 In view of the inconsistencies in the data, the Commission provisionally approves the gross employee expenses for FY 2011-12 at the same level as that approved for FY 2010-11. Hence, the Commission has approved the gross employee expenses of Rs 7.91 Cr for FY 2011-12.
- 5.68 With regard to FY 2012-13, the Commission provisionally approves the gross employee expenses by escalating the approved gross employee expenses for FY 2011-12 by the weighted average inflation factor of 8.40% p.a. (i.e. weighted average of WPI & CPI for past 4 years in the ratio of 80:20, respectively); in line with the approach followed by it for other licensees in the State. Accordingly, the Commission approves the gross employee expenses at Rs8.15 Cr for FY 2012-13.
- 5.69 In the absence of any capitalisation in FY 2010-11, the Commission approves the net employee expenses for FY 2010-11 also at Rs 7.91 Cr. As per generally accepted accounting principles the capitalization of A&G expenses has been considered at 5%. After considering 5% capitalisation of expenses, the Commission approves the net employee expenses for FY 2011-12 and FY 2012-13 at Rs 7.52 Cr and Rs 8.15 Cr respectively.

Table 19: Approved Employee expenses (Rs Cr)

Particulars	FY 2010-11			FY 2011-12		
	Approved in TO FY 2011-12	Submitted by the Petitioner	Approved Now	Approved in TO FY 2011-12	Submitted by the Petitioner	Approved Now
Employee expenses	8.74	11.26	7.91	7.62	12.16	7.52

Table 20: Approved Employee expenses (Rs Cr)

Particulars	FY 2012-13	
	Submitted by the Petitioner	Approved
Employee expenses	13.13	8.15

Repair & Maintenance Expenses

Petitioner's submission

- 5.70 The Petitioner submitted that the R&M expenses for FY 2010-11 have been calculated by considering the R&M expenses incurred by TA-Electrical department plus 8% of the R&M expenses incurred by DNW and 10% of the R&M expenses incurred by ETL.
- 5.71 The Petitioner submitted the actual R&M Expense for FY 2010-11 and estimated the R&M Expense for both FY 2011-12 and FY 2012-13 by escalating the R&M expenses for FY 2010-11 by 10%. The Petitioner submitted the repair & maintenance (R&M) expenses as Rs 4.73 Cr for FY 2010-11, Rs 5.20 Cr for FY 2011-12 and projected R&M expenses for FY 2012-13 as Rs 5.20 Cr.
- 5.72 The following table provides a summary of the R&M expenses submitted by the Petitioner.

Table 21: Submitted Repair & Maintenance Cost (Rs Cr)

Particulars	FY 2010-11 (Actual)	FY 2011-12 (Provisional)	FY 2012-13 (Projected)
R&M Cost	4.73	5.20	5.20

Commission's Analysis

- 5.73 As per the Tariff Regulations issued by the Commission from time to time, the R&M expenses shall be based on a percentage of the opening balance of Gross Fixed Assets of the distribution licensee. In the absence of actual figures for the year, the Commission, in its previous tariff order, had projected the R&M expenses for FY 2010-11 and FY 2011-12 at 2.50% of the GFA for the year. However, since, the complete separation of the distribution business from the Steel Works has not been accomplished yet, it is difficult to estimate the actual Gross Fixed Assets associated with the distribution business. The Commission has thus considered the submissions made by the Petitioner regarding its actual R&M expenses incurred for approving the R&M expenses.

- 5.74 The Commission however rejects the rationale submitted by the Petitioner for the inclusion of R&M expenses of DNW and ETL on a normative basis. As directed by the Commission in its previous Tariff Order, the Petitioner must segregate the accounts of its electricity distribution business and its Steel Plant so that the actual expenses pertaining to the distribution business can be determined. Meanwhile, the Commission has taken into consideration only the R&M Expenses of the TA-Electrical department which is associated with the electricity distribution business.
- 5.75 For FY 2010-11, the Petitioner submitted the R&M expenses of the TA-Electrical department at Rs 4.54 Cr. The Commission observed that the R&M expenses of TA Electrical department have increased sharply from Rs 2.07 Cr in FY 2009-10 to Rs 4.54 Cr in FY 2010-11. The Commission directed the Petitioner to submit the justification for such sharp increase in the R&M expense over a period of one year. The Petitioner however did not provide any clarification for the same. In the absence of detailed information, the Commission has thus not considered the R&M expenses submitted for FY 2010-11 and provisionally approves R&M expenses for FY 2010-11 at Rs 2.92 Cr, which is the average R&M expenses approved by the Commission for FY 2008-09 and FY 2009-10 in its previous Tariff Orders.
- 5.76 The Commission also provisionally approves the R&M expenses for FY 2011-12 and FY 2012-13 at the same level as that for FY 2010-11 i.e. at Rs 2.92 Cr.

Table 22: Approved Repair & Maintenance Cost (Rs Cr)

Particulars	FY 2010-11			FY 2011-12		
	Approved in TO FY 2011-12	Submitted by the Petitioner	Approved Now	Approved in TO FY 2011-12	Submitted by the Petitioner	Approved Now
R&M expenses	0.20	4.73	2.92	0.20	5.20	2.92

Table 23: Approved Repair & Maintenance Cost (Rs Cr)

Particulars	FY 2012-13	
	Submitted by the Petitioner	Approved
R&M expenses	5.20	2.92

Administrative & General Expenses

Petitioner's submission

- 5.77 The Petitioner submitted that the administrative and general expenses (A&G) incurred directly on account of the distribution business was to the tune of Rs1.20 Cr for FY 2010-11 and the Petitioner has further estimated that the A&G expenses for FY 2011-12 and FY 2012-13 are likely to be Rs1.32 Cr for each of the two years.
- 5.78 The Petitioner has projected the A&G Expense for FY 2011-12 and FY 2012-13 each by escalating the A&G Expenses for FY 2010-11 by 10%.
- 5.79 The following table provides a summary of the A&G cost submitted by the Petitioner.

Table 24: Submitted Administrative & General Expenses (Rs Cr)

Particulars	FY 2010-11	FY 2011-12	FY 2012-13
A&G expenses	1.20	1.32	1.32

Commission's Analysis

- 5.80 The Petitioner has included the A&G expenses of the TA-electrical department, that is associated with the distribution business, and also the apportioned A&G expenses of DNW and ETL for calculation of the proposed A&G expenses. The Commission however rejects the rationale submitted by the Petitioner for the inclusion of A&G expenses of DNW and ETL on a normative basis. As directed by the Commission in its previous Tariff Order, the Petitioner must segregate the accounts of its electricity distribution business and its Steel Plant so that the actual expenses pertaining to the distribution business can be determined. Meanwhile, the Commission has taken into consideration the A&G expenses of the TA-Electrical department only.
- 5.81 Further, in the absence of separate accounts it is difficult to estimate the share of expenditure of corporate office associated with the distribution business. Hence the Commission has not considered the same in determining the A&G expenses for all the three years.
- 5.82 The Commission thus provisionally approves the gross A&G expenses of Rs 0.46 Cr for FY 2010-11 based on the actual expenses of TA-Electrical department. Since the actual/provisional expenses for FY 2011-12 are not available the gross A&G expenses for the year have also been approved at Rs 0.46 Cr.
- 5.83 For FY 2012-13, the gross A&G expenses have been approved by escalating the approved gross A&G expenses for FY 2011-12 by the weighted average inflation factor of 8.40% p.a. (i.e. weighted average of WPI & CPI for past 4 years in the ratio of 80:20, respectively); in line with the approach followed for other licensees in the State. Accordingly, the Commission approves the gross A&G expenses of Rs 0.50 Cr for FY 2012-13.
- 5.84 In the absence of any capitalization for FY 2010-11, the net A&G expenses approved by the Commission for FY 2010-11 are Rs 0.546 Cr. As per generally accepted accounting principles the capitalization of A&G expenses has been considered at 5%. After considering 5% capitalisation of the A&G expenses for FY 2011-12 and FY 2012-13 the Commission approves net A&G expenses at Rs 0.41 Cr and Rs 0.45 Cr respectively for the year.
- 5.85 The following table provides a summary of the A&G cost provisionally approved by the Commission.

Table 25: Approved Administrative & General Expenses (Rs Cr)

Particulars	FY 2010-11			FY 2011-12		
	Approved in TO FY 2011-12	Submitted by the Petitioner	Approved Now	Approved in TO FY 2011-12	Submitted by the Petitioner	Approved Now
A&G expenses	1.34	1.2	0.46	1.27	1.32	0.41

Table 26: Approved Administrative & General Expenses (Rs Cr)

Particulars	FY 2012-13	
	Submitted by the Petitioner	Approved
A&G expenses	1.32	0.45

5.86 The following table summarizes the total O&M expenses provisionally approved by the Commission for FY 2010-11, FY 2011-12 and FY 2012-13.

Table 27: Approved O&M Expenses (Rs Cr)

Particulars	FY 2010-11			FY 2011-12		
	Approved in TO FY 2011-12	Submitted by the Petitioner	Approved Now	Approved in TO FY 2011-12	Submitted by the Petitioner	Approved Now
Employee expenses	8.74	11.26	7.91	7.62	12.16	7.52
R&M expenses	0.20	1.20	2.92	0.20	1.32	2.92
A&G expenses	1.34	4.73	0.46	1.27	5.20	0.41
Total	10.27	17.18	11.29	9.09	18.68	10.84

Table 28: Approved O&M Expenses for FY 2012-13 (Rs Cr)

Particulars	FY 2012-13	
	Submitted by the Petitioner	Approved
Employee expenses	13.13	8.15
R&M expenses	1.32	2.92
A&G expenses	5.20	0.45
Total	19.65	11.51

Capital Investment Plan

Petitioner's submission

5.87 The Petitioner submitted closing GFA for FY 2010-11 at Rs 9.20 Cr as compared to closing GFA of Rs 7.90 Cr for FY 2009-10 i.e. the additions to GFA during FY 2010-11 were Rs 1.30 Cr.

5.88 In its subsequent submissions to the Commission, the Petitioner also submitted additions to GFA during FY 2011-12 at Rs 1.62 Cr.

Table 29: Capitalization in FY 2011-12 submitted by the Petitioner

Particulars	Unit	Amount in Rs
Replacement of LT Panel for 500kVA Distribution	10 Nos.	1860489
Replacement of Service Cable for 850 Blocks	40 KM	11618885
Replacement of Feeder Cable	1500 M	900000
Replacement of Pole Fuse Box	-	951843
Replacement of Aerial Light Fittings & Junction Boxes in Township	-	902650
Total	-	16233867

5.89 The Petitioner further submitted that it shall be under taking some expenditure for enhancement of the asset base in the year FY 2012-13 for improvement of capacity of transformers, replacement of service cables, feeders and also replacement of meters.

- 5.90 The Petitioner provided the following details regarding the capital expenditure due to be undertaken by it in the FY 2012-13.

Table 30: Capital Investment Plan for FY 2012-13 proposed by the Petitioner*

Particulars	Unit	Amount in Rs
Replacement of 250/500 kVA distribution transformers	20 Nos	11360000
Replacement of LT Panel with 750 kVA Panels (25	25 Nos	12500000
Replacement of Energy Meters (8000 Nos.)	8000 Nos	4500000
Renovation of LT/HT Conductors (100-KM)	100 M	2800000
Replacement of Service Cables (20KM)	20 KM	6000000
Replacement of Feeder Cables (1500 M)	1500 M	600000
Replacement of pole fuse box and CTJB (800 Blocks)	800 Blocks	1000000
Total	-	38760000

*As per additional information dated April 24, 2012

Commission's Analysis

- 5.91 The Petitioner, in its tariff petition, submitted additions to GFA during FY 2010-11 at Rs 1.30 Cr. The Commission directed the Petitioner to submit the asset-wise details of the additions to GFA during the year.
- 5.92 However, the Petitioner was unable to submit the required details. Thus for the purpose of this Order, the Commission has not approved any additions to GFA during FY 2010-11. The same may be approved at the time of final truing up if the required information is provided by the Petitioner.
- 5.93 With regard to the capital expenditure during FY 2011-12, the Commission had approved the capital expenditure and additions to GFA of Rs 2.35 Cr in the previous Tariff Order. As per the submission made by the Petitioner in the additional information, the Petitioner has actually carried out the capital expenditure/additions to GFA of only Rs 1.62 Cr during the year. The Petitioner also provided asset class-wise break-up of the additions to GFA during the year as shown in Table 29. The Commission therefore approves the additions to GFA for FY 2011-12 of Rs 1.62 Cr.
- 5.94 The Commission also scrutinised the capital expenditure plan proposed by the Petitioner for FY 2012-13. The Commission observes that the Petitioner has submitted insufficient details as regards the proposed capital investment plans. The Commission is of the opinion that the Petitioner should submit detailed project reports regarding the capital expenditure planned by them. Relevant details in terms of cost of project, status of initiation/implementation of project and detailed break up regarding the costs estimated to be incurred should be provided by the Petitioner.

5.95 In the absence of such information, the Commission provisionally approves only 50% of the estimated capital expenditure and capitalisation i.e. Rs 1.94 Cr and such amount has been included in the gross fixed assets for FY 2012-13 to arrive at the closing GFA for the year. Such additional capitalisation shall be trued up in the next tariff order on submission of relevant details regarding the capital works carried out by the Petitioner³.

5.96 The year wise GFA and capitalisation as approved by the Commission is shown in the following table:

Table 31: Approved GFA and Capitalisation (Rs Cr)

Particulars	FY 2010-11			FY 2011-12		
	Approved in TO FY 2011-12	Submitted by the Petitioner	Approved Now	Approved in TO FY 2011-12	Submitted by the Petitioner	Approved Now
Opening GFA	7.90	7.90	7.90	7.90	9.20	7.90
Capitalisation during the year	0.00	1.30	0.00	2.35	0.00	1.62
Closing GFA	7.90	9.20	7.90	10.25	9.20	9.52

Table 32: Approved GFA and Capitalisation (Rs Cr)

Particulars	FY 2012-13	
	Submitted by the Petitioner	Approved
Opening GFA	9.20	9.52
Capitalisation during the year	0.00	1.94
Closing GFA	9.20	11.46

Depreciation

Petitioner's submission

5.97 The Petitioner submitted that the depreciation has been calculated on straight line basis and the same has been projected at Rs 0.168 Cr each for FY 2010-11, FY 2011-12 and FY 2012-13.

Commission's Analysis

5.98 The 'Distribution Tariff Regulations, 2004' (applicable for FY 2010-11) and 'Distribution Tariff Regulations, 2010' (applicable for FY 2011-12 and FY 2012-13) specify that depreciation shall be calculated annually as per SLM at the rates of depreciation prescribed in the schedule attached to the Regulations in Appendix-II. Further, it is provided that capital base for the purpose of depreciation shall be the historical cost of the asset and the residual life of the asset shall be 10% of approved historical cost.

³ With regards to the capital expenditure for HT/LT conductors, the Petitioner was directed to clarify as to what was the length of LT and HT conductors individually to be replaced. However, the Petitioner did not submit any clarification. Hence, for the Commission has provisionally allotted the amount proposed for the scheme in the ratio of 1:1 between HT and LT conductors.

5.99 Accordingly, the Commission has computed the depreciation for FY 2010-11, FY 2011-12 and FY 2012-13 based on the details submitted by the Petitioner regarding the classification of assets and the respective rates specified in the said Regulations.

5.100 The Commission has included the value of additional capital expenditure provisionally approved during FY 2012-13 to the tune of Rs 1.94 Cr and has provisionally allowed depreciation on such additional capitalization to the tune of Rs 0.09 Cr. This is subject to true up as per the actual capital expenditure incurred by the Petitioner in the next tariff petition.

5.101 Table 33 provides details regarding depreciation provisionally approved for FY 2010-11, FY 2011-12 and FY 2012-13.

Table 33: Approved Depreciation (Rs Cr)

Particulars	FY 2010-11			FY 2011-12		
	Approved in TO FY 2011-12	Submitted by the Petitioner	Approved Now	Approved in TO FY 2011-12	Submitted by the Petitioner	Approved Now
Depreciation	0.14	-	0.14	0.14	-	0.14
Depreciation on assets added during the year*	-	-	-	0.10	-	0.10
Total Depreciation	0.14	0.17	0.14	0.24	0.17	0.24

*For half year only; assuming asset addition is spread throughout the year

Table 34: Approved Depreciation (Rs Cr)

Particulars	FY 2012-13	
	Submitted by the Petitioner	Approved
Depreciation	-	0.32
Depreciation on assets added during the year*	-	0.09
Total Depreciation	0.17	0.41

*For half year only; assuming asset addition is spread throughout the year

Interest on loan

Petitioner's submission

5.102 The Petitioner submitted that as per the Tariff Regulations issued by the Commission from time to time, a normative debt-equity ratio of 70:30 has been considered for the purpose of calculating the interest on loan. The Petitioner further submitted that the interest liability has been calculated at 12% which is almost equivalent to SBI PLR for all the three years viz. FY 2010-11, FY 2011-12 and FY 2012-13.

5.103 The following table summarises the interest on loan submitted by the Petitioner.

Table 35: Submitted Interest on Loan (Rs Cr)

Particulars	FY 2010-11	FY 2011-12	FY 2012-13
Interest on loan	0.77	0.77	0.77

Commission's Analysis

- 5.104 The Commission has determined the normative debt and equity in the ratio of 70:30 of the value of GFA approved by the Commission in accordance with the provisions of the 'Distribution Tariff Regulations, 2004' and 'Distribution Tariff Regulations, 2010' of the Commission.
- 5.105 In accordance with the generally accepted accounting principles and norms, interest on loan is computed on the average loan outstanding during the year. Accordingly, the interest on normative loan is computed on the average balance during FY 2010-11 by applying an interest rate of 12.75%.
- 5.106 Interest on Loan for FY 2011-12 and FY 2012-13 has been computed in accordance with Clause 6.24 of the 'Distribution Tariff Regulations, 2010'. Seventy percent of the additional capitalisation provisionally approved for the respective year has been included as deemed debt capital infused during the year. The rate of interest used for calculating the interest on normative debt for FY 2011-12 and FY 2012-13, in accordance with the said regulations, is the SBI PLR as on 1st April 2011 and 1st April 2012 respectively.
- 5.107 The following table summarises the provisionally approved normative interest on loan for FY 2010-11, FY 2011-12 and FY 2012-13.

Table 36: Approved Interest on Normative Loan for FY 2010-11 and FY 2011-12 (Rs Cr)

Particulars	FY 2010-11			FY 2011-12		
	Approved in TO FY 2011-12	Submitted by the Petitioner	Approved Now	Approved in TO FY 2011-12	Submitted by the Petitioner	Approved Now
Opening Balance	0.58	-	0.58	0.49	-	0.49
Deemed Additions	0.00	-	0.00	1.65	-	1.14
Deemed Repayment	0.08	-	0.08	0.21	-	0.17
Closing Balance	0.49	-	0.49	1.93	-	1.46
Average balance during the year	0.53	-	0.53	1.21	-	0.98
Interest Rate	12.75%	-	12.75%	13.25%	-	13.00%
Interest on Loan	0.07	0.77	0.07	0.16	0.77	0.13

Table 37: Approved Interest on Normative Loan for FY 2012-13 (Rs Cr)

Particulars	FY 2012-13	
	Submitted by the Petitioner	Approved
Opening Balance	-	1.46
Deemed Additions	-	1.36
Deemed Repayment	-	0.27
Closing Balance	-	2.54
Average balance during the year	-	2.00
Interest Rate	-	14.75%
Interest on Loan	0.77	0.30

Other Interest & Finance Charges

Petitioner's submission

- 5.108 The Petitioner submitted that the interest and finance charges for FY 2010-11 and FY 2011-12 are to the tune of Rs 0.33 Cr and Rs 0.39 respectively.
- 5.109 The Petitioner, through additional information has submitted that the projected Interest & Finance Charges for FY 2012-13 will be Rs 0.40 Cr. The Petitioner also submitted that the amount for FY 2011-12 has been projected by taking an 18% increase over the previous year and in the case of FY 2012-13, the amount has been projected by taking an increase of 2% over the figure for FY 2011-12.

Commission's Analysis

- 5.110 The Petitioner has submitted total interest and finance charges at Rs 0.33 Cr, Rs 0.39 Cr and Rs 0.40 Cr for FY 2010-11, FY 2011-12 and FY 2012-13 based on allocation of the total interest and finance charges of BSL in the ratio of income from electricity vis-a-vis sales of Bokaro Steel Plant.
- 5.111 The Commission observes that there is no provision for allowance of such interest and finance charges to the Petitioner in the 'Distribution Tariff Regulations, 2004' and 'Distribution Tariff Regulations, 2010'. The said Regulations allow only for provision of interest on loan which has been duly provided to the Petitioner (refer Table 40). Therefore, the Commission disallows the Petitioner's claim for other interest and finance charges.

Interest on Working Capital

Petitioner's submission

- 5.112 The Petitioner has submitted that the interest on working capital for FY 2010-11 and FY 2011-12 is Rs 0.37 Cr and Rs 0.39 Cr. respectively. The Petitioner through additional information submitted that the estimated interest on working capital for FY 2012-13 is Rs 0.40 Cr.
- 5.113 The following table summarises the interest on working capital submitted by the Petitioner.

Table 38: Submitted interest on working capital (Rs Cr)

Particulars	FY 2010-11	FY 2011-12	FY 2012-13
Interest on working capital	0.37	0.39	0.40

Commission's Analysis

5.114 In accordance with Clause 13 of 'Distribution Tariff Regulations, 2004' the interest on working capital is be allowed to meet the shortfall in collection over and above the target approved by the Commission. The rate of interest on working capital shall be the short-term Prime Lending Rate of State Bank of India as on 1st April of the relevant financial year. Accordingly, the interest on working capital for the year has been approved at Rs 0.21 Cr.

5.115 Interest on working capital for FY 2011-12 and FY 2012-13 has been computed in accordance with Clause 6.26 of 'Distribution Tariff Regulations, 2010'. As per the said Regulations the Working capital for the Distribution Business of electricity for the Transition Period shall consist of:

- (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.

5.116 The following tables summarize the interest on working capital provisionally approved by the Commission for FY 2010-11, FY 2011-12 and FY 2012-13.

Table 39: Approved Interest on Working capital for FY 2010-11 (Rs Cr)

Particulars	FY 2010-11		
	Approved in TO FY 2011-12	Submitted by the Petitioner	Approved Now
Shortfall in collection as a % of revenue	3.00%	-	6.70%
Revenue at existing tariff	59.17	-	59.17
Shortfall in collection (in Rs Cr)	1.78	-	3.96
Rate of interest	11.75%	-	11.75%
Interest on Working Capital	0.21	0.37	0.47

Table 40: Approved Interest on Working capital for FY 2011-12 and FY 2012-13 (Rs Cr)

Particulars	FY 2011-12		FY 2012-13		
	Approved in TO FY 2011-12	Submitted by the Petitioner	Approved Now	Submitted by the Petitioner	Approved*
1/12th of O&M Expenses	0.76	1.56	0.90	1.64	0.96
Maintenance spares @ 1% of opening GFA	0.08	0.09	0.08	0.09	0.10
2 months of expected revenue	10.66	7.63	11.65	7.63	98.53*

Particulars	FY 2011-12			FY 2012-13	
	Approved in TO FY 2011-12	Submitted by the Petitioner	Approved Now	Submitted by the Petitioner	Approved*
Less: Security Deposits	0.00	0.00	0.00	0.00	0.00
Less: 1 month of power purchase cost	5.90	6.36	6.74	6.36	45.14*
Working Capital	5.59	2.92	5.89	3	54.45
Rate of interest on working capital (SBI PLR as on 1st April 2011)	13.25%	13.25%	13.00%	13.25%	14.75%
Interest on working capital	0.74	0.39	0.77	0.40	8.03

*The interest on working capital is higher than that submitted by the Petitioner as, in accordance with the 'Distribution Tariff Regulations, 2010', the Commission has considered total revenue and the total power purchase cost of the Petitioner (including the expected revenue and power purchase cost of sales to the Steel Plant) in the calculation of the working capital requirement

Return on Equity

Petitioner's submission

5.117 The Petitioner has considered normative equity to be equal to 30% of capital employed, the post-tax rate of return on equity as 16% and pre-tax rate of return on equity as 23.15%; and has accordingly submitted return on equity (RoE) at Rs 0.64 Cr for each year from FY 2010-11 to FY 2012-13. The following table summarises the return on equity submitted by the Petitioner.

Table 41: Submitted Return on Equity (Rs Cr)

Particulars	FY 2010-11	FY 2011-12	FY 2012-13
Return on Equity	0.64	0.64	0.64

Commission's Analysis

5.118 The Commission has determined RoE on the approved average equity base for the years FY 2010-11 at the rate of 14% as specified by Clause 20.1 of the 'Distribution Tariff Regulations, 2004'.

5.119 The RoE for FY 2011-12 and FY 2012-13 has been computed at a post tax rate of 15.50% in accordance with Clause 6.1 of 'Distribution Tariff Regulations, 2010'. The Petitioner has proposed to gross up the post tax rate of return on equity by the income tax rate to arrive at pre tax rate of 23.15% for calculating the RoE. However, in absence of separate accounts for the electricity distribution business of the Petitioner, it is difficult for the Commission to estimate the tax liability of the Petitioner which can be allocated to distribution business. Hence, for the purpose of this Order, the Commission has not grossed up the rate of return of equity by income tax rate while computing the RoE allowable to the Petitioner for FY 2011-12 and FY 2012-13.

5.120 The opening and closing values of equity have been calculated on the normative basis of 30% of capital base. The return on equity has been computed on the average equity base for the year and applying the rate of return of 15.50%.

5.121 The following table summarizes the return on equity provisionally approved by the Commission for FY 2010-11, FY 2011-12 and FY 2012-13.

Table 42: Approved Return on Equity for FY 2010-11 and FY 2011-12 (Rs Cr)

Particulars	FY 2010-11			FY 2011-12		
	Approved in TO FY 2011-12	Submitted by the Petitioner	Approved Now	Approved in TO FY 2011-12	Submitted by the Petitioner	Approved Now
Opening Equity	2.37	-	2.37	2.37	-	2.37
Deemed Additions	0.00	-	0.00	0.71	-	0.49
Closing Equity	2.37	2.76	2.37	3.08	2.76	2.86
Average Equity	2.37	-	2.37	2.73	-	2.62
ROE (%)	14%	23.15%	14.00%	22.94%	23.15%	15.50%
Return on Equity	0.33	0.64	0.33	0.62	0.64	0.41

Table 43: Approved Return on Equity for FY 2012-13 (Rs Cr)

Particulars	FY 2012-13	
	Submitted by the Petitioner	Approved
Opening Equity	-	2.86
Deemed Additions	-	0.58
Closing Equity	2.76	3.44
Average Equity	-	3.15
ROE (%)	23.15%	15.50%
Return on Equity	0.64	0.49

Revenue from Existing Tariff

Petitioner's submission

5.122 The Petitioner submitted the consumer category-wise revenue at existing tariff from the energy supplied to the township for FY 2010-11, FY 2011-12 and FY 2012-13 on the basis of the number of consumers, connected load and sales for each category of consumer. The revenue at existing tariff from the energy supplied to the township has been submitted as Rs 45.57 Cr, Rs 50.32 Cr and Rs 55.66 Cr for the FY 2010-11, FY 2011-12 and FY 2012-13 respectively.

Commission's Analysis

5.123 The Commission has calculated the revenue at existing tariff from the electricity supplied to the township on the basis of approved sales, no. of consumers and connected load for various categories of consumers.

5.124 As mentioned earlier in paragraph 5.26 the Commission has considered the information provided by the Petitioner regarding 'Own Consumption' to re-categorize the consumption of office and maintenance posts, schools, recreation, hospitals and health care, pump-houses into Street Light Service, NDS, HTS and LTIS categories.

5.125 The Commission has calculated the revenue from sale of power at existing tariff as Rs 59.17 Cr, Rs 69.89 Cr and Rs 75.82 Cr for FY 2010-11, FY 2011-12 and FY 2012-13 respectively.

Treatment of Steel Plant

Petitioner's submission

5.126 The Petitioner, in its tariff petition, has considered the Steel Plant as a consumer of the licensed business. The sales to the Steel Plant have been shown as a part of the total HT sales of the Petitioner in "Table 9. Distribution Loss for FY 2010-11 and 2011-12 & 2012-13" of the ARR & tariff Petition. The revenue from Steel Plant has also been shown as part of total revenue for FY 2010-11, FY 2011-12 and FY 2012-13 as shown in page 24, page 25, page 39 and page 40 of the ARR & tariff petition. The Petitioner also considered the total power purchase cost of, and the revenue from, energy supplied to the Steel Plant in the total Annual Revenue Requirement as shown in Table 15 on page 37 of the tariff petition.

5.127 With respect to the categorization and tariff applicability of the Steel Plant, the Petitioner has proposed to charge a tariff equal to the average power purchase cost for electricity supplied to the Steel Plant.

Commission's Analysis

5.128 The total power procured by the Petitioner from DVC is utilised not only for meeting the power requirements of the Bokaro township, but also the energy requirement of the Steel Plant owned by the Petitioner. Hitherto, the Steel Plant is not being considered a consumer of the electricity distribution business and the power purchase cost of the pooled power is apportioned on the basis of unit share for Steel Plant and power distribution business of the Petitioner.

5.129 However, considering the treatment of the sales to the Steel Plant by the Petitioner, the Commission agrees that the Steel Works of the Petitioner shall henceforth be treated as a consumer of the electricity distribution business.

5.130 With respect to the categorization and tariff applicability of the Steel Plant, the Commission observes that power to Steel Plant is being supplied at 132 kV from the Petitioner's network. Therefore, the Steel Plant is to be treated as an HTS consumer of the Petitioner and the tariff applicable to it shall be the tariff applicable to the HTS category. This is also in line with the treatment of other steel works of other distribution licensees in the State.

Sales to the Steel Plant during FY 2012-13

Petitioner's submission

5.131 The Petitioner submitted that the actual sales to the Steel Plant were 1053.52 MU, and 1107.10 MU in FY 2010-11 and FY 2011-12 respectively. The projected sales to the Steel Plant for FY 2012-13 are 1208.87 MU.

Commission's Analysis

5.132 The Commission has projected the sales to the Steel Plant for FY 2012-13 as equal to the actual energy sales to the plant during FY 2011-12 i.e. 1107.10 MU, in line with the approach followed by it for projecting sales to other category of consumers.

Energy Requirement and Power Purchase Cost of the energy supplied to the Steel Plant during FY 2012-13*Petitioner's submission*

5.133 The Petitioner projected total energy to be supplied to the Steel Plant in FY 2012-13 at 1208.87 MU. The power purchase cost for the energy supplied to the Steel Plant has been projected at Rs 407 Cr.

Commission's Analysis

5.134 The energy is supplied to the Steel Plant primarily at 132 kV voltage level. The Commission is of the view that since energy supplied the Steel Plant primarily at 132 kV voltage level, the losses on supply of power to the Steel Plant are likely to be negligible. Thus the energy requirement for sale of power to Steel Plant has been taken equal to the projected sales of the Steel Plant i.e. 1107.10 MU.

5.135 The energy requirement of the Petitioner is projected to be met by power purchase from DVC and also from renewable sources. In line with the JSERC (Renewable Purchase Obligation and its Compliance) Regulations, 2010, the RPO of the Petitioner for FY 2012-13 has been considered at 4.00% of its projected power requirement during the year including 1.00% from solar energy sources and 3.00% from non-solar energy sources

5.136 The Commission has calculated the power purchase cost for power to be procured from DVC during FY 2012-13 by using the latest available information. It has considered the average rate of power procured from DVC during April-May 2012 i.e. Rs 4.00 per unit (as appearing in the bills raised by DVC on the Petitioner) to estimate the power purchase cost from DVC during FY 2012-13. The Commission has considered the rate of purchase for solar power at Rs 9.35 per unit and the rate of power purchase from non-solar renewable energy (RE) sources at Rs 5.00 per unit as detailed in paragraph 5.58.

5.137 The total cost of power purchased for supply of energy to the Steel Plant has thus been calculated as shown in the following table.

Table 44: Projected energy supplied to the Steel Plant

Particulars	Quantum (MU)	Rate (Rs/kWh)	Cost (Rs Cr)
Power Purchase for supply to Steel Plant			
DVC	1062.82	4.00	425.13
Solar RE	11.07	9.35	10.35
Non Solar RE	33.21	5.00	16.61
Total	1107.10		452.08

Revenue from the power supplied to Steel Plant*Petitioner's submission*

5.138 The Petitioner submitted that the revenue from electricity transferred to the plant has been estimated on the basis of the average power purchase cost for the year. The total revenue on account of the energy supplied to the Steel Plant has been submitted as Rs 407 Cr for FY 2012-13.

Commission's Analysis

5.139 Since power is supplied to the Steel Plant at HT voltage level, the Commission has considered Steel Plant of the Petitioner as an HTS consumer of the distribution business. Accordingly, revenue from sale of power to the Steel Plant, at existing tariff, has been calculated at Rs 515.35 Cr.

Summary of ARR

5.140 The tables below detail the summary of components of ARR as submitted by the Petitioner in the petition and provisionally approved by the Commission for FY 2010-11, 2011-12 and 2012-13.

Table 45: Summary of ARR approved for FY 2010-11 and FY 2011-12 (Rs Cr)

Particulars	FY 2010-11			FY 2011-12		
	Approved in TO FY 2011-12	Submitted by the Petitioner	Approved Now	Approved in TO FY 2011-12	Submitted by the Petitioner	Approved Now
Power purchase cost	66.39	386.57	66.39*	70.86	470.14	80.92*
Employee expenses	8.74	11.26	7.91	7.62	12.16	7.52
R & M expenses	0.20	4.73	2.92	0.2	5.2	2.92
A & G Expenses	1.34	1.2	0.46	1.27	1.32	0.41
Interest on loans	0.07	0.77	0.07	0.16	0.77	0.13
Other Interest & Finance charges	-	0.33	-	-	0.39	-
Depreciation	0.14	0.17	0.14	0.24	0.17	0.24
ROE	0.33	0.64	0.33	0.62	0.64	0.41
Interest on Working Capital	0.21	0.37	0.47	0.74	0.39	0.77
ARR	77.41	406.03	78.69	81.71	491.18	93.32
Revenue at existing tariff	59.17	358.55	59.17	63.94	435.20	69.89
Revenue Surplus / (Gap)	(18.24)	(47.48)	(19.52)*	(17.77)	(55.98)	(23.43)*

*excluding power purchase cost of, and revenue from, power supplied to the Steel Plant

Table 46: Summary of ARR approved for FY 2012-13 (Rs Cr)

Particulars	FY 2012-13	
	Submitted by the Petitioner	Approved
Total Power Purchase Cost	493.05	541.64 ⁴
<i>Cost of power used in the Steel Plant</i>	407.22	452.08
<i>Cost of power used for Township Supply</i>	85.83	89.56
Employees' cost	13.13	8.15
R & M expenses	5.2	2.92
A & G Expenses	1.32	0.45
Interest on loans	0.77	0.30
Other Interest & Finance charges	0.40	-
Depreciation	0.17	0.41
ROE	0.64	0.49
Interest on Working Capital	0.40	8.03
ARR	515.08	562.38
Total Revenue at existing tariff (including Plant)	462.80	591.18
<i>Revenue at existing tariff from Steel Plant</i>	407.15	515.35
<i>Revenue at existing tariff from Township Supply</i>	55.66	75.82
Revenue Surplus / (Gap)	(52.27)	28.79

⁴ Approved power purchase cost is higher than that submitted by the Petitioner as the Commission has used the actual power purchase cost of the Petitioner in April 2012-May 2012, as submitted by the Petitioner in additional information, to project the power purchase cost.

A6: TREATMENT OF REVENUE GAP

- 6.1 The Commission has conducted a detailed analysis of the various components submitted by the Petitioner for FY 2010-11, FY 2011-12 and FY 2012-13.
- 6.2 The summary of revenue gap approved by the Commission for FY 2010-11, FY 2011-12 and FY 2012-13 is given in the following table:

Table 47: Approved revenue Gap / (Surplus) (in Rs Cr)

Particulars	Approved
Annual Revenue Requirement for FY 2012-13	562.38
Revenue Gap/(Surplus) for FY 2011-12	23.43
Revenue Gap/(Surplus) for FY 2010-11	19.52
Revenue Gap/(Surplus) for FY 2009-10 as per Tariff Order for FY 2011-12	22.65
Revenue Gap/(Surplus) for FY 2008-09 as per Tariff Order for FY 2010-11	49.58
Total Revenue Requirement up to FY 2012-13	677.56
Revenue at existing tariff	591.18
Cumulative Revenue Gap/(Surplus)	86.38

- 6.3 The cumulative ARR for FY 2012-13 and revenue gap from FY 2008-09 to FY 2011-12 approved by the Commission amounts to Rs 677.56 Cr at the existing tariff.
- 6.4 The Petitioner will be able to generate revenue of Rs 591.18 Cr during FY 2012-13 at existing tariff leaving an accumulated gap of Rs 86.38 Cr.
- 6.5 The Commission has decided to revise the tariff for various categories on the basis of the following:
- Provisions of the Electricity Act, 2003;
 - National Tariff Policy;
 - National Electricity Policy;
 - Revenue Gap as calculated by the Commission; and
 - The tariff proposal of Petitioner for various categories
- 6.6 In view of the unreliability of the information provided by the Petitioner in the petition and the additional information, the dispute regarding the power purchase cost from DVC, and the absence of segregated, audited annual accounts for the electricity distribution business of the Petitioner, the Commission has decided to revise the tariff for various categories to a limited extent only.

- 6.7 In order to partially meet the accumulated revenue gap, the Commission has revised the tariff for all categories for FY 2012-13. The revised tariff is expected to generate additional revenue of Rs 14.79 Cr. It is pertinent to mention that the tariff so approved for the Petitioner shall remain as provisional till the time complete information is provided by the Petitioner.
- 6.8 The Commission shall take a view on the balance revenue gap of Rs 71.59 Cr in future years taking into account the information regarding sales, and segregated audited accounts for electricity distribution business provided by the Petitioner and the status of the dispute regarding the power purchase cost from DVC has gained finality.
- 6.9 The applicable tariff schedule for the Petitioner for FY 2012-13 as proposed by the Petitioner and as approved by the Commission is shown in following table.

Table 48: Existing, Proposed and Revised Tariff⁵

Category	Units for Fixed Charge	Fixed Charge/ Demand Charge			Energy Charge (Rs/kWh)		
		Existing	Proposed by Petitioner	Approved by Commission	Existing	Proposed by Petitioner	Approved by Commission
Domestic							
DS-II							
0-200	Rs/Conn/Month	35	60	40	1.90	3.25	2.10
201 & above	Rs/Conn/Month	50	75	55	2.40	3.90	2.70
DS-III	Rs/Conn/Month	90	160	95	2.40	3.90	2.70
DS HT	Rs/kVA/Month	65	120	70	2.00	4.00	2.25
Non-Domestic							
NDS-II	Rs/kW/Month	120	180	130	4.80	6.00	5.20
Low Tension							
LTIS	Rs/HP/Month	100	150	105	4.10	6.00	4.50
HTS							
11 KV & 33 KV	Rs/kVA/Month	205	250	210	4.90	6.00	5.00
132 KV	Rs/kVA/Month	205	250	210	4.90	6.00	5.00
Street Light Service							
SS-I	Rs/Conn/Month	30	-	35	3.85	-	4.10

⁵ The above tariffs will be applicable from August 1, 2012

A7: TARIFF RELATED OTHER ISSUES

Tariff Rationalization and Load Management

Petitioner's submission

- 7.1 The Petitioner submitted that in order to encourage efficient use of electricity by consumers and reduce wastage, it has proposed different slabs of electricity charges for domestic consumers, with higher consumption being charged at higher rates.
- 7.2 The Petitioner proposed the following method for classification of consumers:
- (a) Domestic Services, Slab I : Consumption between 0-200 units/month
 - (b) Domestic Services, Slab II : Consumption more than 200 units/month
 - (c) Domestic Services, High Tension
 - (d) Non Domestic Services
 - (e) Low Tension Industrial Supply
 - (f) HT/LT Utilities
 - (g) High Tension Supply

View's of the Commission

- 7.3 The Commission has decided to update the tariff for various categories on the basis of the following:
- (a) Provisions of the Electricity Act, 2003;
 - (b) The National Tariff Policy;
 - (c) National Electricity Policy;
 - (d) Revenue Gap calculated by the Commission; and
 - (e) The Tariff proposal of the Petitioner for various categories.
- 7.4 The Petitioner proposed a new category – HT/LT Utilities to cater to its consumer base. The Commission, however, believes that there is no rational to create separate categories and has decided to approve the tariff structure that is in line with the tariff structure approved for other licensees in the state.

- 7.5 The Commission takes cognizance of provisions of Section 61 (g) of the Act and the National Tariff Policy for ensuring that the tariffs progressively reflect the cost of supply of electricity. In this regard, the Commission feels that it is important for the Petitioner to determine the cost of supply for each category and then compare the same with the revenue recovered from the respective categories.
- 7.6 The Commission has increased the tariff for domestic consumer category in this Tariff Order to help reduce under recoveries by the distribution company on account of these consumers and gradually move towards a cost of supply model of power supply.

A8: TARIFF SCHEDULE

APPLICABLE FROM AUGUST 1, 2012⁶

Domestic Service (DS)

Applicability:

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.

Category of Services:

- (a) 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.
- (b) 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 load upto 85.044 kW.
- (c) 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-II: AC, 50 Cycles, Single Phase at 230 Volts for installed load up to 4 kW.
- (ii) For DS-III: AC, 50 Cycles, three Phase at 400 Volts for installed load exceeding 4 kW and upto 85.044 kW.
- (iii) For DS-HT: AC, 50 Cycles, at 11 kV for installed load above 85.044 kW

⁶ This schedule shall remain in force till March 31, 2013 or till the next tariff schedule is issued by the Commission, whichever is later.

Tariff:

Consumer Category	Fixed Charges		Energy Charges
	Unit	Rate	Rate (Rs/kWh)
Domestic			
DS-II (<= 4 kW)			
0-200	Rs/ Conn/Month	40	2.10
201 & above	Rs/ Conn/Month	55	2.70
DS-III, Above 4 kW	Rs/ Conn/Month	95	2.70
DS HT	Rs/kVA/Month	70	2.25

Delayed Payment Surcharge: In accordance with Clause IV of Terms & Conditions of Supply as provided in Section 9 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-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.

Service Character:

NDS - II: AC 50 Cycles, Single phase at 230 Volts or Three Phase at 400 Volts for load upto 85.044 kW

Tariff:

Consumer Category	Fixed Charges		Energy Charges
	Unit	Rate	Rate (Rs/kWh)
Non-Domestic			
NDS-II	Rs/kW/Month	Rs 130 per kW per month or part thereof	5.20

Delayed Payment Surcharge: In accordance with Clause IV of Terms & Conditions of Supply as provided in Section 9 of this Tariff Order.

Installation of Shunt capacitors: In accordance with Clause VII of Terms & Conditions of Supply as provided in Section 9 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	105	4.50

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	210	4.50

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 9 of this Tariff Order.

Power Factor Penalty/ Rebate: In accordance with Clause II of Terms & Conditions of Supply as provided in Section 9 of this Tariff Order.

Installation of Shunt capacitors: In accordance with Clause VII of Terms & Conditions of Supply as provided in Section 9 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	210	5.00
132 kV & above	Rs/kVA/Month	210	5.00

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 9 of this Tariff Order.

Voltage Rebate: In accordance with Clause V of Terms & Conditions of Supply as provided in Section 9 of this Tariff Order.

Load Factor Rebate: In accordance with Clause VI of Terms & Conditions of Supply as provided in Section 9 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 9 of this Tariff Order.

TOD Tariff for HTS Consumers: In accordance with Clause VIII of Terms & Conditions of Supply as provided in Section 9 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	4.10
SS-II (unmetered)	Rs/ Conn/Month	Rs 130 Per 100 watt lamp and Rs 40 for every additional 50 watt	Nil

Delayed Payment Surcharge: In accordance with Clause IV of Terms & Conditions of Supply as provided in Section 9 of this Tariff Order.

Schedule for Miscellaneous Charges

S.No.	Purpose	Scale of Charges	Manner in which payment will be realized
1	Application fee		
	Street light	20	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
	Domestic	20	
	Non Domestic	20	
	Other LT categories	50	
	HTS	100	
	EHTS	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		
			Payable in cash in advance along with the intimation for revision
	Domestic	30	
	Non Domestic	30	
	Other LT categories	50	
	HT Supply	150	
3	Testing of consumers Installation		

S.No.	Purpose	Scale of Charges	Manner in which payment will be realized
	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 of 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 of 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 of special type meter	300	
7	Resealing of meter when seals are found broken		
	Single phase	25	Payable with energy bill
	Three phase	50	
	Trivector of 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

A9: 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 at least 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 to 7.5	2
7.5 to 10	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 consumer 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 dishonoured 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.

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 from time to time.

A10: STATUS OF EARLIER DIRECTIVES

Directives up to T.O. 2011-12	Status submitted by the Petitioner	Views of the Commission
<p>Segregation of Accounts of the Electricity Distribution Business and Audit of Accounts</p> <p>As per the provisions under Section 51 of the Act, a distribution licensee has to maintain separate accounts for each business so as to ensure that the power supply business does not subsidize or burden its distribution assets to support other business activities of the licensee.</p> <p>The Commission observed that the annual accounts submitted by the Petitioner have been merely extracted from the main accounts of Bokaro Steel Plant on basis on certain norms and assumptions. The Commission directed the Petitioner to undertake full and final segregation of accounts and get it certified.</p> <p>The Commission directed the Petitioner to maintain and submit separate lists of all the employees that are engaged partially and wholly engaged in the electricity distribution business, along with their role and responsibility and salary drawn during the past financial year as on 1st April 2011 with the next tariff petition.</p>	<p>The Petitioner submitted that the complete separation of Accounts is under consideration of the Accounts Department of SAIL BSL Plant. The methodology to be adopted for the same is being worked at.</p>	<p>The annual accounts submitted by the Petitioner have been merely extracted from the main accounts of Bokaro Steel Plant on basis on certain norms and assumptions. Such extraction of expenses, on a normative basis, is not scientific and does not represent the complete picture of expenses of the distribution business and does not meet the requirement of the law as per Section 51 of the Act.</p> <p>The directive has not been complied with. This directive has been reiterated in the Directives section of this Order.</p> <p>The Petitioner has partially complied with the directive. Though the Petitioner submitted the list of employees, the segregation of employee expenses as submitted by the Petitioner does not meet the statutory requirement.</p>
<p>Maintenance of Fixed Asset Register</p> <p>The Commission noted that the Petitioner does not maintain a separate fixed asset register for its electricity distribution business and has only been able to identify fixed assets worth Rs 7.90 Cr in use in its licensed area, in its books of accounts. The Commission directed the Petitioner to carry out, either on its own or via an expert agency, an assessment of the fixed asset base of the distribution system of its licensed area and submit the findings of the same to the Commission for approval within six months of the issue of this Order.</p> <p>The Commission also directed the Petitioner</p>	<p>The Petitioner submitted that the assets of the distribution network of SAIL BSL have been evaluated by CET (a wing of SAIL) and some correction with respect to the depreciated value etc is under study. The same shall be available shortly before filing of the next tariff petition.</p>	<p>The Petitioner must expedite the process and submit the report of the exercise with the next tariff petition. This directive has been reiterated in the Directives section of this Order.</p>

Directives up to T.O. 2011-12	Status submitted by the Petitioner	Views of the Commission
<p>to maintain, and regularly update, the fixed assets register for its electricity distribution business.</p>		
<p>Timeliness and Data Adequacy in Next tariff petition</p> <p>The Commission directed the licensee to come up with the next tariff petition for FY 2012-13, after removing the various data deficiencies highlighted in its previous Tariff Order. The Commission further directed the Petitioner to prepare the petition in a professional manner and ensure that the data submitted to the Commission is accurate.</p>	<p>The Petitioner submitted that it is in process of appointing a Consultant this year who shall prepare the next tariff petition on behalf of SAIL Bokaro in a professional manner.</p>	<p>As noted by the Commission in the relevant sections, there were several discrepancies in the tariff petition for FY 2012-13 submitted by SAIL-Bokaro. The Petitioner also did not submit information in the formats prescribed by the Commission. The directive has not been complied with. This directive has been reiterated in the Directives section of this Order.</p>
<p>Sales Estimates and Projections</p> <p>The Commission directed the Petitioner to undertake a detailed study for load and demand forecast in order to correctly work out its short term and long term energy requirement.</p>	<p>The Petitioner submitted that load assessment of major consumers has been undertaken and at present the consumer of NSD-II is being covered.</p>	<p>The majority of consumers of the Petitioner belong to the DS-II category for which no evaluation of load has been undertaken. The directive has not been complied with.</p> <p>The Petitioner should submit a status report regarding the study with the next tariff petition.</p>
<p>Distribution Loss</p> <p>The Commission directed the Petitioner to constitute a task force for supervising</p>		

Directives up to T.O. 2011-12	Status submitted by the Petitioner	Views of the Commission
<p>distribution losses mitigation efforts in its licensed area.</p> <p>The Commission also directed the Petitioner to prepare a detailed, five year plan for reduction of distribution losses.</p> <p>The Commission directed the Petitioner to make all efforts for Prevention and Reduction of Theft of Electricity and draft an Action Plan for tackling the theft of electricity.</p>	<p>The Petitioner submitted that the corporate office is in the final stage of appointing a distribution franchisee for SAIL-Bokaro which is expected to be finalised within two months. The Petitioner further submitted that effective measures of controlling theft and distribution losses are the prime objective of this exercise.</p>	<p>The Commission is concerned that not much progress has been made by the Petitioner in controlling the distribution losses and theft of electricity. The Petitioner should not wait for appointment of a Distribution Franchisee for taking up schemes for reduction of distribution loss. This directive has been reiterated in the Directives section of this Order.</p>
<p>Complaint Redressal Mechanism</p> <p>The Commission directed the Petitioner to study the complaint redressal mechanism put in place by other utilities in the state/country and work out a model suited to the needs of the Bokaro township and implement a complaint redressal mechanism within six months of the issue of this Order.</p> <p>The Commission also directed the Petitioner to submit a compliance report to the Commission within one month of implementing the mechanism.</p> <p>The Commission also directed the Consumer Grievance Redressal Forum (C.G.R.F) to set up camps in various parts of the township at least once every month so as to make the forum more accessible to the consumers with the date, time and venue of the camps well advertised in at least two of the local newspapers (one each of English and Hindi).</p>	<p>The Petitioner submitted that for easy approach to consumers, 14 maintenance posts are located in the township area and are manned from morning till 10.00 PM. Complaints of consumers are registered there and quick redressal with standard of performance norms are made. Apart from that, HT maintenance post is managed 24 hrs X 7days and all HT complaints are received there and redressed round the clock. However, improvements in the mechanism shall further be tried to be made as per need in due course.</p> <p>The Petitioner submitted that no grievance has so far been filed to the CGRF by any consumer and hence the need for camp in various parts of township has not been felt.</p>	<p>The Petitioner has partially complied with the directive. The Petitioner should make further efforts to improve its complaint redressed mechanism. It should ensure that the complaints of all consumers including domestic consumers are dealt with in a timely manner.</p> <p>The Commission is of the view that there is a need raise awareness regarding the C.G.R.F and to make the C.G.R.F more accessible to the consumers. Thus the Commission again directs the C.G.R.F to set up camps in various parts of the</p>

Directives up to T.O. 2011-12	Status submitted by the Petitioner	Views of the Commission
		township at least once every month.
<p>Capital Investments</p> <p>The Commission directed the Petitioner to prepare, and submit to the Commission, a comprehensive capital investment plan for any investment that it wishes to make in the distribution network.</p>	<p>The Petitioner submitted that the Capital Investment Schemes to be undertaken during FY 2012-13 have been provided.</p>	<p>The Petitioner did not submit sufficient details regarding the capital investment undertaken in FY 2010-11 and the capital investment plan for FY 2012-13. The directive has thus not been complied with. This directive has been reiterated in the Directives section of this Order.</p>
<p>Billing and Metering Related Issues</p> <p>The Commission observed that one of the major reasons for higher distribution losses is the inability of the licensee to bill its consumers. Despite selling energy on regular basis there are cases where the Petitioner has failed to meter the consumption and bill the consumers. Hence, the Commission directed the Petitioner to develop a comprehensive metering plan. The Commission further directed the Petitioner to ensure the strengthening of its metering, billing and collection mechanism leading to 100 per cent billing and collection.</p> <p>The Commission also observed that the energy supplied to utilities such as schools, hospitals, street lighting, pump houses, administration buildings and offices of SAIL are not being metered and the consumption of these consumers has been submitted on assessment basis. So, the Commission directed the Petitioner to meter the consumption of such consumers so that the actual level of energy sales, revenues and distribution losses in the licensed area can be determined. The Commission also directed the Petitioner to carry out the installation of meters for such consumers on priority.</p>	<p>The Petitioner submitted that 8000 meters are being procured and shall be installed during current financial year.</p> <p>The Petitioner also submitted that meters are under procurement for installation in various utility networks like Pump houses, Schools, offices, Hospitals etc.</p>	<p>The Commission is concerned that not much progress has been made by the Petitioner in the installation of meters. As per Petitioner's own submission consumption of 45% of consumers in DS-II (0-200) category is unmetered. The Petitioner has not even carried out the metering of its own office building, and other utilities run by SAIL-Bokaro.</p> <p>Further, the Commission has observed that in several cases where a meter is installed billing is being done on a flat rate basis and not on the basis of the actual meter reading.</p> <p>The Commission re-iterates that Petitioner should achieve 100% metering and submit a comprehensive plan for achieving the same. Further, the consumers should be billed on the basis of actual consumption during the month and not on a flat rate basis. This directive has been reiterated in the Directives section of this Order.</p>

Directives up to T.O. 2011-12	Status submitted by the Petitioner	Views of the Commission
<p>Cost of Supply Study (CoS)</p> <p>In view of the provisions of Section 61(g) and National Tariff Policy which state that the tariffs should reflect the CoS of electricity, the Commission directs the Petitioner to conduct the CoS study for each category of consumers within one year of the issue of this order and submit it to the Commission for review and finalization. So, the Commission directed the Petitioner to submit the scope of work and the methodology to be followed for conducting the CoS Study.</p>	<p>The Petitioner submitted that the COS study has not been undertaken so far and it is trying to get the study done.</p>	<p>The directive has not been complied with. This directive has been reiterated in the Directives section of this Order.</p>
<p>Separate Connections to Consumers of the Cooperative Housing Society</p> <p>In view of the public comment by Stakeholders, the Commission directed the Petitioner to provide individual commercial/residential connections to all residents of the Co-operative Colony who have applied for it (or apply for it in the future) without further delay.</p>	<p>The Petitioner submitted that the Co-operative Colony has informed it long ago that the Colony cannot provide its land for extension of the distribution network. Hence individual connections cannot be provided. Further, since its inception, the Co-operative Colony is taking supply under DSHT category.</p>	<p>The directive has not been complied with. The Commission is of the view that the Petitioner must provide individual commercial/residential connections to all residents of the Co-operative Colony who have applied for it (or apply for it in the future). The Petitioner must resolve any obstacles in provision of such connections and should take up the matter of availability of land with the Co-operative colony afresh.</p>
<p>Quality of Supply</p> <p>The Commission directed the Petitioner to ensure continuous and reliable supply of electricity to all consumers in the licensed area and adhere to the performance standards set by the Commission in the JSERC (Distribution Licensees' Standards of Performance) Regulations, 2005.</p> <p>The Commission also directed the Petitioner to ensure that power outages do not occur due to over loading of transformers and</p>	<p>The Petitioner submitted that the standard of performance is being adhered to and transformers of adequate capacity have been installed in the network so that no over load tripping taken place .Transformer etc. are also available readily for attending any breakdown immediately.</p>	<p>During the Public Hearing several consumers have complained regarding the quality of power supply in the licensed area. The Commission directs the Petitioner to record the Standards of Performance met by the Petitioner in the formats Annexed with this Order and submit the same with the next tariff petition.</p>

Directives up to T.O. 2011-12	Status submitted by the Petitioner	Views of the Commission
<p>should augment the capacity of the transformers to meet the load in an area.</p>		
<p>Presentation during the Public Hearing</p> <p>The Commission directed the Petitioner to ensure that the presentation made on the tariff petition during the Public Hearing is informative, contains accurate information and is clearly visible and comparative.</p>	<p>No compliance report has been submitted.</p>	<p>The Commission believes that the presentation by the Petitioner during the public hearing can be improved upon further and made more informative. The Commission has reiterated this directive.</p>

A11: DIRECTIVES

Segregation of Accounts of the Electricity Distribution Business and Audit of Accounts

- 11.1 As per the provisions under Section 51 of the Act, a distribution licensee is required to maintain separate accounts for each business so as to ensure that the power supply business does not subsidize or burden its distribution assets to support other business activities of the licensee.
- 11.2 The annual accounts submitted by the Petitioner have been merely extracted from the main accounts of Bokaro Steel Plant on basis on certain norms and assumptions. Such extraction of expenses, on a normative basis, is not scientific and does not represent the complete picture of expenses of the distribution business. The Petitioner is directed to undertake an exercise for full and final segregation of accounts and get it certified.
- 11.3 The Petitioner is also directed to maintain and submit to the Commission separate lists of all the employees who are partially and wholly engaged in the electricity distribution business, along with their role and responsibility and salary drawn during the past financial year as on April 1, 2012 with the next tariff petition.

Maintenance of Fixed Asset Register

- 11.4 The Commission has noted that the Petitioner does not maintain a separate fixed asset register for its electricity distribution business and has only been able to identify fixed assets worth Rs 7.90 Cr (in FY 2009-10) in use in its licensed area, in its books of accounts. An accurate assessment of GFA is essential for calculating the ARR. Therefore, the Commission directs the Petitioner to carry out, either on its own or via an expert agency, an assessment of the fixed asset base of the distribution system of its licensed area and submit the findings of the same to the Commission for approval with the next tariff petition.
- 11.5 The Petitioner must maintain at least the following information in the fixed asset register for the distribution assets:
- (a) Description of Item
 - (b) Quantity
 - (c) Acquisition date/Accounting year
 - (d) Bill date
 - (e) Voucher no/date
 - (f) Purchased/sold
 - (g) Date of sale and amount (for assets sold)

- (h) Location/identification
- (i) Depreciation rate
- (j) Depreciation amount
- (k) Salvage Value

11.6 The Commission also directs the Petitioner to maintain, and regularly update, the fixed assets register for its electricity distribution business.

Timeliness and Data Adequacy in Next tariff petition

11.7 The Commission directs the licensee to come up with the next tariff petition, after removing the various data deficiencies highlighted in this Tariff Order. The Petitioner should prepare the petition in a professional manner and ensure that the data submitted to the Commission is accurate. The Commission also directs the licensee to ensure submission of subsequent ARR and Tariff filings for the ensuing year by 1st November of every year.

Sales Estimates and Projections

11.8 The Commission directs the Petitioner to undertake a detailed study for load and demand forecast in order to correctly work out its short term and long term energy requirement and submit a status report with the next tariff petition.

Distribution Losses

11.9 The Commission considers the high level of distribution losses reported by the Petitioner to be unacceptable and directs the Petitioner to constitute a task force for supervising distribution loss mitigation efforts in its licensed area.

11.10 The Petitioner must also prepare a detailed, five year plan for reduction of distribution losses which should include, among others, the following initiatives:

- (a) *Establishing Measurement and Control Mechanisms* like Feeder Metering, DT Metering, Feeder wise Energy Audit, DT wise Energy Audit and Consumer indexing.
- (b) *Metering and Associated Infrastructure Improvements* like Metering of un-metered consumers, LT CT Meter & Service line Replacement, LT Meter & Service line Replacement and AMI for LT Consumers.
- (c) *Network Infrastructure Improvements* like Re-enforcement of feeders, Feeder bifurcation/ Segregation, Transformer Augmentation, Load Balancing, Reduction of HT/LT Ratio – HVDS (in High loss areas), LT ABC (in High loss DT's) and Capacitor installation.
- (d) *Commercial & Administrative Measures* like Disconnection of defaulters and Consumer education drives.

The Petitioner is directed to submit this plan to the Commission with the next tariff petition.

- 11.11 Several consumers, through public comments, reported that theft of electricity is widespread in the licensed area. The Commission directs the Petitioner to make all efforts for *Prevention and Reduction of Theft of Electricity*. All such consumers who are indulging in theft of electricity for want of a connection must be provided with a connection at the earliest. The Petitioner should carry out Anti-theft enforcement drives and should involve and encourage the consumers in the theft prone areas to report theft of electricity. The task force to be constituted for supervising distribution losses should draft an Action Plan for tackling the theft of electricity. The Petitioner is directed to submit the same to the Commission with the next tariff petition.
- 11.12 The Petitioner should also study the practices followed by other similarly placed utilities to control distribution losses and adopt the best practices available.

Complaint Redressal Mechanism

- 11.13 The Commission observed during the public hearing that many respondents complained about the lack of promptness and accessibility for registering the complaints for speedy redressal of their complaints. The Commission also views that the licensee needs to have a robust complaint redressal mechanism at the grass root level so that the licensee is in a position to address the complaints of all consumers in a speedy manner. The Petitioner should study the complaint redressal mechanism put in place by other utilities in the state/country and work out a model suited to the needs of the Bokaro Township and implement an effective complaint redressal mechanism. The Petitioner is directed to submit a compliance report to the Commission regarding the same with the next tariff petition.
- 11.14 The Commission also directs the Consumer Grievance Redressal Forum (C.G.R.F) to hold camps in various parts of the township at least once every month so as to make the forum more accessible to the consumers. The date, time and venue of the camps should be well advertised in at least two of the local newspapers (one each of English and Hindi).

Capital Investments

- 11.15 The Petitioner is directed to prepare, and submit to the Commission, a comprehensive capital investment plan for any investment that it wishes to make in the distribution network.

Billing and Metering Related Issues

- 11.16 The Commission has observed that one of the major reasons for higher distribution losses is the inability of the licensee to bill its consumers. Despite selling energy on regular basis there are cases where the Petitioner has failed to meter the consumption and bill the consumers. The Commission directs the Petitioner to develop a **comprehensive metering plan**. The Petitioner is directed to strengthen its metering, billing and collection mechanism to ensure 100 per cent billing and collection.

- 11.17 The energy supplied to utilities such as schools, hospitals, street lighting, pump houses, administration buildings and offices of SAIL are not being metered and the consumption of these consumers has been submitted on assessment basis. The Petitioner must meter the consumption of these consumers so that the actual level of energy sales, revenues and distribution losses in the licensed area can be determined. The Petitioner is directed to carry out the installation of meters for **such consumers within the current financial year**. If the licensee fails to implement metering of such consumers the energy charge for all categories may be reduced by upto 2.50% for the year.
- 11.18 Further, the Commission has observed that in several cases even though a meter is installed billing is being done on a flat rate basis and not on the basis of the actual meter reading. The Petitioner is directed to bill the consumers on the basis of actual consumption during the month and not on a flat rate basis.

Cost of Supply Study (CoS)

- 11.19 In view of the provisions of Section 61(g) and National Tariff Policy which state that the tariffs should reflect the CoS of electricity, the Commission directs the Petitioner to conduct the CoS study for each category of consumers and submit it to the Commission for review and finalization. The Petitioner should also submit the scope of work and the methodology to be followed for conducting the CoS Study.

Separate Connections to Consumers of the Cooperative Housing Society

- 11.20 As noted in the section dealing with the Public Consultation Process, in view of the para two of The Electricity (Removal of Difficulties) Eighth Order, 2005, the Commission directs the Petitioner to provide individual commercial/residential connections to all residents of the Co-operative Colony who have applied for it (or apply for it in the future) without further delay.

Quality of Supply

- 11.21 The Petitioner should ensure continuous and reliable supply of electricity to all consumers in the licensed area and adhere to the performance standards set by the Commission in the JSERC (Distribution Licensees' Standards of Performance) Regulations, 2005 as amended from time to time.
- 11.22 The Commission also directs the Petitioner to record the Standards of Performance met by the Petitioner during FY 2012-13 as prescribed by the Commission in the JSERC (Distribution Licensees' Standards of Performance) Regulations, 2005 as amended from time to time.

Energy Audit

11.23 The Commission directs the Petitioner to carry out an Energy Audit of its system. The Energy Audit will enable the Petitioner to ascertain the flow of power within its system, the actual level of distribution losses and commercial loss. The energy audit should also include study of the network of SAIL-Bokaro, flow of power in the distribution system and load management of the supply to the township. The Petitioner should submit the report of the same with the next tariff petition.

Sources of Power Purchase

11.24 The energy requirement of the Petitioner is currently being met through purchase of power from a single source i.e. DVC. Further, the Commission observes that the cost power purchased from DVC is high – the average cost of power purchase from DVC was Rs 4.00/kWh in April 2012 and May 2012. The Commission directs the Petitioner to make all efforts to explore cheaper sources of power and purchase therefrom.

Presentation during the Public Hearing

11.25 The Petitioner should ensure that the presentation made on the tariff petition during the Public Hearing is informative, contains accurate information and is clearly visible and comparative.

Consumer Security Deposit

11.26 In its tariff petition, the Petitioner has proposed to charge security deposit from the consumers. As per Clause 10.1 of JSERC (Electricity Supply Code) Regulations, 2005 the Petitioner may require any person to whom supply electricity has been sanctioned to deposit security amount. However, in accordance with Clause 10.6 of the said Regulations, the Petitioner shall be liable to pay interest on the amount of security deposit by the consumer at a rate equal to bank rate of the Reserve Bank of India. The Petitioner is also directed to maintain a separate record of any amount collected as consumer security deposit and submit the same to the Commission with the next tariff petition.

This Order is signed and issued by the Jharkhand State Electricity Regulatory Commission on this 3rd day of August 2012.

Date: 3rd August, 2012

Place: Ranchi

Sd/-
(T.MUNIKRISHNAIAH)
MEMBER (E)

Sd/-
(MUKHTIAR SINGH)
CHAIRPERSON

A12: ANNEXURE I**List of participating members of public in the public hearing**

Sl. No.	Name	Address / Organisation if any
1	B.N.P. Singh	SE-3, Aanoda Apartment, Doranda, Ranchi
2	Sanjay Kumar	R.W.D. Work Division, Bokaro
3	Suresh Ray	IV-D
4	V.K. Mishra	III A-361
5	L. Ojha	III B-4
6	H.K. Chand	Chairperson cum Member Legal, CGRF, SAIL, Bokaro
7	Ajay Kumar	I (C) /48/SAIL, DGM (E)
8	P.K. Mishra	247, Bokaro Niwas/SAIL, DGM (TE-E)
9	D.K. Choudhary	II C1-132
10	A.Gorain	Sec-IV-E St-8, Qno.-3253
11	M.P. Gupta	Elect Nagar Sewa, BSL
12	R.P. Gupta	4G/3139
13	A. Modi	4G/3110
14	M.K. Mandal	Camp-2, 6 C/6
15	B.D. Singh	12F/1103
16	S.N.P. Gupta	6A/2151
17	Y.K. Verma	4/G-2171
18	B. Sharma	4/F-4001
19	B.R. Dubey	1/B-2001
20	S.N. Saha	4F-4061
21	V.K. Singh	4D-6025, GM 9TS)/SAIL
22	L. Panday	IIIA/739
23	A.K. Singh	GF/7091
24	O.P. Narayan	3-027 IIB
25	Banshi Mahto	SAIL, Bokaro
26	Kailash Prasad	III-E 363
27	Parsuram Ram	12A Jhoparpati
28	P. Mishra	Q.No. 460 IIIA
29	M.M. Das	4D/2144
30	Ajit Kumar	4F/603 /Sr. Manager, Sail, Elec. Main.
31	Shankar Sharan	QW-209/I-C
32	Vishnu Kumar	DGM (TE-Comme.)
33	R. Pandey	Ex. DGM (Elect.), SAIL-BSL
34	A.K. Sharma	IIIA/364
35	R.C. Prasad	II/C-1-171, B.S. City
36	L.N. Mishra	IC 223, B.S. City
37	C. Kar	4C-3015
38	R.N. Sharma	B.S. City
39	S.N. Pathak	Aaj, Press
40	S. Mishra	Asst. Manager, B.S.City
41	Neeraj	Jr. Manager, B.S.City
42	KVS Uma Mahesh	DGM/ (TE-C)
43	M.P. Singh	DGM/TA-Land, SAIL/BSL

Sl. No.	Name	Address / Organisation if any
44	S.N. Prasad	Sec. IIIA, 2224
45	S.M. Pandey	II B. 3-015
46	Azmat Ali	IIB Q.No.-2-425
47	Mokim Ansari	Sec.IX-B, Q.No. - 199
48	Aftab Alam	Bharsa Basti, Bokaro
49	Ajay Kumar	Sahara TV
50	Shushil	Naxatra
51	Anil Kumar Tiwary	II B, Qr. No. 3-136
52	Harkishan Lal	1187, 6/A
53	Sushil Kumar	Prabhat Varta Sec-3