

Jharkhand State Electricity Regulatory Commission



Order on
True-up for FY 2013-14 to FY 2015-16
and
approval of Business plan and
ARR for MYT Control Period
FY 2016-17 to FY 2020-21
and
Distribution and Retail Supply Tariff for
FY 2016-17
for
Steel Authority of India Limited, Bokaro

Ranchi

7 June 2018

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List of Abbreviations

Abbreviation	Description
A&G	Administrative and General
APTEL	Appellate Tribunal for Electricity
ARR	Aggregate Revenue Requirement
ATE	Appellate Tribunal for Electricity
DNW	Distribution Network
ETL	Electro-Technical Laboratory
DPS	Delayed Payment Surcharge
DSM	Demand Side Management
DVC	Damodar Valley Corporation
FY	Financial Year
GFA	Gross Fixed Assets
GoI	Government of India
JSERC	Jharkhand State Electricity Regulatory Commission
Kcal	Kilocalorie
Kg	Kilogram
kWh	Kilowatt-hour
kVA	Kilovolt-ampere
MAT	Minimum Alternative Tax
MU	Million Units
MW	Megawatt
NTI	Non-Tariff Income
O&M	Operations and Maintenance
PLF	Plant Load Factor
PPA	Power Purchase Agreement
R&M	Repair and Maintenance
REC	Renewable Energy Certificates
RoE	Return on Equity
Rs	Rupees
SAIL-BSL	Steel Authority of India, Bokaro Steel Limited
SBI	State Bank of India
SERC	State Electricity Regulatory Commission
SLM	Straight Line Method

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BEFORE

Jharkhand State Electricity Regulatory Commission, Ranchi

Case (T) No: 07 of 2017

In the matter of:

Petition for the approval of

**True-up for FY 2013-14 to FY 2015-16 and Business plan, ARR for
MYT Control Period FY 2016-17 to FY 2020-21 and Distribution and
Retail Supply Tariff for FY 2016-17 for SAIL-BSL;**

In the matter:

Steel Authority of India Limited – Bokaro Petitioner

PRESENT

Hon’ble Mr. Arbind Prasad - Chairman

Hon’ble Mr. R N Singh - Member (Engg.)

Order dated 07.06.2018

In these Petitions, Steel Authority of India Limited (hereinafter referred to as SAIL-BSL) has prayed for the approval of True-up for FY 2013-14 to FY 2015-16 and Business plan, ARR for the Control period FY 2016-17 and FY 2020-21 & Distribution and Retail Supply Tariff for FY 2016-17.

A1. INTRODUCTION

Jharkhand State Electricity Regulatory Commission

- 1.1 The Jharkhand State Electricity Regulatory Commission (hereinafter referred to as “JSERC” or “the Commission”) was established by the Government of Jharkhand under Section 17 of the Electricity Regulatory Commission Act, 1998 on August 22, 2002. The Commission became operational with effect from April 24, 2003.
- 1.2 The Government of Jharkhand vide its notification dated August 22, 2002 had 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 After the Electricity Act, 2003 came into force, the earlier Electricity Regulatory Commission Act of 1998 stands repealed and the JSERC is discharging its functions as prescribed in Section 86 of the Act.
- 1.4 In accordance with provisions of the said 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 framed and published by Government of India under the provisions of Section 3 of the Act. The objectives of the present 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.

The Petitioner – Steel Authority of India Limited, Bokaro

- 1.8 The Steel Authority of India Limited, Bokaro Steel Plant (hereinafter referred to as “SAIL-BSL” 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-BSL is 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-BSL (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.

The Petitioner’s Prayers

- 1.13 The Petitioner in its Petitions has prayed before the Commission:

- To admit the Petitions for True up for FY 2013-14 to FY 2015-16 and Business plan, Multi Year Tariff for the Control period FY 2016-17 to FY 2020-21 for the Licensee;
- Condone the delay in filing the Petitions;
- Consider the submissions with respect to the filing of the True up for FY 2013-14 to FY 2015-16 and Business plan, Multi Year Tariff for the Control period FY 2016-17 to FY 2020-21 for the Licensee;
- To approve the principles and methodology proposed by SAIL- BSL for projection of ARR;
- To approve the deviation from the norms for certain parameters prescribed in the Jharkhand State Electricity Regulatory Commission (Multi Year Tariff) Regulations, 2015, and provisions thereof;
- Pass suitable orders with respect to the true up for the period FY 2013-14 to FY 2015-16 and Business plan, ARR for MYT Control period FY 2016-17 to FY 2020-21 for the expenses already incurred/ projected to be incurred by SAIL-BSL for improvement and maintenance of distribution network serving its consumers and for increasing the operational and commercial efficiency of the Petitioner as proposed in the present Petition;
- Approve the revenue gap and appropriate tariff increase as proposed;
- Approve the proposed tariff schedule;
- Pass suitable orders for implementation of the tariff proposal for the FY 2017-18 for making it applicable from the date of issue of Tariff Order;
- Condone any inadvertent omissions/ errors/ shortcomings and permit SAIL- BSL to add/ change/ modify / alter this filing and make further submissions as may be required at a future date;
- Pass such orders as the Hon'ble Commission may deem fit and proper, keeping in view the facts and circumstances of the case;
- Approve the creation of Regulatory Assets for such uncovered revenue gap as outlined in the present Petition;
- Pass such further orders, as the Hon'ble Commission may deem fit and appropriate keeping in view the facts and circumstances of the case.

Scope of the Present Order

- 1.14 The Commission in this Order has approved the True-up for FY 2013-14 to FY 2015-16 and Business plan, ARR for the Control period FY 2016-17 and FY 2020-21 & Distribution and Retail Supply Tariff for FY 2016-17.
- 1.15 While conducting the review and approval of True-up for FY 2013-14 to FY 2015-16 and Business plan, ARR for the Control period FY 2016-17 and FY 2020-21 & Distribution and Retail Supply Tariff for FY 2016-17, the Commission has taken into consideration:
- a) Material placed on record
 - b) Provisions of the Electricity Act, 2003;
 - c) Principles laid down in the National Electricity Policy;
 - d) Principles laid down in the National Tariff Policy;
 - e) Provisions of the JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2010 (hereinafter referred to as 'Distribution Tariff Regulations, 2010') , JSERC (Terms and Conditions for Determination of Distribution Tariff) ('Distribution Tariff Regulations, 2015') respectively;
- 1.16 Accordingly, the Commission has scrutinized the Petitions in detail and hereby issues the Order on True-up for FY 2013-14 to FY 2015-16 and Business plan, ARR for the Control period FY 2016-17 and FY 2020-21 & Distribution and Retail Supply Tariff for FY 2016-17.

A2. PROCEDURAL 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 (TEElect)/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 (APTEL), 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 APTEL 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 petition for determination of ARR and tariff for FY 2012-13 was filed by the Petitioner on February 9, 2012. The Tariff Order for the same was issued by the Commission on August 3, 2012.
- 2.9 The Petitioner was required to file the Business Plan and petition for determination of ARR and tariff for MYT period FY 2013-14 to FY 2015-16 by November 1, 2012. The Petitioner, however, vide its letter dated September 4, 2012, requested for an extension of the deadline up to November 30, 2012. The Commission extended the deadline for submission of the MYT petition to November 30, 2012. However the Petitioner did not submit the petition within such extended timeline. The Commission further sent a reminder letter to the Petitioner for the submission of Business Plan and petition for determination of ARR and tariff for MYT FY 2013-14 to FY 2015-16 vide letter dated December 17, 2012.
- 2.10 The Petitioner further requested an extension upto March 2013 vide letter dated January 7, 2013. Considering that the previous Tariff Order was issued only in August 2012, the Commission extended the timelines to January 7, 2013 which was again extended to May 31, 2013 on request of the Petitioner. The Petitioner filed the Business Plan for the MYT period FY 2013-14 to FY 2015-16 in May 2013 with a request to extend the timeline to file the MYT Petition to June 24, 2013. The Commission on such request extended the timeline for submission of MYT Petition to June 24, 2013. The Petitioner submitted the MYT petition on July 4, 2013.
- 2.11 The Petitioner filed the petition with the Commission for true up of FY 2011-12, Annual Performance Review for FY 2012-13 and ARR for the MYT period (FY 2013-14 to FY 2015-16) on July 4, 2013. The Commission had issued its last Tariff Order for SAIL-BSL on September 03, 2014 on the MYT Order for the approval of ARR for the FY 2013-14 to FY 2015-16 as the Commission was unable to conduct the public hearing for the aforementioned Petition as the Hon'ble Chairperson of the Commission retired on December 15, 2012 and the Commission was functioning with only one Member i.e. Member (Technical).
- 2.12 The Commission had not approved the True-up for the FY 2011-12 and Annual performance review for the FY 2012-13 in its Order dated September 03, 2014 as the accounts submitted by the Petitioner are merely extracted from the accounts of the steel plant on the basis of certain norms and assumptions. The accounts were also not certified by the statutory auditor of the company. Also, the Petitioner was not able to provide sufficient justification to the queries raised by the Commission even after repeated reminders by the Commission.
- 2.13 The Petitioner now filed the petition for approval of True-up for FY 2013-14 to FY 2015-16 and Business plan, ARR for the Control period FY 2016-17 and FY 2020-21 & Distribution and Retail Supply Tariff for FY 2017-18.

Information Gaps in the Petitions

- 2.14 In accordance with Section 64 (3) of the Act, the State Electricity Regulatory Commission, within one hundred and twenty days of the filing of application for determination of tariff, is required to either accept it and issue a tariff order or reject the application for reasons to be recorded in writing. The Commission, after initial scrutiny of the Petition on approval True-up for FY 2013-14 to FY 2015-16 and Business plan, ARR for the Control period FY 2016-17 and FY 2020-21 & Distribution and Retail Supply Tariff for FY 2016-17, accepted the applications submitted by the Petitioner.
- 2.15 As part of tariff determination exercise for the Control Period, several deficiencies/ information gaps were observed in the Petitions submitted by the Petitioner. The information gaps were pointed out and communicated vide letter no JSERC/Case(T) No. 07 of 2017/309 dt. 31.07.2017, Letter No. JSERC/Case(T) No. 07 of 2017/456 dt. 04.10.2017 & Letter No. JSERC/ Case (T) No. 07 of 2017/596 dt. 19.12.2017, e-mail dated 23.04.2018 to SAIL-BSL.
- 2.16 The Petitioner submitted its response to the aforesaid letters and furnished additional data/ information to the Commission vide letter no. 475 dt. 25.08.2017, letter No. 560 dt. 02.11.2017 & Letter No. 15 dt. 9.01.2018, e-mail dated 09.05.2018.
- 2.17 The Commission has scrutinized the additional data/ information and has considered the same while passing this Order. The Commission has examined the replies and supporting documents as supplied by the Petitioner on the discrepancies pointed out to it only on material already on record in the Petitions filed by the Petitioner.
- 2.18 In order to provide adequate opportunities to all stakeholders and general public, as mandated under Section 64 (3) of the Electricity Act 2003 and in relevant provisions of Regulation(s) framed by the Commission and in order to ensure transparency in the process of tariff determination, the Commission decided to hold public hearing at divisional headquarters.

Inviting Public Comments/ Suggestions

- 2.19 The Commission directed the Petitioner to make available copies of the Petitions to the members of general public on request, and also issue a public notice inviting comments/ suggestions on the Petition for the approval True-up for FY 2013-14 to FY 2015-16 and Business plan, ARR for the Control period FY 2016-17 and FY 2020-21 & Distribution and Retail Supply Tariff for FY 2016-17.
- 2.20 The aforesaid public notice was issued by the Petitioner in various newspapers and a period of twenty one (21) days was given to the members of the general public for submitting their comments/suggestions.

Table 1: List of newspapers and dates on which the public notice by SAIL-BSL appeared

Sl. No.	Newspaper	Date of Publication
1.	The Times of India	20.02.2018 & 21.02.2018
2.	Dainik Bhaskar	20.02.2018 & 21.02.2018
3.	The Telegraph	20.02.2018 & 21.02.2018
4.	Dainik Jagran	20.02.2018 & 21.02.2018

- 2.21 Subsequently, the Commission also issued a notice on its website www.jserc.org and various newspapers for conducting the public hearing on the Petition. The details of the newspapers publishing the notice by the Commission are as under:

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

I. No.	Newspaper (Jharkhand edition)	Date of Publication
1.	Hindustan	27.03.2018
2.	Dainik Bhaskar	27.03.2018
3.	The Times of India	27.03.2018
4.	Dainik Jagran	28.03.2018
5.	Prabhat Khabar	28.03.2018
6.	Hindustan Times	28.03.2018

Submission of Comments/ Suggestions and conduct of Public Hearing

- 2.22 A public hearing was held on April 7, 2018 at Bokaro and many respondents voiced their views on the petition filed by the Petitioner. The comments/suggestions voiced by the respondents and the Petitioner's response thereon along with the Commission's views on the response provided by the Petitioner are detailed in Section A4 of this Order.

A3. BRIEF FACTS OF THE PETITION

True-up for the FY 2013-14 to FY 2015-16

a) Energy Sales

- 3.1 The details of energy sales approved by the Commission in its MYT Order dated September 03, 2014 for the FY 2013-14 to FY 2015-16 vis-à-vis actual energy sales as submitted by the Petitioner now is provided in the table below:

Table 3: Sales (in MU) of SAIL-BSL for the FY 2013-14 to FY 2015-16

Particulars	FY 2013-14		FY 2014-15		FY 2015-16	
	As Approved in the MYT Order	As submitted now by the Petitioner	As Approved in the MYT Order	As submitted now by the Petitioner	As Approved in the MYT Order	As submitted now by the Petitioner
DS – II	81.91	80.22	81.91	84.26	81.91	101.71
DS-III	-	1.06	-	1.21	-	6.43
DS – HT	6.14	5.73	6.14	5.99	6.14	6.2
LTIS	0.18	0.46	0.18	0.55	0.18	0.5
NDS	19.09	10.64	19.09	12.71	19.09	14.53
HTS – 11 kV	2.23	4.42	2.23	5.67	2.23	9.2
HT/LT Utilities	74.49	46.78	74.49	48.17	74.49	50.17
Total - Township	184.04	149.31	184.04	158.56	184.04	188.74
Plant Supply	1107.1	779.12	1107.1	771.77	1107.1	454.91
Grand Total	1291.14	928.43	1291.14	930.33	1291.14	643.65

b) Energy Balance:

- 3.2 The energy balance as approved by the Commission in its MYT Order dated September 03, 2014 for the FY 2013-14 to FY 2015-16 vis-à-vis as submitted by the Petitioner now has been tabulated below:

Table 4 : Energy Balance (MU) for the FY 2013-14 to FY 2015-16 as submitted by the Petitioner

Particulars	FY 2013-14		FY 2014-15		FY 2015-16	
	As Approved in the MYT Order	As submitted by the Petitioner	As Approved in the MYT Order	As submitted by the Petitioner	As Approved in the MYT Order	As submitted by the Petitioner
Energy Sales – Township	184.04	149.31	184.04	158.56	184.04	188.74
Distribution Losses	13.00%	52.49%	11.00%	51.94%	10.00%	42.43%
Distribution Losses	27.5	164.99	22.75	171.34	20.45	139.09
Total Energy Required for Township	211.54	314.3	206.78	329.9	204.49	327.83
Energy Sales – Plant	1107.1	779.12	1107.1	771.77	1107.1	454.91

Particulars	FY 2013-14		FY 2014-15		FY 2015-16	
	As Approved in the MYT Order	As submitted by the Petitioner	As Approved in the MYT Order	As submitted by the Petitioner	As Approved in the MYT Order	As submitted by the Petitioner
Total Energy Required	1318.64	1093.42	1313.88	1101.67	1311.59	782.74

c) Aggregate Revenue Requirement:

- 3.3 The Aggregate Revenue Requirement for the FY 2013-14 to FY 2015-16 as approved by the Commission in its MYT Order dated September 03, 2014 vis-à-vis as submitted by the Petitioner now has been tabulated below:

Table 5: ARR* for the FY 2013-14 to FY 2015-16 (in Rs Cr) as submitted by the Petitioner

Particulars	FY 2013-14		FY 2014-15		FY 2015-16	
	As Approved in the MYT Order	As submitted by the Petitioner	As Approved in the MYT Order	As submitted by the Petitioner	As Approved in the MYT Order	As submitted by the Petitioner
Power Purchase Cost	538.47	380.19	536.52	466.36	535.59	357.88
Employee Expenses	8.78	9.87	9.46	10.71	10.2	11.33
R&M Expenses	2.92	4.42	2.92	3.07	2.92	3.52
A&G Expenses	0.48	1.61	0.52	1.68	0.56	2.26
Depreciation	0.15	0.51	0.23	0.64	0.31	0.86
Interest on Loan	0.78	0.64	1.63	0.92	2.45	0.94
Return on Equity	0.68	0.57	1.07	0.73	1.46	0.81
Interest on Working Capital	8.27	8.77	8.49	9.04	8.52	5.39
Annual Revenue Requirement	560.53	406.58	560.84	493.15	562	382.97

*Revised in the reply to Discrepancy note

- 3.4 Based on the ARR and revenue at existing tariff, the Petitioner estimated the revenue gap for the FY 2013-14 to FY 2015-16 as summarized below:

Table 6: Revenue (surplus) / Gap (in Rs Cr) for the FY 2013-14 to FY 2015-16 as submitted by the Petitioner

Particulars	FY 2013-14		FY 2014-15		FY 2015-16	
	As Approved in the MYT Order	As submitted by the Petitioner	As Approved in the MYT Order	As submitted by the Petitioner	As Approved in the MYT Order	As submitted by the Petitioner
Annual Revenue Requirement	560.53	406.58	560.84	493.15	562	382.97
Revenue at Existing Tariff	605.96	410.35	605.96	428.76	605.96	284.82
Revenue (Surplus) /Gap	(45.43)	(3.78)	(45.12)	64.39	(43.96)	98.15

*Revised in the reply to Discrepancy note

Business plan for the Control period FY 2016-17 to FY 2020-21**d) Capital Investment plan**

- 3.5 The Capital investment plan vis-à-vis capitalization for the MYT period FY 2016-17 to FY 2020-21 as submitted by the Petitioner has been summarized below:

Table 7 : Capital investment plan (in Rs Cr) for the FY 2016-17 and FY 2020-21

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Augmentation of 132/11 kV substation	18.07	0.00	0.00	0.00	0.00
Feeder Augmentation - 11kV system	0.00	0.00	4.50	4.50	0.00
Installation of LED Lamp	0.00	0.40	0.30	0.30	0.00
High mast lighting tower	1.17	0.00	0.00	0.00	0.00
Total	19.24	0.40	4.80	4.80	0.00

f) Fulfilling Solar power connections

- 3.6 The Petitioner submitted that it is committed to develop an overall capacity of 200 MW of renewable power and Bokaro Power Supply Company Ltd. (a joint venture of SAIL & DVC) has been entrusted with the responsibility of installing medium and large capacity solar power units in and around the SAIL- BSL Township. Also, BPSCL has been granted approval by SAIL- BSL to develop another 20 MW solar power project at Bokaro for 100 % captive use by SAIL- BSL.

g) Distribution Loss targets

- 3.7 As per Regulation 5.23 of JSERC Terms and for Distribution Tariff) Regulation, 2015 the Licensee shall be allowed to operate with relaxed distribution losses to the tune of 5% of the audited values. The Petitioner submitted that despite its best efforts, SAIL-BSL is finding it hard to meet the loss levels as desired by the Commission.
- 3.8 The Petitioner submitted that the actual distribution losses for FY 2013-14, FY 2014-15 and FY 2015-16 are 52.50%, 51.93% and 42.43% respectively, the key reason behind the significantly high distribution losses is theft of electricity through unauthorized means in the rural areas. The Petitioner further submitted that it has made several efforts to control such unauthorized usage of electricity as listed below:
- Formation of groups and roster wise site visits to check illegal connections and hooking in local areas.
 - Formation of teams jointly with the District police to launch massive drives to curb illegal power theft.
 - Routine visits by senior officials in high theft prone areas.

- 3.9 Further, the Petitioner in its Business plan had summarized several issues encountered and the steps being undertaken to resolve the same.
- 3.10 The Petitioner submitted that it is striving hard to reduce distribution losses and has been timely introducing new initiatives to check the same, but on an overall basis the situation is largely uncontrollable due to legacy issues. The Petitioner further submitted that it is committed to reduce the losses and has been taking concrete steps for the same and has proposed a revised trajectory for the FY 2016-17 to FY 2020-21 as tabulated below:

Table 8: Distribution Loss Targets as submitted by the Petitioner

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Distribution Loss targets	42.00%	32.00%	24.00%	16.00%	10.00%

- 3.11 The Petitioner requested the Commission to relax the norms and approve the distribution losses as submitted by the Petitioner for the Control period FY 2016-17 to FY 2020-21.

ARR for the Control period FY 2016-17 to FY 2020-21**h) Energy Sales**

3.12 The Energy sales (in MU) as projected by the Petitioner for the MYT period FY 2016-17 to FY 2020-21 has been tabulated below:

Table 9 : Sales (in MU) as submitted by the Petitioner for the FY 2016-17 and FY 2020-21

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
DS-II (Less than 200 units)	80.22	73.63	82.34	92.08	102.98
DS-II (More than 200 units)	33.52	37.48	41.92	46.88	52.42
DS-III	6.43	13.02	13.12	13.23	13.33
DS-HT	6.27	6.35	6.43	6.50	6.58
LTIS	0.50	0.50	0.50	0.50	0.50
NDS	15.55	16.63	17.79	19.04	20.37
HTS-11 kV	12.65	17.41	23.94	32.93	45.30
HT/LT Utilities	50.17	50.17	50.17	50.17	50.17
Total - Township	205.31	215.19	236.22	261.33	291.65
Plant Supply	458.46	462.03	465.64	469.27	472.93
Grand Total	663.77	677.22	701.85	730.60	764.58

j) Energy Balance:

3.13 The energy balance details for the FY 2016-17 to FY 2020-21 as submitted by the Petitioner has been tabulated below:

Table 10: Energy Balance (in MU) as submitted by the Petitioner for the FY 2016-17 to FY 2020-21

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Energy Sales –Township	205.31	215.19	236.22	261.33	291.65
Distribution Losses	42.00%	32.00%	24.00%	16.00%	10.00%
Energy required at township periphery	353.99	316.46	310.81	311.11	324.05
Energy consumption - Plant	458.46	462.03	465.64	469.27	472.93
Total Energy Required at SAIL- BSL Periphery	812.45	778.49	776.45	780.37	796.98

3.14 The following table summarizes the ARR as submitted by the Petitioner for the control period FY 2016-17 to FY 2020-21.

Table 11: ARR* (in Rs Cr) for the FY 2016-17 to FY 2020-21 as submitted by the Petitioner

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Power Purchase Cost	431.56	436.19	427.62	461.84	475.90
Employee Expenses	11.82	12.34	12.88	13.44	14.02

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
R&M Expenses	4.23	5.08	6.10	7.32	8.80
A&G Expenses	2.35	2.46	2.56	2.67	2.79
Depreciation	1.76	1.79	2.12	2.30	2.30
Interest on Loan	1.46	2.04	2.02	2.15	2.08
Return on Equity	1.31	1.77	1.89	2.11	2.22
Interest on Working Capital	8.08	8.40	8.34	9.03	9.31
Annual Revenue Requirement	462.59	470.05	463.54	500.87	517.42

**Revised in the reply to discrepancy note*

- 3.15 Based on the projected ARR and the revenue from existing tariff, the Petitioner estimated the revenue gap at existing tariff for the FY 2016-17 to FY 2020-21 as summarised in the table below:

Table 12: Revenue Gap* (in Rs Cr) at existing tariff as submitted by the Petitioner

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Annual Revenue Requirement	462.59	470.05	463.54	500.87	517.42
Revenue from sale of power to township @existing tariff	76.34	83.61	90.88	101.76	112.98
Revenue from consumption of power by Steel Plant @existing tariff	217.77	219.47	221.18	222.90	224.64
Revenue Gap/(surplus)	168.48	166.98	151.48	176.21	179.80

**Revised in the reply to Discrepancy note*

- 3.16 Based on the above and earlier submissions of revenue gap for FY 2013-14 to FY 2015-16 and for FY 2016-17 to FY 2020-21, the Petitioner has estimated the cumulative revenue gap till FY 2017-18 as summarized below:

Table 13: Cumulative Revenue Gap* till FY 2017-18 as submitted by the Petitioner

Particulars	Amount in Rs Cr
Revenue Gap up to FY 2015-16	158.76
Revenue Gap from FY 2016-17 to FY 2017-18	130.97
Total Revenue Gap till FY 2017-18	289.73

**computed as per the revised submissions made by the Petitioner*

- 3.17 The Petitioner submitted that given the significant amount of revenue gap, the whole impact may be not be plausible to be passed on to consumers, by way of revision in retail tariffs, as it may lead to an inexorable tariff shock. Therefore, the Petitioner has proposed creation of Regulatory asset for the leftover revenue gap with amortisation period as determined by the Commission.
- 3.18 In order to cover the projected revenue gap for the Control Period, the Petitioner has proposed revision in retail tariff for FY 2017-18 for various categories. The tariff schedule proposed by the Petitioner is summarised below:

Table 14: Proposed Tariff Schedule by the Petitioner

Categories	Fixed Charges			Energy Charges Rate (Rs/kWh)	
	Unit	Existing Rate	Proposed Rate	Existing Rate	Proposed Rate
DS-II	Rs/Connection/Month	40	50	2.10	2.73
DS-II (More than 200 units)	Rs/Connection/Month	55	80	2.70	3.51
DS-III	Rs/Connection/Month	95	120	2.70	3.51
DS-HT	Rs/kVA/Month	70	100	2.25	2.93
LTIS	Rs/kVA/Month	105	250	4.50	5.85
NDS	Rs/kW/Month	130	210	5.20	6.76
HTS	Rs/kVA/Month	210	300	5.00	6.50

A4. PUBLIC CONSULTATION PROCESS

- 4.1 The Petitions filed by the Petitioner evoked response from several stakeholders. The public hearings were held at Mini Auditorium, Human Resource Development Centre, Bokaro Steel Plant, Bokaro Steel City to ensure the maximum public participation wherein stakeholders put forth their comments and suggestions before the Commission in the presence of the Petitioner. In all, 41 persons participated in the public hearing process. The list of the attendees is attached as **Annexure- 1** to this Order.
- 4.2 In course of public hearings, the Commission also allowed persons/representatives of entities who had not submitted prior written representations but attended the public hearings to express their views, in person, regarding the Petition filed by the Petitioner and also about ways and means to improve the services rendered by the Petitioner.
- 4.3 The comments and suggestion of the members of the public along with the response thereon of the Petitioner and the views of the Commission are detailed hereunder:

High losses, Theft of Electricity & Unauthorized Connections

Public Comments/ Suggestions

- 4.4 The Objector pointed out that usage of electricity through unauthorised means is increasing day by day in the township area and the measures being undertaken by the Petitioner to curtail the same are going in vain and the burden is being passed on to Consumers.

Petitioner's Response

- 4.5 The Petitioner submitted that unauthorised power connections in BSL township are being removed on daily basis with the help of BSL Security department. BSL management is also installing Aerial Bunch Cables to control unauthorised power connections.
- 4.6 The Petitioner further submitted that it is taking regular steps for recovery of dues from all Government and Non-Government bodies.

Views of the Commission

- 4.7 The Commission is of the view that such unauthorised usage /Theft of Electricity would result in high Distribution loss levels of the Petitioner. The Commission in its earlier Orders had repeatedly expressed deep concern over the high loss levels of the Petitioner and directed the Petitioner to contain distribution loss levels within the levels set by the Commission.
- 4.8 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 in line with the trajectory set in the 'Distribution Tariff Regulations, 2010'.

- 4.9 The Commission has also given appropriate directions for the reduction of the Theft of Electricity in the Directives section of this Tariff Order.

Recovery of Dues

Public Comments/ Suggestions

- 4.10 The Objector pointed out that all dues from Government & Non-Government bodies should be recovered.

Petitioner's Response

- 4.11 The Petitioner submitted that the Petitioner is taking regular steps for recovery of dues from all Government and Non- Government bodies. Notice is served to the defaulters in case of non-payment of dues. If no payment is received, power supply is disconnected in the premises and power is restored only after payment is made.

Views of the Commission

- 4.12 The Commission agrees with the views of the Objector and directs the Petitioner to recover all the outstanding dues from Government & Non-Government bodies.

Tariff Hike

Public Comments/ Suggestions

- 4.13 The Objector pointed out that by controlling the unauthorised usage of electricity, the distribution loss levels of the Petitioner can be contained which in turn would reduce the costs of the Petitioner and thereby no tariff hike shall be required.

Petitioner's Response

- 4.14 The Petitioner submitted that it is installing Aerial Bunch Cables to control unauthorised power connections. Further, action is being taken on the unauthorised tappings and efforts are being made to plug the energy leakage hotspots.
- 4.15 The Petitioner further submitted that the present tariff proposal has been submitted based on the past years expenses and reasonable estimates for the remaining years of present control period and is in dire need of funds for building up new capital assets and for retrofitting the existing assets thereby improving the supply quality and its own operations in the, licensed area.

Views of the Commission

- 4.16 The Commission has calculated the Annual Revenue Requirement (ARR) for the petitioner after carrying out prudence check of all relevant information in accordance with JSERC Distribution Tariff Regulations. Subsequently it has approved the tariff for the Petitioner by taking into account the ARR and the total revenue expected to be generated. The tariff schedule and terms and conditions of the tariff for SAIL-Bokaro area are provided in relevant sections of this Order.

Issues related to Billing

Public Comments/ Suggestions

- 4.17 The Objector pointed out that billing is not done on regular basis by the Petitioner, rather the Petitioner does it on assessment basis by writing HFL on the energy bills.
- 4.18 The Objector further submitted that the excess charge, if any, collected by the Petitioner is not being adjusted in the subsequent bills.
- 4.19 The Objector submitted that they are not being charged as per the consumption slabs set by the Commission.
- 4.20 The Objector submitted that in case of defective meter, the Petitioner is not charging the consumers at the min consumption units as per agreement at the time of lease.

Petitioner's Response

- 4.21 The Petitioner submitted that HFL, which stands for House Found Locked is not written arbitrarily on the bills. In case a premise is found locked at the time of visit by a meter reader, average no. of units is charged for that billing cycle. Excess charges, if any, are adjusted in the subsequent bills.
- 4.22 The Petitioner further submitted that the complaints are routinely investigated and corrective action is taken and if required, excess charge is adjusted by way of credit notes issued to the customer.
- 4.23 The Petitioner submitted that the bill is being raised to the consumers as per the consumption slabs and the tariff set by the Commission.
- 4.24 The Petitioner submitted that billing is being done on the basis of electricity meter reading. In case a meter is defective, average units are being charged. Defective Meters are being replaced regularly by the department based on information collected during meter reading.

Views of the Commission

- 4.25 The Commission strictly directs the Petitioner to bill the consumers as per the tariff schedule approved by the Commission in its Tariff Orders. Further, the Commission directs the Petitioner to provide status update to the Commission regarding category-wise defective/ burnt/ non-performing meters and action plan on replacement of these with the next tariff Petition.

A5. TRUE-UP FOR FY 2013-14 TO FY 2015-16

5.1 As per Clause 11 of the Distribution Tariff Regulations, 2010

“True-Up for the Control Period

11.3 These Regulations do not provide for any truing up for controllable items during the Control Period. Depreciation and return on capital shall be trued up only at the end of the Control Period. Truing up of other controllable items would be done only on account of Force Majeure events;

11.4 Variations on account of uncontrollable items like energy sales and power purchase cost shall be trued up with the Annual Performance Review. Truing-up shall be carried out for each year based on the actual/audited information and subject to the prudence check by the Commission;

11.5 Provided that if such variations are large, and it is not feasible to recover in one year alone, the Commission may take a view to create a regulatory asset, as per the guidelines provided in clause 8.2.2 of the National Tariff Policy;

Provided further that any adverse financial impact for variation in uncontrollable items due to lapse on part of the Licensee or its suppliers/contractors shall not be allowed in truing up;

The Commission, to ensure tariff stability, may include the trued-up costs in the subsequent Control Period's ARR instead of including in the year succeeding the relevant year of the Control Period."

5.2 The Petitioner submitted that the True-up for the FY 2013-14 to FY 2015-16 has been prepared based on the audited/certified accounts taking into consideration the provisions of JSERC Distribution Tariff Regulations, 2010.

5.3 The Commission based on the aforementioned regulations has now carried out True-up for the FY 2013-14 to FY 2015-16 taking into consideration:

- a) Audited accounts of the Electricity Distribution Business of SAIL-BSL for the FY 2013-14 to FY 2015-16.
- b) JSERC Distribution Tariff Regulations, 2010.
- c) Methodology adopted by the Commission in its earlier Order.

Treatment of Steel Plant

- 5.4 The Petitioner submitted that it is procuring electricity for consumption in the Steel Plant as well as for sale to the township at 132 kV level up to December 2016 and thereafter the power is being drawn at 220 kV level. The 220/132 kV sub-station is maintained by DNW which further distributes power to Plant and township through different feeders.
- 5.5 The Petitioner submitted that the purchase and sale of power for the Steel Plant is revenue neutral and requested the Commission to treat power consumption of the Steel Plant as the self-consumption of the Petitioner and not the power sale at HTS tariff as doing the same had inadvertently resulted in surplus with the Petitioner in the earlier Order dated September 03, 2014, while in actual terms, there was no surplus on account of sale of power to the Plant since the sale rate is accounted at the power purchase rate for the Steel Plant.
- 5.6 However, the Commission in its Order dated August 3, 2012 in the section ‘Treatment of Steel Plant’ at Point 5.129 and 5.130 stated that
- “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.”*
- 5.7 Later, the Petitioner had adopted a similar methodology of considering Steel plant as a HTS consumer at 132 kV for calculating the revenue in its tariff petition for the MYT period FY 2013-14 to FY 2015-16. Later, the Commission in its Tariff Order dated September 3, 2014, in line with its earlier Order adopted a similar methodology as submitted by the Petitioner.
- 5.8 In reference to the above, the Commission finds no merit in the claims made by the Petitioner and the steel plant is treated as a consumer of Electricity Distribution Business

Energy Sales, No of consumers, Connected Load

Petitioner’s submission

- 5.9 The Energy Sales (in MU), Connected Load, No of consumers as approved by the Commission in its earlier tariff Order dated September 03, 2014 vis-à-vis the actual energy sales (in MU) as submitted by the Petitioner for the FY 2013-14 to FY 2015-16 is summarized below:

Table 15: Sales (in MU) as submitted by the Petitioner

Particulars	FY 2013-14		FY 2014-15		FY 2015-16	
	As Approved in the MYT Order	As submitted by the Petitioner	As Approved in the MYT Order	As submitted by the Petitioner	As Approved in the MYT Order	As submitted by the Petitioner
DS – II	81.91	80.22	81.91	84.26	81.91	101.71
DS-III	-	1.06	-	1.21	-	6.43
DS – HT	6.14	5.73	6.14	5.99	6.14	6.2
LTIS	0.18	0.46	0.18	0.55	0.18	0.5
NDS	19.09	10.64	19.09	12.71	19.09	14.53
HTS – 11 kV	2.23	4.42	2.23	5.67	2.23	9.2
HT/LT Utilities	74.49	46.78	74.49	48.17	74.49	50.17
Total - Township	184.04	149.31	184.04	158.56	184.04	188.74
Plant Supply	1107.1	779.12	1107.1	771.77	1107.1	454.91
Grand Total	1291.14	928.43	1291.14	930.33	1291.14	643.65

Table 16: No of Consumers as submitted by the Petitioner

Particulars	FY 2013-14		FY 2014-15		FY 2015-16	
	As Approved in the MYT Order	As submitted by the Petitioner	As Approved in the MYT Order	As submitted by the Petitioner	As Approved in the MYT Order	As submitted by the Petitioner
DS – II	37441	36677	37441	37621	37441	33080
DS-III	-	12	-	11	-	11
DS – HT	4	5	4	5	4	5
LTIS	41	35	41	35	41	35
NDS	1621	1686	1621	1715	1621	1759
HTS – 11 kV	5	5	5	7	5	7
HT/LT Utilities	10815	656	10815	656	10815	656
Total - Township	49927	39076	49927	40050	49927	35553
Plant Supply	1	1	1	1	1	1

Table 17: Connected Load as submitted by the Petitioner

Particulars	Units	FY 2013-14		FY 2014-15		FY 2015-16	
		As Approved in the MYT Order	As submitted by the Petitioner	As Approved in the MYT Order	As submitted by the Petitioner	As Approved in the MYT Order	As submitted by the Petitioner
DS – II	kW	93580	91692.5	93580	94053	93580	84777.5

Particulars	Units	FY 2013-14		FY 2014-15		FY 2015-16	
		As Approved in the MYT Order	As submitted by the Petitioner	As Approved in the MYT Order	As submitted by the Petitioner	As Approved in the MYT Order	As submitted by the Petitioner
DS-III	kW		321		321		321
DS – HT	kVA	5086	4815	5086	4815	5086	4815
LTIS	HP	824	985	824	1017	824	1017
NDS	kW	14660	11366	14660	11822	14660	13132
HTS – 11 kV	kVA	3057	2163	3057	5125	3057	3097
HT/LT Utilities	kW	26891	26891	26891	26891	26891	26891
Plant supply*	MVA		45		45		45

*submitted in the reply to discrepancy note

Commission's analysis

- 5.10 The Commission in its MYT Order dated September 03, 2014, had retained the sales for the FY 2013-14 to FY 2015-16 as that approved by the Commission for FY 2012-13 in its Order dated August 3, 2012 as the Petitioner was not able to provide the required data as sought by the Commission viz. audited sales and revenue data, lack of metering, and billing of many consumers on flat rate basis and projections based on random basis etc.
- 5.11 Further, the Commission has projected the sales to the Steel Plant for the MYT period FY 2013-14 to FY 2015-16 as equal to the approved energy sales to the plant during FY 2012-13 i.e. 1107.10 MU.
- 5.12 The Commission, while processing the petition found that the Petitioner has not provided any details regarding the sales to streetlight service category. Further, the Commission found that the details regarding the sale of power to township energy supplied to HT/LT Utilities is not metered or billed and the expense for the same is being borne by the Plant administration and the energy consumed, revenue for such purposes has been considered on assessment basis. The Commission vide its discrepancy note directed the Petitioner to provide proper justification for the same.
- 5.13 The Petitioner vide its reply submitted that it has included the Street light category sales within the sales to HT/LT utilities which are assessed sales and the entire expense is borne by the Plant administration of BSL.
- 5.14 The Petitioner further submitted that Electricity distribution is not the main business of SAIL- BSL, as it is merely the distribution licensee for the distribution of power in the residential units, associated service providers & utilities in the BSL's Township towards fulfilling of statutory requirements of the Electricity Act and not in the business of Sale of Power.

- 5.15 The Petitioner further submitted that as a distribution licensee, it has no independent existence without Bokaro Steel Plant. Since there is no separate entity for Electricity Business as far as BSL is concerned, in keeping with its other mandates, the Town Administration (TA) department manages the utilities and services of township and thus entire expense towards energy consumption to HT/LT utilities is borne by the Town Administration of Bokaro Steel Plant.
- 5.16 The Commission further directed the Petitioner to submit segregate the sales, connected load and no. of consumers and the revenue from the HT/LT Utilities as submitted in the instant petition into specific consumer categories (Streetlight, Domestic, Non-Domestic etc.) as per the Tariff schedule and provide proper justification for such consideration.
- 5.17 The Petitioner vide its reply submitted that revenue from the HT/LT utilities has been considered on the average power purchase rate considered in the Petition during the years under consideration and provided the details of sales of HT/LT Utilities segregated into specific tariff categories as tabulated below:

Table 18: Sales for HT/LT Utilities for the FY 2013-14 to FY 2015-16

S.No	Particulars	Category	Energy sales (in kWh)		
			FY 2013-14	FY 2014-15	FY 2015-16
1	24 MGD pump house, sector-6 pump house, sector-9 pump house.	NDS	15704812	15924679	15924679
2	Sector-3 water tower lightening load	NDS	12528	12703	12703
3	City park pump house	NDS	81900	83047	83047
4	Russian club pump house	NDS	10800	10951	10951
5	JNB park pump house	NDS	27000	27000	27000
6	HRD, BGH, ADM Building	NDS	16735277	16969571	17102776
7	Nagar Seva bhawan	NDS	548976	835850	835850
8	10 no's maintenance post	NDS	12000	12168	12168
9	10 no's health centres	NDS	60000	60840	60840
10	24 no's BSL schools	NDS	172800	175219	175219
11	Bokaro Niwas	NDS	1646928	2507550	2507550
12	5 no's community centers	NDS	1800	1825	1825
13	Sports complex and JNB	NDS	274488	847552	847552
14	Air port	NDS	5400	5475	5475
15	Township lightening	SS			
	*Arterial lights		1080000	1095120	1095120
	*Tube lights		864000	876096	876096
	*250 W SV lamps		108000	109512	109512
	*150W SV lamps		648000	657072	657072
	*High Mast		1083974	1099122	1099122
16	Kala kendra	NDS	10800	10951	10951
17	Safety training sector-2	NDS	10800	10951	10951
18	Ashalata viklang kendra	NDS	1800	1825	1825

S.No	Particulars	Category	Energy sales (in kWh)		
			FY 2013-14	FY 2014-15	FY 2015-16
19	Feeder 6-10	NDS	7681767	6713499	6713499
20	Pump in Citypark, Russian club, JNB	NDS	-	121376	121376
21	Delhi public school	NDS	-	-	1550880
22	Kendriye vidyalaya	NDS	-	-	315360
	TOTAL		46783851	48169954	50169399

- 5.18 As per clause 5.29 of the JSERC Distribution Tariff Regulations, 2010, energy sales is considered to be an uncontrollable parameter and shall be treated as a pass through to consumers. The relevant extracts of the regulations has been reproduced below:

“5.30 The variation on account of uncontrollable elements shall be treated as a pass through to be ultimately charged to the consumers, subject to validation and approval by the Commission;”

- 5.19 In line with the above regulations, the Commission now approves the actual sales for the MYT period as per audited data for the respective years. The following table summarises the consumer category-wise Sales, No of consumers, Connected Load, for FY 2013-14 to FY 2015-16 as approved now by the Commission.

Table 19: Sales (in MU) as approved by the Commission for the Control period

Particulars	FY 2013-14	FY 2014-15	FY 2015-16
DS – II	80.22	84.26	101.71
DS-III	1.06	1.21	6.43
DS – HT	5.73	5.99	6.2
LTIS	0.46	0.55	0.5
NDS	10.64	12.71	14.53
HTS – 11 kV	4.42	5.67	9.2
HT/LT Utilities*	46.78	48.17	50.17
Total - Township	149.31	158.56	188.74
Plant Supply	779.12	771.77	454.91
Grand Total	928.43	930.33	643.65

Table 20: No of consumers (No) as approved by the Commission for the control period

Particulars	FY 2013-14	FY 2014-15	FY 2015-16
DS – II	36677	37621	33080
DS-III	12	11	11
DS – HT	5	5	5
LTIS	35	35	35
NDS	1686	1715	1759
HTS – 11 kV	5	7	7

Particulars	FY 2013-14	FY 2014-15	FY 2015-16
HT/LT Utilities *	656	656	656
Plant Supply	1	1	1

Table 21: Connected Load as approved by the Commission for the Control period

Particulars	Units	FY 2013-14	FY 2014-15	FY 2015-16
DS – II	kW	91692.5	94053	84777.5
DS-III	kW	321	321	321
DS – HT	kVA	4815	4815	4815
LTIS	HP	985	1017	1017
NDS	kW	11366	11822	13132
HTS – 11 kV	kVA	2163	5125	3097
HT/LT Utilities*	kW	26891	26891	26891
Plant supply	MVA	45	45	45

* 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 NDS & SS for the purpose of calculation of revenue.

Distribution Loss Levels

Petitioner's submission

- 5.20 The Petitioner submitted that the distribution losses for FY 2013-14, FY 2014-15 and FY 2015-16 are 52.50%, 51.93% and 42.43% respectively. The Petitioner submitted that the key reason behind the significantly high losses is theft of electricity through unauthorized means in the rural areas.
- 5.21 The Petitioner further submitted that it has made several efforts to control such unauthorized usage of electricity and the issues encountered, steps undertaken thereof by the Petitioner have been summarized below:
- There are several illegal possessions of the locals, and these illegal occupants do not have electricity connection and there are some areas which even though do not come under the licensed area of SAIL- BSL. The Petitioner has not released connections to such illegal habitants, since that would tantamount to giving them a legal right to the occupied place. The officers of SAIL- BSL have disconnected such illegal connections and JBVNL had provided connections to such consumers which fall under its area of supply.
 - The Petitioner submitted that (Town administration – Electrical Dept.) TA-electrical has been conducting time bound raids under various initiatives to identify illegal connections and hookings in different areas. However, the teams deployed for such purposes have been seriously manhandled in a number of cases. Similarly,

the Police personnel accompanying the SAIL officers have also faced the brunt of the people consuming through illegal means.

- (c) The Petitioner further submitted that in a vigilance conducted in Bharra Basti, around 7000 illegal connections estimated to cause a revenue loss of around Rs 50,000 per day to SAIL- BSL, were disconnected which was one of the largest operations conducted so far.

5.22 The Petitioner submitted that it is striving hard to reduce distribution losses and has been timely introducing new initiatives to check the same, but on an overall basis the situation is largely uncontrollable due to legacy issues.

5.23 In view of the aforesaid reasons, the Petitioner requested the Commission to kindly relax the norms and approve the actual distribution losses for FY 2013-14 to FY 2015-16 as per the audited accounts. The Distribution loss levels for the Control period FY 2013-14 to FY 2015-16 as submitted by the Petitioner has been summarized below:

Table 22: Actual Distribution Loss as submitted by the Petitioner for the Control period

Particulars	FY 2013-14	FY 2014-15	FY 2015-16
Distribution Loss	52.50%	51.93%	42.43%

Commission's analysis

5.24 The Commission has scrutinized the information submitted by the Petitioner regarding distribution losses. The Petitioner in its reply to discrepancy note had submitted the breakup of distribution loss percentage as summarized below:

Table 23: Distribution Loss levels as submitted by the Petitioner for the Control period

Particulars	FY 2013-14	FY 2014-15	FY 2015-16
AT&C loss	15%	15%	15%
Loss due to Theft	37.49%	36.94%	27.43%
Distribution Loss	52.50%	51.93%	42.43%

5.25 The distribution losses reported by the Petitioner in the township are very high as compared to other licensees of comparable size and even bigger size. The following table details the sales and distribution losses of the Petitioner and some other utilities in the state of Jharkhand.

Table 24: Loss levels of similar distribution utilities in Jharkhand

Particulars	FY 2013-14		FY 2014-15		FY 2015-16	
	Sales (MU)	Distribution loss(%)	Sales (MU)	Distribution Loss (%)	Sales (MU)	Distribution Loss (%)
JUSCO	300	0.98%	384	0.86%	466	1.18%
TSL	2558	4.07%	2757	3.48%	2887	3.52%

5.26 As can be seen from the above table, other utilities with comparable sale and even higher 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.

5.27 As per Clause 5.23 of the JSERC Distribution Tariff Regulations, 2010, the Commission has defined a loss trajectory and the collection efficiency targets to be adhered by the licensee for the control period. The Commission approves the loss trajectory and the collection efficiency targets as per JSERC Distribution Tariff Regulations, 2010 as summarized below:

Table 25: Distribution Loss as approved by the Commission for the Control period

Particulars	FY 2013-14	FY 2014-15	FY 2015-16
Distribution Loss	13%	11%	10%

Energy Balance

Petitioner's submission

5.28 The Petitioner submitted that energy availability for FY 2013-14 to FY 2015-16 has been computed based on the actual power purchase and sales.

5.29 The Energy Balance as submitted by the Petitioner vis-à-vis as approved by the Commission in the earlier MYT Order dated September 03, 2014 for the FY 2013-14 to FY 2015-16 has been tabulated below:

Table 26: Energy Balance (in MU) as submitted by the Petitioner for the FY 2013-14 to FY 2015-16

Particulars	FY 2013-14		FY 2014-15		FY 2015-16	
	As Approved in the MYT Order	As submitted by the Petitioner	As Approved in the MYT Order	As submitted by the Petitioner	As Approved in the MYT Order	As submitted by the Petitioner
Energy Sales – Township	184.04	149.31	184.04	158.56	184.04	188.74

Particulars	FY 2013-14		FY 2014-15		FY 2015-16	
	As Approved in the MYT Order	As submitted by the Petitioner	As Approved in the MYT Order	As submitted by the Petitioner	As Approved in the MYT Order	As submitted by the Petitioner
Distribution Losses (%)	13.00%	52.49%	11.00%	51.94%	10.00%	42.43%
Distribution Losses	27.5	164.99	22.75	171.34	20.45	139.09
Total Energy Required for Township	211.54	314.3	206.78	329.9	204.49	327.83
Energy Sales – Plant	1107.1	779.12	1107.1	771.77	1107.1	454.91
Total Energy Required	1318.64	1093.42	1313.88	1101.67	1311.59	782.74

Commission's analysis

- 5.30 The Commission is of the view that since energy is supplied to the Steel Plant primarily at 220 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.
- 5.31 The Energy requirement as approved by the Commission for the FY 2013-14 to FY 2015-16 based on approved energy sales and distribution losses is summarized below:

Table 27: Energy Balance (in MU) as approved by the Commission for the FY 2013-14 to FY 2015-16

Particulars	FY 2013-14	FY 2014-15	FY 2015-16
Energy Sales – Township	149.31	158.56	188.74
Distribution Losses (%)	13.00%	11.00%	10.00%
Distribution Losses	22.31	19.60	20.97
Total Energy Required for Township	171.62	178.16	209.71
Energy Sales – Plant	779.12	771.77	454.91
Total Energy Required	950.74	949.93	664.62

Power Purchase Cost

Petitioner's submission

- 5.32 The Petitioner submitted that SAIL-BSL has been procuring power for distribution from DVC, whose generation and transmission tariff is determined by the Hon'ble CERC. The Petitioner further submitted that the township area of Petitioner is supplied with electricity purchased from Damodar Valley Corporation only and not the Captive Power Plant. Whenever the DVC supply goes off, the township is cut off totally. The power from the Captive Power Plant is used for emergency load of the Steel Plant only.

- 5.33 The Petitioner submitted that the cost of power purchase has been taken as to what is actually being paid to DVC for the power purchase. The power purchase cost as approved by the Commission and as incurred by the Petitioner during FY 2013-14 to FY 2015-16 has been tabulated below:

Table 28: Power purchase cost (in Rs Cr) * for the FY 2013-14 to FY 2015-16 as submitted by the Petitioner

Particulars	FY 2013-14		FY 2014-15		FY 2015-16	
	As Approved in the MYT Order	As submitted by the Petitioner	As Approved in the MYT Order	As submitted by the Petitioner	As Approved in the MYT Order	As submitted by the Petitioner
Total Power Purchase	1318.64	1093.42	1313.88	1101.67	1311.59	782.74
Per unit power purchase cost	4.08	3.48	4.08	4.23	4.08	4.57
Power Purchase Cost	538.47	380.19	536.52	466.36	535.59	357.88

* Revised in the reply to Discrepancy note (includes PP cost towards plant supply also)

Commission's analysis

- 5.34 The Commission vide its discrepancy note has directed the Petitioner to submit the power purchase bills for the FY 2013-14 to FY 2016-17. The Petitioner vide its reply has submitted the same to the Commission.
- 5.35 The Commission while scrutinizing the power purchase bills for the FY 2013-14 to FY 2015-16 found a mismatch in the power purchase rate as submitted by the Petitioner in its instant petition vis-à-vis the power purchase bills which has been communicated to the Petitioner vide discrepancy note. The mismatch in the power purchase rate (Rs/kWh) identified by the Commission has been tabulated below:

Table 29: Mismatch in submitted Power purchase rate (Rs/kWh) vis-a-vis power purchase bills

Particulars	FY 2013-14		FY 2014-15		FY 2015-16	
	As per Petitioner's submission*	As per PP bills	As per Petitioner's submission*	As per PP bills	As per Petitioner's submission*	As per PP bills
Units Sold (MU)	314.32	1093.44	329.89	1101.66	327.84	782.74
Power Purchase Cost (in Rs Cr)	109.29	446.12	139.66	476.72	149.89	367.51
Power Purchase Rate (Rs/kWh)	3.48	4.08	4.23	4.33	4.57	4.70

*only for township area

- 5.36 The Petitioner vide its reply submitted that per unit power purchase rate (Rs/kWh) has been claimed on actual basis for the township and submitted a detailed reconciliation statement as tabulated below:

Table 30: Reconciliation of Power purchase rate (Rs/kWh) as submitted by the Petitioner

	FY 2013-14			
<u>Reconciliation of units</u>	kWh	%	Rs. paid to DVC	Avg. rate (Rs/kWh)
Total Units of DVC used for Township	314316554		1092900000	3.48
Units accounted for by BSL:				
Used By BSL for Township facilities (Estimated by Township)	46783851	14.88	162670626	3.48
Units sold by BSL to employees/outside rs	102533550	32.62	356516115	3.48
AT & C Loss	47147483	15.00	163935000	3.48
Loss due to theft	117851670	37.49	409778259	3.48
Total	314316554		1092900000	
Deficit of power/revenue(due to theft/AT & C)	164999153	52.49	573713258	
	FY 2014-15			
<u>Reconciliation of units</u>	kWh	%	Rs. paid to DVC	Avg. rate (Rs/kWh)
Total Units of DVC used for Township	329887279		1396625516	4.23
Units accounted for by BSL:				
Used By BSL for Township facilities (Estimated by Township)	48169954	14.60	203934468	4.23
Units sold by BSL to employees/outside rs	110378625	33.46	467303876	4.23
AT & C Loss	49483091	15.00	209493824	4.23
Loss due to theft	121855609	36.94	515893348	4.23
Total	329887279		1396625516	
Deficit of power/revenue(due to theft/AT & C)	171338700	51.94	725387171	
	FY 2015-16			
<u>Reconciliation of units</u>	kWh	%	Rs. paid to DVC	Avg. rate (Rs/kWh)
Total Units of DVC used for Township	327835298		1498870640	4.57
Units accounted for by BSL:				
Used By BSL for Township facilities (Estimated by Township)	50169399	15.30	229375664	4.57
Units sold by BSL to employees/outside rs	138571977	42.27	633554315	4.57
AT & C Loss	49175295	15.00	224830597	4.57

Loss due to theft	89918627	27.43	411110063	4.57
	327835298		1498870640	
Total Loss	139093922	42.43	635940660	

5.37 After scrutinizing the submissions made by the Petitioner with respect to power purchase rate which involves power purchase cost for the township area only, the Commission finds it prudent to approve the power purchase rate (Rs/kWh) as per the power purchase bills as the power purchase cost for Plant Supply is also being considered by the Commission for the computation of final power purchase cost.

5.38 Accordingly, the power purchase cost as approved by the Commission for the FY 2013-14 to FY 2015-16 based on the energy required as approved has been tabulated below:

Table 31: Power purchase cost (in Rs Cr) as approved by the Commission for the MYT Period

Particulars	FY 2013-14	FY 2014-15	FY 2015-16
Total Power Purchase Units (MU)	950.74	949.93	664.62
Per unit power purchase cost (Rs/kWh)	4.08	4.33	4.70
Power Purchase Cost (Rs Cr)	387.90	411.06	312.05

Audited accounts for the Electricity Distribution Business

5.39 The Commission in its earlier Orders had repeatedly directed the Petitioner to maintain separate accounts for the Electricity Distribution Business. The relevant extracts of the Directives of the Commission has been reproduced below:

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

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.

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.”

5.40 However, the Petitioner at the time of filing the Petition has not submitted any accounts to the Commission. The Petitioner in the instant Petition submitted that the accounts will be submitted to the Commission subsequently. The relevant extracts of the Petition has been reproduced below:

“2.2 Data/Information for ARR

“The Petition contains the figures for truing-up of FY 2013-14 to FY 2015-16, based upon the audited/certified accounts which shall be submitted shortly to the Hon’ble Commission

.....”

“2.3 Allocation of Assets and Costs

“The licensee in compliance to the directives of the Hon’ble Commission has prepared accounts for its Electricity Business, being duly verified and audited by a Chartered Accountant. The copy of the accounts would be submitted shortly before the Hon’ble Commission for its pursuance

.....”

- 5.41 However, the Petitioner has not submitted any accounts to the Commission. As per Clause 5.2 and 5.3 of the JSERC Distribution Tariff Regulations, 2010.

*“5.2 The values for the Base Year of the Control Period shall be determined on the basis of the **latest audited accounts**, best estimate for the relevant year(s), and other factors considered relevant by the Commission;”* **[Emphasis Added]**

- 5.42 In line with the above, the Commission directed the Petitioner to submit audited financial accounts for the period FY 2013-14 to FY 2016-17. The Petitioner vide its reply has submitted the same. However, the Commission found that the audited accounts submitted by the Petitioner for the period FY 2013-14 to FY 2015-16 had only Balance sheet and P&L statement for the FY 2015-16 without detailed supporting Notes.
- 5.43 The Commission directed the Petitioner to re-submit the complete audited financial accounts with all Notes denoting detailed break-up under each head. The Petitioner vide its reply submitted that it has noticed that some of the supporting notes were left out in the enclosures and resubmitted the audited accounts for the Electricity Distribution business for the FY 2013-14 to FY 2015-16.
- 5.44 However, the Commission found that the accounts for the Electricity business is merely an extracted version of the Steel business as submitted by the Petitioner in its earlier submissions with the approach as detailed below:

The cost data for individual business is captured through the Financial Accounting System maintained on SAP platform and separate cost centers that have been created through which identification of directly allocable expenditures for electricity and steel business have been provided for. The same has been detailed hereunder for each of the component of the Financial Statements:

Balance Sheet Items:

- a) Loan Funds: This is the balancing figure in the balance sheet.
- b) Fixed Assets: The figures appearing here only pertain to TA-Electrical. Any additions during the year, directly identifiable, have been, considered in the accounts.
- c) Sundry debtors: Taken from Separate GL code as exists for electricity revenue recoverable in BSL.
- d) Current liabilities: Taken on the basis of vendor liability existing under various POs (identified by TS-Electrical) for supply of stores, spares and repair & maintenance.
- e) Provisions:
 - A. Provisions related to employees have been calculated in the ratio of Employee remuneration of electricity business versus total employee remuneration of BSL during the year.
 - B. Provisions in respect of debtors is based on proportion of total debtors of Township revenue (excluding employee) versus total provisions for township revenue (excluding employee) for the same in BSL books.
- f) Equity has been identified on the basis of 70.30 D/E ratio (guidelines by JSERC) of funds provided by BSL in FY-2008-09 (1st electricity Accounts by BSL) and considered to have been maintained at the balance sheet date. And the remaining figure of funds provided by BSL is considered as Debt.
- g) Figures have been regrouped & rearranged wherever considered necessary

Profit & Loss Account Items:

- a) Income from distribution of electricity: This constitutes of bills raised in electricity business as per audited accounts, unbilled units consumed by BSL itself for Township purposes.
- b) Employee Remuneration & Benefits: This has been taken from the cost center of TE-Electrical & allocated in the case of DNW & ETL on the basis on total power received by DNW from BPSCL & DVC and transferred to TE.
- c) Stores & spares consumed: The expenditure has been considered on the basis of purchase orders identified by TS-Electrical & allocated in the case of DNW & ETL on the basis on total power received by DNW from BPSCL & DVC and transferred to TE.

- d) Power & Fuel: This consists of expenditure of DVC plus electricity duty paid.
- e) Repair & Maintenance: The expenditure has been considered on the basis of purchase orders identified by TS-Electrical & allocated in the case of DNW & ETL on the basis on total power received by DNW from BPSCL & DVC and transferred to TE.
- f) Other Expenses: This has been calculated after considering total expenses on this account for TA-Electrical & allocated in the case of DNW & ETL on the basis of total power received by DNW from BPSCL & DVC and transferred to TE.
- g) Deficit of Corporate Office/CMO/CCSO: This has been calculated based on the ratio of Income from Electricity business vis-à-vis Sales of Bokaro Steel Plant.
- h) Interest & finance charges: Total interest & finance charges of BSL have been allocated in ratio of Income from Electricity business vis-à-vis Sales of Bokaro Steel Plant.
- i) Depreciation: Assets earmarked by TA-Electrical for electricity distribution has only been considered & allocated in the case of DNW & ETL on the basis on total power received by DNW from BPSCL & DVC and transferred to TE.
- j) Figures have been regrouped & rearranged wherever considered necessary

5.45 The Commission in its earlier Order dated September 03, 2014 had not conducted the True-up for FY 2011-12 & APR for the FY 2012-13 due to the lack of separate audited accounts of the Petitioner along with other relevant information. The relevant extracts of the Order dated September 03, 2014 has been reproduced below:

“1.16 The Commission in its previous order dated August 3, 2012 directed the Petitioner to segregate the accounts of the Distribution business from the Steel Plant. The same has not been achieved by the Petitioner till date. The accounts submitted by the Petitioner are merely extracted from the accounts of the steel plant on the basis of certain norms and assumptions. The accounts are also not certified by the statutory auditor of the company.”

“1.17 In order to assess the actual expenses of the Petitioner, the Commission directed it to submit the following additional information for prudence check:

.....

“

“1.18 However, the Petitioner has not submitted such details in spite of repeated reminders by the Commission. Hence the Commission in such a situation does not find it prudent to conduct true up for FY 2011-12 and annual performance review of FY 2012-13 and hereby directs the Petitioner to submit the true up of FY 2011-12 and FY 2012-13 along with the necessary additional information as mentioned in para 1.16 above.”

- 5.46 The Petitioner now has submitted similar accounts for the Electricity Distribution Business extracted from the Steel business of the Petitioner certified by a Statutory Auditor. The Statutory Auditor in its report has raised the similar comments as reproduced below:

“3. Annual accounts pertaining to electricity distribution business have been extracted from the main audited books of accounts of SAIL-Bokaro steel plant for the financial year FY 2013-14. Further no separate books of accounts are being maintained for its electricity distribution business and financial statement i.e balance sheet and profit & loss account of electricity distribution business has been prepared on the basis of such accounting policies and assumptions as annexed to these financial statements.”

....

“5. The directives given by the Jharkhand state electricity regulatory commission has not been complied in totality However in our opinion and to the best of our information and according to the explanations given to us, the said accounts give a true and fair view in conformity with the accounting principles generally accepted in India.”

- 5.47 The Auditor has made similar comments for the remaining years i.e. FY 2014-15 & FY 2015-16. In view of the same, the Commission afforded one final opportunity to the Petitioner to submit segregated accounts for the Electricity Distribution business of SAIL-BSL. The same has been communicated to the Petitioner vide discrepancy note.
- 5.48 The Petitioner vide its reply submitted that the audited accounts for the FY 2013-14 to FY 2015-16 has already been submitted by the Petitioner to the Commission. The Petitioner further has cited CSERC Tariff Order 27.12.2017 in Petition No. 9/2017 (T) in respect of trueing up of BSP (TEED) for the period from FY 2013-14 to FY 2015-16 and determination of Aggregate Revenue Requirement (ARR) for the Control Period from FY 2016-17 to FY 2020-21 wherein the Commission had accepted the audited accounts as submitted by the Petitioner and opined that segregated Audited Accounts provide by BSP-TEED reflects the true and fair view of its electricity Distribution Business.

5.49 Whereas looking to the inherent deficiencies in the petition and want of supporting material on record, the Commission finds itself at the cross-road to strike balance. The one and the straight option is to reject the petition on the ground of want of segregated accounts for the Electricity Distribution business of SAIL-BSL. But it may have a serious consequences of further worsening the already deteriorating financial health of the petitioner on the one hand and on the other the accumulated effect of financial burden, which may be assessed later on and shifted on to the consumers, may cause heavy tariff shock and severe consequences.

5.50 The Commission after detailed discussion and deliberation has worked out a modality to arrive at a conclusion to consider the audited accounts as submitted by the Petitioner for conducting the True-up for the FY 2013-14 to FY 2015-16.

5.51 However, as per Section 51 of the Indian Electricity Act 2003,

“Section 51 (Other businesses of distribution licensees)

“

Provided further that the distribution licensee shall maintain separate accounts for each such business undertaking to ensure that distribution business neither subsidises in any way such business undertaking nor encumbers its distribution assets in any way to support such business.

..... ”

The Commission re-directs the Petitioner to maintain separate accounts for its electricity distribution business failure of which may attract penalty.

Capital Expenditure and Capitalization

Petitioner’s submission

5.52 The Petitioner submitted that the figures of GFA have been derived from the audited accounts of the Electricity Distribution Business of SAIL-BSL.

5.53 The Petitioner further submitted that the purchase orders of various items have been identified for the Distribution business through the data maintained on SAP platform under different cost centres and the figures so considered pertains only to TA-Electrical and any additions during the year, directly identifiable, have been considered in the accounts

5.54 The GFA schedule as approved by the Commission in its earlier MYT Order dated September 03, 2014 vis-à-vis as submitted by the Petitioner now for the FY 2013-14 to FY 2015-16 has been tabulated below:

Table 32: GFA (in Rs Cr) for the FY 2013-14 to FY 2015-16 as submitted by the Petitioner

Particulars	FY 2013-14		FY 2014-15		FY 2015-16	
	As Approved in the MYT Order	As submitted by the Petitioner	As Approved in the MYT Order	As submitted by the Petitioner	As Approved in the MYT Order	As submitted by the Petitioner
Opening GFA	11.46	9.20	19.79	15.27	28.12	16.11
Additions to GFA	8.33	6.07	8.33	0.85	8.33	2.46
Closing GFA	19.79	15.27	28.12	16.11	36.45	18.58

Commission's analysis

- 5.55 The Commission while scrutinizing the Audited accounts for the Electricity distribution business of SAIL-BSL (submitted by the Petitioner vide its reply to discrepancy note) found that the additions to GFA as submitted by the Petitioner vide its discrepancy note does not reconcile with the audited accounts as submitted by the Petitioner. The Commission directed the Petitioner to reconcile and resubmit the same vide its discrepancy note.
- 5.56 The Petitioner vide its reply submitted scheme wise/asset wise additional capitalization undertaken for the FY 2013-14 to FY 2015-16 duly reconciled with audited accounts for the electricity distribution business as summarized below:

S.No	Asset Description	Amount in Rs Cr
FY 2013-14		
1	Lt Indoor Panel Board ,415v,3ph,4wire	0.37
2	Lt Indoor Panel Board ,415v,3ph,4wire	0.16
3	Mtr,Sc,415v,A355m,1475rpm,315kw	0.10
4	Transformer,Power,3ph,11kv,0.433kv	0.47
5	Complete Rewinding Of Transformers (500,250)	0.13
6	Complete Rewinding Of Transformers (500,250)	0.31
7	Rep/Maintenance Of Arterial Lights	0.71
8	Comp Rewinding Of Diff Capacity T/F	0.59
9	Complete Rewinding Of Diff Cap. Distribution .T/F	0.47
10	Rep/Maintenance Of Arterial Lights	0.55
11	Rep.Ord.Of Compl. Rewinding Of Diff T/Fs.	0.13
12	Alternate Power Supply System For Admin	0.28
13	Computer For Township Electrical Maintenance	0.01
14	UPS For Township Electrical Maintenance	0.00
15	Computer	0.00
16	UPS	0.00
17	Provision. Of 04 Nos 20 mt High Mast Tower Light In	0.17
18	Installation Of 7 Nos. Of 20 Meter High Mast	0.29
19	Railway Line 52kg Used As Electric Pole In TA Dept.	0.00

S.No	Asset Description	Amount in Rs Cr
20	Perimeter Security System	1.30
21	UPS 0.5kva.	0.00
22	Business Pc Model	0.00
23	Laser Printer & Accessories	0.00
24	Battery, Cvt, Mdf, Installation& Comm, Earth Pit	0.01
25	Digital Multimeter	0.00
26	Fountain Light	0.00
27	Inverters	0.01
28	U.P.S	0.00
29	Batteries	0.01
	Total for FY 2013-14	6.06
FY 2014-15		
1	Mtr,Sc,415vac,D100lb,700rpm,1.1kw	0.0025
2	Mtr,Sc,415vac,D310,1486rpm,200kw	0.07
3	Trfr,Power,3ph,11kv,0.433kv	0.47
4	Comp.Rewdg. Of Transformers	0.02
5	Repair Of Distribution Transformer	0.28
6	Computer	0.0042
7	UPS	0.0003
	Total for FY 2014-15	0.85
FY 2015-16		
1	Mtr,Sc,415vac,D100lb,700rpm,1.1kw	0.003
2	Lt Outdoor Panel Board,415v,3ph,4wire	0.24
3	Trfr,Power,3ph,11kv,0.433kv(Ins Spares)	0.45
4	Repair Of Distribution Transformer	0.10
5	Repair /Maintenance Of Arterial Lights	0.86
6	Comp.Rewdg. Of Transformers	0.01
7	Repair /Maintenance Of Arterial Lights	0.55
8	Comp.Rewdg. Of Transformers	0.01
9	Trfr,Power,3ph,11kv,0.433kv(Ins Spares)	0.23
	Total for FY 2015-16	2.46

- 5.57 The Commission, after scrutinizing the data submitted by the Petitioner approves the GFA for the FY 2013-14 to FY 2015-16 as per the annual accounts of the Electricity distribution business of SAIL-BSL as tabulated below:

Table 33: GFA (in Rs Cr) as approved by the Commission for the FY 2013-14 to FY 2015-16

Particulars	FY 2013-14	FY 2014-15	FY 2015-16
Opening GFA	9.20	15.26	16.11
Additions to GFA	6.06	0.85	2.46
Closing GFA	15.26	16.11	18.57

Consumer Contribution, Grants and Subsidies

Petitioner's submission

- 5.58 The Petitioner has not submitted any details regarding consumer contribution, grants and subsidies.

Commission's analysis

- 5.59 The Commission vide its discrepancy note directed the Petitioner to submit scheme wise details of funds received in terms of grants, consumer contribution, subsidies etc.
- 5.60 The Petitioner vide its reply submitted that there are no consumer contributions/grants towards GFA creation and accordingly the same has not been considered for computation of GFA and depreciation thereon.
- 5.61 Accordingly, the Commission has not considered any impact of consumer contribution, grants and subsidies towards GFA.

Operation & Maintenance Expenses

Petitioner's submission

- 5.62 The Petitioner submitted that the O&M expenses have been calculated by considering the actual O&M expenses incurred by TA-Electrical department and the O&M expense incurred by DNW and ETL based on the ratio of energy transferred to the TA-Electrical to the total energy received (distribution capacity ratio).
- 5.63 The O&M expenses as approved by the Commission in the earlier MYT Order dated September 03, 2014 vis-à-vis as submitted by the Petitioner now for the FY 2013-14 to FY 2015-16.

Table 34: O&M expenses (in Rs Cr) as submitted by the Petitioner

Particulars	FY 2013-14		FY 2014-15		FY 2015-16	
	As Approved in the MYT Order	As submitted by the Petitioner	As Approved in the MYT Order	As submitted by the Petitioner	As Approved in the MYT Order	As submitted by the Petitioner
Employee Expenses	8.78	9.87	9.46	10.71	10.2	11.33
R & M Expenses	2.92	4.42	2.92	3.07	2.92	3.52
A & G Expenses	0.48	1.61	0.52	1.68	0.56	2.26
Total O&M expenses	12.19	15.90	12.90	15.46	13.68	17.11

Commission's analysis

- 5.64 The Petitioner, as detailed in para 5.62, submitted that the O&M expenses have been calculated by considering the actual O&M expenses incurred by TA-Electrical department and the O&M expense incurred by DNW and ETL based on the distribution capacity ratio.
- 5.65 The Commission vide its discrepancy note had directed the Petitioner to submit segregated details of the O&M expenses (Employee, A&G, R&M expenses) as reflective in the audited accounts into TA-Electrical, DNW & ETL business for the FY 2013-14 to FY 2015-16.
- 5.66 The Petitioner vide its reply submitted that the allocation of expenses of DNW & ETL have been done based on the energy transferred to the township against the total energy handled by the Petitioner. The overall expenses pertaining to DNW and ETL, total energy received by the Petitioner, and the allocation of expenses on the basis of proportion of energy transferred to the township as submitted by the Petitioner are summarized below:

Table 35: Expenses for DNW & ETL (in Rs Cr)

Particulars	FY 2013-14	FY 2014-15	FY 2015-16
Employees Remuneration & Benefits	7.24	7.95	8.09
Stores & Spares Consumed	3.22	6.41	6.90
Power & Fuel	0	0	0
Repairs & Maintenance	0.02	0.05	0.19
Freight outward	0	0	0
Other expenses	0.20	0.16	0.15
Depreciation	0.10	0.26	0.45

Table 36: Details of Energy (kWh)

Particulars	FY 2013-14	FY 2014-15	FY 2015-16
Power received from BPSCL (Captive generation)	1200501072	1190563813	1396211641
Power received from DVC	1093437679	1101657390	782743480
Power transferred to Township	314316554	329887279	327835298
Percentage (%)	13.70%	14.39%	15.05%

Table 37: Total Expenditure of DNW & ETL (in Rs Cr) wings allocated to Electricity Distribution business

Particulars	FY 2013-14	FY 2014-15	FY 2015-16
Employees Remuneration & Benefits	0.99	1.14	1.22
Stores & Spares Consumed	0.44	0.92	1.04
Power & Fuel	0.00	0.00	0.00
Repairs & Maintenance	0.00	0.01	0.03
Freight outward	0.00	0.00	0.00
Other expenses	0.03	0.02	0.02
Depreciation	0.01	0.04	0.07

- 5.67 The Commission in its earlier Order dated September 03, 2014 approved the Employee expenses, A&G expenses for the MYT period provisionally by escalating the A&G cost and the employee costs approved in the previous MYT order dated August 3, 2012 for FY 2012-13 by the weighted average inflation factor i.e. 7.75% p.a. (weighted average of WPI & CPI for past 5 years in the ratio of 80:20, respectively).
- 5.68 Further, the Commission in its earlier Orders had 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. However, the Commission had not found the details submitted by the Petitioner to be prudent and reliable.
- 5.69 The R&M expenses for the MYT period were approved at the same level as approved in the earlier Order dated August 03, 2012.
- 5.70 The Commission in its earlier Order dated August 3, 2012 had rejected the rationale submitted by the Petitioner for the inclusion of Employee expenses, R&M expenses, A&G expenses pertaining to DNW and ETL on a normative basis (8% of the employee expenses incurred by DNW and 10% of the employee expenses incurred by ETL) and approved only expenses pertaining to TA-Electrical department only. The relevant extracts of the Order has been reproduced below:

“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.”

“5.74 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.”

“5.80 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.”

- 5.71 The Petitioner has now submitted audited accounts for electricity distribution business of SAIL-BSL and submitted that the expenses for DNW & ETL wing has been apportioned based on the energy transferred to the township against the total energy handled by the Petitioner.
- 5.72 The Commission now approves the O&M expenses as per the audited accounts for the FY 2013-14 to FY 2015-16 for the Electricity Distribution business of SAIL-BSL. However, the Commission directs the Petitioner to devise a proper methodology for the inclusion of expenses pertaining to DNW & ETL wings, taking into account the actual no of employees, salaries paid etc. The O&M expenses as approved by the Commission for the MYT period has been tabulated below:

Table 38: O&M expenses (in Rs Cr) as approved by the Commission

Particulars	FY 2013-14	FY 2014-15	FY 2015-16
Employee Expenses	9.87	10.71	11.33
R & M Expenses	4.42	3.07	3.52
A & G Expenses	1.61	1.68	2.26
Total O&M expenses	15.90	15.46	17.11

Depreciation

Petitioner's submission

- 5.73 The Petitioner submitted that the depreciation has been computed as per JSERC Distribution Tariff Regulations, 2010 (applicable for FY 2013-14 to FY 2015-16) which specify that the depreciation shall be calculated annually as per the Straight Line Method (SLM) at the rates of depreciation prescribed in the Regulations.
- 5.74 The Depreciation as approved by the commission in its earlier tariff Order dated September 03, 2014 vis-à-vis as submitted by the Petitioner has been tabulated below:

Table 39: Computation of Depreciation* as per Petitioner's submission (Rs Cr.)

Particulars	FY 2013-14		FY 2014-15		FY 2015-16	
	As Approved in the MYT Order	As submitted by the Petitioner	As Approved in the MYT Order	As submitted by the Petitioner	As Approved in the MYT Order	As submitted by the Petitioner
Opening Gross Block	11.46	9.20	19.79	15.27	28.12	16.11
Additional Capitalization	8.33	6.07	8.33	0.85	8.33	2.46
Closing Gross Block	19.79	15.27	28.12	16.11	36.45	18.58
Average Gross Block	15.63	12.23	23.96	15.69	32.29	17.35
Depreciation	0.15	0.51	0.23	0.64	0.31	0.86

**revised submission by the Petitioner*

Commission's analysis

5.75 According to JSERC Distribution Regulations 2010,

“Depreciation

6.30 Depreciation shall be calculated every year, on the amount of original cost of the fixed assets as admitted by the Commission;

Provided that depreciation shall not be allowed on assets funded by consumer contribution and capital subsidies/grants. Provision for replacement of such assets shall be made in the capital investment plan;

6.31 Depreciation for each year shall be determined based on the methodology as specified in these Regulations along with the rates and other terms specified in Appendix I of these Regulations;

6.32 Depreciation shall be calculated annually, based on the straight line method, over the useful life of the asset. The base value for the purpose of depreciation shall be original cost of the asset;

6.33 Depreciation shall be charged from the first year of operation of the asset. In case, the operation of the asset is for a part of the year, depreciation shall be charged on a pro rate basis;

6.34 The residual value of assets shall be considered as 10% and depreciation shall be allowed to a maximum of 90% of the original cost of the asset. Land is not a depreciable asset and its cost shall be excluded while computing 90% of the original cost of the asset;

6.35 On repayment of entire loan, the remaining depreciable value shall be spread over the balance useful life of the asset.”

- 5.76 The Commission vide its discrepancy note has directed the Petitioner to submit detailed computation of depreciation for the FY 2013-14 to FY 2015-16. The Petitioner vide its reply submitted the same.
- 5.77 The Commission after scrutinizing the submissions made by the Petitioner approved the depreciation as tabulated below:

Table 40: Depreciation as approved by the Commission (in Rs Cr)

Particulars	FY 2013-14	FY 2014-15	FY 2015-16
Depreciation	0.44	0.71	0.90

Interest and finance charges

Petitioner's submission

- 5.78 The Petitioner submitted that all the investments are been made in the electricity business from the funds received from SAIL- BSL and normative Debt-Equity ratio of 70:30 has been considered for the purpose of tariff computations.
- 5.79 The Interest and finance charges as as submitted by the Petitioner vis-à-vis as approved by the Commission in its earlier Order dated September 03, 2014 has been tabulated below:

Table 41: Interest & finance charges* (in Rs Cr) as submitted by the Petitioner

Particulars	FY 2013-14		FY 2014-15		FY 2015-16	
	As Approved in the MYT Order	As submitted by the Petitioner	As Approved in the MYT Order	As submitted by the Petitioner	As Approved in the MYT Order	As submitted by the Petitioner
Net Loan-Opening	2.54	2.54	8.23	6.28	13.83	6.23
Additions	5.83	4.25	5.83	0.59	5.83	1.73
Repayment during the year	0.15	0.51	0.23	0.64	0.31	0.86
Net Loan-Closing	8.23	6.28	13.83	6.23	19.36	7.1
Average Loan	5.39	4.41	11.03	6.25	16.6	6.66
Weighted Average Rate of Interest on Loan (%)	14.45%	14.45%	14.75%	14.75%	14.75%	14.05%
Interest on Loan	0.78	0.64	1.63	0.92	2.45	0.94

**revised submission by the Petitioner*

Commission's analysis

- 5.80 The Petitioner has submitted that all the investments have been made in the electricity distribution business by SAIL-BSL. The Commission in line with regulation 6.19 (a) & 6.19 (b) of the JSERC Distribution Tariff Regulations, 2010, has considered the debt-equity ratio to the tune of 70:30 for the capital capitalization done during the year.
- 5.81 Further, the Commission vide its discrepancy note had directed the Petitioner to submit the basis for the consideration of opening value of normative debt for the FY 2013-14. The Petitioner vide its reply submitted that the opening value of normative debt has been considered as per the principles adopted in JSERC Distribution Tariff Regulations, 2010. However, the Petitioner has not submitted any detailed computation on how such value of normative debt has been arrived.
- 5.82 Also, the Commission in its earlier Order dated September 03, 2014 had considered the opening value of debt to be the closing value of normative debt for the FY 2012-13 as approved provisionally in the Order dated August 03, 2012. In view of the aforesaid reasons the Commission provisionally considers the opening value of normative debt to be the same as the value submitted by the Petitioner vide its reply to discrepancy note.
- 5.83 The repayment for the year of the debt has been considered as deemed to be equal to the depreciation allowed for that year. Further, the rate of interest has been considered at the SBI PLR as applicable on April 1, of each year as per JSERC Distribution Tariff Regulations, 2010.
- 5.84 The interest on normative loan as approved by the Commission for the FY 2013-14 to FY 2015-16 is summarized in the following table:

Table 42: Interest on Normative Loan (in Rs Cr) as approved by the Commission

Particulars	FY 2013-14	FY 2014-15	FY 2015-16
Net Loan-Opening	2.54	6.55	6.63
Additions	4.24	0.59	1.73
Repayment during the year	0.44	0.71	0.90
Net Loan-Closing	6.34	6.23	7.06
Average Loan	4.44	6.28	6.64
Weighted Average Rate of Interest on Loan (%)	14.45%	14.75%	14.75%
Interest on Loan	0.64	0.93	0.98

Interest on Working Capital*Petitioner's submission*

- 5.85 The Petitioner submitted that it has computed the Interest on working capital as per JSERC Distribution Tariff Regulations, 2010. The Interest on working capital as submitted by the Petitioner has been tabulated below:

Table 43: Interest on working capital* (in Rs Cr) as submitted by the Petitioner

Particulars	FY 2013-14		FY 2014-15		FY 2015-16	
	As Approved in the MYT Order	As submitted by the Petitioner	As Approved in the MYT Order	As submitted by the Petitioner	As Approved in the MYT Order	As submitted by the Petitioner
O&M expenses for 1 month	1.02	1.32	1.08	1.29	1.14	1.43
Maintenance spares: 1% of opening GFA	0.11	0.09	0.2	0.15	0.28	0.16
2 Months Revenue	100.99	68.39	100.99	71.46	100.99	47.47
Less: 1 month of power purchase cost	44.87	9.11	44.71	11.64	44.63	12.49
Total Working capital	57.25	60.70	57.56	61.26	57.78	36.57
S.B.I PLR	14.45%	14.45%	14.75%	14.75%	14.75%	14.75%
Interest on working capital	8.27	8.77	8.49	9.04	8.52	5.39

*revised submission by the Petitioner

Commission's analysis

5.86 The Commission has considered the interest on working capital as per the norms specified in the JSERC MYT Regulations 2010.

5.87 As per JSERC MYT Regulations 2010, the working capital requirements are to be determined as per the following norms:-

- a) Operation & Maintenance expenses for one month; plus
- b) Maintenance spares @ 1% of opening GFA; plus
- c) Receivables equivalent to expected revenue of two months; minus
- d) Amount held as security deposit; minus
- a) One month equivalent of cost of power purchased, based on the annual power procurement plan

5.88 Rate of interest on working capital has been considered to be equal to the Prime Lending rate of SBI as applicable on the 1st April of the financial year as per Regulation 6.29 of the JSERC MYT Regulations 2010.

5.89 The interest on working capital as computed by the Commission for the FY 2013-14 to FY 2015-16 is summarized in the following table:

Table 44: Interest on Working Capital (in Rs Cr) as approved by the Commission

Particulars	FY 2013-14	FY 2014-15	FY 2015-16
O&M expenses for 1 month	1.33	1.29	1.43
Maintenance spares: 1% of opening GFA	0.09	0.15	0.16
2 Months Revenue	68.85	71.93	48.47

Particulars	FY 2013-14	FY 2014-15	FY 2015-16
Less: 1 month of power purchase cost	32.33	34.25	26.00
Total Working capital	37.94	39.12	24.05
S.B.I PLR	14.45%	14.75%	14.75%
Interest on working capital	5.48	5.77	3.55

Return on Equity

Petitioner's submission

5.90 The Petitioner, in order to estimate the equity for the year, has considered normative equity by assuming the equity to be 30% of the funds provided by SAIL- BSL for the electricity distribution business. The Rate of return on equity has been considered at 15.50% as per JSERC Distribution Tariff Regulations, 2010.

5.91 The Return on Equity as approved by the Commission in its earlier Order dated September 03, 2014 vis-à-vis as submitted by the Petitioner now for the FY 2013-14 to FY 2015-16 has been summarized below:

Table 45: Return on Equity (in Rs Cr) as submitted by the Petitioner

Particulars	FY 2013-14		FY 2014-15		FY 2015-16	
	As Approved in the MYT Order	As submitted by the Petitioner	As Approved in the MYT Order	As submitted by the Petitioner	As Approved in the MYT Order	As submitted by the Petitioner
Opening Equity	3.15	2.76	5.65	4.58	8.15	4.83
Additions	2.5	1.82	2.5	0.25	2.5	0.74
Closing equity	5.65	4.58	8.15	4.83	10.65	5.57
Average Equity	4.4	3.67	6.9	4.71	9.4	5.2
Rate of Return	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%
Return on Equity	0.68	0.57	1.07	0.73	1.46	0.81

Commission's analysis

5.92 The Commission has approved the Return on Equity as per the Regulations specified in the JSERC Distribution Tariff Regulations, 2010:

6.21 For the Control period under MYT framework, the rate of return on equity shall be 15.5% (post tax) for the period of these regulations;

Provided that in case of projects commissioned on or after 1st April, 2013 the rate of return shall be increased by 0.50%, if such projects are completed within the time line specified in the capital investment plan approved by the Commission;

6.18 Return on equity shall be allowed on equity employed in assets in use considering the following:

a) Equity employed in accordance with clause 6.18-6.19 of these Regulations on assets (in use) commissioned as on the beginning of the year; and

b) Average equity projected to be employed in accordance with clause 6.19 of these Regulations on assets (in use) commissioned during the year;

6.23 Return on equity invested in work in progress shall be allowed from the date of commercial operation of the assets;

5.93 The Commission has considered the opening balance of normative equity for the FY 2013-14 to be 30% of the value of the GFA of the opening for the FY 2013-14 as per the audited accounts as approved in the True up Order for FY 2015-16. Further, additions to equity every year has been computed at 30% of the capitalization for the year as per JSERC Distribution Tariff Regulations 2010.

5.94 The rate of return on equity is considered to be 15.50%. Accordingly, the Commission computed normative return on equity as follows:

Table 46: Return on Equity (in Rs Cr) as approved by the Commission

Particulars	FY 2013-14	FY 2014-15	FY 2015-16
Opening Equity	2.76	4.58	4.83
Additions to Equity	1.82	0.25	0.74
Closing equity	4.58	4.83	5.57
Average Equity	3.67	4.71	5.20
Rate of Return	15.50%	15.50%	15.50%
Return on Equity	0.57	0.73	0.81

Summary of ARR for the FY 2013-14 to FY 2015-16

Petitioner's submission

5.95 The following table contains a summary of ARR for FY 2013-14 to FY 2015-16 as submitted by the Petitioner:

Table 47: ARR* (in Rs Cr) as submitted by the Petitioner

Particulars	FY 2013-14		FY 2014-15		FY 2015-16	
	As Approved in the MYT Order	As submitted by the Petitioner	As Approved in the MYT Order	As submitted by the Petitioner	As Approved in the MYT Order	As submitted by the Petitioner
Power Purchase Cost	538.47	380.19	536.52	466.36	535.59	357.88

Particulars	FY 2013-14		FY 2014-15		FY 2015-16	
	As Approved in the MYT Order	As submitted by the Petitioner	As Approved in the MYT Order	As submitted by the Petitioner	As Approved in the MYT Order	As submitted by the Petitioner
Employee Expenses	8.78	9.87	9.46	10.71	10.2	11.33
R&M Expenses	2.92	4.42	2.92	3.07	2.92	3.52
A&G Expenses	0.48	1.61	0.52	1.68	0.56	2.26
Depreciation	0.15	0.51	0.23	0.64	0.31	0.86
Interest on Loan	0.78	0.64	1.63	0.92	2.45	0.94
Return on Equity	0.68	0.57	1.07	0.73	1.46	0.81
Interest on Working Capital	8.27	8.77	8.49	9.04	8.52	5.39
Annual Revenue Requirement	560.53	406.58	560.84	493.15	562	382.97

**revised submission by the Petitioner*

Commission's analysis

5.96 The following table summarizes the ARR for the FY 2013-14 to FY 2015-16 as approved by the Commission.

Table 48: ARR (in Rs Cr) as approved by the Commission for the FY 2013-14 to FY 2015-16

Particulars	FY 2013-14	FY 2014-15	FY 2015-16
Power Purchase Cost	387.90	411.06	312.05
Employee Expenses	9.87	10.71	11.33
R&M Expenses	4.42	3.07	3.52
A&G Expenses	1.61	1.68	2.26
Depreciation	0.44	0.71	0.90
Interest on Loan	0.64	0.93	0.98
Return on Equity	0.57	0.73	0.81
Interest on Working Capital	5.48	5.77	3.55
Annual Revenue Requirement	410.94	434.65	335.39

Revenue from the Sale of Power

Petitioner's submission

5.97 The Petitioner submitted that it had estimated the revenue from sale of power based on the approved sales to different categories within the township, the no. of consumers and the connected load for various categories of consumers.

- 5.98 The Petitioner further submitted that the revenue from consumption within the Steel Plant had been considered by the Commission in its earlier Orders considering the Steel Plant as a 132 kV HTS consumer of the Petitioner. However, the consumption of power by the Steel Plant is accounted for at the power purchase rate and not at the applicable tariff of 132 kV HTS consumers.
- 5.99 The Petitioner requested the Commission to consider it as entirely the self-consumption of the Petitioner as the Petitioner doesn't bill the consumption by Steel Plant at HT tariff and submitted that treating such consumption as sale at HTS tariff will not be the true reflection of the revenue accrued to the Petitioner and will only inflate the same.
- 5.100 Accordingly, the Petitioner has only considered the revenue from sale of power in township corresponding to the distribution business, at the existing tariff in the instant Petitioner as summarized below. However, in its reply to discrepancy note, as directed by the Commission, the Petitioner submitted the revenue from the sale of power to steel plant treating it as a consumer as tabulated below:

Table 49: Revenue from the sale of power (in Rs Cr)* as submitted by the Petitioner

Particulars	FY 2013-14	FY 2014-15	FY 2015-16
DS-II	8.06	24.06	19.28
DS-II (>200 units)	0.84	2.91	8.05
DS-III	0.22	0.19	0.11
DS-HT	1.66	1.61	1.98
LTIS	0.33	0.31	0.40
NDS	9.36	8.41	10.74
HTS-11 kV	3.54	4.30	5.24
HT/LT Utilities	16.27	20.39	22.94
Steel Plant	370.08	366.59	216.08
Total Revenue	410.35	428.76	284.82

**revised submission by the Petitioner*

Commission's analysis

- 5.101 The Commission as explained in Para 5.6 of this Order in line with the methodology adopted in earlier Orders has considered steel plant to be consumer of the Distribution business of SAIL-BSL.
- 5.102 The Commission has considered the revenue from the Township area as per the audited accounts of the electricity distribution business of SAIL-BSL. Further, the steel plant is considered to be connected at 132 kV voltage level with a connected load of 45 MVA as per the submissions made by the Petitioner in its reply to discrepancy note.

- 5.103 The Revenue from the steel plant has been computed at the existing tariff for HTS @ 132kV as approved by the Commission in its earlier Order dated August 03, 2012 & September 03, 2014. Further, the voltage rebate and power factor rebate has been considered at 5% and 2% of both demand and energy charges as per the aforementioned tariff Orders. Accordingly, the revenue from the steel plant as approved by the steel plant has been tabulated below:

Table 50: Revenue from Steel plant (in Rs Cr) as approved by the Commission

Particulars	FY 2013-14	FY 2014-15	FY 2015-16
Steel plant sales (MU)	779.12	771.77	454.91
Steel plant Load (MVA) @ 132 kV	45	45	45
Applicable Fixed Charges (Rs/KVA/Month)	210	210	210
Applicable Energy Charges (Rs/kWh)	5.00	5.00	5.00
Revenue from fixed charges (in Rs Cr)	11.34	11.34	11.34
Revenue from Energy charges (in Rs Cr)	389.56	385.89	227.46
Total Revenue (Rs Cr)	400.9	397.225	238.795
Voltage Rebate - 5% on both demand and energy charges for 132 KV	20.05	19.86	11.94
Power factor rebate - 2% on both demand and energy charges	8.02	7.94	4.78
Net Revenue from Plant (in Rs Cr)	372.84	369.42	222.08
Revenue from the Township			
DS-II	8.06	24.06	19.28
DS-II (>200 units)	0.84	2.91	8.05
DS-III	0.22	0.19	0.11
DS-HT	1.66	1.61	1.98
LTIS	0.33	0.31	0.40
NDS	9.36	8.41	10.74
HTS-11 kV	3.54	4.30	5.24
HT/LT Utilities	16.27	20.39	22.94
Total Revenue (Township + Plant)	413.12	431.60	290.82

Revenue (Surplus)/Gap

Petitioner's submission

- 5.104 The Revenue (Surplus)/Gap as submitted by the Petitioner for the FY 2013-14 to FY 2015-16 has been tabulated below:

Table 51: Revenue Gap (in Rs Cr)* as submitted by the Petitioner

Particulars	FY 2013-14		FY 2014-15		FY 2015-16	
	As Approved in the MYT Order	As submitted by the Petitioner	As Approved in the MYT Order	As submitted by the Petitioner	As Approved in the MYT Order	As submitted by the Petitioner
Annual Revenue Requirement	560.53	406.58	560.84	493.15	562	382.97
Revenue at Existing Tariff	605.96	410.35	605.96	428.76	605.96	284.82
Revenue (Surplus) /Gap	(45.43)	(3.78)	(45.12)	64.39	(43.96)	98.15

*revised submission by the Petitioner

Commission's analysis

- 5.105 The Commission has approved the Revenue gap for the FY 2013-14 to FY 2015-16 based in the ARR and Revenue from the sale of power as approved in the earlier sections.
- 5.106 As per JSERC Distribution Tariff Regulations 2010, the Petitioner is required to file for True up/Annual Performance review by November 1st of each year of the Control period. However, the Petitioner has filed the Petition for the approval of True up for the FY 2013-14 to FY 2015-16 in July, 2017. In view of the same, the Commission found it prudent not to allow any carrying cost for the revenue gap/(surplus) of the Petitioner.
- 5.107 Accordingly, the Revenue (Surplus)/ Gap as approved by the Commission has been tabulated below:

Table 52: Revenue (Surplus)/ Gap (in Rs Cr) as approved by the Commission

Particulars	FY 2013-14	FY 2014-15	FY 2015-16
Annual Revenue Requirement	410.94	434.65	335.39
Revenue at Existing Tariff	413.12	431.60	290.82
Revenue (Surplus) /Gap	(2.18)	3.05	44.57

A6. BUSINESS PLAN FOR MYT PERIOD FROM FY 2016-17 TO FY 2020-21

- 6.1 The Petitioner filed its Business Plan for the MYT Control Period FY 2016-17 to FY 2020-21 in line with the Distribution Tariff Regulations, 2015. The relevant extract of the Regulations is as under:

“5.8 The business plan shall be for the entire Control Period and shall inter-alia contain;

a) Capital Investment Plan for the entire Control Period commensurate with load growth, distribution loss reduction trajectory and quality improvement measures proposed in the Business Plan;

b) Sales/Demand Forecast for each customer category and sub-categories for each year of the Control Period;

c) Power Procurement Plan based on the sales forecast and distribution loss trajectory for each year of the Control Period. The power procurement plan should also include energy efficiency and demand side management measures;

d) A set of targets proposed for other controllable items such as distribution losses, collection efficiency, working capital requirement, quality of supply targets, etc. The targets shall be consistent with the capital investment plan proposed by the Licensee;

e) Business Plan shall also contain the requisite information for the preceding five years. Provided that requisite information shall include year wise audited data on Scheme wise capital investment, distribution loss trajectory, quality improvement measures undertaken, category wise number of consumers, connected load and sales, source wise power procurement quantum and cost and any other information used for preparing projections of various components during the control period. In case of a new licensee such information is required to be submitted for the period of operations up to the start of the control period.”

- 6.2 Accordingly, the Commission has approved the Business plan for the MYT control period from FY 2016-17 to FY 2020-21, in line with the relevant Regulations mentioned above, containing approval for the load/ sales growth, loss trajectory, power procurement plan, expected capital investment.

- 6.3 However, the Commission has not set any target for working capital requirement in the Business Plan as per Regulation 5.8 (d) of above-mentioned regulations. This is because the methodology for computing the working capital requirements would include determination of ARR for the entire MYT control period from FY 2016-17 to FY 2020-21. The relevant provision of the Distribution Tariff Regulations, 2015 regarding working capital has been reproduced below:

“6.29 Working Capital for the wheeling business of electricity for the Control Period shall consist of

- (a) One-twelfth of the amount of Operation and Maintenance expenses for wheeling business for such financial year; plus*
- (b) Maintenance spares at 1% of Opening GFA of wheeling business; plus*
- (c) Two months equivalent of the expected revenue from wheeling charges at the prevailing tariffs; minus*
- (d) Amount, if any, held as security deposits.*

6.30 Working Capital for the retail supply of electricity for the Control Period shall consist of:

- (a) One-twelfth of the amount of Operation and Maintenance expenses for retail supply business for such financial year; plus*
- (b) Maintenance spares at 1% of Opening GFA for retail supply business; 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 net of any security held for wheeling business; minus*
- (e) One month equivalent of cost of power purchased, based on the annual power procurement plan.”*

6.4 As the above components would be determined as part of the ARR and Tariff for the entire control period, the targets for working capital for the MYT period from FY 2016-17 to FY 2020-21 would be approved by the Commission in the section for approval of ARR for the MYT period from FY 2016-17 to FY 2020-21 and Tariff for FY 2016-17.

6.5 The component-wise description of the Petitioner’s submission and the Commission’s analysis thereof is provided hereunder.

Demand and Sales Forecast

Petitioner’s Submission

6.6 For the MYT Control Period FY 2016-17 to FY 2020-21, the Petitioner submitted that SAIL- BSL was drawing power at 132 kV level up to December 2016 and thereafter the power is being drawn at 220 kV level. The 220/132 kV sub-station is maintained by DNW which further distributes power to Plant and township through different feeders.

- 6.7 The Petitioner submitted that due to higher penetration of electronic appliances including air-conditioners and geysers etc. in the recent years, the demand is poised to increase and the projections have been made such that it will be able to cater much larger consumer base in the coming years.
- 6.8 The methodology adopted by the Petitioner to project the sales during the next MYT period is outlined below:
- 4 year CAGR is computed for sales in all the categories;
 - Where the CAGR is (+), the same is considered for the purpose of projection;
 - Where the CAGR is (-), no increase is considered for projections;
 - With the enhanced efforts of the Petitioner towards theft reduction and improvement in the quality of supply, the sales is not projected to reduce during the forthcoming period;
 - Impact of externalities is captured through appropriate reduction/increase in the CAGR rate, as necessary.
- 6.9 The Petitioner proposed to shift around 3000 consumers from DS II category to DS III category as certain private schools, hotels, Banks and small industries are expected to come into HT 11 kV. The Petitioner submitted that such shift from one category to another has been projected in view of the expected change in the number of consumers and connected load in the licensed area of supply of the Petitioner.
- 6.10 The Petitioner further submitted that Connected Load has been projected based on the trends of Load per consumer and appropriate adjustments have been done to capture shift of consumers and respective loads from one category to another. The energy sales, connected load and number of consumers projected by the Petitioner are summarized below:

Table 53: Energy sales (MU) as submitted by the Petitioner

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
DS-II (Less than 200 units)	80.22	73.63	82.34	92.08	102.98
DS-II (More than 200 units)	33.52	37.48	41.92	46.88	52.42
DS-III	6.43	13.02	13.12	13.23	13.33
DS-HT	6.27	6.35	6.43	6.50	6.58
LTIS	0.50	0.50	0.50	0.50	0.50
NDS	15.55	16.63	17.79	19.04	20.37
HTS-11 kV	12.65	17.41	23.94	32.93	45.30
HT/LT Utilities	50.17	50.17	50.17	50.17	50.17
Total Sales for Township	205.31	215.19	236.22	261.33	291.65
Plant Supply	458.46	462.03	465.64	469.27	472.93

Table 54: Projected Connected Load as submitted by the Petitioner

Particulars	Unit	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
DS-II	kW	85438.70	78416.62	79029.13	79646.77	80269.53
DS-III	kW	321.00	7343.08	7343.08	7343.08	7343.08
DS-HT	kVA	7704.00	10593.00	13482.00	16371.00	19260.00
LTIS	HP	1017.00	1017.00	1017.00	1017.00	1017.00
NDS	kW	13236.52	13341.04	13445.56	13557.54	13669.52
HTS-11 kV	kVA	4866.71	6636.43	8848.57	8848.57	8848.57
HT/LT Utilities	kW	26891	26891	26891	26891	26891
Steel Plant	MVA	45	45	45	45	45

Table 55: No. of Consumers as submitted by the Petitioner

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
DS-II	33338	30598	30837	31078	31321
DS-III	11	3011	3011	3011	3011
DS-HT	8	11	14	17	20
LTIS	35	35	35	35	35
NDS	1773	1787	1801	1816	1831
HTS-11 kV	11	15	20	20	20
HT/LT Utilities	656	656	656	656	656

Commission's Analysis

- 6.11 The Petitioner in its Petition has submitted that the projections for the 2nd Control period have been made based on the 4 year CAGR of previous years. However, the Petitioner has not submitted any actuals for the FY 2011-12 & FY 2012-13. The Commission vide its discrepancy note directed the Petitioner to submit details of actual Sales, Connected Load, No of consumers for the FY 2011-12 to FY 2015-16. The Petitioner vide its reply submitted the same to the Commission.
- 6.12 The Commission arrived at energy sales for the MYT Control period based on the sales data provided by the Petitioner from the FY 2011-12 to FY 2015-16 considering CAGR trends on the historical data of sales. Similar exercise was undertaken to project the number of consumer. For projecting the Connected Load, the Commission for the MYT Control period.
- 6.13 The Petitioner submitted that around 3000 consumers are proposed to be shifted from DS-II to DS-III category. The Commission vide its discrepancy note directed the Petitioner to submit the basis on which such assumptions are made along with the past trends showing a shift in the no. of consumers from FY 2013-14 to FY 2016-17 and a detailed impact analysis on the revenue of the petitioner.

- 6.14 The Petitioner submitted that, at different instants it has found consumers in DS-II category with load requirements more than 4 kW, specifically the consumers in B type and C type quarters have been observed on sample basis with consumption pattern depicting load requirement of more than 4 kW and submitted results of sample load assessment conducted for such quarters. The Petitioner submitted that such shift would result in fetching an additional revenue of Rs 2.65 Cr from FY 2017-18 to FY 2020-21.
- 6.15 The Commission has considered the submissions of the Petitioner and appropriately adjusted the Sales, no of consumers and connected load for these categories. Further, the sales and the connected load for Steel plant have been approved at the same level as estimated by the Petitioner for the entire control period subject to true-up.
- 6.16 The approved energy sales, connected load and number of consumers for the MYT control period is tabulated hereunder:

Table 56: Energy sales (MU) as approved by the Commission

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
DS-LT	112.17	120.29	131.30	147.00	170.38
DS-HT	6.27	6.35	6.43	6.50	6.58
NDS	15.46	16.46	17.52	18.64	19.84
LTIS	0.50	0.50	0.50	0.50	0.50
HTS-11 kV	12.41	16.74	22.57	30.45	41.06
HT/LT Utilities*	50.17	50.17	50.17	50.17	50.17
Total Sales - Township	196.99	210.51	228.49	253.27	288.53
Sales- Plant supply (HTS)	458.46	462.03	465.64	469.27	472.93

Table 57: Connected Load as approved by the Commission

Particulars	Unit	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
DS-LT	kW	85759.70	85759.70	86372.21	86987.29	87607.49
DS-HT	kVA	6066.90	7431.95	8918.34	10534.79	12290.59
NDS	kW	13236.52	13341.04	13445.56	13557.54	13669.52
LTIS	HP	1017.00	1017.00	1017.00	1017.00	1017.00
HTS-11 kV	kVA	3539.43	3981.86	4424.29	5309.14	6194.00
HT/LT Utilities*	kW	26891.00	26891.00	26891.00	26891.00	26891.00
Plant Supply- (HTS)	MVA	45	45	45	45	45

Table 58: No. of Consumers as approved by the Commission

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
DS-LT	33349.00	33609.00	33848.00	34088.00	34330.00
DS-HT	6.00	7.00	8.00	9.00	10.00

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
NDS	1773.00	1787.00	1801.00	1816.00	1831.00
LTIS	35.00	35.00	35.00	35.00	35.00
HTS-11 kV	8.00	9.00	10.00	12.00	14.00
HT/LT Utilities*	656.00	656.00	656.00	656.00	656.00
Total - Township	35827	36103	36358	36616	36876
Plant Supply- (HTS)	1	1	1	1	1

*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 NDS & SS for the purpose of calculation of revenue

Distribution Loss Trajectory

Petitioner's Submission

6.17 As per Regulation 5.23 of JSERC Distribution Tariff Regulations, 2015

“5.23 The Licensee shall file the distribution loss trajectory for the entire Control Period in the Business Plan commensurate with the capital investment plan for each year of the control period for approval of the Commission after verification and evaluation of the same.”

The Licensee shall be allowed to operate at below 5% audited distribution loss without any incentive/ penalty mechanism.”

6.18 In line with the above Regulation, the Petitioner has submitted an action plan for the same. The Petitioner submitted that despite its best efforts, SAIL- BSL is finding it hard to meet the loss levels as set by the Commission and as deemed suitable for the sustainable operation of the Licensee.

6.19 The Petitioner submitted that the distribution losses for FY 2013-14, FY 2014-15 and FY 2015-16 are 52.50%, 51.93% and 42.43% respectively. The Petitioner submitted that the key reason behind the significantly high losses is theft of electricity through unauthorized means in the rural areas.

6.20 The Petitioner further submitted that it has made several efforts to control such unauthorized usage of electricity and the issues encountered, steps undertaken thereof by the Petitioner have been summarized below:

- (a) There are several illegal possessions of the locals, and these illegal occupants do not have electricity connection and there are some areas which even though do not come under the licensed area of SAIL- BSL. The Petitioner has not released connections to such illegal habitants, since that would tantamount to giving them a

legal right to the occupied place. The officers of SAIL- BSL have disconnected such illegal connections and JBVNL had provided connections to such consumers which fall under its area of supply.

- (b) The Petitioner submitted that (Town administration – Electrical Dept.) TA-electrical has been conducting time bound raids under various initiatives to identify illegal connections and hookings in different areas. However, the teams deployed for such purposes have been seriously manhandled in a number of cases. Similarly, the Police personnel accompanying the SAIL officers have also faced the brunt of the people consuming through illegal means.
 - (c) The Petitioner further submitted that in a vigilance conducted in Bharra Basti, around 7000 illegal connections estimated to cause a revenue loss of around Rs 50,000 per day to SAIL- BSL, were disconnected which was one of the largest operations conducted so far.
- 6.21 The Petitioner submitted that it is striving hard to reduce distribution losses and has been timely introducing new initiatives to check the same, but on an overall basis the situation is largely uncontrollable due to legacy issues.
- 6.22 In view of the aforesaid reasons, the Petitioner requested the Commission to kindly relax the norms and approve the actual distribution losses for FY 2016-17 to FY 2020-21 as per the trajectory proposed by the Petitioner summarized below:

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Distribution Loss Targets	42.00%	32.00%	24.00%	16.00%	10.00%

Commission's Analysis

- 6.23 The Commission appreciates the steps taken by the Petitioner to reduce distribution losses in its area of operation, but it is a matter of grave concern that the actual level of Distribution losses submitted by the Petitioner are still significantly higher as compared to the similar distribution utilities in the state of Jharkhand as detailed in para 5.26 of this Order. The Commission directs the Petitioner to continue undertaking steps being undertaken at a more intense level so that the Petitioner is able to maintain the loss levels at the targets set by the Commission.
- 6.24 The Commission has considered the commitments of the Petitioner and has accordingly set the overall Distribution loss levels of the Licensee (including consumption of the steel plant) for the Control period as tabulated below :

Table 59: Targets for Distribution losses (including Plant consumption) as approved by the Commission

Parameters	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Overall Distribution losses (Including plant consumption)	18.00%	13.00%	9.00%	6.00%	4.00%

- 6.25 Accordingly, the distribution loss trajectory for the Township to be adhered by the Petitioner for the Control period has been tabulated below:

Table 60: Targets for Distribution losses & Collection efficiency as approved by the Commission

Parameters	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Distribution losses - Township	42.00%	32.00%	24.00%	16.00%	10.00%

- 6.26 The Commission directs the Petitioner to strictly adhere to the Distribution loss levels as set by the Commission for the Control period. Further, the collection efficiency targets have already been specified in Regulation 5.24 of the Jharkhand State Electricity Regulatory Commission (Multi Year Tariff) Regulations, 2015.
- 6.27 The Commission approves the distribution losses & Collection efficiency for the MYT Control period as per the table below:

Table 61: Targets for Distribution losses & Collection efficiency as approved by the Commission

Parameters	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Overall Distribution losses for the licensee (including plant consumption)	18.00%	13.00%	9.00%	6.00%	4.00%
Distribution Losses for the Township	42.00%	32.00%	24.00%	16.00%	10.00%
Collection Efficiency	100.00%	100.00%	100.00%	100.00%	100.00%

Energy Balance

Petitioner's submission

- 6.28 The Petitioner submitted that the Energy Balance of SAIL-BSL for the control period FY 2016-17 to FY 2020-21 has been calculated based on the projected Sales based on the proposed trajectory of distribution losses.
- 6.29 The following table provides the detailed power purchase quantum and power purchase cost forecasted by the Petitioner for the MYT Control period FY 2016-17 to FY 2020-21:

Table 62: Energy Balance as submitted by the Petitioner

Particulars	Unit	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Energy Sales –Township	MUs	205.31	215.19	236.22	261.33	291.65
Distribution Losses	%	42.00%	32.00%	24.00%	16.00%	10.00%
Energy required at township periphery	MUs	353.99	316.46	310.81	311.11	324.05
Steel Plant consumption	MUs	458.46	462.03	465.64	469.27	472.93
Total Energy Required at SAIL- BSL Periphery	MUs	812.45	778.49	776.45	780.37	796.98

Commission's Analysis

- 6.30 The Commission has approved the Energy Balance based on the Sales and the Distribution loss levels as approved in the earlier sections of this chapter.
- 6.31 The energy is supplied to the Steel Plant primarily at 220 kV voltage level (after Dec'16). The Commission is of the view that since energy supplied the Steel Plant primarily at 220 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.
- 6.32 Accordingly, the Energy Balance as approved by the Commission for the MYT period FY 2016-17 to FY 2020-21 has been tabulated below:

Table 63: Energy Balance as approved by the Commission for the Control period

Particulars	Unit	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Energy Sales -Township	MUs	196.99	210.51	228.49	253.27	288.53
Distribution Losses	%	42.00%	32.00%	24.00%	16.00%	10.00%
Distribution Losses for the Township	MUs	142.65	99.06	72.15	48.24	32.06
Energy required at township periphery	MUs	339.64	309.57	300.64	301.51	320.59
Energy Sales- Plant	MUs	458.46	462.03	465.64	469.27	472.93
Total Energy Required at SAIL Bokaro Periphery	MUs	798.10	771.60	766.28	770.78	793.52
Overall Distribution Loss for the Licensee	%	18.00%	13.00%	9.00%	6.00%	4.00%

Power Procurement Plan*Petitioner's submission*

- 6.33 For projecting the power purchase quantum for MYT period from FY 2016-17 to FY 2020-21, the Petitioner submitted that SAIL- BSL has been purchasing power from DVC, a central PSU, which is a power generating company under aegis of Government of India under a contractually binding PPA which supplies power to SAIL- BSL in accordance with the tariff fixed by the State Commission.
- 6.34 The Petitioner further submitted that it has been able to cater to its systems energy requirement from the power available from DVC even under intermittent supply conditions. Further, the Petitioner has filed a Petition in Case No. 07 of 2016 praying for exemption from RPO compliance justifying that the power purchased from DVC in essence covers the Renewable purchase obligation of SAIL- BSL also. The proceedings in the above matter are underway and thus the Petitioner has not projected any power from any renewable sources.
- 6.35 The Petitioner further submitted that it has committed to develop an overall capacity of 200 MW of renewable power. Bokaro Power Supply Company Ltd. (BPSCL) (a joint venture of SAIL & DVC) has been entrusted with the responsibility of installing medium and large capacity solar power units in and around the SAIL- BSL township.
- 6.36 The Petitioner submitted that it has been decided to initially utilize the roof top spaces at buildings such as Ispat Bhawan, Bokaro Niwas, General hospital etc. for installation of solar power panels. The work for installation of a 2 MW roof top plant has already been awarded and the activities towards its construction have commenced. Similarly, BPSCL has been granted approval by SAIL- BSL to develop another 20 MW solar power project at Bokaro for 100 % captive use by SAIL- BSL.
- 6.37 The Petitioner submitted that the power purchase rates have been considered as submitted by DVC in its MYT Petition filed before the Commission for the MYT Period FY 2016-17 to FY 2020-21.
- 6.38 The following table provides the detailed power purchase cost forecasted by the Petitioner for the MYT Control period FY 2016-17 to FY 2020-21:

Table 64: Power Purchase cost *as submitted by the Petitioner

Particulars	Unit	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Total Power Purchase	MUs	812.45	778.49	776.45	780.37	796.98
Power Purchase - Township	MUs	353.99	316.46	310.81	311.11	324.05
Power Purchase - Plant	MUs	458.46	462.03	465.64	469.27	472.93
Per unit power purchase cost	Rs/kWh	5.31	5.60	5.51	5.92	5.97
Total Power Purchase Cost	Rs Cr.	431.56	436.19	427.62	461.84	475.90
Power Purchase Cost - Township	Rs Cr.	188.03	177.31	171.21	184.18	193.58
Power Purchase Cost - Plant consumption	Rs Cr.	243.52	258.87	256.49	277.81	282.52

**revised in the reply to discrepancy note*

Commission's Analysis

6.39 As per Clause 5.19 of the JSERC Distribution Tariff Regulations, 2015

“5.19 Source wise quantum of power purchase shall be computed on the basis of estimated sales and distribution loss targets. The source wise cost of power purchase shall be calculated on the basis of rates approved by the appropriate Commission or as per rates discovered under appropriate mechanism under Electricity Act 2003 and subsequent amendments thereof.”

6.40 The Commission has scrutinized the available data as well as the latest trends in the industry and accordingly finds it appropriate to consider the source-wise power purchase cost for FY 2015-16 to project source-wise power purchase cost for MYT Control Period.

6.41 For power purchase from DVC, the Commission approves an escalation of 2.5% in the fixed charges of the power purchase rate while no escalation in the Energy charges has been considered. Any variation in power purchase cost from the approved cost may be claimed by the Petitioner through the FPPPA mechanism or during True-Up once the actual audited figures are available.

6.42 Further with respect to the purchase from renewable sources to meet the Renewable Purchase Obligation (RPO), the Petitioner has filed a Petition (Case No. 07 of 2016) praying for exemption from RPO compliance justifying that the power purchased from DVC in essence covers the Renewable purchase obligation of SAIL- BSL also. Since, the proceedings in the above matter are underway, the Commission at this point of time has not projected any requirement to be sourced through renewables. However, the Order of the Commission in Petition no 07 of 2016 shall be final.

6.43 The power purchase rate (in Rs./kWh) and power purchase cost (in Rs Cr) for the power purchase from DVC for MYT Control Period FY 2016-17 to FY 2020-21 as approved by the Commission is summarized in the table below:

Table 65: Power Purchase rate (Rs/kWh) from DVC as approved by the Commission

Particulars	FY 2015-16 (Actuals)	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Fixed charges (Rs/kWh)	1.10	1.10	1.10	1.10	1.10	1.10
Energy Charges (Rs/kWh)	3.60	3.69	3.78	3.88	3.97	4.07
Total	4.70	4.79	4.88	4.97	5.07	5.17

Table 66: Power Purchase Cost as approved by the Commission

Particulars	Unit	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Power Purchase units from DVC	MUs	798.10	771.60	766.28	770.78	793.52

Particulars	Unit	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Per unit power purchase cost from DVC	Rs/kWh	4.79	4.88	4.97	5.07	5.17
Total Power Purchase Cost	Rs Cr	381.90	376.34	380.99	390.70	410.11

Capital Investment Plan

Petitioner's Submission

6.44 The Petitioner, for the MYT Period FY 2016-17 to FY 2020-21, has proposed to undertake new capital expenditure schemes which are broadly classified into:

- a) Augmentation of 132/11 kV substation
- b) 11 kV Feeder Augmentation
- c) Installation of High Mast Lighting Towers
- d) Installation of LED Lamps

6.45 The brief of the schemes as proposed by the Petitioner is as follows:

- 1) **Augmentation of 132/11 kV substation:** The Petitioner submitted that owing to the efforts being made, it is anticipated that there will be substantial increase in township load demand during the next five years with connected load requirements of more than 130 MW and peak load expected at more than 80 MW.

The Petitioner submitted that in view of the increasing load requirements, it had issued tender specifications for the purpose of design, supply, erection, testing and commissioning in respect of augmentation of 132 kV/11 kV Township substation comprising 132 kV switchyard with Hybrid EHV switchgears (outdoor GIS) and 11kV substation, substation building, new transformers and control room comprising relay & control equipment, auxiliaries, cabling, illumination, earthing & lightning protection etc.

- 2) **11 kV Feeder Augmentation:** The Petitioner submitted that it is planning to invest a total of Rs 9.00 Crore during FY 2018-19 and FY 2019-20 towards 11 kV feeder augmentation to improve power quality and reliability and to meet the increasing power demand of the consumers of Bokaro Steel township.

The Petitioner further submitted that the augmentation of outgoing 11 kV transmission lines to load centers in various residential sectors which were not part of the sub-station up gradation project have been envisaged and the proposed Capex intends to take out 10 out of 12 underground feeder cables from 132 kV to different sectors.

3) **Installation of High Mast Lighting Towers:** The Petitioner submitted that the work was taken up to ensure illumination in the Township area and the order was placed to suitable vendor(s) and the work towards installation of twenty numbers of High Mast Lighting Towers was carried out during FY 2016-2017 at a cost of around Rs 1.17 Crores.

4) **Installation of LED Lamps:** To provide illumination in the township area, the Petitioner is projecting Rs 40.00 lakh, Rs 30.00 lakh and Rs 30.00 lakh towards installation of LED lamps during FY 2017-18, FY 2018-19 and FY 2019-20 respectively

6.46 The component-wise description of the Petitioner's submission of Capital Expenditure & Capitalization is provided hereunder:

Table 67: Scheme Wise Capital Expenditure Plan vis-à-vis capitalization (in Rs Cr) as submitted by the Petitioner

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Augmentation of 132/11 kV substation	18.07	0.00	0.00	0.00	0.00
Feeder Augmentation - 11kV system	0.00	0.00	4.50	4.50	0.00
Installation of LED Lamp	0.00	0.40	0.30	0.30	0.00
High mast lighting tower	1.17	0.00	0.00	0.00	0.00
Total	19.24	0.40	4.80	4.80	0.00

Commission's Analysis

6.47 As per JSERC Distribution Tariff regulations, 2015

5.9 "The licensee' shall file for the Commission's approval a Capita/Investment Plan for the entire Control Period with the business plan. The investment plan shall be prepared scheme-wise and each scheme shall include:

- a) Purpose of investment (e.g. replacement of existing assets, meeting load growth, technical and distribution loss reduction, non-technical loss reduction, meeting reactive energy requirements, customer service improvement, improvement in quality and reliability of supply, etc.);
- b) Capital Structure;
- c) Capitalization Schedule;
- d) Implementation schedule including timelines;
- e) Financing Plan;

- f) *Cost-benefit analysis;*
- g) *Improvement in operational efficiency envisaged in the control period;*
- h) *Ongoing projects that will spill over into the year under review along with justification*
- i) *New projects that will commence during the control period but may be completed within or beyond the Control Period;"*

- 6.48 The Petitioner has failed to submit the capital investment plan in accordance with the above referenced Regulations. The Petitioner has neither submitted the cost-benefit analysis nor the improvement in operational efficiency envisaged in the control period due to the proposed capital expenditure. The Commission directed the Petitioner to submit scheme-wise detailed plan in compliance with the above referenced Regulations vide its discrepancy note.
- 6.49 The Petitioner vide its reply submitted that capital expenditure plan for the Control Period from FY 2016-17 to FY 2020-21 is primarily focussed on projects related to capacity enhancement planning, feeder augmentation and for the purpose of providing illumination in the area as reflected in the increased projection in sales during the MYT period. The Petitioner in support of the claims made has submitted feasibility report of the schemes proposed for the MYT Control period.
- 6.50 The Petitioner further submitted that some of the schemes may undergo modifications/amendments in future with respect to the schedule, phasing of expenditure, financing model due to various controllable/uncontrollable reasons and the revised submissions of capex plan shall be submitted at the time of true up.
- 6.51 The Commission further directed the Petitioner to submit the actual details of the capital expenditure vis-à-vis capitalization for the FY 2016-17 & FY 2-17-18 since the years have already completed. However, the Petitioner has not submitted any such details to the Commission.
- 6.52 The Commission has scrutinized the capital expenditure plan submitted by the Petitioner and accordingly approves the capital expenditure vis-à-vis capitalization schedule as submitted by the Petitioner for the MYT Control period subject to true-up.
- 6.53 The scheme wise capital expenditure and capitalization as approved by the Commission is tabulated below:

Table 68: Scheme Wise Capital Expenditure Plan vis-à-vis capitalization (in Rs Cr) as approved by the Commission

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Augmentation of 132/11 kV substation	18.07	0.00	0.00	0.00	0.00

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Feeder Augmentation - 11kV system	0.00	0.00	4.50	4.50	0.00
Installation of LED Lamp	0.00	0.40	0.30	0.30	0.00
High mast lighting tower	1.17	0.00	0.00	0.00	0.00
Total	19.24	0.40	4.80	4.80	0.00

A7. AGGREGATE REVENUE REQUIREMENT FOR MYT CONTROL PERIOD FY 2016-17 TO FY 2020-21

Energy Sales

Petitioner's submission

- 7.1 For projecting the sales for MYT Period from FY 2016-17 to FY 2020-21, the Petitioner has computed the 4 year CAGR based on the historical data of FY 2011-12 to FY 2015-16. This category wise CAGR has been then applied on the actual sales for FY 2015-16 to project sales up to FY 2020-21 as discussed in para 6.8 of this Tariff Order.
- 7.2 The energy sales, connected load and number of consumers projected by the Petitioner are summarized below:

Table 69: Energy sales (MU) as submitted by the Petitioner

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
DS-II (Less than 200 units)	80.22	73.63	82.34	92.08	102.98
DS-II (More than 200 units)	33.52	37.48	41.92	46.88	52.42
DS-III	6.43	13.02	13.12	13.23	13.33
DS-HT	6.27	6.35	6.43	6.50	6.58
LTIS	0.50	0.50	0.50	0.50	0.50
NDS	15.55	16.63	17.79	19.04	20.37
HTS-11 kV	12.65	17.41	23.94	32.93	45.30
HT/LT Utilities	50.17	50.17	50.17	50.17	50.17
Total Sales for Township	205.31	215.19	236.22	261.33	291.65
Plant Supply	458.46	462.03	465.64	469.27	472.93

Table 70: Projected Connected Load as submitted by the Petitioner

Particulars	Unit	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
DS-II	kW	85438.70	78416.62	79029.13	79646.77	80269.53
DS-III	kW	321.00	7343.08	7343.08	7343.08	7343.08
DS-HT	kVA	7704.00	10593.00	13482.00	16371.00	19260.00
LTIS	HP	1017.00	1017.00	1017.00	1017.00	1017.00
NDS	kW	13236.52	13341.04	13445.56	13557.54	13669.52
HTS-11 kV	kVA	4866.71	6636.43	8848.57	8848.57	8848.57
HT/LT Utilities	kW	26891	26891	26891	26891	26891
Steel Plant	MVA	45	45	45	45	45

Table 71: No. of Consumers as submitted by the Petitioner

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
DS-II	33338	30598	30837	31078	31321
DS-III	11	3011	3011	3011	3011
DS-HT	8	11	14	17	20
LTIS	35	35	35	35	35
NDS	1773	1787	1801	1816	1831
HTS-11 kV	11	15	20	20	20
HT/LT Utilities	656	656	656	656	656

Commission's analysis

- 7.3 The Commission has approved the sales, Connected load, No of consumers for the MYT period in para 6.12 of this Tariff Order.

Distribution Losses and Collection Efficiency*Petitioner's submission*

- 7.4 The Regulation 5.23 of JSERC MYT Regulations, 2015 provides for the targets for Distribution Losses and Collection Efficiency, as stated below:

“The Licensee shall file the distribution loss trajectory for the entire Control Period in the Business Plan commensurate with the capital investment plan for each year of the control period for approval of the Commission after verification and evaluation of the same.”

- 7.5 In line with the above Regulation, the Petitioner has submitted an action plan for the same which is shown below:

Table 72: Loss Trajectory as submitted by the Petitioner

Parameters	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Distribution Losses	42.00%	32.00%	24.00%	16.00%	10.00%

- 7.6 The steps that are being undertaken by the Petitioner to bring down the existing level of AT&C losses has been discussed in detail in para 6.20 of this Tariff Order.

Commission's analysis

- 7.7 The Commission has approved the Distribution loss & Collection efficiency targets for the MYT Control period in Para 6.27 of this Order.

Energy Requirement and Energy Availability

Petitioner's submission

- 7.8 Based on projected energy sales and projected Distribution losses, the Petitioner projected energy requirement for the MYT Control period as tabulated below.

Table 73: Energy Balance as Submitted by the Petitioner for MYT period (in MU)

Particulars	Unit	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Energy Sales –Township	MUs	205.31	215.19	236.22	261.33	291.65
Distribution Losses	%	42.00%	32.00%	24.00%	16.00%	10.00%
Energy required at township periphery	MUs	353.99	316.46	310.81	311.11	324.05
Steel Plant consumption	MUs	458.46	462.03	465.64	469.27	472.93
Total Energy Required at SAIL- BSL Periphery	MUs	812.45	778.49	776.45	780.37	796.98

Commission's analysis

- 7.9 The Commission has computed energy requirement based on approved energy sales and distribution losses as discussed in detail in paragraph 6.30 of this Order.

Power Purchase Cost

Petitioner's submission

- 7.10 The following table provides the detailed power purchase quantum, Source wise power purchase cost and Total power purchase cost forecasted by the Petitioner for the MYT Control period FY 2016-17 to FY 2020-21.

Table 74: Power Purchase as submitted by the Petitioner

Particulars	Unit	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Total Power Purchase	MUs	812.45	778.49	776.45	780.37	796.98
Power Purchase - Township	MUs	353.99	316.46	310.81	311.11	324.05
Power Purchase - Plant	MUs	458.46	462.03	465.64	469.27	472.93
Per unit power purchase cost	Rs/kWh	5.31	5.60	5.51	5.92	5.97
Total Power Purchase Cost	Rs Cr.	431.56	436.19	427.62	461.84	475.90
Power Purchase Cost - Township	Rs Cr.	188.03	177.31	171.21	184.18	193.58
Power Purchase Cost - Plant consumption	Rs Cr.	243.52	258.87	256.49	277.81	282.52

Commission's analysis

- 7.11 The detailed methodology adopted by the Commission in approving the source wise Power purchase cost, Fixed charges, and Energy charges has been discussed in detail in paragraph 6.39 of this Tariff Order.

Capital Expenditure and Capitalization*Petitioner's submission*

- 7.12 The Petitioner has provided the details of capital expenditure and capitalization plans which has been discussed in detail in para 6.44 of this Tariff Order.
- 7.13 The Capital Expenditure vis-à-vis capitalization as proposed by the Petitioner is depicted in the table below:

Table 75: Scheme Wise Capital Expenditure Plan vis-à-vis capitalization (in Rs Cr) as submitted by the Petitioner

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Augmentation of 132/11 kV substation	18.07	0.00	0.00	0.00	0.00
Feeder Augmentation - 11kV system	0.00	0.00	4.50	4.50	0.00
Installation of LED Lamp	0.00	0.40	0.30	0.30	0.00
High mast lighting tower	1.17	0.00	0.00	0.00	0.00
Total	19.24	0.40	4.80	4.80	0.00

Commission's analysis

- 7.14 The Commission has approved the Capital expenditure vis-à-vis capitalization during the MYT control period FY 2016-17 to FY 2020-21 as explained in detail in paragraph 6.47 of this Tariff Order.

Gross Fixed Asset (GFA)*Petitioner's submission*

- 7.15 The Petitioner has submitted opening GFA for FY 2016-17 as per the closing GFA for the FY 2015-16. Further, the additions in GFA has been considered as per the capitalization schedule submitted by the Petitioner as tabulated below:

Table 76: GFA (in Rs Cr) as submitted by the Petitioner

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Opening GFA	18.58	37.82	38.22	43.02	47.82
Additions in GFA (Capitalization)	19.24	0.40	4.80	4.80	0.00
Closing GFA	37.82	38.22	43.02	47.82	47.82

Commission's analysis

- 7.16 The Commission has considered the opening balance of GFA for FY 2016-17 based on the closing GFA for FY 2015-16 as approved in the True-up for the FY 2015-16.
- 7.17 Considering the capitalisation approved for MYT Control Period FY 2016-17 to FY 2020-21 in this Order, the Commission has determined the closing figures of GFA as summarised in the following table:

Table 77: GFA as approved by the Commission (in Rs Cr) for MYT Control Period

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Opening GFA	18.57	37.81	38.21	43.01	47.81
Additions in GFA (Capitalization)	19.24	0.40	4.80	4.80	0.00
Closing GFA	37.81	38.21	43.01	47.81	47.81

Operation & Maintenance Expenses*Petitioner's submission*

- 7.18 The Petitioner submitted that as per JSERC Distribution Tariff Regulations 2015, Operation and Maintenance (O&M) expenses include
- Salaries, wages, pension contribution and other employee costs;
 - Administration and General expenses;
 - Repairs and Maintenance;
- 7.19 The Petitioner submitted that it has integrated its various processes viz. payroll, leave management, performance management and finance & accounts through implementation of Enterprise Resource Planning (ERP) Software which has brought about a positive paradigm shift in the manner in which business is conducted. All transactions related to the above processes are conducted online thus bringing about a quantum improvement in efficiency and eliminating time consuming manual or repetitive transactions.
- 7.20 The Petitioner submitted that the Employee costs are dependent upon many factors, such as the growth in economy in general and the sector in particular, requirement and availability of personnel with the requisite skill sets, etc and has made projections keeping in view the aforesaid factors.

- 7.21 The Petitioner submitted that the employee cost for the MYT control period is estimated based on the Regulation 6.6(b) of the JSERC Tariff Regulations, 2015. The escalation factor has been estimated in line with Regulation 6.6 (c) whereby the Wholesale Price Index (WPI) and Consumer Price Index (CPI) for a period of 2 years have been computed and a weighted average rate has been arrived at by giving 45% weightage to WPI and 55% weightage to CPI. Inflation factor has been computed as per applicable rates of WPI and CPI and is arrived at 4.36%.
- 7.22 Further, owing to the expected impact of 7th Pay Commission, the Petitioner proposed for an additional escalation for FY 2016-17 at 15%. The Petitioner further submitted that the impact of the impending wage revision which is to be implemented in the control period FY 2016-17 to FY 2020-21 is proposed to be incorporated in the Employee costs as part of the O&M Costs and be treated as Uncontrollable Expenses.
- 7.23 The Petitioner submitted that the A&G expenses have been projected in line with the Regulation 6.6 (b) and (c) of the JSERC Distribution Tariff Regulations, 2015, with figures of FY 2014-15 being the base for arriving A&G expenses for FY 2015-16 and for the MYT control period.
- 7.24 The Petitioner submitted that the R&M expenses incurred by the licensee is a function of the network condition of the licensee are projected based on Regulation 6.6(a) of the Tariff Regulations, 2015. The network condition would depend on the condition of the assets and subsequent augmentation/ strengthening/ capex undertaken by the Licensee. Benchmarking with other utilities in other State jurisdictions for the R&M expenditure therefore may not provide an appropriate indication. The K factor need to be customized considering the above and may vary across years based on the capital expenditure in the previous years together with expenditure incurred during the year.
- 7.25 The summary of O&M expenses for MYT Control period submitted by the Petitioner is as follows:

Table 78: O&M expenses (in Rs Cr) for MYT Control period as submitted by the Petitioner

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Employee Expenses	11.82	12.34	12.88	13.44	14.02
R & M Expenses	4.23	5.08	6.10	7.32	8.80
A & G Expenses	2.35	2.46	2.56	2.67	2.79
Total O&M Expenses	18.40	19.87	21.54	23.44	25.61

Commission's analysis

- 7.26 As per Regulation 6.3 to 6.5 of JSERC MYT Regulations 2015, the O&M expenses permissible towards ARR of each year of the Control Period shall be approved based on the formula shown below:

$$O\&M_n = (R\&M_n + EMP_n + A\&G_n) * (1 - X_n) + \text{Terminal Liabilities}$$

Where,

R&M_n – Repair and Maintenance Costs of the Licensee for the nth year;

EMP_n – Employee Costs of the Licensee for the nth year excluding terminal liabilities;

A&G_n – Administrative and General Costs of the Licensee for the nth year;

X_n – is an efficiency factor for nth year. The value of X_n will be determined by the Commission in its first MYT order for the Control Period;

- 7.27 As per Regulation 6.6 of JSERC MYT Regulations 2015, the above components shall be computed in the manner specified below:

$$R\&M_n = K * GFA$$

Where,

‘K’ is a constant (expressed in %) governing the relationship between R&M costs and Gross Fixed Assets (GFA) and will be calculated based on the % of R&M to GFA of the preceding year of the Base Year;

‘GFA’ is the opening value of the gross fixed asset of the nth year;

$$EMP_n (\text{excluding terminal liabilities}) + A\&G_n = (EMP_{n-1} + A\&G_{n-1}) * (INDX_n / INDX_{n-1}) + G_n$$

Where,

INDX_n – Inflation factor to be used for indexing the employee cost and A&G cost. This will be a combination of the Consumer Price Index (CPI) and the Wholesale Price Index (WPI) for immediately preceding year before the base year;

G_n – Increase in Employee Expenses in nth year due to increase in consumer base/load growth. Value of G for each year of the Control Period shall be determined by the Commission in the MYT Tariff order based on Licensee’s filing, benchmarking with the efficient utilities, actual cost incurred by the licensee due to increase in consumer base/load growth in past, and any other factor considered appropriate by the Commission;

$$INDX_n = 0.55 * CPI_n + 0.45 * WPI_n;$$

- 7.28 The Commission has determined the inflation factor by taking weighted average of the WPI and CPI for FY 2013-14 to FY 2014-15 in the ratio 45:55. Thus, inflation factor for indexing the Employee cost and A&G cost is determined to be 4.36%.

Employee Cost

- 7.29 The Commission has determined the employee cost for MYT control period by increasing the employee cost as approved in the True up for the FY 2015-16, by the inflation factor of 4.36%. Any variations in the Employee Cost shall be given due consideration by the Commission at the time of True up.
- 7.30 The employee cost determined by the Commission for the MYT control period is summarised in the following table:

Table 79: Employee Cost (in Rs Cr) as approved by the Commission

Particulars	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Employee cost	11.33	11.82	12.34	12.88	13.44	14.02

A&G cost

- 7.31 The Commission has determined the A&G cost for the MYT control period by increasing the A&G cost as approved in the True up for the FY 2015-16, by the inflation factor of 4.36%. Any variations in the A&G Cost shall be given due consideration by the Commission at the time of True up.
- 7.32 The A&G cost as approved by the Commission for MYT control period is summarised in the following table:

Table 80: A&G Cost (in Rs Cr) as approved by the Commission

Particulars	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
A&G Expenses	2.26	2.36	2.46	2.57	2.68	2.80

R&M Cost

- 7.33 As per JSERC Distribution Tariff Regulations, 2015, K-factor for the FY 2014-15 is to be considered by the Commission for estimating R&M cost for the MYT control period and the R&M cost for each year of the control period has been computed by multiplying the 'K' factor with the approved opening GFA of the respective year.
- 7.34 As per the R&M cost & Opening GFA approved for the True-up for the FY 2014-15, the K Factor as estimated by the Commission comes out to be around 14% which is very high for a distribution utility like SAIL-BSL, serving consumers in a limited geographical area.

- 7.35 In view of the same, the Commission at this point of time finds it appropriate to approve the R&M Cost in line with methodology adopted for the approval of Employee expenses, A&G Expenses. Any variation on account of R&M expenses shall be considered by the Commission at the time of True-up. Thus, the R&M cost as approved by the Commission for the MYT control period is summarised in the following table:

Table 81: R&M Cost (in Rs Cr) as approved by the Commission

Particulars	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
R&M Cost	3.52	3.67	3.83	4.00	4.17	4.36

- 7.36 Accordingly, the O&M cost as approved by the Commission for MYT Control Period is summarised in the following table:

Table 82: O&M Cost (in Rs Cr) as approved by the Commission

Particulars	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Employee cost	11.33	11.82	12.34	12.88	13.44	14.02
A&G Cost	2.26	2.36	2.46	2.57	2.68	2.80
R&M Cost	3.52	3.67	3.83	4.00	4.17	4.36
TOTAL O&M Cost	17.11	17.86	18.63	19.44	20.29	21.18

Consumer Contribution, Grants and Subsidies

Petitioner's submission

- 7.37 The Petitioner has not submitted any details regarding consumer contribution, grants and subsidies.

Commission's analysis

- 7.38 The Commission vide its discrepancy note directed the Petitioner to submit scheme wise details of funds received in terms of grants, consumer contribution, subsidies etc.
- 7.39 The Petitioner vide its reply submitted that there are no consumer contributions/grants towards GFA creation and accordingly the same has not been considered for computation of GFA and depreciation thereon.
- 7.40 Accordingly, the Commission has not considered any impact of consumer contribution, grants and subsidies towards GFA.

Depreciation

Petitioner's submission

- 7.41 The Petitioner submitted that the depreciation has been computed as per JSERC Distribution Tariff Regulations, 2015 which specify that the depreciation shall be calculated annually as per the Straight Line Method (SLM) at the rates of depreciation prescribed in the Regulations.
- 7.42 The Depreciation as submitted by the Petitioner has been tabulated below:

Table 83: Computation of Depreciation as per Petitioner's submission (Rs Cr.)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Opening Gross Block	18.58	37.82	38.22	43.02	47.82
Additional Capitalization	19.24	0.40	4.80	4.80	0.00
Closing Gross Block	37.82	38.22	43.02	47.82	47.82
Average Gross Block	28.20	38.02	40.62	45.42	47.82
Depreciation	1.76	1.79	2.12	2.30	2.30

Commission's analysis

- 7.43 According to JSERC Distribution Regulations 2015,

“Depreciation

6.32 Depreciation shall be calculated every year, on the amount of original cost of the fixed assets as admitted by the Commission;

Provided that depreciation shall not be allowed on assets funded by consumer contribution and capital subsidies/grants. Provision for replacement of such assets shall be made in the capital investment plan;

6.33 Depreciation for each year shall be determined based on the methodology as specified in these Regulations along with the rates and other terms specified in Appendix 1 of these Regulations;

6.34 Depreciation shall be calculated annually, based on the straight line method, over the useful life of the asset. The base value for the purpose of depreciation shall be original cost of the asset;

Provided that the Distribution Licensee shall ensure that once the individual asset is depreciated to the extent of seventy (70) percent, remaining depreciable value as on 31st March of the year closing shall be spread over the balance useful life of the asset.

6.35 Depreciation shall be charged from the first year of operation of the asset. In case, the operation of the asset is for a part of the year, depreciation shall be charged on a pro rate basis;

6.36 The residual value of assets shall be considered as 10% and depreciation shall be allowed to a maximum of 90% of the original cost of the asset. Land is not a depreciable asset and its cost shall be excluded while computing 90% of the original cost of the asset;

- 7.44 The Commission vide its discrepancy note has directed the Petitioner to submit detailed computation of depreciation for the MYT Control period. The Petitioner vide its reply submitted the same.
- 7.45 The Commission after scrutinizing the submissions made by the Petitioner approved the depreciation as tabulated below:

Table 84: Depreciation as approved by the Commission (in Rs Cr)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Depreciation	1.01	1.77	1.95	2.30	2.49

Interest and finance charges

Petitioner's submission

- 7.46 The Petitioner submitted that SAIL- BSL has invested around Rs. 19.24 Crores so far and further intends to invest around Rs.10.00 Crores during the MYT period FY 2016-17 to FY 2020-21 in the distribution infrastructure which are to be funded by SAIL- BSL on its own and for the additional capital expenditure up to FY 2020-21 and the Debt:Equity ratio of 70:30 has been considered in accordance with the Tariff Regulations, 2015.
- 7.47 The Interest on Loan as submitted by the Petitioner has been tabulated below:

Table 85: Interest on Debt *(in Rs Cr) as submitted by the Petitioner

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Net Loan-Opening	7.10	18.81	17.30	18.54	19.60
Additions	13.47	0.28	3.36	3.36	0.00
Repayment during the year	1.76	1.79	2.12	2.30	2.30
Net Loan-Closing	18.81	17.30	18.54	19.60	17.30
Average Loan	12.95	18.05	17.92	19.07	18.45
Weighted Average Rate of Interest on Loan (%)	11.30%	11.30%	11.30%	11.30%	11.30%
Interest on Loan	1.46	2.04	2.02	2.15	2.08

**revised in the reply to discrepancy note*

Commission's analysis

- 7.48 The Commission has calculated loans considering the debt-equity ratio in line with Regulation 6.15 and Regulation 6.16 of the JSERC MYT Regulations 2015. The loan arrived in this manner is considered as gross normative loan for calculation of interest on loan.
- 7.49 The repayment for the year of the tariff period has been considered as deemed to be equal to the depreciation allowed for that year. The opening values for FY 2016-17 has been considered as per the closing values for the FY 2015-16 as approved in the Trueup.
- 7.50 The normative loan component has been worked out as summarized in the following table:
- 7.51 The interest rate for normative loan during the MYT Control period has been considered as the SBI base rate as on 1st April of the financial year plus 200 basis points as per JSERC Distribution Tariff Regulations 2015.
- 7.52 The interest on normative loan as computed by the Commission for MYT Control period is summarized in the following table:

Table 86: Interest on Normative Loan (in Rs Cr) as approved by the Commission

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Net Loan-Opening	7.06	19.51	18.02	19.44	20.50
Additions	13.47	0.28	3.36	3.36	0.00
Repayment during the year	1.01	1.77	1.95	2.30	2.49
Net Loan-Closing	19.51	18.02	19.44	20.50	18.01
Average Loan	13.28	18.77	18.73	19.97	19.25
Weighted Average Rate of Interest on Loan (%)	11.30%	11.10%	10.70%	10.70%	10.70%
Interest on Loan	1.50	2.08	2.00	2.14	2.06

Interest on Working Capital

Petitioner's submission

- 7.53 The Petitioner has claimed normative interest on working capital for MYT Control period based on the provisions of JSERC MYT Regulations, 2015.
- 7.54 The interest on working capital as submitted by the Petitioner has been depicted in the table below.

Table 87: Interest on working capital (in Rs Cr) as submitted by the Petitioner

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Interest on Working Capital	8.08	8.40	8.34	9.03	9.31

Commission's analysis

- 7.55 The Commission has considered the interest on working capital as per the norms specified in the JSERC MYT Regulations 2015.
- 7.56 As per JSERC MYT Regulations 2015, the working capital requirements are to be determined as per the following norms:-
- e) Operation & Maintenance expenses for one month; plus
 - f) Maintenance spares @ 1% of opening GFA; plus
 - g) Receivables equivalent to expected revenue of two months; minus
 - h) Amount held as security deposit; minus
 - b) One month equivalent of cost of power purchased, based on the annual power procurement plan
- 7.57 Rate of interest on working capital has been considered to be equal to the base rate of SBI as applicable on the 1st April of the relevant financial year plus 350 basis points as per Regulation 6.31 of the JSERC MYT Regulations 2015.
- 7.58 The interest on working capital as computed by the Commission for the MYT Control period is summarized in the following table:

Table 88: Interest on Working Capital (in Rs Cr) as approved by the Commission

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
O&M Expense for one month	1.49	1.55	1.62	1.69	1.76
Maintenance Spares @ 1% of GFA	0.19	0.38	0.38	0.43	0.48
Receivables (Two months)	68.07	67.57	68.50	70.40	73.86
Minus: Security Deposit					
Minus: Power Purchase Cost (One month)	31.83	31.36	31.75	32.56	34.18
Total Working Capital Requirement	37.92	38.14	38.75	39.97	41.93
Rate of Interest (%)	12.80%	12.60%	12.20%	12.20%	12.20%
Interest on Working Capital	4.85	4.81	4.73	4.88	5.12

Return on Equity

Petitioner's submission

- 7.59 The Petitioner submitted that return on normative equity is computed as per provisions of JSERC Distribution Tariff Regulations 2015. The methodology followed by the Petitioner for the computation for the Return on Equity has been depicted in the table below:

Table 89: Return on Equity (in Rs Cr) as submitted by the Petitioner

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Opening Equity	5.57	11.35	11.47	12.91	14.35
Additions in Equity	5.77	0.12	1.44	1.44	0.00
Closing Equity	11.35	11.47	12.91	14.35	14.35
Average Equity	8.46	11.41	12.19	13.63	14.35
Rate of ROE	15.50%	15.50%	15.50%	15.50%	15.50%
Return on Equity	1.31	1.77	1.89	2.11	2.22

Commission's analysis

- 7.60 The Commission has approved the Return on Equity on the approved equity employed for the control period as per the Regulations specified in the JSERC Distribution Tariff Regulations, 2015:

6.17 The rate of return on equity shall be 15.5% (post-tax) for the period of these Regulations; Provided that in case of projects commissioned on or after 1st April, 2016 the rate of return shall be increased by 0.50%, if such projects are completed within the time line specified in the capital investment plan approved by the Commission;

6.18 Return on equity shall be allowed on equity employed in assets in use considering the following:

a) Equity employed in accordance with clause 6.15-6.16 of these Regulations on assets (in use) commissioned as on the beginning of the year; and

b) Average equity projected to be employed in accordance with clause 6.16 of these Regulations on assets (in use) commissioned during the year;

6.19 Return on equity invested in work in progress shall be allowed from the date of commercial operation of the assets;

- 7.61 The Rate of return on equity is considered to be 15.50%. Accordingly, the Commission computed normative return on equity as follows:

Table 90: Return on Equity (in Rs Cr) as approved by the Commission

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Opening Equity	5.57	11.34	11.46	12.90	14.34
Additions in Equity	5.77	0.12	1.44	1.44	0.00
Closing Equity	11.34	11.46	12.90	14.34	14.34
Average Equity	8.46	11.40	12.18	13.62	14.34
Rate of ROE	15.50%	15.50%	15.50%	15.50%	15.50%
Return on Equity	1.31	1.77	1.89	2.11	2.22

Provision for Bad Debts

Petitioner's submission

- 7.62 The Petitioner submitted that the target for collection efficiency has been kept at 100 % of billing in accordance with Regulation 5.24 of the Tariff Regulations, 2015.

Commission's analysis

- 7.63 The Commission had already set the targets for the Collection efficiency and directs the Petitioner to abide by the targets set the Commission.

Summary of ARR for MYT Control period

Petitioner's submission

- 7.64 The following table contains a summary of ARR for MYT Control period FY 2016-17 to FY 2020-21 as submitted by the Petitioner:

Table 91: ARR* (in Rs Cr) as submitted by the Petitioner for the MYT Control Period

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Power Purchase Cost	431.56	436.19	427.62	461.84	475.90
Employee Expenses	11.82	12.34	12.88	13.44	14.02
R&M Expenses	4.23	5.08	6.10	7.32	8.80
A&G Expenses	2.35	2.46	2.56	2.67	2.79
Depreciation	1.76	1.79	2.12	2.30	2.30
Interest on Loan	1.46	2.04	2.02	2.15	2.08
Return on Equity	1.31	1.77	1.89	2.11	2.22
Interest on Working Capital	8.08	8.40	8.34	9.03	9.31
Annual Revenue Requirement	462.59	470.05	463.54	500.87	517.42

* Revised submission by the Petitioner

Commission's analysis

- 7.65 The following table summarizes the ARR for each year of the MYT Control period FY 2016-17 to FY 2020-21 as approved by the Commission.

Table 92: ARR (in Rs Cr) as approved by the Commission for the MYT Control period

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Power Purchase Cost	381.90	376.34	380.99	390.70	410.11
Employee Expenses	11.82	12.34	12.88	13.44	14.02
R&M Expenses	3.67	3.83	4.00	4.17	4.36
A&G Expenses	2.36	2.46	2.57	2.68	2.80
Depreciation	1.01	1.77	1.95	2.30	2.49
Interest on Loan	1.50	2.08	2.00	2.14	2.06
Return on Equity	1.31	1.77	1.89	2.11	2.22
Interest on Working Capital	4.85	4.81	4.73	4.88	5.12
Annual Revenue Requirement	408.44	405.40	411.01	422.42	443.17

Revenue from Existing Tariff*Petitioner's submission*

- 7.66 The category wise calculation of revenue from existing tariff as submitted by the Petitioner for each year of the MYT Control period FY 2016-17 to FY 2020-21 is summarized in the following table:

Table 93: Revenue at the Existing Tariff (in Rs Cr) as submitted by the Petitioner

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
DS-II	17.98	16.44	18.27	20.33	22.62
DS-II (>200 units)	9.7	10.8	12	13.35	14.85
DS-III	1.77	4.35	4.35	4.35	4.35
DS-HT	2.06	2.32	2.58	2.84	3.1
LTIS	0.48	0.48	0.48	0.48	0.48
NDS	10.15	10.73	11.35	12.01	12.72
HTS-11 kV	7.55	10.38	14.2	18.7	24.88
HT/LT Utilities	26.65	28.11	27.64	29.7	29.97
Revenue from Steel Plant	217.77	219.47	221.18	222.9	224.64
Total Revenue (Township + Plant)	294.11	303.07	312.05	324.66	337.62

Commission's analysis

- 7.67 The Commission has computed the category-wise revenue from sale of power for the MYT Control period based on the approved sales, number of consumers and connected load for the relevant year as per this Order and the category-wise existing tariffs as per the Tariff Order dated September 03, 2014.
- 7.68 The Petitioner in its Petition has submitted that the revenue and energy consumed for HT/LT Utilities category has been calculated on assessment basis but has projected revenue from the same for the entire control period. The Commission vide its discrepancy note has directed the Petitioner to provide proper justification regarding the same.
- 7.69 The Petitioner vide its reply submitted that the revenue from HT/LT utilities has been considered on the average power purchase rate considered in the Petition during the years under consideration. The Commission directs the Petitioner to install meters for all the categories of such consumers and submit a compliance report to the Commission within 1 year from the date of issuance of this Order
- 7.70 The details of category wise revenue at existing tariff for the MYT Control period as approved by the Commission is provided in the table below:

Table 94: Category wise Revenue at Existing Tariff (in Rs Cr) as approved by the Commission

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
DS-II	16.46	16.23	16.80	17.40	18.02
DS-II (>200 units)	9.49	10.67	11.05	11.43	11.84
DS-III	1.74	3.21	5.09	8.19	13.32
DS-HT	1.92	2.05	2.20	2.35	2.51
LTIS	0.35	0.35	0.35	0.35	0.35
NDS	10.11	10.64	11.21	11.81	12.45
HTS-11 kV	7.10	9.37	12.40	16.56	22.09
HT/LT Utilities*	30.22	30.22	30.22	30.22	30.22
Net Revenue from Steel Plant (Considered 5% Voltage rebate & 2% PF rebate)	223.73	225.39	227.07	228.76	230.46
Total Revenue (Township + Plant)	301.11	308.14	316.38	327.07	341.26

* Sales under this head have been reclassified into NDS and SS for the purpose of calculation of revenue.

Revenue gap at existing tariffs for the MYT Control Period*Petitioner's submission*

- 7.71 The Petitioner submitted that it has calculated the revenue gap at existing tariff for the MYT Control period based on the proposed ARR and revenue from sale of power at

existing tariffs .The revenue gap at existing tariff as submitted by the Petitioner is summarised in the following table:

Table 95: Revenue Gap* at Current Tariff (in Rs Cr) as submitted by the Petitioner

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Net Revenue Requirement	462.59	470.05	463.54	500.87	517.42
Revenue from Sales at Existing Tariff	294.11	303.07	312.05	324.66	337.62
Revenue (Surplus)/ Gap for the year*	168.48	166.98	151.48	176.21	179.80

* Revised submission by the Petitioner

Commission's analysis

- 7.72 Based on the approved ARR and revenue at existing tariffs, the Commission has estimated the revenue gap for the MYT Control period as summarized below.

Table 96: Revenue Gap at Current Tariff (in Rs Cr) as approved by the Commission

Particulars (in Cr.)	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Net Revenue Requirement	408.44	405.40	411.01	422.42	443.17
Revenue from Retail sales at Existing Tariff	301.11	308.14	316.38	327.07	341.26
Revenue (Surplus)/ Gap for the year	107.33	97.26	94.62	95.35	101.92

A8. REVENUE GAP AND ITS TREATMENT

Revenue gap

Petitioner's Submission

- 8.1 The Petitioner estimated the revenue gap for the FY 2013-14 to FY 2017-18 based on the estimated ARR and revenue at existing tariff as provided in the table below:

Table 97: Revenue Gap (in Rs Cr)* for FY 2013-14 to FY 2017-18 as submitted by the Petitioner

Particulars	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18
Gross ARR	406.58	493.15	382.97	462.59	470.05
Revenue Realized from sale	410.35	428.76	284.82	294.11	303.07
Revenue Gap / Surplus)	3.78	64.39	98.15	168.48	166.98

**revised submission by the Petitioner*

Commission's analysis

- 8.2 The Commission approved the revenue gap for the FY 2013-14 to FY 2016-17 based on the estimated ARR and revenue at existing tariff as provided in the table below:

Table 98: Revenue gap (in Rs Cr) as approved by the Commission

Particulars	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17
Gross ARR	410.94	434.65	335.39	408.44
Revenue Realized from sale	413.12	431.60	290.82	301.11
Revenue Gap / Surplus)	(2.18)	3.05	44.57	107.33

Treatment of Revenue gap & Creation of Regulatory Asset

Petitioner's Submission

- 8.3 The Petitioner submitted that considering the above cumulative revenue gap till FY 2017-18, the revenue from proposed tariff will only provide a partial relief in recovering the revenue gap. The Petitioner submitted that the whole impact of revenue gap may not be plausible to be passed on to consumers, by way of revision in retail tariffs. Hence, it has proposed for the creation of Regulatory Asset which is as per the clause 10 of JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations 2015.
- 8.4 The Petitioner requested the Commission to approve the revenue gap after incorporating tariff hike as Regulatory assets and also provide an appropriate recovery mechanism to recover the same as per the provisions of Tariff Regulations 2015 and guidelines of National Tariff Policy 2016.

- 8.5 Further, the Petitioner proposed that a reasonable period may be allowed by the Commission to amortize the regulatory assets and passed on to the consumers.

Commission's analysis

- 8.6 The Commission has estimated the revenue gap till FY 2016-17 as Rs.152.77 Cr. Also, any variation between approved and actual values will be given due consideration at the time of True-up.
- 8.7 The Commission observed a number of deficiencies and inconsistencies in the submissions of the Petitioner and therefore the Commission has had to undertake a long process of repeatedly raising discrepancy notes and seeking additional information in order to process the tariff petition submitted by the Petitioner.
- 8.8 The Commission notes with concern that even after repeated directives, the Petitioner was not able to provide audited accounts of the electricity distribution business for SAIL-BSL due to which the Commission had conducted only provisional true up till FY 2010-11. The Commission in its earlier Orders had noted that the final true up shall be done once the Petitioner provides segregated, audited accounts for the electricity distribution business. The relevant extracts of the Orders have been reproduced below:

Order dated October 09, 2010

“5.3 The Commission also noticed that Annual accounts submitted by the Petitioner for FY 2008-09 were not audited and were merely extracted from the main audited accounts of Bokaro Steel Plant. Moreover, the accounts did not reflect the true picture of the electricity distribution business of the Petitioner. The deficiencies pertaining to the annual accounts were communicated to the Petitioner during the meeting held at the Commission's office at Ranchi. Therefore, the Commission for the purpose of issuance of this Tariff Order has decided to carry out a provisional true-up exercise for FY 2008-09 and final true-up will be done when the audited accounts for the electricity distribution business for the same year are made available to the Commission.”

Order dated September 28, 2011

“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 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, 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 exercise for FY 2009-10 and final true-up will be done when the segregated, audited accounts for the electricity distribution business for the same year are made available to the Commission.”

Order dated August 03, 2012

“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.”

- 8.9 Further, the Commission in its earlier Order dated September 03, 2014 had not conducted the True-up for FY 2011-12 & APR for the FY 2012-13 due to the lack of separate audited accounts of the Petitioner along with other relevant information. The relevant extracts of the Order dated September 03, 2014 has been reproduced below:

“1.16 The Commission in its previous order dated August 3, 2012 directed the Petitioner to segregate the accounts of the Distribution business from the Steel Plant. The same has not been achieved by the Petitioner till date. The accounts submitted by the Petitioner are merely extracted from the accounts of the steel plant on the basis of certain norms and assumptions. The accounts are also not certified by the statutory auditor of the company.”

“1.17 In order to assess the actual expenses of the Petitioner, the Commission directed it to submit the following additional information for prudence check:

.....

“

“1.18 However, the Petitioner has not submitted such details in spite of repeated reminders by the Commission. Hence the Commission in such a situation does not find it prudent to conduct true up for FY 2011-12 and annual performance review of FY 2012-13 and hereby directs the Petitioner to submit the true up of FY 2011-12 and FY 2012-13 along with the necessary additional information as mentioned in para 1.16 above.”

- 8.10 From the above, it can be inferred that the Commission had not conducted final true-up for the FY 200-09 to FY 2012-13 for SAIL-BSL. The Petitioner has now submitted true-up for the FY 2013-14 to FY 2015-16 based on the audited accounts. The Commission is of the view that conducting true up exercise for a mid-term period does not depict true and clear picture of the financial status of the utility. The Commission hereby directs the Petitioner to submit true-up Petitions for the FY 2008-09 to FY 2012-13 based on the segregated audited accounts of the electricity distribution business of SAIL-BSL.

- 8.11 The Commission after taking into due consideration the above aspects and keeping in mind the capital investment to be undertaken by the Petitioner as well as the inflationary pressure on the costs over the years, has arrived at a conclusion to approve an overall hike of ~11.60% . The Tariff approved by the Commission for various categories has been discussed in detail in further sections of this chapter.

A9. DETERMINATION OF WHEELING CHARGE, WHEELING LOSSES AND CROSS SUBSIDY SURCHARGE FOR FY 2018-19

- 9.1 As per Clause 3.1 of the JSERC Distribution Tariff Regulations, 2015, the Commission shall determine wheeling tariff, cross-subsidy surcharge, additional surcharge and other open access related charges. The relevant extract of the regulations has been reproduced below:

“3.1

...

Provided further that where the Commission has permitted open access to any category of consumers under Section 42 of the Act, the Commission shall determine the wheeling tariff, cross-subsidy surcharge, additional surcharge and other open access related charges in accordance with these Regulations and JSERC (Open Access in Intra-State Transmission and Distribution) Regulations, 2005 and as amended from time to time;”

- 9.2 As per the Jharkhand State Electricity Regulatory Commission (Terms and Conditions for Intra-State Open Access) Regulations, 2016, the Open Access charges includes wheeling charges, wheeling losses, Cross subsidy charges and additional surcharge apportioned voltage wise at 33 kV and above, 11kV and LT levels.

- 9.3 In line with the same, the Commission has determined the charges as discussed below:

Wheeling charges

Commission’s Analysis

- 9.4 According to Regulation 5.4 and Regulation 5.5 of JSERC Distribution Tariff Regulations, 2015, the Petitioner is required to segregate the accounts of the Licensed Business into Wheeling Business and Retail Supply Business. In absence of segregated accounts, the Petitioner is required to submit an allocation statement duly approved by the Board of Directors accompanied with an explanation of the basis and methodology used for segregation. The relevant extract of the Regulation has been reproduced hereunder:

“5.4 The Licensee shall segregate the accounts of the Licensed Business into Wheeling Business and Retail Supply Business. The ARR for Wheeling Business shall be used to determine Wheeling Tariff and the ARR for Retail Supply Business to determine Retail Supply Tariff;

5.5 For such period until accounts are segregated, the Licensees shall prepare an Allocation Statement to apportion costs and revenues to respective business. The Allocation Statement, approved by the Board of Directors of the Licensee, shall be accompanied with an explanation of the basis and methodology used for segregation which should be consistent over the Control Period.”

- 9.5 The Petitioner has not submitted duly approved allocation statement, in absence of separate accounting for wheeling and retail supply business and board allocation statement, the Commission is constrained to consider the allocation ratios as per clause 42.4 of the JSERC (Power Regulatory Accounting) Regulations, 2016. The allocation ratios considered as per the regulations is tabulated below:

Table 99: Allocation ratios considered as per JSERC Power Accounting Regulations 2016

S no	Cost Elements	Allocation to wheeling	Allocation to Retail Supply
1	Power Purchase Cost and Transmission Charges	0%	100%
2	Employee Expenses	60%	40%
3	A&G Expenses	50%	50%
4	R&M Expenses	90%	10%
5	Depreciation	90%	10%
6	Interest on Loan	90%	10%
7	Interest on Working Capital	10%	90%
9	Return on Equity	90%	10%
10	Interest on Security Deposit	0%	100%
11	Non Tariff Income	10%	90%
12	Income Tax	90%	10%

- 9.6 Based on the above allocation ratios, the Commission has computed the wheeling supply ARR as tabulated below:

Table 100: Segregation (in Rs Cr) into retail & wheeling business as approved by the Commission

Particulars	ARR for the FY 2016-17	Allocation to wheeling	Allocation to Retail Supply	ARR for Wheeling	ARR for Retail
Power Purchase Cost	381.90	0%	100%	0.00	381.90
Employee Expenses	11.82	60%	40%	7.09	4.73
R&M Expenses	3.67	90%	10%	3.31	0.37
A&G Expenses	2.36	50%	50%	1.18	1.18
Depreciation	1.01	90%	10%	0.91	0.10
Interest on Loan	1.50	90%	10%	1.35	0.15
Return on Equity	1.31	90%	10%	1.18	0.13
Interest on Working Capital	4.85	10%	90%	0.49	4.37
Annual Revenue Requirement	408.44			15.50	392.93

- 9.7 Accordingly, the wheeling charges as approved by the Commission for the FY 2016-17 is Rs 0.24/kWh.

Cross Subsidy Surcharge

Commission's Analysis

9.8 As per Clause 6.57 of the Distribution Tariff Regulations, 2015

“Cross-Subsidy Surcharge on Wheeling Charges

6.57 The surcharge payable by consumers opting for open access on the network of the Licensee will be determined by the Commission as per the following formula:

$$S = T - [C / (1 - (L / 100)) + D]$$

Where,

S is the surcharge;

T is the Tariff payable by the relevant category of consumers;

C is the weighted average cost of power purchase of top 5% at margin excluding liquid fuel source and renewable energy sources;

L is the system losses of the Licensee for the applicable voltage level, as a percentage;

D is the wheeling charge;”

9.9 The Commission has considered the Voltage wise losses at 45% for LT Category & 3% for the HT Category for the FY 2016-17 for the computation of voltage wise cost of supply, as the Petitioner is not in a position to provide the required data.

9.10 Further, for the computation of top 5% weighted average power purchase cost, the Commission has considered the average power purchase cost for the FY 2016-17 since the Petitioner is sourcing its power requirement from only DVC.

9.11 As per the above regulations and the losses approved by the Commission for the FY 2016-17 in the above sections, the Commission has computed the Cross subsidy surcharge for various consumer categories as tabulated below:

Table 101: Cross-subsidy surcharge as approved by the Commission for the FY 2016-17

Consumer categories	Voltage level	T- Tariff payable (ABR)	C- Power Purchase cost	L- System losses for the applicable voltage	D- Wheeling charge (Including transmission charges)	S- Cross subsidy surcharge (Rs/kWh)
Domestic-LT	LT	3.54	4.79	45.00%*	0.24	0.00
Domestic-HT	HT	3.79	4.79	3.00%	0.24	0.00
Commercial	LT	6.75	4.79	45.00%*	0.24	0.00
Industrial-LTIS	LT	7.18	4.79	45.00%*	0.24	0.00
Industrial-HTS	HT	5.68	4.79	3.00%	0.24	0.51
SS Service	LT	6.36	4.79	45.00%*	0.24	0.00

**loss levels considered only for township area*

- 9.12 All consumers who wish to avail open access will be levied no other charge other than Wheeling & Cross subsidy surcharge.
- 9.13 The Commission strictly directs the Petitioner to carry out a detailed technical study on voltage wise losses on Distribution network and furnish a report along with the next Tariff Petition.

A10. APPROVED RETAIL TARIFF FOR FY 2016-17

- 10.1 The Commission has approved an overall hike of ~11.60% in energy charges, fixed charges and demand charges in different categories to meet the revenue gap. The approved tariff would fetch an additional revenue of Rs 34.92 Cr with an overall revenue of Rs 336.03 Cr for the FY 2016-17. The Commission has determined category wise retail tariff for the FY 2016-17, as depicted in the following table:

Table 102: Approved Tariff for FY 2016-17

Category	Sub-Category		Approved Tariff (FY 17)	
			Energy Charges (Rs.)	Fixed Charges (Rs.)
Domestic	LT		3.25 / kWh	80 /conn /month
	HT		2.75 / kWh	90 / kVA /month
Commercial	All units		5.70 / kWh	140 / kW/ month
Industrial	Low Tension Industrial Supply	Demand based	4.50 / kWh	210 / kVA /month
		Installation based*	4.50 / kWh	110 / HP /month
Irrigation and Agriculture	High Tension Supply		5.40 / kWh	230 / kVA /month
			5.00 / kWh	20.00 / HP / Month
Institutional	Streetlight Service	Metered	4.50 / kWh	40 /conn /month
		Un-metered	-	150 Per 100 watt lamp and Rs 45 for every additional 50 watt
	Railway Traction, Military Engineering Services and Other Distribution Licensees		6.00 / kWh	350 / kVA / Month

*Note: Installation based tariff is applicable only till one year from the date of issuance of the Order;

Changes in Tariff Schedule

- 10.2 **Tariff Simplification:** The Commission is of the view that the prevailing tariff structure is elaborate with tariff categories and slabs defined for various segments of consumers. These have been developed over the years taking into account the socio-economic profile of the consumer mix, consumption patterns, etc.
- 10.3 The Economic Survey of India, 2015-16 also observes some of the above issues and views that simplification of tariffs with no more than 4-5 categories, will improve transparency in setting tariffs and may well yield benefits including enhanced consumption, collection efficiency, along with bringing in governance and other administrative benefits.

- 10.4 The Ministry of Power, Government of India also constituted a committee under the Chairmanship of Ms. Jyoti Arora, Joint Secretary, Ministry of Power, for developing a design framework for creation of tariff categories across India, to enable uniform and homogenous electricity tariff categorization. PricewaterhouseCoopers assisted the Committee to carry out a study for reviewing of the existing scenario of electricity tariffs in India, identifying national/international best practices and developing a framework as well as a roadmap for implementation of the new simplified tariff categories.
- 10.5 In this background, the Commission approves the new simplified tariff schedule as discussed in section A11 of this Order.
- 10.6 Further, the Commission has introduced rebate for prompt payment and online payment as discussed in detail in section A12 of this Order.

A11. TARIFF SCHEDULE FOR FY 2016-17

APPLICABLE FROM 01.06.2018¹

I. DOMESTIC SERVICE

Applicability:

Domestic Service–LT, Domestic Service-HT

This schedule shall apply to private 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 up to 1 BHP for domestic purposes and other household electrical appliances not covered under any other schedule.

This rate is also applicable for supply to religious institutions such as Temples, Gurudwaras, Mosques, Church and Burial/Crematorium grounds and other recognised charitable institutions, where no rental or fees are charged whatsoever. If any fee or rentals are charged, such institution will be charged under Non domestic category.

Rural drinking water schemes which are managed by Panchayats and User's Co-operatives are also included under this Category and corresponding Tariff would be charged depending upon the load of Pumping motors as applicable to the DS category.

Category of Services:

Domestic Service – LT: 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 including rural drinking water schemes.

Domestic service – 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 33kV or 11 kV voltage level.

Service Character:

- (i) For LT: AC, 50 Cycles, Single Phase at 230 Volts, Three Phase at 400 Volts.
- (ii) For HT: AC, 50 Cycles, at 11 KV or 33 kV.

¹ This schedule shall remain in force till the next tariff schedule is issued by the Commission.

Tariff:**Table 103: Approved Tariff for Domestic Category for FY 2016-17**

Consumer Category	Fixed Charges		Energy Charges
	Unit	Rate	Rate (Rs./kWh)
Domestic			
DS-LT	Rs./Conn/Month	80	3.25
DS-HT*	Rs/KVA/month	90	2.75

**Tariff for such HT supply in housing colonies/ multi-storeyed buildings/ housing complexes should be strictly as per this schedule*

Delayed Payment Surcharge: In accordance with Clause IV of Terms & Conditions of Supply as provided in Section A12 of this Tariff Order.

II. COMMERCIAL SERVICES (CS)

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

This schedule shall also applicable to electricity supply availed through separate (independent) connections for the purpose of advertisements, hoardings and other conspicuous consumption such as external flood light, displays, neon signs at public places (roads, railway stations, airports etc.), departmental stores, commercial establishments, malls, multiplexes, theatres, clubs, hotels and other such entertainment/ leisure establishments.

Provided that the electricity, that is used for the purpose of indicating/ displaying the name and other details of the shops or Commercial premises, for which electric supply is rendered, shall be covered under the prevailing tariff of such shops or commercial premises.

Service Category:

Commercial Service Rural: For Rural Areas not covered by area indicated for CS- Urban.

Commercial Service Urban: For Urban Areas covered by Notified Areas Committee /municipality / Municipal Corporation / All District Town / All Sub-divisional Town / All Block Headquarters /Industrial Area & Contiguous Sub-urban area, urban market place

Service Character:

AC 50 Cycles, Single phase at 230 Volts or Three Phase at 400 Volts.

Tariff:

Table 104: Approved Tariff for Commercial Category for FY 2016-17

Consumer Category Commercial	Fixed Charges		Energy Charges Rate (Rs./kWh)
	Unit	Rate	
All units	Rs./kW/Month	140	5.70

Delayed Payment Surcharge: In accordance with Clause IV of Terms & Conditions of Supply as provided in Section A12 of this Tariff Order.

Installation of Shunt Capacitors: In accordance with Clause VII of Terms & Conditions of Supply as provided in Section A12 of this Tariff Order.

III. IRRIGATION & AGRICULTURE SERVICE (IAS)

Applicability:

This schedule shall apply to all consumers for use of electrical energy for Agriculture purposes including tube wells and processing of the agricultural produce, confined to Chaff-Cutter, Thresher, Cane crusher and Rice-Hauler, when operated by the agriculturist in the field or farm and does not include Rice mills, Flour mills, Oil mills, Dal mills, Rice-Hauler or expellers.

Service Character:

AC 50 Cycles, Single Phase at 230 volts / 3 Phase at 400 volts

Tariff:

Table 105: Approved Tariff for IAS for FY 2016-17

Consumer Category IAS	Fixed Charges		Energy Charges
	Unit	Rate	Rate (Rs./kWh)
Metered	Rs./HP/Month	20	5.00

Delayed Payment Surcharge: In accordance with Clause IV of Terms & Conditions of Supply as provided in Section A12 of this Tariff Order.

Power Factor Penalty/Rebate: In accordance with Clause II of Terms & Conditions of Supply as provided in Section A12 of this Tariff Order.

IV. INDUSTRIAL SERVICES

Applicability:

- Low Tension Industrial Service (LTIS)
- High Tension Service (HTS)

Low Tension Industrial Service (LTIS): 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.

High Tension Service (HTS): The schedule shall apply for consumers having contract demand above 100 kVA.

Service Character:

Low Tension Industrial Service (LTIS): AC, 50 Cycles, Single Phase supply at 230 Volts or 3 Phase Supply at 400 volts.

High Tension Industrial Service (HTS): 50 Cycles, 3 Phase at 6.6 kV / 11 kV / 33 kV / 132 kV / 220 kV / 400 kV.

Tariff:

Table 106: Approved Tariff for Industrial services for FY 2016-17

Consumer Category Industrial services	Fixed Charges		Energy Charges Rate (Rs/kWh)
	Unit	Rate	
LTIS – Demand based	Rs./kVA/Month	210	4.50
LTIS – Installation based*	Rs/HP/Month	110	4.50
HTS	Rs./kVA/Month	230	5.40

**Note: Installation based tariff is applicable only till one year from the date of issuance of the Order;*

LTIS – Demand Based: 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.

LTIS- 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 regularization 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.

HTS: 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 A12 of this Tariff Order.

Load Factor Rebate for HTS: In accordance with Clause VI of Terms & Conditions of Supply as provided in Section A12 of this Tariff Order.

Voltage Rebate for HTS: In accordance with Clause V of Terms & Conditions of Supply as provided in Section A12 of this Tariff Order.

Delayed Payment Surcharge:

LTIS: In accordance with Clause IV of Terms & Conditions of Supply as provided in Section A12 of this Tariff Order.

HTS: The Delayed Payment Surcharge will be charged on a weekly basis at the rate of 0.4% per week and other conditions in accordance with Clause IV of Terms & Conditions of Supply as provided in Section A12 of this Tariff Order.

Power Factor Penalty/Rebate for LTIS: In accordance with Clause II of Terms & Conditions of Supply as provided in Section A12 of this Tariff Order.

Installation of Shunt Capacitors for LTIS: In accordance with Clause VII of Terms & Conditions of Supply as provided in Section A12 of this Tariff Order.

TOD Tariff for HTS Consumers: In accordance with Clause VIII of Terms & Conditions of Supply as provided in Section A12 of this Tariff Order.

Load factor rebate and power factor rebate shall not be allowed to consumers with outstanding arrears.

V. INSTITUTIONAL SERVICES

This tariff schedule shall apply for use of Street Lighting system, Railway Traction, Military Engineering Services and Other Distribution Licensees.

Applicability:

Street Light Service (SS):

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.

Railway Traction (RTS) and Military Engineering Services (MES): This tariff schedule shall apply for use of railway traction and Military Engineering Services (MES) for a mixed load in defense cantonment and related area.

Other distribution licensees: This tariff schedule shall apply to other distribution licensees procuring power from SAIL-BSL.

Service Character:

Street Light Service (SS): AC, 50 cycles, Single phase at 230 Volts or three phase at 400 Volts.

Railway Traction Service (RTS): AC, 50 cycles, Single phase at 132 kV.

Military Engineering Services (MES): AC, 50 cycles, three phase at 11 KV/ 33 KV/ 132 kV

Other Distribution Licensees: AC, 50 cycles, three phase at 11 KV/ 33 KV/ 132 kV

Tariff:

Table 107: Approved Tariff for Institutional Service for FY 2016-17

Consumer Category Institutional services	Unit	Fixed Charges Rate	Energy Charges Rate (Rs./kWh)
Street Light (Metered)	Rs./Conn/Month	4.5	40
Street Light (Un metered)	Rs/kW/Month	150 Per 100 watt lamp and Rs 45 for every additional 50 watt	-
Railway Traction Services, Military Engineering Services and Other Distribution Licensees*	Rs./kVA/Month	350	6.00

*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 A12 of this Tariff Order.

Maximum Demand for Railway Traction Services:

The demand charge shall be applied on maximum demand recorded or 75% of the contract-demand whichever is higher at any fifteen minutes time block for which the meter installed should have 15 minutes integration time.

Delayed Payment Surcharge:

In accordance with Clause IV of Terms & Conditions of Supply as provided in Section A12 of this Tariff Order

Load factor rebate shall not be allowed to consumers with outstanding arrears.

VI. TEMPORARY CONNECTIONS

Applicability:

The Temporary tariff shall be applicable as per the following conditions:

- (a) Temporary tariff is proposed to be equivalent to 1.5 times of the applicable fixed and energy charges for temporary connections falling in each prescribed tariff category with all other terms and conditions of tariff remaining the same.
- (b) Temporary connections shall be given prepaid meters with prepaid balance equivalent to 45 days of sale of power which shall be based on the assessment formula (LDHF) prescribed by the Commission.
- (c) Temporary connections shall initially be provided for a period of up to 30 days which can be extended on month to month basis upto six months.

Tariff:

Table 108: Approved Tariff for Temporary supply for the FY 2016-17

Consumer Category Temporary	Fixed Charges Rate	Energy Charges Rate (Rs./kWh)
All Units	1.5 times of the applicable fixed charges	1.5 times of the applicable energy charges

Schedule for Miscellaneous Charges

Table 109: Schedule for Miscellaneous Charges

S.No.	Purpose	Scale of Charges	Manner in which Payment will be Realised
1	Application fee		
	Domestic	Rs 20	Payable with energy bill
	Street Light	Rs 20	
	Agriculture	Rs 10	
	Commercial	Rs 20	
	Other LT Categories	Rs 50	
	HTS	Rs 100	
	EHTS, RTS	Rs 100	
2	Revision of estimate when a consumer intimates changes in his requirement subsequent to the preparation of service connection estimate based on his original application		
	Agriculture	Rs 10	Payable with energy bill
	Domestic	Rs 30	
	Commercial	Rs 30	
	Other LT Categories	Rs 50	
	HT Supply	Rs 150	
3	Testing of consumers Installation		
	First test and inspection free of charge but should any further test and inspection be necessitated by faults in the installation or by not compliance with the conditions of supply for each extra test or inspection	Rs 100	Payable with energy bill
4	Meter test when accuracy disputed by consumer		
	Single Phase	Rs. 40	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	Rs. 100	
	Trivector/ special type meter, HT,EHT metering equipment	Rs. 650	
5	Removing/Refixing of meter		
	Single Phase	Rs.50	Payable with energy bill
	Three Phase	Rs. 100	
	Trivector/special type, Three phase with CT/HT metering equipment	Rs. 300	
6	Changing of meter/meter equipment/fixing of sub meter on the request of the consumer/fixing of sub meter		
	Single Phase	Rs. 50	Payable with energy bill
	Three Phase	Rs. 100	
	Trivector/special type meter	Rs. 300	
7	Resealing of meter when seals are found broken		
	Single Phase	Rs. 25	Payable with energy bill
	Three Phase	Rs. 50	
	Trivector/ special type meter	Rs. 100	
8	Fuse call – Replacement		
	Board fuse due to fault of consumers	Rs. 15	Payable with energy bill

S.No.	Purpose	Scale of Charges	Manner in which Payment will be Realised
9	Consumer fuse	Rs. 15	Payable in cash in advance along with the request by the consumer. If the same consumer is reconnected / disconnected within 12 months of last disconnection/reconnection, 50% will be added to the charges
	Disconnection/Reconnection		
	Single Phase	Rs 30	
	Three Phase	Rs 75	
	LT Industrial Supply	Rs 300	
	HT Industrial Supply	Rs 500	
10	Replacement of meter card, if lost or damaged by consumer	Rs. 10	Payable with energy bill
11	Security Deposit		As per clause 8.2.8 -8.2.20 of the JSERC (Electricity Supply code) Regulations, 2015
12	Meter Rent/Month		Payable with energy bill
	DS Category Single Phase/ Three phase	Rs. 20/50	
	LT meter with CT	Rs. 250	
	11 kV at low Voltage	Rs. 400	
	11 kV at 6.6/ 11 kV	Rs. 600	
	33 kV HT side	Rs 2,500	
	132 kV	Rs 15,000	
	RTS or 220 kV	Rs 15,000	
13	Replacement of Burnt Meter	Cost of Meter	Payable with energy bill
14	Transformer Rent*		
	Upto 200 KVA	Rs 5500/month	Payable with energy bill
	Above 200 KVA	Rs 7500/month	Payable with energy bill

* Applicable for a 6 month duration from the date of taking the transformer on rent, thereafter monthly escalation of 10% would be applicable

A12. TERMS AND CONDITIONS OF SUPPLY

Besides the Terms and Conditions provided in the JSERC (Electricity Supply Code), Regulations, 2015, 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 up to 110% of the contract demand will be charged as per the normal tariff rate. The remaining recorded demand over and above 110% of the contract demand will be charged @ 1.5 times the normal tariff rate.

In case actual demand is higher than the contract demand for three continuous months, the same shall be treated as the new contract demand for the purpose of billing of future months and the consumer will have to get into a new agreement for the revised contract demand with the licensee.

Once the actual demand is recorded to be higher than contract demand for two continuous months, the licensee would serve notice to the consumer after the end of the second month for enhancement of the contract demand. The consumer would be liable to respond within 15 days of receipt of such notice and submit application for enhancement of contract demand to the licensee. The licensee would, within 15 days of receipt of response from the consumer, finalise the new agreement after making necessary changes at consumer's installations.

In case the consumer fails to respond within 15 days, the licensee would have the right to initiate enhancement of load as per the last recorded contract demand. While, in case the consumer provides an undertaking that the actual demand shall not exceed the contract demand again for a period of atleast six months from the last billing, the licensee shall continue to bill the consumer as per the existing contract demand and billing demand.

Provided that if the consumer fails to adhere to the undertaking and the actual demand exceeds the contract demand within the subsequent six months of the undertaking, the consumer shall have to pay a penal charge of 2 times the normal tariff for a period of three consecutive months and the licensee shall, after serving 7 days notice to the consumer, enhance the contract demand of the consumer as per the last recorded actual demand.

Clause II: Power factor Penalty/ Rebate

Power Factor Penalty

Power Factor Penalty will be applicable in case of maximum demand meters.

In case average power factor in a month for a consumer falls below 0.85, a penalty @ 1% for every 0.01 fall in power factor from 0.85 to 0.60; plus 2% for every 0.01 fall below 0.60 to 0.30 (up to and including 0.30) shall be levied on both demand and energy charges; plus 3% for every 0.01 fall below 0.30.

Power Factor Rebate

Power Factor rebate will be applicable in case of maximum demand meters.

In case average power factor as maintained by the consumer is more than 85%, a rebate of 1% and if power factor is more than 95%, a rebate of 2% on both 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 as stipulated in the JSERC (Supply Code) Regulations, 2015 and its amendments which is presently minimum 15 days after issue date of bill for LT Domestic, Commercial and Agriculture category and minimum 21 days after issue date of bill for other categories. 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:

Table 110: Voltage Rebate

Consumer Category	Voltage Rebate
HTS – 33 kV	3.00%
HTS – 132 kV	5.00%
HTS – 220 kV	5.50%
HTS – 440 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 rebate. However, the applicable rebate 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 energy charges only as given below:

Table 111: Load Factor Rebate

Load Factor	Load Factor Rebate
40-60%	Nil
60-70%	7.50%
70-100%	10.00%

Note: The above rebate will be available only on monthly basis and consumer with arrears shall not be eligible for the above rebate. However, the applicable rebate 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:

Table 112: Required kVAR Rating of LT Capacitors

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 consumers does not get the capacitor installed/replaced within the notice period, the consumer shall be levied a surcharge at 5% on the total billed amount charge (metered or flat), till they have installed the required capacitors.

No new connection shall be released for any consumer having aggregate inductive load greater than 3 HP (2.2 kW) unless the capacitors of suitable rating are installed.

Clause VIII: TOD Tariff

TOD tariff proposed shall be applicable as follows:

- Off Peak Hours: 10:00 PM to 06:00 AM: 85% of normal rate of energy charge.
- Normal Hours : 10:00 AM to 6:00 PM
- 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: Rebate for prompt payment

The due date for making payment of energy bills or other charges shall be as stipulated in the JSERC (Supply Code) Regulations, 2015 and its amendments which is presently minimum 15 days after issue date of bill for LT Domestic, Commercial and Agriculture category and minimum 21 days after issue date of bill for other categories. Rebate of 0.5% on the billed amount for payment of the bills within 10 days of issuance of the bills for all the category of consumers shall be allowed.

Clause X: Rebate for online payment

To motivate the consumers to make online payment of the bills through online web portal or digital methods, a rebate of 1% of the billed amount (subject to a maximum of Rs 250) shall be allowed. This rebate shall be in addition to rebate @ 0.5% for prompt payment. However, online payment rebate shall be applicable if the consumer makes full payment of the bill within due date.

Clause XI: Other Terms and 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.

Stopped/ defective meters

In case of existing consumers with previous consumption pattern, the provisional average bill shall be issued on the basis of average of previous three months consumption.

In case of meter being out of order from the period before which no pattern of consumption is available, the provisional average bill shall be issued on the basis of sanctioned/ contract load on following load factor applicable to respective categories, as shown below:

Consumer Category	Load Factor
Domestic & Religious Institutions	0.10
Non Domestic	0.20
LTIS/PHED LT	0.15
DS-HT	0.15
HTS	
11 kV	0.25
33 kV	0.30
132/220/440 kV	0.50
HTSS	0.50
RTS	0.25

Sale of Energy

No consumer shall be allowed to sell the electricity purchased from the Licensee to any other person/ entity.

Release of New Connections

No new connections shall be provided without appropriate meter. The tariff for un-metered connections shall be applicable only to the existing un-metered connections, until they are metered which should latest be by December 2018.

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 'Distribution Tariff Regulations, 2015' and as amended by the Commission from time to time.

A13. STATUS OF EARLIER DIRECTIVES

- 13.1 The Commission has time and again issued various directives in order to improve the functioning of the Petitioner. However, the Commission notes with concern that the Petitioner has repeatedly failed to comply with the directives of the Commission. The Commission directs the Petitioner to comply with the directives with utmost sincerity failing which penal action may be taken.

Directives	Status	Views of the Commission
Segregation of Accounts of the Electricity Distribution Business and Audit of Accounts		
<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 subsidise 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 2012 with the next tariff petition.</p>	<p>The Petitioner submitted that it has an integrated steel production business and the Company has been incorporated under the Companies Act. It prepares the Audited Annual Accounts as a statutory requirement since inception. The licensed electricity distribution business i.e. SAIL- BSL is a part of this overall integrated steel production business. SAIL continues to prepare its Audited Accounts as described above.</p> <p>The licensee in compliance to the directives of the Hon'ble Commission has prepared accounts for its Electricity Business, being duly verified and audited by a Chartered Accountant.. For the purpose of the instant filing, the segregation and allocation of costs is based on audited accounts of the Petitioner for its Electricity Business. The cost data is captured through the Financial Accounting System maintained on SAP platform and separate cost centers that have been created through which identification of directly allocable expenditures has been provided for.</p>	<p>The Commission has taken a note on the compliance of the Petitioner. However, the Commission notes with concern that the Accounts as submitted by the Petitioner are merely extracted from the steel plant accounts instead of maintaining segregated accounts for both the businesses. This shows that the Petitioner has taken the directives casually.</p> <p>The Commission, however, affords one more opportunity to comply with the directive, failing which appropriate penal action shall be taken against the Petitioner.</p>
Maintenance of Fixed Asset Register		
The Commission has noted that the Petitioner does not maintain a separate fixed asset register for its electricity distribution business	The Petitioner submitted that Fixed Assets Register has been prepared for the Steel Plant as a whole and it	The Commission is of the view that the directive has not been complied with. The Petitioner must expedite the process and submit the report of

Directives	Status	Views of the Commission
<p>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.</p> <p>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</p>	<p>encompasses all the assets of SAIL-BSL.</p>	<p>the exercise within 6 months of the date of issuance of Order.</p>
Timeliness and Data Adequacy in Next tariff petition		
<p>The Commission directed the Petitioner to come up with the next tariff petition, after removing the various data deficiencies highlighted in the Tariff Order. The Petitioner should prepare the petition in a professional manner and ensure that the data submitted to the Commission is accurate.</p>	<p>The Petitioner has appointed a professional group to prepare the tariff Petition and the presentation of data in professional manner. The present tariff Petition is prepared by the consultants with the data provided to them by SAIL/BSL.</p>	<p>The Petitioner has not complied with the timelines as specified in the JSERC Distribution Tariff Regulations, 2015. The Commission re-directs the Petitioner to comply with the timelines as specified in the Regulations.</p>
Sales Estimates & Projections		
<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 and submit a status report with the next tariff petition.</p>	<p>The Petitioner has projected the sales for the next control period with the best possible estimates using the CAGR based approach and the appropriate adjustments wherever required.</p>	<p>The Commission has taken note of the compliance of the directive.</p>
Distribution Loss		
<p>The Commission directed the Petitioner to constitute a task force for supervising distribution losses mitigation efforts in its licensed area.</p>	<p>SAIL- BSL has appointed different teams from TA-Electrical for monitoring of theft of energy in license area. The Petitioner has been making all out efforts towards reduction in the incidents of theft and losses. It is submitted in this regard that teams have been formed comprising senior officials to</p>	<p>The Commission has taken note of the steps taken by the Petitioner to contain distribution loss levels. However, it is a matter of grave concern that the actual distribution loss levels of the Petitioner have been significantly high compared to the distribution utilities serving in a similar geographical area. The</p>

Directives	Status	Views of the Commission
<p>The Commission also directed the Petitioner to prepare a detailed, year wise plan for reduction of distribution losses and submit it with the next Tariff Petition.</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>regularly visit different sites during the weeks and take appropriate action wherever hooking/illegal tapping is encountered. A recent office memo issuing directions for the same has been enclosed as Annexure B.</p> <p>In view of the above planning, the Petitioner has submitted its trajectory of loss reduction for the next MYT period in the present Petition.</p>	<p>Commission re-directs the Petitioner to continue taking measures so as to comply with the distribution loss levels as set by the Commission.</p>
Complaint redressal mechanism		
<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.</p> <p>The Commission also directed 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).</p>	<p>SAIL- BSL has set up camp/ office for Consumer Grievance redressal mechanism in the premises of TA- Electrical office. TA - Electrical is resolving Consumers grievance based on the application submitted by the consumers. The Consumer Grievance Redressal forum (CGRF) has been functioning with a Chairperson and 2 Members and a daily report is being prepared with the no. of issues being addressed per day.</p>	<p>The Commission takes note of compliance of the directive.</p>
Capital Investment Plan		
<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>SAIL- BSL has submitted all the details with regard to capital investment plan for MYT period in the Petition. Any further details for the planned expenditure shall be furnished as and when sought by the Hon'ble Commission</p>	<p>The Commission takes note of the compliance of the directive.</p>
Billing and Metering Related issues		

Directives	Status	Views of the Commission
<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.</p> <p>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 has taken steps to ensure metering of all the connections issued in the area. However, the same being a gradual process may take some more time to achieve 100% metering</p>	<p>The Commission is concerned that not much progress has been made by the Petitioner on the directive issued by the Commission regarding the installation of meters and a large number of consumers are still unmetered.</p> <p>Further, the Commission has observed that in several cases even when 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.</p> <p>The Petitioner is directed to provide meters for all unmetered services (own consumption) by December 2018 and submit compliance report failing which action will be initiated under Section 142 of the Act.</p>
Cost of Supply Study (CoS)		
<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</p>	<p>In order to calculate the category wise cost of supply, losses at different voltage level will have to be determined for which meters and CT/PT sets are to be installed at the substation. Further, metering of 11 kV feeders hasn't been accomplished so far. In view of this, the Petitioner is not in a</p>	<p>The Commission directs the Petitioner to conduct a CoS study for each category of consumers and submit it to the Commission along with the next Tariff Petition.</p>

Directives	Status	Views of the Commission
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.	position to calculate the category wise cost of supply.	
Separate Connections to Consumers of the Cooperative Housing Society		
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 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.	The Petitioner has not submitted any compliance on the same.	The Petitioner has not complied with the directive. The Petitioner must supply individual commercial/ residential connections to all residents of the co-operative colony who have applied for it (or apply for it in the future). As regards the connections that have already been applied for, the same should be released within 2 months of this Order.
Energy Audit		
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.	The Petitioner submitted that energy audit has been undertaken for the entire Steel Plant	The Commission takes note of the compliance of the directive
Sources of Power Purchase		

Directives	Status	Views of the Commission
<p>The Commission directed the Petitioner to make all efforts to explore cheaper sources of power and purchase therefrom.</p> <p>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 at around Rs 4.00 per unit.</p>	<p>SAIL- BSL is purchasing power through DVC only, as SAIL- BSL has already signed a PPA with DVC to procure power. Hence, it is not possible for SAIL- BSL to procure power other than any source. It is further submitted that the Petitioner expects the rate of power purchase from DVC to come down once a truing up is conducted by the Hon'ble Commission on the past ARR of DVC. Further, the long term PPA provided certainty of power availability with the Petitioner.</p>	<p>The Commission is of the view that the Petitioner has not made any efforts in sourcing power from cheaper sources other than DVC. The Commission re-directs the Petitioner to explore cheaper sources of power and submit a report regarding the same to the Commission within 6 months of issuance of this Order.</p>
Presentation during the Public Hearing		
<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>SAIL- BSL will make presentation more informative this time in public hearing.</p>	<p>The Commission takes note of the compliance to this directive.</p>
Customer Security Deposit		
<p>The Petitioner was 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.</p> <p>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.</p> <p>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.</p>	<p>SAIL- BSL is not taking any security deposit from BSL employees and HT/LT utilities.</p>	<p>The Commission takes note of the compliance to this directive.</p>

Directives	Status	Views of the Commission
RPO Obligation		
The Commission had ordered the licensee to purchase energy from renewable energy sources in accordance with JSERC (Renewable Purchase Obligation and its Compliance) Regulations, 2010.	SAIL- BSL has filed a Petition in Case No. 07 of 2016 praying for exemption from RPO compliance justifying that the power purchased from DVC in essence covers the Renewable purchase obligation of SAIL- BSL also. The proceedings in the above matter are underway and thus the Petitioner has not projected any power from any renewable sources. Further steps taken towards developing a renewable energy portfolio have been deliberated in the Petition	The Commission directs the Petitioner to comply with the Order notified/ to be notified by the Commission in Case no 7 of 2016.

A14. DIRECTIVES

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

- 14.1 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.
- 14.2 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.
- 14.3 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 March 31, 2018 with the next tariff petition.

True-up Petition for the FY 2008-09 to FY 2012-13

- 14.4 The Commission directs the Petitioner to submit true-up Petitions for the FY 2008-09 to FY 2012-13 based on the segregated audited accounts of the electricity distribution business of SAIL-BSL.

Timeliness and Data Adequacy in Next tariff petition

- 14.5 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.

Power purchase optimization

- 14.6 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 of power purchased from DVC is high – the average cost of power purchase from DVC was Rs 4.70/kWh in FY 2015-16. The Commission directs the Petitioner to make all efforts to explore cheaper sources of power and submit a report to the Commission within six months of issuance of this Order.

Quality of power/ Reliability Indices and Standard of Performance (SOP)

- 14.7 The Commission directs the Petitioner to continue submitting monthly report on Reliability Indices in MS-Excel format along with compliance to SOPs in true spirit, in course of achieving 24x7 quality & reliable power.

Impact assessment study for switching from kWh billing to kVAh billing

- 14.8 The Commission directs the Petitioners to carry out impact assessment study on transition from kWh billing to kVAh billing, for a sample set of consumers in the HTS category, and submit a report within six months of issuance of this Order.

Removal of Installation Based Tariff

- 14.9 The Commission hereby directs the Petitioner to replace all existing meters of LTIS consumers with MDI meters in a phased manner so as to convert all the existing Installation based consumers to Demand based consumers within one year from the date of issuance of the Order.

Strengthening/ Increasing effectiveness of consumer grievance redressal mechanism

- 14.10 The Commission directs the Petitioner to strengthen and increase effectiveness of its consumer grievance handling mechanism and submit a report to the Commission along with the next Tariff Petition indicating- total number of complaints received, nature of complaint, complaints resolved, average resolution time, complaints pending etc.

Bank Guarantee for security deposit above Rs 10 Lakhs

- 14.11 The Commission directs the Petitioner to strictly comply with Clause 8.2.20 of the JSERC (Supply Code) Regulations, 2015 as per which:

“The Consumer whose total amount of Security Deposit exceeds Rs. 10 Lacs may, at his option, furnish irrevocable Bank Guarantee from a nationalized or scheduled commercial Bank initially valid for a period of two years. It shall be the responsibility of the consumer to keep the Bank Guarantee valid at all times and to renew the Bank Guarantee at least 2 months prior to its expiry”

- 14.12 The above mentioned clause shall be applicable for all existing as well as new consumers.

Investment in Cyber Security solutions

- 14.13 Owing to widespread cases of compromise of various Government websites in the country, the Commission is of the view that deployment of cyber security solutions needs to be looked into. Moreover, with increasing focus on digital mode of payment coupled with the rebate on payment of electricity bills online/ through digital mode, it becomes even more important to invest in cyber security solutions. In this regards, the Petitioner may look into the possibilities of investing in such cyber security solutions. The cost incurred on such investment shall be allowed to be recovered through the ARR, subject to prudence check.

Metering Plan

- 14.14 The Commission directs the Petitioner to provide status update to the Commission regarding category-wise defective/ burnt/ non-performing meters and action plan on replacement of these with the next tariff Petition.
- 14.15 **The Commission directs the Petitioner to prepare a metering plan to provide meters to all the unmetered consumers and also ensure that no new connection is released without a meter. The metering plan should be submitted within three months of the issuance of this Tariff Order. Further, the plan should be implemented within a year of issuance of this Order failing which the Commission shall be constrained to declare such un-metered categories as illegal and the tariff for such categories shall stand abolished.**

Strengthening of Distribution Network

- 14.16 **The Commission directs the Petitioner to take appropriate steps to strengthen its distribution network. The Petitioner is directed to submit a detailed plan with expected benefits with the next tariff Petition.**
- 14.17 In addition, the Commission directs the Petitioner to implement safety measures in its network to avoid accidents which not only disrupts supply but also leads to loss of human life. **The Commission also directs the Petitioner to update and implement its Safety Manual in line with the Provisions of Indian Electricity Rules to avoid such disruptions and mishaps.**

Energy Audit & T&D Loss Reduction Plan

- 14.18 The Commission directs the Petitioner to conduct Energy Audit & prepare T&D Reduction Plan. 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 is required to submit the same along with its progress to the Commission within six months of issue of this Tariff Order.

Effectiveness of the Investments made

- 14.19 The Commission directs the Petitioner to carry out prudence check on schemes/ works under each head of plan being carried out during the year and furnish a report to the Commission, indicating cost benefit analysis and effectiveness of the investment, within six months from the date of issuance of the order.
- 14.20 **The Petitioner directs the Petitioner to submit a report, within 3 months of issuance of this Order, the steps taken by the Petitioner in maintaining quality in undertaking various construction works as well as procurement of maintenance spares.**

Billing & meter related issues

- 14.21 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 Petitioner is directed to strengthen its metering, billing and collection mechanism to ensure 100 per cent billing and collection.
- 14.22 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.
- 14.23 The Petitioner is directed to carry out the installation of meters for such consumers by December 2018. 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.
- 14.24 The Commission in its earlier Orders had directed the Petitioner to adhere to the directions issued by the Commission with respect to billing of the consumers. The Commission takes serious note of the non-compliance of the directions issued by the Commission. The Petitioner is strictly directed to bill the consumers on the basis of actual consumption during the month at the tariff approved by the Commission and not on a flat rate basis. The Commission shall be liable to take penal action against the Senior officials of SAIL-BSL upon non-compliance of this directive.

Wheeling Tariff

- 14.25 The Commission directs the Petitioner to propose capacity based Wheeling tariff and specify the voltage-wise distribution losses as per clause 7.9 of the JSERC MYT Regulations, 2015.

Completeness and Appropriateness of Petition

- 14.26 The Commission observed serious discrepancies and variations in the instant Petition. The required regulatory forms were also not filled in completely. **The Commission directs the Petitioner to ensure that all the Petitions, to be filed with this Commission in future, are in order and with the required details and documents.**

Segregation into Retail & wheeling supply of business

- 14.27 According to the Regulation 5.4 of the JSERC Distribution Tariff Regulations 2015, separate accounting has to be done for Wheeling & Retail supply of Business which has not been the case till now. As per Regulation 5.5 of JSERC Distribution Tariff Regulations 2015, until the time accounts are not segregated an Allocation Statement shall be prepared and submitted to apportion the costs and revenues after the approval of the Board of Directors.
- 14.28 The Commission strictly directs the Petitioner to make separate accounting for both the businesses and submit the allocation statement duly approved by the Board of Directors within 3 months of the date of issue of the Tariff Order.

Voltage wise- Cost of Supply

- 14.29 **The Commission directs the Petitioner to carry out a detailed technical study on voltage wise losses on Distribution network and furnish a report along with the next Tariff Petition.**

Theft of Electricity

- 14.30 The Commission directs the Petitioner to strengthen the vigilance wing and take up frequent checking of theft prone areas and also take appropriate steps to improve revenue collection in relation to revenue assessed in cases of theft.

Power Regulatory Accounts

- 14.31 The Commission directs the Petitioner to submit Power Regulatory accounts in line with JSERC Power Regulatory Accounting Regulations, 2016.

This Order is signed and issued by the Jharkhand State Electricity Regulatory Commission on this the 7th of June, 2018

It is made clear that the Order regarding revision of tariff shall come into effect from 1st of June, 2018 and shall remain in force till the next order of the Commission to that regard.

Date: 07.06.2018

Place: Ranchi

Sd/-
(R N Singh)
MEMBER (Engg.)

Sd/-
(Dr. Arbind Prasad)
CHAIRMAN

ANNEXURES

Annexure 1: List of participating members of public in the public hearing

Sl. No.	Name	Address / Organization if any
1.	A. K. Singh	7091/4F, Bokaro Steel City
2.	S. Kumar	I B 1834, Bokaro Steel City
3.	H. Singh	IC/238, Bokaro Steel City
4.	Yashpal	I/555, Bokaro Steel City
5.	L.N. Keshri	III A 643, Bokaro Steel City
6.	D. K. Singh	TA (Electricity), SAIL
7.	Abhay Kumar	TA (Electricity), SAIL
8.	M. Vinod Kumar	TA (Electricity), SAIL
9.	Manoj Kumar	4F-2105, Bokaro Steel City
10.	D.N. Ram	Sector IIB Qr. No. Z-316
11.	SNP Gupta	6A-2151, Bokaro Steel City
12.	O.P. Narayan	3-027,II B, Bokaro Steel City
13.	R. Kumar	170, IC, Bokaro Steel City
14.	M. Lal	3C/224, Bokaro Steel City
15.	G. N. Pandey	3C/276, Bokaro Steel City
16.	S. S. Gupta	5/C, 1055, Bokaro Steel City
17.	Rajendra Vishwakarma	Chairman, Bokaro Vyabsayik plot holder welfare Association, Bokaro Steel City
18.	Bhaiya Pritam	Bokaro Chamber of Commerce
19.	Jeevan	Plat No - HF-14, City Centre - 4
20.	Abhishek Aditya	Asst. Mgr. (TA-Revenue)
21.	S. N. Prasad	Ex. Manager, BSL
22.	Tapas Sahan	AGM (TE-Electrical)
23.	Ravindra Kumar	Bokaro Steel City
24.	Ram Pravesh	Sector IIIC/177, Bokaro Steel City
25.	Shaligram Singh	DGM/TE-Civil/SAIL/BSL
26.	Saurabh Srivastava	BSL
27.	D. Mandal	AGM/TA-Renueue/SAIL/BSL
28.	Karan Kumar	BSL, ADM
29.	A.P. Lakra	DGM (TA-Revenue)
30.	U. K. Singh	SMCHPDJ
31.	S. Bandi	DGM (TE-Civil)
32.	Ayush Kumar	Dy. Mgr. (TE-C)
33.	S.C. Mishra	Dy. Mgr. (TE-C)
34.	P.S. Singh	Sr. Mgr. (TE-Civil)
35.	B. Sharma	IV F/4001 (Sector)/ Bokaro Steel City
36.	Pravin Kumar	HA-10, City Centre, Bokaro Steel City
37.	G. Pandey	M-I, City Centre, Bokaro Steel City
38.	S. P. Singh	Se-3A, Bokaro Steel City

Sl. No.	Name	Address / Organization if any
39.	Harkishan Lal	6/A 1187, Bokaro Steel City
40.	R. S. Sah	2B 1-108, Bokaro Steel City
41.	Rajdeo Ram	2B 1-084, Bokaro Steel City