Tariff Petition

Submitted to

JHARKHAND STATE ELECTRICITY REGULATORY COMMISSION

Ranchi

By

SAIL, BOKARO

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

And

ARR for the MYT Period FY 2016-17 to FY 2020-21

In terms of

JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2010

And

JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2015

BEFORE THE JHARKHAND STATE ELECTRICITY REGULATORY COMMISSION, RANCHI

Filing No…………

Case No…………

IN THE MATTER OF:

Approval under section 61, 62 and 86 of the Electricity Act, 2003, JSERC (Terms & Conditions for determination of Distribution Tariff) Regulations 2010 and JSERC (Terms & Conditions for determination of Distribution Tariff) Regulations 2015 for filing of the True up for FY 2013-14 to FY 2015-16 and Multi Year Tariff for the Control period FY 2016-17 to FY 2020-21 for the Licensee.

AND

IN THE MATTER OF Steel Authority of India, Bokaro (hereinafter referred to as "SAIL-BSL" which shall mean for the purpose of this Petition the Licensee), a company incorporated under section 617 of the Companies Act, 1956 and having its main office at Bokaro.

AFFIDAVIT VERIFYING THE PETITION

I, , son of SHRI , aged years residing at , B S City hereby solemnly affirm and state as follows:

1. That, I am AGM (TE-Electrical), of SAIL- BSL, the Petitioner in the above matter and am duly authorised to swear this affidavit.

2. That, on behalf of SAIL- BSL, I am filing this Petition under The Electricity Act, 2003 for approval of the True-up of FY 2013-14 to FY 2015-16 and Aggregate Revenue Requirement ("ARR") and Determination of Multi Year Tariff for the Control period FY 2016-17 to FY 2020-21 to be charged by SAIL-BSL to its consumers in its Licensed Area in FY 2016-17 to FY 2020-21.

3. That, I further state that the statements made and the financial data presented in the aforesaid Petition are as per records of the Company and taken out from the Company's Accounts and on the information received from the concerned officials and is believed to be true to the best of my knowledge and borne out of official records. Further, all the statements and financial data are based on Accounting figure and estimations of FY 2013-14 to FY 2015-16.

4. That, to the best of my knowledge and material borne out of official records, no information has been concealed in the aforesaid Petition.

DEPONENT

VERIFICATION

I, , do hereby solemnly affirm that the contents of above affidavit are true to the best of my knowledge and nothing has been concealed there from.

Verified at Bokaro on this of July, 2017.

DEPONENT

BEFORE THE JHARKHAND STATE ELECTRICITY REGULATORY COMMISSION, RANCHI

Filing No…………

Case No…………

IN THE MATTER OF:

Approval under section 61, 62 and 86 of the Electricity Act, 2003, JSERC (Terms & Conditions for determination of Distribution Tariff) Regulations 2010 and JSERC (Terms & Conditions for determination of Distribution Tariff) Regulations 2015 for filing of the True up for FY 2013-14 to FY 2015-16 and Multi Year Tariff for the Control period FY 2016-17 to FY 2020-21 for the Licensee.

AND

IN THE MATTER OF Steel Authority of India, Bokaro (hereinafter referred to as "SAIL-BSL" which shall mean for the purpose of this Petition, the Licensee), a company incorporated under section 617 of the Companies Act, 1956 and having its main office at Bokaro

The Petitioner most respectfully submits as under: -

1. That Steel Authority of India, Bokaro is a company incorporated in the year 1964 under section 617 of the Companies Act, 1956 and is a wholly owned unit of Steel Authority of India, New Delhi. Bokaro Steel City in the district of Bokaro, Jharkhand is contiguous to Bokaro Steel City service area of SAIL-BSL.
2. That With the Electricity Act 2003 opening the sector for power distribution, as per the provisions of section 14 of Electricity Act 2003, Distribution License has been granted by Hon’ble Jharkhand state Electricity Regulatory Commission (hereinafter

"JSERC" or "Hon'ble Commission" or "State Commission") to SAIL-BSL and in reference to the Hon'ble Commission's direction to SAIL-BSL to file Petition for determination of "Distribution Tariff" for its licensed area, this Petition is being filed.

3. That the Hon'ble Commission has granted Power Distribution License (No.01 of 2005-06) to SAIL-BSL w.e.f. 28.7.2004 for the aforementioned area. Prior to date 28.07.2004, SAIL-BSL was a sanction holder under section 28 of the Electricity Act 1910, granted by the then undivided State of Bihar and accordingly it began the activity related to distribution of power in the said area.

4. That Pursuant to the enactment of the Electricity Act, 2003, SAIL-BSL is required to submit its ARR and Tariff Petitions as per procedures outlined in section 61, 62 and 64, of Electricity Act 2003, and the governing regulations thereof.

5. That the power for distribution at SAIL-BSL is purchased from Damodar Valley Corporation (DVC), whose generation and transmission tariffs have to be determined by the Hon'ble Central Electricity Regulatory Commission (CERC). Hon'ble CERC has determined and notified the tariff for DVC's generation and inter-state transmission activities vide different orders for the Tariff Period FY 2009-14 and FY 2014-19. The retail tariff order of DVC for the sale of power during FY 2013-14 to FY 2015-16 in Jharkhand was issued by the Hon'ble JSERC on 4.9.2014 and accordingly the tariff determined through this order is operational for SAIL-BSL taking power from DVC Generating Stations through inter-state transmission lines. SAIL-BSL is one of the many HT consumers of DVC along with West Bengal Electricity Distribution Company and Jharkhand Bijli Vitran Nigam Limited (JBVNL). DVC has filed its MYT Petition for the Control period FY 2016-17 to FY 2020-21 before the Hon'ble JSERC and the cost of power purchase claimed by DVC in its MYT Petition has been considered for the purpose of projections in case of SAIL- BSL.

6. That the present Petition is being filed before the Hon'ble Commission for truing up for FY 2013-14 to FY 2015-16, approval of the ARR and Tariff for the Multi-year Tariff period FY 2016-17 to FY 2020-21 for the Licensee as per the Electricity Act 2003.

7. That this application has been prepared in accordance with Section 61, 62 & 86 of the Electricity Act 2003 and has taken into consideration the provisions of the JSERC (Terms and Conditions for determination of Distribution Tariff) Regulation, 2010 and JSERC (Terms and conditions for determination of Distribution Tariff) Regulation, 2015 notified by the Hon'ble Jharkhand State Electricity Regulatory Commission.

8. That SAIL-BSL is filing a detailed tariff application along with the audited accounts for the purpose of truing up for FY 2013-14 to FY 2015-16 and determination of tariff for control period FY 2016-17 to FY 2020-21 to the Hon'ble Commission and it has made all out efforts to provide the necessary data for the same.

Prayers to the Commission:

The Petitioner respectfully prays that the Hon'ble Commission may:

1. Admit this Petition filed by SAIL- BSL;
2. Condone the delay in filing the present Petition;
3. Consider the submissions with respect to the filing of the True up for FY 2013-14 to FY 2015-16 and Multi Year Tariff for the Control period FY 2016-17 to FY 2020-21 for the Licensee.
4. Pass suitable orders with respect to the true up for the period FY 2013-14 to FY 2015-16 and 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;
5. Approve the revenue gap and appropriate tariff increase as detailed in the enclosed proposal;
6. Approve the Proposed Tariff Schedule;
7. 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;

8. 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;
9. Pass such orders as the Hon'ble Commission may deem fit and proper, keeping in view the facts and circumstances of the case;
10. Approve the creation of Regulatory Assets for such uncovered revenue gap as outlined in the present Petition;
11. Pass such further orders, as the Hon'ble Commission may deem fit and appropriate keeping in view the facts and circumstances of the case.

Cheque No. 264611 dated 6.7.2017 for ₹ 20.00 lakh (Rupees Twenty lakh) in favour of Secretary, JSERC, Ranchi, as fee to the Hon'ble JSERC for the ARR & MYT for Control period FY 2016-17 to FY 2020-21 is being submitted vide receipt no. ________. This cost may kindly be reimbursed to us, as Hon'ble Commission may deem fit.

Petitioner

Bokaro

Dated: /7/2017

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List of Abbreviations

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

1. INTRODUCTION

Background

1. Steel Authority of India, a Government of India Undertaking, established a Steel Plant at Bokaro in the erstwhile Bihar, now Jharkhand in 1964. In order to provide electricity to its officers and employees, Bokaro Steel Limited (SAIL- BSL) obtained sanction under Section 28 of Electricity Act 1910 from the erstwhile Government of Bihar in 1964. Since then it has been distributing electricity to the people living in Bokaro. It was buying power from DVC, another Government of India Undertaking, under PPA. Power so purchased was distributed for plant operation as well as for distribution in Bokaro Steel City for the people staying in the area of its operation.

2. In respect of the task of maintaining the township as part of its operation, SAIL-BSL has a Town Administration Department under which there are different wings like Township Electrical, Horticulture, Water Supply, Building and Roads maintenance etc. Electricity is received from DVC at 220 kV at 220/132 kV Main Receiving Substation at Bokaro Steel plant from where it is further distributed for end use in plant and township. All the expenses for the complete electrical business have been accounted for in the Accounts of the Steel Plant right from the inception, which are then audited by Statutory Auditors and thereafter by C&AG of India. The requirement of electricity in plant, township and surrounding area, which formed its area of supply under State Government's sanction, was being provided by the plant management.

3. When Electricity Act 2003 came in to being, Electricity Act 1910 (under which the sanction was granted) was repealed. Thereafter, SAIL-BSL applied to the JSERC for distribution license. After following the due process, JSERC granted "Distribution License" to SAIL-BSL and area of its operation was retained what was sanctioned by the then State Government.

4. The Petitioner is functioning in accordance with the provisions envisaged in the Electricity Act, 2003 and is engaged, within the framework of the Electricity Act, 2003,

in the business of Distribution of Electricity to its consumers situated in its licensed area of Bokaro Steel City.

5. Section 62 of the Electricity Act 2003 requires the licensee to furnish details as may be specified by the Commission for determination of tariff. In addition, as per the Tariff Regulations issued by the Hon'ble Commission, SAIL- BSL is required to file the Petition for all reasonable expenses it believes it would incur over the next financial year and seek the approval of the Hon'ble Commission for the same. The filing is to be done based on the projections of the expected revenue and costs, which should be arrived at by a reasonable methodology adopted by the Petitioner. JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2015 are applicable for the Control Period FY 2016-17 to FY 2020-21 and JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2010 are applicable for the period FY 2013-14 to FY 2015-16 for considering different elements of ARR.

6. SAIL- BSL has filed a Business plan for the MYT Control period FY 2016-17 to FY 2020-21 along with requisite details as provided in the JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2015. The present Petition has been prepared in line with the Business plan submitted to the Hon'ble Commission.

7. Based on the above premise, this Petition presents the true up for the period FY 2013-14 to FY 2015-16 and 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.

8. It is submitted that the existing legacy of high distribution losses in several pockets of the licensed area and regulatory disallowances, have led to poor financial condition of SAIL-BSL. It is further submitted that the Petitioner is committed towards improving the electricity availability in its area of operation, while achieving the operational turnaround for a sustained business model in future. A slew of measures are being undertaken and activities are being carried out at a considerable level to achieve the goal of becoming a utility with sustainable operations.

9. The following sections of the Petition present the details of expenditure incurred and that planned for the next MYT period, the projections of Aggregate Revenue Requirement, underlying approach & methodology and rationale for proposed ARR and Tariff.

2. APPROACH FOR THE PRESENT FILING

2.1.Regulations on Terms and Conditions of Tariff:

The determination of ARR is based on the provisions of the following Acts and Policies of the Government of India and principles outlined in the relevant regulations notified by the Jharkhand State Electricity Regulatory Commission:

- Provisions of Electricity Act 2003;
- Provisions of the National Electricity Policy;
- Provisions of the National Tariff Policy;
- Principles laid down in the JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2010 (hereinafter referred to as "Tariff Regulations, 2010") and JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2015 ("Tariff Regulations, 2015").

The Hon'ble Commission has issued the Tariff Regulations, 2010 and Tariff Regulations, 2015 which lay down the principles of filing true up and the business plan for the transition as well as control period.

Regulation A11 of 2010 Tariff Regulations lays down the principles of true up for the control period as follows:-

"True-Up for the Period before the Transition Period

11.1 Performance review and adjustment of variations of the Licensees for years before the Transition Period shall be considered during the Transition Period.

True-Up for the Transition Period

11.2 The true up of the various parameters for the years covered under the Transition Period shall be undertaken during the Control Period.

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."

Regulation A4 of the Tariff Regulations, 2015 lays down the principles of Multi Year framework for the control period FY 2016-17 to 2020-21 as follows:-

"Multi Year Tariff Framework for the Control Period (FY 2016-17 to FY 2020-21)

4.2 Each licensee shall file MYT Application and other documents with the Commission as per timelines specified in Section A11: of these Regulations;

The application shall include statements containing Aggregate Revenue Requirement (ARR) for the Previous Year, Base Year and projections for the Control Period. Information for the Previous Year should be based on audited accounts;

4.3 The guiding principles for MYT framework are described in Section 5 of these Regulations;

4.4 The principles for determination of ARR for the Control Period are described in Chapter III of these Regulations and procedure for filing during the Control Period is described in Chapter IV of these Regulations."

Further, Regulation 5.6 to 5.8 of the Tariff Regulations, 2015 provide for filing of the Business Plan *inter-alia* containing the Capital investment plan, Sales/Demand forecast, Power procurement, and distribution loss targets for the entire Control Period.

Accordingly, the present Petition is being filed in respect of the following:

1. True up for FY 2013-14 to FY 2015-16
2. ARR for the MYT control period FY 2016-17 to FY 2020-21

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. The Business Plan is based on the analysis of the capital expenditure to be incurred over the next Control period for technical and commercial efficiency improvements. The ARR for FY 2013-14 to FY 2015-16 is based on the Audited figures of the past years performance. SAIL-BSL has studied the past trends and other internal and external developments to estimate the projections for Control period FY 2016-17 to FY 2020-21.

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. 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.

3. TRUING UP FOR FY 2013-14 TO FY 2015-16

3.1.Background

As the Auditor's certified annual accounts of the Electricity Distribution Business are now available for FY 2013-14 to FY 2015-16, the Petitioner submits the required information for true up of expenditure and revenue items for FY 2013-14 to FY 2015-16 before the Hon'ble Commission and accordingly requests the Hon'ble Commission to allow the resultant revenue gap for the FY 2013-14 to FY 2015-16.

The tables in the subsequent paras highlight the figures approved by the Hon'ble Commission and the actual figures in line with the Tariff Regulations and based on audited/certified accounts.

3.2.Energy Sales/Consumption

Steel Plant consumption:-

SAIL- BSL is procuring electricity for consumption in the Steel Plant as well as for sale to the township. It is 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. Power purchase for the purpose of meeting the requirements of plant and Revenue from such consumption of power by the plant has not been considered as part of the ARR, as the rate at which power is sold to the plant is same as the power purchase rate from DVC. The purchase and sale of power for the Steel Plant is revenue neutral. It is humbly submitted before the Hon'ble Commission that the power consumption of the Steel Plant is the self consumption of the Petitioner and not the power sale at HTS tariff. In the previous order dated 3.9.2014, the Hon'ble Commission, considering the Plant consumption also in the power purchase, energy sales and revenue requirements, had determined the ARR of the Petitioner which had inadvertently resulted in surplus with the Petitioner, 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.

Accordingly, Energy sales for FY 2013-14 to FY 2015-16 as approved by the Hon'ble Commission and as per the audited data with regard to the Steel plant is shown below:-

Table 1: Energy Sales approved by the Commission for MYT period FY 2013-14 to FY 2015-16

Particulars	Unit	2013-14	2014-15	2015-16
Energy Sales – Township	(MU)	184.04	184.04	184.04
Distribution Losses	%	13%	11%	10%
Distribution Losses	(MU)	27.5	22.75	20.45
Total Energy Required for Township	(MU)	211.54	206.78	204.49
Energy Sales – Plant	(MU)	1107.10	1107.10	1107.10
Total Energy Required	(MU)	1318.64	1313.88	1311.59

Table 2: Actual energy consumption by the Steel Plant

Category	Unit	2013-14	2014-15	2015-16
Consumption by the Plant	MU	779.12	771.77	454.91

<u>Energy Sales to Township:-</u>

The category-wise no. of consumers, connected load and energy sales as approved by the Hon'ble Commission and as per the actual audited figures for FY 2013-14 to FY 2015-16 are given in the table below:

Table 3: No. of consumers, connected load, energy sales approved for the Township by the Commission for MYT period FY 2013-14 to FY 2015-16

Category	Unit	Number of Consumers (Nos.)	Connected Load	Energy Sales (MUs)
DS – II	kW	37441	93580	81.91
DS – HT	kVA	4	5086	6.14
LTIS	HP	41	824	0.18
NDS	kW	1621	14660	19.09
HTS – 11 kV	kVA	5	3057	2.23
HT/LT Utilities	kW	10815	26891	74.49
Total		**49927**	**-**	**184.04**

Table 4: Actual No. of consumers, connected load, energy sales for the Township for FY 2013-14

Category	Unit	Number of Consumers (Nos.)	Connected Load	Energy Sales (MUs)
DS – II	kW	36677	91692.5	80.21
DS – III	kW	12	321	1.06
DS – HT	kVA	5	4815	5.73
LTIS	HP	35	985	0.46
NDS	kW	1686	11366	10.64
HTS – 11 kV	kVA	5	2163	4.42
HT/LT Utilities	kW	656	26891	46.78

Table 5: Actual No. of consumers, connected load, energy sales for the Township for FY 2014-15

Category	Unit	Number of Consumers (Nos.)	Connected Load	Energy Sales (MUs)
DS – II	kW	37621	94053	84.26
DS – III	kW	11	321	1.21
DS – HT	kVA	5	4815	5.99
LTIS	HP	35	1017	0.55
NDS	kW	1715	11822	12.71
HTS – 11 kV	kVA	7	5125	5.67
HT/LT Utilities	kW	656	26891	48.17

Table 6: Actual No. of consumers, connected load, energy sales for the Township for FY 2015-16

Category	Unit	Number of Consumers (Nos.)	Connected Load	Energy Sales (MUs)
DS – II	kW	33080	84777.5	101.71
DS – III	kW	11	321	6.43
DS – HT	kVA	5	4815	6.2
LTIS	HP	35	1017	0.5
NDS	kW	1759	13132	14.53
HTS – 11 kV	kVA	7	3097	9.2
HT/LT Utilities	kW	656	26891	50.17

3.3.Distribution losses

The distribution losses for FY 2013-14, 2014-15 and 2015-16 are 52.50%, 51.93% and 42.43% respectively. The key reason behind the significantly high losses is theft of electricity through unauthorized means in the rural areas. It is submitted that the Petitioner has made several efforts to control such unauthorized usage of electricity. The key initiatives in this regard are listed below:

1. Formation of groups and roster wise site visits to check illegal connections and hooking in local areas.
2. Formation of teams jointly with the District police to launch massive drives to curb illegal power theft.
3. Routine visits by senior officials in high theft prone areas.

Further, the issues encountered and the steps undertaken by the Petitioner have been explained in detail as below:

1. There are several illegal possessions of the locals, and these illegal occupants do not have electricity connection. The Petitioner has not released connections to such illegal habitants, since that would tantamount to giving them a legal right to the occupied place. So, they have been consuming electricity through hooking and illegal tappings. It may be further noted that there are some areas which even though do not come under the Licensed area of SAIL- BSL, have been consuming electricity through hooking from SAIL- BSL's distribution system. These local people are supposed to use distribution system of Jharkhand Bijli Vitran Nigam Limited (JBVNL) but due to contiguousness of the area of supply with JBVNL, they have been illegally using the distribution system of SAIL- BSL despite several efforts made to control such theft of electricity. Subsequently, 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.

2. It is further submitted that 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.

3. In an instance of 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. This has been covered in several local media report viz. http://www.dailypioneer.com/state-editions/ranchi/eight-including-5-cops-hurt-in-bokaro-clash.html . This was one of the biggest operations conducted so far after meticulous planning with support of Police personnel and resulted in unearthing more than 20 electricity poles, half a dozen feeders and thousands of meters of wire which were being used illegally for power theft. However, whenever the Petitioner has tried to take corrective action in such instances, the local people have hurled stones, wielded rods, swords hurting the accompanying policemen, BSL guards and the employees. Newspaper articles have been enclosed in support of the claims made herein.

It is submitted that despite the efforts made by the Petitioner to curb theft and illegal tappings, the distribution loss in the form unauthorized usage remains largely unmitigated. In another instance of site visit, the police personnel had to charge rounds of tear gas to disperse the huge mob gathered to protest against the drive conducted by the Petitioner and pelt stones at the convoy of Petitioner company.

It is reiterated that the Petitioner 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. It is further submitted that the Petitioner is committed to reduce the losses and has been taking concrete steps for the same. However, such reduction may only be achieved in a gradual fashion.

The Hon'ble Commission has set the distribution loss target for the Petitioner in Regulation 5.23 of the Tariff Regulations, 2010 as depicted below:-

Table 7: Distribution loss trajectory as per norms

2011-12	2012-13	2013-14	2014-15	2015-16
17%	15%	13%	11%	10%

In view of the aforesaid reasons submitted by the Petitioner, it is prayed that since the above trajectory set for reducing the distribution loss is very stringent, and difficult to adhere to, the Hon'ble Commission may kindly relax the norms and approve the actual distribution losses and energy balance for FY 2013-14 to FY 2015-16 as per the audited accounts.

3.4. Energy Balance

Energy balance has been arrived at based on the actual power, energy sales and distribution losses for FY 2013-14 to FY 2015-16. The tables below highlight the Energy Balance as approved by the Hon'ble Commission and as per the audited figures for FY 2013-14 to FY 2015-16:-

Table 8: Energy balance approved by the Commission (MU)

Particulars	2013-14	2014-15	2015-16
Energy Sales – Township	184.04	184.04	184.04
Distribution Losses	13%	11%	10%
Distribution Losses	27.5	22.75	20.45
Total Energy Required for Township	211.54	206.78	204.49
Energy Sales – Plant	1107.1	1107.1	1107.1
Total Energy Required	1318.64	1313.88	1311.59

Table 9: Energy balance based on Actual data (MU)

Particulars	2013-14	2014-15	2015-16
Energy Sales –Township	149.31	158.56	188.74
Distribution Losses	52.50%	51.93%	42.43%
Energy at Township periphery	314.30	329.90	327.83
Energy consumption in Plant	779.12	771.77	454.91
Total Energy Available at SAIL-BSL Periphery	1093.43	1101.65	782.74

3.5. Power Purchase Cost

SAIL-BSL has been procuring power for distribution from DVC, whose generation and transmission tariff is determined by the Hon'ble CERC. It is 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[1] is used for emergency load of the Steel Plant only.

CERC has determined and notified the tariff for DVC's generation and inter-state transmission activities vide different orders for the Tariff Period FY 2009-14 and FY 2014-19. The retail tariff order of DVC for the sale of power during FY 2013-14 to FY 2015-16 in Jharkhand was issued by the Hon'ble JSERC on 4.9.2014 and accordingly the tariff determined through this order is operational for SAIL-BSL taking power from DVC from DVC Generating Station through inter-state transmission lines. SAIL-BSL is one of the many HT consumers of DVC along with West Bengal Electricity Distribution Company and Jharkhand Bijli Vitran Nigam Limited (JBVNL).

For the purpose of determination of power purchase cost, the cost of power purchase has been taken as to what is actually being paid to DVC for the power purchase. The power purchase cost as approved by the Hon'ble Commission and as incurred by the Petitioner during FY 2013-14 to FY 2015-16 as shown in the table below:

Table 10: Total Power purchase approved by the Commission

Particulars	Unit	2013-14	2014-15	2015-16
Total Power Purchase	MUs	1318.64	1313.88	1311.59
Per unit power purchase cost	Rs/kWh	4.08	4.08	4.08
Power Purchase Cost	₹ Crore	538.47	536.52	535.59

Table 11: Power purchase for Township based on Actual data

Particulars	Unit	2013-14	2014-15	2015-16
Power Purchase - Township	MUs	314.30	329.90	327.83
Per unit power purchase cost	Rs/kWh	3.48	4.23	4.57
Power Purchase Cost - Township	₹ Crore	109.29	139.66	149.89

It is requested to the Hon'ble Commission to approve the above submitted Power Purchase Cost.

[1] The Captive Power Plant was installed during inception of the steel plant i.e. during 1968-72 wherein by-product gases generated in the integrated steel plant processes are used as fuel. The high pressure (HP) steam generated is used for generation of electricity through six numbers of Turbo-Generators to total capacity of 302 MW.

3.6. Operation and Maintenance Expenses

The Operation and Maintenance (O&M) Expenses includes Employee Cost, Repair and Maintenance (R&M) Expenses and Administrative and General (A&G) Expenses. It is submitted that the O&M expenses for FY 2013-14 to FY 2015-16 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).

i. **Employee Expenses** amount to wages and salaries for officers and staff who are directly engaged in SAIL-BSL's electricity distribution business and employee expenses incurred on DNW and ETL proportionately in the ratio of distribution capacity of TA-Electrical Department to the total capacity. Employee expenses as approved by the Hon'ble Commission and that incurred on actual basis for FY 2013-14 to FY 2015-16 are as follows:-

Table 12: Employee Expenses approved by the Commission

(in ₹Crore)

Particulars	2013-14	2014-15	2015-16
Employee Expenses	8.78	9.46	10.20

Table 13: Employee Expenses based on Actual data

(in ₹Crore)

Particulars	2013-14	2014-15	2015-16
Employee Expenses	9.87	10.71	11.33

ii. **R&M expenditure** for distribution network includes expenditure distribution lines, power & distribution transformers, substation equipments, civil maintenance, spares, consumables, service contracts, complaints management etc. The expenditure has been considered on the basis of purchase orders identified by TA-Electrical. Similarly, expenses with regard to DNW and ETL have been considered based on distribution capacity ratio. R&M expenses as approved by the Hon'ble Commission and as incurred on actual basis for FY 2013-14 to FY 2015-16 is as follows:-

Table 14: R&M Expenses approved by the Commission

(in ₹Crore)

Particulars	2013-14	2014-15	2015-16
R & M Expenses	2.92	2.92	2.92

Table 15: R&M Expenses based on Actual data

(in ₹Crore)

Particulars	2013-14	2014-15	2015-16
R & M Expenses	4.42	3.07	3.52

iii. **A&G expenses** are the items of expenditure incurred directly in managing the distribution business in licensed area. These include regulatory and legal charges, consultancy charges, travel expenses, printing & stationery, press advertisement, telephone and mobile expenses, insurance premium, training, hired vehicle expenses, rent rates & taxes etc. These expenses have been computed after considering total expenses on this account for TA-Electrical. Similarly, expenses with regard to DNW and ETL have been considered based on distribution capacity ratio. A&G expenses as approved by the Hon'ble Commission and as incurred on actual basis for FY 2013-14 to FY 2015-16 is as follows:

Table 16: A&G Expenses approved by the Commission

(in ₹Crore)

Particulars	2013-14	2014-15	2015-16
A & G Expenses	0.48	0.52	0.56

Table 17: A&G Expenses based on Actual data

(in ₹Crore)

Particulars	2013-14	2014-15	2015-16
A & G Expenses	1.61	1.68	2.26

The summary of the O&M Expenses for FY 2013-14 to FY 2015-16 approved by the Hon'ble Commission and as per actual have been depicted in table below:

Table 18: O&M Expenses approved by the Commission

(in ₹Crore)

Particulars	2013-14	2014-15	2015-16
Employee Expenses	8.78	9.46	10.20
R & M Expenses	2.92	2.92	2.92
A & G Expenses	0.48	0.52	0.56
Total O&M expenses	**12.19**	**12.90**	**13.68**

Table 19: O&M Expenses based on Actual data

(in ₹Crore)

Particulars	2013-14	2014-15	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**

It is requested to the Hon'ble Commission to approve the actual O&M expenses for FY 2013-14 to FY 2015-16.

3.7.Gross Fixed Assets and Depreciation

The Gross Fixed Assets (GFA) and the consequent depreciation on GFA for FY 2013-14 to FY 2015-16 are discussed hereunder. The figures of GFA have been derived from the audited accounts. It is reiterated that the purchase orders of various items have been identified for the distribution business through the data maintained on SAP platform under different cost centers. Further, the figures here only pertain to TA-Electrical and any additions during the year, directly identifiable, have been considered in the accounts.

Table 20: GFA approved by the Commission

(in ₹Crore)

Particulars	2013-14	2014-15	2015-16
Opening GFA	11.46	19.79	28.12
Additional Capital expenditure	8.33	8.33	8.33
Closing GFA	19.79	28.12	36.45

Table 21: GFA based on Actual data

(in ₹Crore)

Particulars	2013-14	2014-15	2015-16
Opening GFA	9.20	15.27	16.11
Additional Capital expenditure	6.07	0.85	2.46
Closing GFA	15.27	16.11	18.58

The Tariff Regulations, 2010 (applicable for FY 2013-14 to FY 2015-16) specify that depreciation shall be calculated annually as per the Straight Line Method (SLM) at the rates of depreciation prescribed in the schedule attached to the Regulations in Appendix-II. Clause 6 of the Tariff Regulations, 2010 in this regard is extracted below:

> ***"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 1 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 prorate 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."*

It is further provided that capital base for the purpose of depreciation shall be the historical cost of the asset and the residual life of the asset shall be 10% of approved historical cost. Accordingly, depreciation approved by the Commission and calculated as per actual is as below:-

Table 22: Depreciation approved by the Commission

(in ₹Crore)

Particulars	2013-14	2014-15	2015-16
Depreciation	0.15	0.23	0.31

Table 23: Depreciation now claimed as per Regulations

(in ₹Crore)

Particulars	2013-14	2014-15	2015-16
Opening Gross Block	9.20	15.27	16.11
Additional Capitalisation	6.07	0.85	2.46
Closing Gross Block	15.27	16.11	18.58
Average Gross Block	12.23	15.69	17.35
Depreciation	0.16	0.29	0.41

It is requested to the Hon'ble Commission to approve the depreciation for FY 2013-14 to FY 2015-16.

3.8. Interest on Loan

Interest on Loan has been computed in accordance with Clause 6.19 and 6.24 of the Tariff Regulations, 2010. Clause 6.19 provides for the debt:equity ratio to be considered for the purpose of computing interest on loan.

> *"6.19*
> *…*
> *a) A Normative debt-equity ratio of 70:30 shall be considered for the purpose of determination of Tariff;*
> *b) In case the actual equity employed is in excess of 30%, the amount of equity for the purpose of tariff determination shall be limited to 30%, and the balance amount shall be considered as normative loan;*
> *c) In case the actual equity employed is less than 30%, the actual debt-equity ratio shall be considered;*

Further, the rate of interest shall be as provided by Clause 6.24 (c) i.e.

> *"In case of normative debt, the rate of interest shall be equal to the prime lending rate of SBI as applicable on 1st April of the relevant financial year;"*

It is submitted that since all the investments are been made in the electricity business from the funds received from SAIL- BSL, the normative debt:equity ratio of 70:30 has been considered for the purpose of tariff computations. Accordingly, the interest on loan approved by the Commission and calculated as per Tariff Regulations is as follows:-

Table 24: Interest on Loan as approved by the Commission

(in ₹Crore)

Particulars	2013-14	2014-15	2015-16
Interest on Loan	0.78	1.63	2.45

Table 25: Interest on Loan now claimed as per Regulations

(in ₹Crore)

Particulars	2013-14	2014-15	2015-16
Net Loan-Opening	6.44	10.69	11.28
Additions	4.25	0.59	1.73
Repayment during the year	0.16	0.29	0.41
Net Loan-Closing	10.53	10.99	12.60
Average Loan	8.48	10.84	11.94
Weighted Average Rate of Interest on Loan (%)	14.45%	14.75%	14.05%
Interest on Loan	1.23	1.60	1.68

3.9. Interest on Working Capital

Clause 6.28 of the Tariff Regulations, 2010 provides for determination of the interest on working capital as below:

6.28 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."

In accordance with the aforesaid Clause of the Tariff Regulations, 2010, the interest on working capital is allowed to meet the shortfall in collection over and above the target approved by the Commission. For the FY 2013-14 the rate of interest considered on working capital is the short-term Prime Lending Rate of State Bank of India as on 1st April of the relevant financial year.

Table 26: Interest on working capital as approved by the Commission

(in ₹Crore)

Particulars	2013-14	2014-15	2015-16
O&M expenses for 1 month	1.02	1.08	1.14
Maintenance spares: 1% of opening GFA	0.11	0.20	0.28
2 Months Revenue	100.99	100.99	100.99
Less: 1 month of power purchase cost	44.87	44.71	44.63
Total Working capital	57.25	57.56	57.78
S.B.I PLR	14.45%	14.75%	14.75%
Interest on working capital	**8.27**	**8.49**	**8.52**

Table 27: Interest on working capital now claimed as per Regulations

(in ₹Crore)

Particulars	2013-14	2014-15	2015-16
O&M expenses for 1 month	1.32	1.29	1.43
Maintenance spares: 1% of opening GFA	0.09	0.15	0.16
2 Months Revenue	6.71	10.36	11.46
Less: 1 month of power purchase cost	9.11	11.64	12.49
Total Working capital	-0.98	0.17	0.55
S.B.I PLR	14.45%	14.75%	14.75%
Interest on working capital	**0.00**	**0.02**	**0.08**

3.10. Return on Equity (RoE)

The RoE for FY 2013-14 to FY 2015-16 had been computed at a pre tax rate of 15.50% in accordance with Clause 6.1 of Tariff Regulations, 2010.

The opening value of equity and the addition during the year has been considered in accordance with Clause 6.19 of the Tariff Regulations, 2010. Equity has been identified on the basis of 70.30 debt:equity ratio (as per Tariff Regulations) of funds provided by SAIL-

BSL for the electricity distribution business and the remaining figure of funds provided by SAIL- BSL is considered as debt. The return on equity has been computed on the average equity base for the year after applying the rate of return at 15.50%. Return on Equity as approved by the Commission and as per actual data for FY 2013-14 to FY 2015-16:-

Table 28: Return on equity approved by the Commission

(in ₹Crore)

Particulars	2013-14	2014-15	2015-16
Opening Equity	3.15	5.65	8.15
Additions	2.50	2.50	2.50
Closing equity	5.65	8.15	10.65
Average Equity	4.400	6.90	9.40
Rate of Return	15.50%	15.50%	15.50%
Return on Equity	0.68	1.07	1.46

Table 29: Return on equity now claimed as per Regulations

(in ₹Crore)

Particulars	2013-14	2014-15	2015-16
Opening Equity	2.76	4.58	4.83
Additions	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

Accordingly, the Hon’ble Commission is requested to approve the above claimed Return on Equity for FY 2013-14 to FY 2015-16.

3.11. Revenue from sale of power

The Hon’ble Commission 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. Further, the revenue from consumption within the Steel Plant had been projected by the Hon’ble Commission considering the Steel Plant as a 132 kV HTS consumer of the Petitioner. It is however submitted that 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. The Petitioner humbly submits and prays to the Hon'ble Commission to consider it as entirely the self consumption of the Petitioner since the Petitioner doesn't bill the consumption by Steel Plant at HT tariff. This entails that the Steel Plant consumption is revenue neutral for the Petitioner against revenue surplus considered by the Hon'ble Commission in the previous Tariff Order. Thus, 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.

Accordingly, the Petitioner has only considered the revenue from sale of power in township corresponding to the distribution business of the Petitioner, at the existing tariff, as below:

Table 30: Revenue from sale of power to Township

(in ₹Crore)

Category	2013-14	2014-15	2015-16
DS-II	8.90	26.96	27.33
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	**40.27**	**62.17**	**68.74**

** the energy supplied to utilities such as schools, hospitals, street lighting, pump houses, administration buildings and offices of SAIL is not metered or billed and the expense for the same is being borne by the Plant Administration. The energy consumed and thus the revenue for such purposes has been considered on assessment basis.*

3.12. Summarised ARR and Revenue Gap for FY 2013-14 to FY 2015-16

The ARR and Revenue Gap for FY 2013-14 to FY 2015-16 along with previous year filing and approved figures approved by the Commission and are presented in the table below.

Table 31: ARR approved by the Commission

(in ₹Crore)

Particulars	2013-14	2014-15	2015-16
Power Purchase Cost	538.47	536.52	535.59
Employee Expenses	8.78	9.46	10.20

Particulars	2013-14	2014-15	2015-16
R&M Expenses	2.92	2.92	2.92
A&G Expenses	0.48	0.52	0.56
Depreciation	0.15	0.23	0.31
Interest on Loan	0.78	1.63	2.45
Return on Equity	0.68	1.07	1.46
Interest on Working Capital	8.27	8.49	8.52
Annual Revenue Requirement	560.53	560.84	562.00
Revenue at Existing Tariff	605.96	605.96	605.96
Revenue (Surplus)/Gap	**(45.43)**	**(45.12)**	**(43.96)**

Table 32: ARR claimed based on the present filing

(in ₹Crore)

Particulars	2013-14	2014-15	2015-16
Power Purchase Cost	109.29	139.66	149.89
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	0.16	0.29	0.41
Interest on Loan	1.23	1.60	1.68
Return on Equity	0.57	0.73	0.81
Interest on Working Capital	0.00	0.02	0.08
Annual Revenue Requirement	**127.13**	**157.76**	**169.96**
Revenue at Existing Tariff	40.27	62.17	68.74
Revenue (Surplus) /Gap	**86.86**	**95.59**	**101.22**

Accordingly, the Hon'ble Commission is requested to approve the above mentioned gap for FY 2013-14 to FY 2015-16.

4. ARR PROJECTIONS FOR THE MYT CONTROL PERIOD FY 2016-17 TO FY 2020-21

4.1. Introduction

In this section SAIL-BSL outlines its projections for the Control Period FY 2016-17 to FY 2020-21 in light of the performance for FY 2015-16 and based on the projections in accordance with the relevant provisions of the Tariff Regulations, 2015. The figures of FY 2015-16 have already been shown in detail in the previous chapter.

4.2. Energy Sales/Consumption Projections

Steel Plant consumption:- The consumption by the Steel Plant has been projected separately, since the Steel Plant's consumption is at 220 kV and owing to negligible losses at such level, the rate at which energy is consumed by the Steel Plant is accounted for at the rate of power purchase from DVC. It is reiterated and requested to the Hon'ble Commission to not consider the energy consumption of the Steel Plant as sale of power at HTS tariff. Energy sales, power purchase cost and revenue from sale of power is projected as follows:-

Table 33: Projections for consumption by the Steel Plant

Category	Units	2016-17	2017-18	2018-19	2019-20	2020-21
Consumption by the Steel Plant	MUs	458.46	462.03	465.64	469.27	472.93
Per unit power purchase cost	₹/kWh	5.31	5.60	5.51	5.92	5.97
Power Purchase Cost - Plant consumption	₹ Crore	243.52	258.87	256.49	277.81	282.52

As depicted in the earlier sections, the cost and revenue from Steel Plant consumption are accounted for at the same rate and it remains revenue neutral for the Petitioner. In view of the above, it is prayed to the Hon'ble Commission to kindly recognize the power requirements for Steel Plant as the self consumption of the Petitioner and not sale at HTS tariff.

Township Supply:-

The Petitioner has proposed to shift around 3000 consumers from DS II category to DS III category. Certain private schools, hotels, Banks and small industries are expected to come into HT 11 kV. 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.

For projecting the Sales in other categories, the existing no. of consumers have been projected to increase/decrease based on 4 year CAGR of previous years. Similarly, the connected load is also projected to increase/decrease based on the load per consumer. Based on the projected sales and load, the energy sales have been projected. The projections in respect of the no. of consumers, connected load and the energy sales are as follows:

Table 34: Projected No. of Consumers during the MYT Period (Nos.)

Category	2016-17	2017-18	2018-19	2019-20	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	15	20	20	20
HT/LT Utilities	656	656	656	656	656

Table 35: Projected Connected Load during the MYT Period

Category	Unit	2016-17	2017-18	2018-19	2019-20	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	kVA	4866.71	6636.43	8848.57	8848.57	8848.57
HT/LT Utilities	kW	26891	26891	26891	26891	26891

Table 36: Projected Energy Sales during the MYT Period (MUs)

Category	2016-17	2017-18	2018-19	2019-20	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	**205.31**	**215.19**	**236.22**	**261.33**	**291.65**

It is further submitted that the growth trend of increase in sales considered herein signifies the best possible projections as per the experience of the Petitioner and latest available data. Also, wherever the trend has seemed unreasonable or unsustainable, the growth factors have been appropriately modified by the Petitioner.

The Petitioner requests Hon'ble Commission to approve proposed energy sales and connected load as per the proposal of Petitioner.

4.3.Distribution Loss

Regulation 5.23 of the Tariff Regulations, 2015 provides the following in respect of the distribution loss targets:

> *"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."*

Regulation 5.23 of JSERC Terms and for Distribution Tariff) Regulation, 2015 provides that the Licensee shall be allowed to operate with relaxed distribution losses to the tune of 5% of the audited values. It is submitted that despite its best efforts, SAIL- BSL is finding it hard to meet the loss levels as desired by the Hon'ble Commission and as deemed suitable for the sustainable operation of the Licensee. It is further submitted that the Petitioner recognizes the importance of bringing down the losses in order to make its operations viable. It is understood that by any standards, the existing losses are unsustainable and imply deterioration in the operations. Continuation of the present level of losses would not only pose a threat to the operations but also jeopardize the growth prospects of the Licensee as well.

The Petitioner has been working strenuously to check the energy leakages. Several groups have been formed and rosters have been prepared for regular visits to check illegal connection and in local areas. Weekly roster is being prepared for senior officers of TA-Electrical to raid illegal connections and heavy penalty is imposed in case hooking is found. SAIL BSL is also taking help and support from district administration, which provides police force at the time of requirement.

It is reiterated that the Petitioner is striving hard to reduce distribution losses and has been timely introducing new initiates to check the same, but on an overall basis the situation has been largely uncontrollable due to legacy issues. It is further submitted that the Petitioner is committed to reduce the losses and has been taking concrete steps for the same. However, such reduction may only be achieved in a gradual fashion.

In view of the aforesaid reasons submitted by the Petitioner, it is prayed that since the trajectory set by the Hon'ble Commission in Tariff Regulations, 2010 for reducing the distribution loss is very stringent, and could not be adhered to during the past period, the Hon'ble Commission may kindly relax the norms and approve the following loss trajectory for the Control period FY 2016-17 to FY 2020-21:

Table 37: Projected Distribution loss during the MYT Period

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

It is requested that the Hon'ble Commission allows the aforesaid trajectory in view of the efforts and initiatives undertaken by the Petitioner towards the same. Further evidences on the steps taken by the Petitioner towards loss reduction efforts have been elaborated in the **Annexure A**.

4.4. Energy Balance

The Energy Balance of SAIL-BSL for the control period FY 2016-17 to FY 2020-21 which is based on the projected Energy Purchase and Sales based on the proposed trajectory of distribution losses is shown in the table below.

Table 38: Projected Energy Balance during the MYT Period

Particulars	Unit	2016-17	2017-18	2018-19	2019-20	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
Energy consumption - Plant	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

The trajectory of Distribution Loss levels is consistent with the initiatives planned during the control period to minimize the losses. With the increase in network spread, increase in load on the existing distribution system and increase in number of low tension consumers in the system, the Distribution Losses would tend to increase.

But SAIL-BSL shall demonstrate its commitment towards minimizing its distribution losses to the best possible level approaching technical limits.

4.5. Power Purchase Cost

Regulation 5.19 of the Tariff Regulations, 2015 provides for the projection of Sales and Power Purchase Cost, as below:

> *"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."*

SAIL- BSL has been purchasing power from DVC under a contractually binding PPA. DVC, a central PSU, is a power generating company under aegis of Government of India and supplies power to SAIL- BSL in accordance with the tariff fixed by the State Commission. It is 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.

SAIL-BSL has been able to cater to its systems energy requirement from the power available from DVC even under intermittent supply conditions. 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. It is nonetheless submitted that the Petitioner is committed to develop renewable energy generation capacity and has already taken several steps towards the same. Relevant details in this regard are as below:

SAIL as a company has committed to develop an overall capacity of 200 MW of renewable power. 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. 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. The power generated from this solar power plant will be evacuated through the 11 kV transmission lines to be laid under this project from solar power plant to the township. This project will further help the Petitioner to build its renewable portfolio. The process for land acquisition is underway and the same is expected to be completed in due course of time.

Table 39: Projected Power purchase during the MYT Period

Particulars	**Unit**	**2016-17**	**2017-18**	**2018-19**	**2019-20**	**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	₹/kWh	5.31	5.60	5.51	5.92	5.97
Total Power Purchase Cost	₹ Crore	431.56	436.19	427.70	461.98	476.10
Power Purchase Cost - Township	₹ Crore	188.03	177.31	171.21	184.18	193.58
Power Purchase Cost - Plant consumption	₹ Crore	243.52	258.87	256.49	277.81	282.52

The power purchase rates have been considered as submitted by DVC in its MYT Petition filed before the Hon'ble State Commission for the MYT Period FY 2016-17 to FY 2020-21. The Petitioner requests the Hon'ble commission to approve the Power Purchase Cost as detailed above which in line with the Tariff Regulations, 2015.

4.6. Operation and Maintenance Expenses

The Hon'ble Commission has defined O&M expenses in the Tariff Regulations, 2015 as a sum of:

- Employee Cost
- Administrative and General (A & G) Expenses
- Repair and Maintenance (R&M) Expenses

Further, Regulations 6.5 and 6.6 of the Tariff Regulations, 2015 describe O&M expenses as follows:

> *"6.4 The O&M expenses for the Base Year of the Control Period shall be approved by the Commission taking into account the audited accounts, business plan filed by the Licensees, estimates of the actual for the Base Year, prudence check and any other factor considered appropriate by the Commission;*
>
> *6.5 The O&M expenses permissible towards ARR of each year of the Control Period shall be approved based on the formula shown below:*
>
> *O&Mn = (R&Mn + EMPn + A&Gn)* (1-Xn) + Terminal Liabilities*
> *Where,*

R&Mn – Repair and Maintenance Costs of the Licensee for the nth year;
EMPn – Employee Costs of the Licensee for the nth year excluding terminal liabilities;
A&Gn – Administrative and General Costs of the Licensee for the nth year;
Xn – is an efficiency factor for nth year. The value of Xn will be determined by the Commission in its first MYT order for the Control Period;

6.6 The above components shall be computed in the manner specified below:

*a) R&Mn = 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;

b) EMPn (excluding terminal liabilities) + A&Gn = (EMPn-1 + A&Gn-1)(INDXn/ INDXn-1) + Gn*

Where,
INDXn – 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;

Gn – 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;

*c) INDXn = 0.55*CPIn +0.45*WPIn;"*

It is 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. It may be further appreciated that in order to obtain commitment from the personnel, outstanding performance, loyalty, etc., which are a critical pre-requisites for any organization, especially a service utility, the organization must meet the rational needs of the personnel. As is well known, market equivalent salaries and growth are hygiene factors in employees' need hierarchy and it is imperative to meet these as a first step towards building a committed, loyal and performing work-force. The Petitioner has made its projections for the next Control Period in view of the aforesaid aspects.

The Base Year in the present filing is FY 2015-16. For the purpose of projecting different components of the O&M expenses viz. value of k for projecting R&M expense, inflation factor for projecting Employee and A & G expense, the actual expenditure of FY 2015-16 as the Base year and the expenditure/ values of FY 2014-15 as the previous year has been considered in the present filing.

Employee expenses are projected based on Regulation 6.6(b) of the 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%. However, owing to the expected impact of 7th Pay Commission, it is requested that the Hon'ble Commission may provide for an additional escalation for FY 2016-17 at 15%. 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.

The R&M expenditure incurred by the licensee is a function of the network condition of the licensee. 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 for each licensee considering the above and may vary across years based on the capital expenditure in the previous years together with expenditure incurred during the year. R&M expenses are projected based on Regulation 6.6(a) of the Tariff Regulations, 2015.

It is pertinent to submit that mere indexation without adjusting the same for increase in level of activity, such as increase in number of consumers, amount of energy handled, may not be appropriate. Further, subsequent years projections need to be adjusted for any new initiatives or certain expenses that may have been deferred in the earlier years.

Hence the employee and A&G expenses in addition to linkage to inflation index should be linked to the change in the level of activity i.e. load growth, increase in billing, no. of consumers etc. In line with the Regulation 6.6 (b) and (c) the A&G expenses have been projected, with figures of FY 2014-15 being the base for arriving A&G expenses for FY 2015-16 and for the MYT control period.

The details of Employee, R&M and A&G expenses are provided in the table below:

Table 40: Projected O&M Expenses during the MYT Period

(in ₹Crore)

Particulars	2016-17	2017-18	2018-19	2019-20	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**

4.7.Gross Fixed Assets (GFA) for the MYT Period FY 2016-17 to FY 2020-21

Based on the Capital investment plan presented in the Business plan and the Gross Fixed Asset arrived at the end of FY 2015-16, the GFA projected for the Control period FY 2016-17 to FY 2019-20 is depicted in the table below:

Table 41: Gross Fixed Assets for the MYT Period

(in ₹Crore)

Particulars	2016-17	2017-18	2018-19	2019-20	2020-21
Opening GFA	18.58	37.82	38.22	43.02	47.82
Additional capital expenditure	19.24	0.40	4.80	4.80	0.00
Closing GFA	37.82	38.22	43.02	47.82	47.82

4.8.Depreciation

The Petitioner prays to the Hon'ble Commission to approve the Depreciation Expenses as outlined below in line with Regulations 6.32 to 6.36 of Tariff Regulations, 2015.

The details of capitalization / amount of capital expenditure transferred to GFA in each of the financial year have been detailed out in the business plan. The projection of depreciation considers the Gross Fixed Assets as per the closing balance of FY 2015-16. Based on the closing GFA of FY 2015-16, the additions in GFA for the MYT control period have been added to arrive at the closing GFA figures for the MYT control period.

The depreciation rate has been considered as per the depreciation rates provided in the Appendix 1 of the Tariff Regulations, 2015. The computation of depreciation is based on Straight Line Method as prescribed in the Tariff Regulations issued by the Hon'ble Commission. Accordingly, the projected Depreciation for Control period FY 2016-17 to FY 2020-21 has been outlined in the table below.

Table 42: Projected Depreciation for the MYT Period

(in ₹Crore)

Particulars	2016-17	2017-18	2018-19	2019-20	2019-20
Opening Gross Block	18.58	37.82	38.22	43.02	47.82
Additional Capitalisation	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**

4.9.Interest on Loan

SAIL- BSL has invested around ₹19.24 Crores so far and further intends to invest around ₹10.00 Crores during the MYT period FY 2016-17 to FY 2020-21 in the distribution infrastructure, as detailed in the business plan. These expenditure items are to be funded by SAIL- BSL on its own and for the additional capital expenditure up to FY 2020-21, the debt:equity ratio of 70:30 has been considered in accordance with the Tariff Regulations, 2015.

The debt schedule has been prepared considering the figure of closing debt as per the schedule of FY 2015-16. Regulation 6.24 of the Tariff Regulations, 2015 provides as below:

"6.24 The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio at the beginning of each year applicable to the project:

Provided that if there is no actual loan for a particular year but normative loan is still outstanding, the last available weighted average rate of interest shall be considered:

Provided further that if the licensee does not have actual loan, then the weighted average rate of interest of the licensee as a whole shall be considered:

Provided further, in case of new licensee commencing its operation after the date of effectiveness of these Regulations, and which doesn't has actual loan portfolio, the rate of interest shall be considered on normative basis and shall be equal to the Base rate of State Bank of India plus 200 basis points as on the date on which the distribution licensee is declared under commercial operation.

Provided that in case of normative debt, the rate of interest shall be equal to base rate of SBI plus 200 basis points as applicable on 1st April of the relevant financial year."

Therefore, for the purpose of estimating interest on loan, a rate of interest of 11.30% has been considered. The detailed debt schedule and interest on debt has been provided in the table below:

Table 43: Projected Interest on Loan for the MYT Period

(in ₹Crore)

Particulars	**2016-17**	**2017-18**	**2018-19**	**2019-20**	**2020-21**
Net Loan-Opening	13.01	26.47	26.75	30.11	33.47
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	24.71	24.97	27.99	31.17	31.17
Average Loan	18.86	25.72	27.37	30.64	32.32
Weighted Average Rate of Interest on Loan (%)	11.30%	11.30%	11.30%	11.30%	11.30%
Interest on Loan	**2.13**	**2.91**	**3.09**	**3.46**	**3.65**

4.10. Interest on Working Capital

Regulations 6.29 and 6.30 of Tariff Regulations, 2015 provide for estimation of working capital requirement and interest thereof. In line with the above Regulations, the working capital requirement of SAIL- BSL has been estimated for the MYT control period, with the following components:

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 of wheeling business; plus

c) Two months equivalent of the expected revenue from wheeling charges 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.

Based on the above, the working capital requirement has been estimated and the interest rate of 12.80 % has been applied to arrive at the interest on working capital. The Regulation 6.31 provides for rate of interest on working capital to be equal to SBI base rate, which is prevailing at 9.30% plus 350 basis points, thus totaling to 12.80 %. The details of working capital and interest are provided in the table below:

Table 44: Projected Interest on Working Capital for the MYT Period

(in ₹Crore)

Particulars	**2016-17**	**2017-18**	**2018-19**	**2019-20**	**2020-21**
1/12 of O&M expenses	1.53	1.66	1.79	1.95	2.13
Maintenance spares 1% of GFA	0.19	0.38	0.38	0.43	0.48
2 Months Revenue	35.74	34.40	33.77	36.41	38.43
Less: 1 month of power purchase cost	15.67	14.78	14.27	15.35	16.13
Working capital	21.79	21.66	21.68	23.45	24.91
Interest rate	12.80%	12.80%	12.80%	12.80%	12.80%
Interest on working capital	2.79	2.77	2.78	3.00	3.19

4.11. Return on Equity

The Petitioner requested the Hon'ble Commission to approve the Return on Equity as outlined below and in line with Regulations 6.17 to 6.19 of the Tariff Regulations, 2015. Regulation 6.17 of the Tariff Regulation, 2015 provides as below:

"The rate of return of equity shall be 15.5% (post tax) for the period of these Regulations;
Provided that in case of projects, commissioned on or after 01st 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."

As discussed in previous chapters, the capital investments of SAIL- BSL shall be funded by itself under various plans and thus equity portion to the extent of 30% of remaining capital investment plan has been considered. The rate of return on equity has been considered in line with the Regulation 6.17 of the Tariff Regulations, 2015, considering the projects to be completed on time. The details of projected equity capital to be employed and the estimated return on equity are provided in the table below:

Table 45: Projected Return on Equity for the MYT Period

(in ₹Crore)

Particulars	2016-17	2017-18	2018-19	2019-20	2020-21
Opening Equity	5.57	11.35	11.47	12.91	14.35
Additions	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 Return	15.50%	15.50%	15.50%	15.50%	15.50%
Return on Equity	1.31	1.77	1.89	2.11	2.22

4.12. Revenue from Sale of Power at Existing Tariff

Based on the projected sales for the control period, the consumer category-wise revenue details at existing tariff have been shown in table below:

Table 46: Projected Revenue from Sale of Power at existing tariff

(in ₹Crore)

Category	2016-17	2017-18	2018-19	2019-20	2020-21
DS-II	27.67	27.24	30.28	33.67	37.47
DS-III	1.77	4.35	4.38	4.41	4.44
DS-HT	2.06	2.32	2.58	2.84	3.10
LTIS	0.48	0.48	0.48	0.48	0.48

Category	2016-17	2017-18	2018-19	2019-20	2020-21
NDS	10.15	10.73	11.35	12.01	12.72
HTS-11 kV	7.55	10.38	14.20	18.70	24.88
HT/LT Utilities	26.65	28.11	27.64	29.70	29.97
Total Revenue	**76.34**	**83.61**	**90.90**	**101.81**	**113.06**

4.13. Estimated Aggregate Revenue Requirement for MYT Control Period

Based on the above discussions, the table below summarizes SAIL-BSL's provisional Aggregate Revenue Requirement for the Control period.

(in ₹Crore)

Particulars	2016-17	2017-18	2018-19	2019-20	2020-21
Power Purchase Cost	188.03	177.31	171.21	184.18	193.58
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	2.13	2.91	3.09	3.46	3.65
Return on Equity	1.31	1.77	1.89	2.11	2.22
Interest on Working Capital	2.79	2.77	2.78	3.00	3.19
Annual Revenue Requirement	214.43	206.42	202.62	218.49	230.56

The Petitioner prays to the Hon'ble Commission to kindly approve the above Aggregate Revenue Requirement for the MYT Control period.

5. REVENUE GAP AND ITS TREATMENT

Based on the Revenue Gap computed in the previous section up to FY 2015-16 and the Revenue Gap arrived at after considering the revenue from sale of power at existing tariff, the cumulative revenue gap is depicted below:

(in ₹ Crore)

Particulars	2016-17	2017-18	2018-19	2019-20	2020-21
Annual Revenue Requirement	214.43	206.42	202.62	218.49	230.56
Revenue from Retail sales at Existing Tariff	76.34	83.61	90.90	101.81	113.06
Revenue (Surplus)/Gap for the year	**138.10**	**122.81**	**111.72**	**116.67**	**117.50**

The above revenue gap has been estimated at the current tariffs prevailing in the Petitioner's supply area. It is however submitted that the computed revenue at existing tariff is inadequate to meet the projected annual revenue requirement of the Petitioner for the said period. The total revenue gap projected up to FY 2017-18 and including the revenue gap of the previous period is provided in the table below:

(in ₹ Crore)

Revenue Gap up to FY 2015-16	**283.67**
Revenue Gap from FY 2016-17 to FY 2017-18	**260.91**
Total Revenue Gap	**544.58**

5.1. Revenue at Proposed Tariff

In order to cover the overall revenue gap including the gap projected for the Control Period, the Petitioner proposes revision in retail tariff for various categories as discussed in the next chapter of this Petition.

With proposed tariff revisions for FY 2017-18 outlined in Section __ of this Petition, the revenue at proposed tariffs for FY 2017-18 from various categories of consumers is summarized in the table below:

	2017-18	
Category	**Sales (MU)**	**Revenue (₹ Cr.)**
DS-II (Less than 200 unit)	73.63	21.40
DS-II (More than 200 unit)	37.48	14.02
DS-III	13.02	5.63
DS-HT	6.35	3.13
LTIS	0.50	0.60
NDS	16.63	14.60
HTS-11 kV	17.41	13.70
HT/LT Utilities	50.17	28.11
Total Revenue	**215.19**	**101.19**

5.2.Revenue (surplus)/ Gap at proposed tariff

Based on the projected ARR and revenue, the net revenue gap is summarized in table below:

(in ₹ Crore)

Revenue Gap up during FY 2017-18	122.81
Revenue from existing tariff during FY 2017-18	83.61
Revenue from proposed tariff during FY 2017-18	101.19
Net (Surplus) /Gap during FY 2017-18	105.23

It may be seen from the above submissions, that the revenue from the proposed tariff will provide only a minuscule relief to the Petitioner in recovering its revenue gap. The Petitioner would like submit that given the significant amount of revenue gap, the whole impact may be not be feasible to be passed on by way of revision in retail tariffs, as it may lead to an inevitable tariff shock.

The Petitioner proposes and prays to the Hon'ble Commission for creation of regulatory assets of the uncovered revenue gap, as discussed in the following paragraphs.

5.3. Treatment of the Unrecovered Revenue Gap

As seen above, SAIL- BSL has proposed a hike in the fixed and energy charges of the consumers to meet some revenue gap. The proposed hike constitutes hike in the energy charges to the tune of 30% and only a marginal hike in the fixed charges.

It is observed that there is still a considerable revenue gap left after incorporating tariff hike for FY 2017-18. The Petitioner prays to the Hon'ble Commission to allow creation of Regulatory Asset for the remaining gap, as depicted below:

(in ₹ Crore)

Total Revenue Gap	**(a)**	**544.58**
Revenue from existing tariff during FY 2017-18	(b)	83.61
Revenue from proposed tariff during FY 2017-18	(c)	101.19
Proposed Regulatory Asset	a – (c-b)	527.00

The Hon'ble Commission is requested to approve the above Regulatory assets worth ₹527.00 Crores and also provide an appropriate recovery mechanism to recover the Regulatory Assets as per the provisions of Tariff Regulations and guidelines of National Tariff Policy 2016.

In this regard, it may be noted that this approach has been adopted in similar cases by other State Commissions as well. The Delhi Electricity Regulatory Commission, in the cases of the distribution companies in Delhi, in their Tariff Orders, while approving Annual Revenue Requirement for the MYT period from FY 2012 - 13 to FY 2014-15, has allowed a regulatory surcharge @ 8% for recovery of past accumulated regulatory asset.

It is further requested that a reasonable period may be considered by the Hon'ble Commission to amortize the regulatory assets and passed on to the consumers over the same period in equal instalments. The Hon'ble Appellate Tribunal of Electricity in its various Judgments has ruled that the increase in Tariff should not result in tariff shock for the consumers. A relevant extract of the Hon'ble ATE's Judgment in Appeal No.10 of 2013 & I.A. Nos. 29 & 30 of 2013 dated 25th October, 2013 in matter of Association of Approved &

Classified Hotels vs Kerala State Electricity Regulatory Commission and Kerala State Electricity Board is reproduced below:

> *"21. Summary of our findings*
>
> *The tariff determined by the State Commission for HT IV Commercial Category is inconsistent with the provisions of Act and Tariff Policy and the dictum held by this Tribunal in various judgments. The tariff of consumers of this category has been increased exorbitantly giving them tariff shock. Accordingly, the tariff fixed by the State Commission for HT IV Commercial Category is set aside and they will be charged at the tariff as proposed by the Electricity Board in their petition to the State Commission i.e. fixed charges of Rs. 400 per kVA per month and energy charges of Rs. 5.50 per kWh…"*

In view of the above, the Hon'ble Commission is requested to kindly approve the creation of Regulatory Assets and recovery of the same in a reasonable time period.

6. TARIFF PROPOSAL

Proposed Tariff is as follows:-

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

Petitioner requests the Hon'ble Commission to kindly approve the tariff schedule as below for respective consumer categories including fixed charges for such categories.

6.1. Domestic Service (DS)

Applicability
Domestic Service–II, Domestic Service–III and Domestic Service HT

This schedule shall apply to all residential premises for domestic use for household electric appliances such as Radios, Fans, Televisions, Desert Coolers, Air Conditioner, etc. and including Motors pumps for lifting water for domestic purposes and other household electrical appliances not covered under any other schedule.

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

Category of Services:

(a) Domestic Service – DS-II: For Urban areas covered by notified Area Committee /municipality / Municipal Corporation / All District Town / All sub-divisional Town /All Block Headquarters / Industrial Area / contiguous sub-urban area all market places urban or rural and for connected load upto 4 kW.

(b) Domestic Service – DS-III: For Urban areas covered by notified Area Committee /municipality / Municipal Corporation / All District Town / All sub-divisional Town /All Block Headquarters / Industrial Area / contiguous sub-urban area all market places urban or rural and for connected load exceeding 4 kW and load upto 85.044 kW.

(c) Domestic service – HT (DS-HT): This Schedule shall apply for Domestic Connection in Housing Colonies / Housing Complex / Houses of multi storied buildings purely for residential use for single point metered supply, with power supply at 11 kV voltage level and load above 85.044 kW.

Service Character:

(i) For DS-II: AC, 50 Cycles, Single Phase at 230 Volts for installed load up to 4 kW.

(ii) (ii) For DS-III: AC, 50 Cycles, three Phase at 400 Volts for installed load exceeding 4 kW and upto 85.044 kW.

(iii)For DS-HT: AC, 50 Cycles, at 11 kV for installed load above 85.044 kW

For Domestic Service category, the delayed payment surcharge will be at the rate of 1.5% per month and part thereof. The due date for making payment of energy bills or other charges shall be fifteen days from the date of serving of bill.

6.2.Non-Domestic Service (NDS)

Applicability:

This schedule shall apply to all consumers, using electrical energy for light, fan and power loads for non-domestic purposes like shops, hospitals (govt. or private), nursing homes, clinics, dispensaries, restaurants, hotels, clubs, guest houses, marriage houses, public halls, show rooms, workshops, central air-conditioning units, offices (govt. or private), commercial establishments, cinemas, X-ray plants, schools and colleges (govt. or private), boarding/lodging houses, libraries (govt. or private), research institutes (govt. or private), railway stations, fuel – oil stations, service stations (including vehicle service stations), All India Radio / T.V. installations, printing presses, commercial trusts / societies, Museums, poultry farms, banks, theatres, common facilities in multi-storied commercial office/buildings, Dharmshalas, and such other installations not covered under any other tariff schedule.

Service Category:

Non-Domestic Service NDS-II, Urban: For Urban Areas covered by Notified Areas Committee / municipality / Municipal Corporation / All District Town / All Sub-divisional Town / All Block Hqrs. /Industrial Area & Contiguous Sub-urban area, market place rural or urban & connected load up to 85.044 kW.

Service Character:

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

Delayed Payment Surcharge

For Non Domestic Category, the Delayed Payment Surcharge will at the rate of 1.5% per month and part thereof. The due date for making payment of energy bills or other charges shall be fifteen days from the date of serving of bill.

6.3.Low Tension Industrial Services (LTIS)

Applicability:

This schedule shall apply to all industrial units applying for a load of less than or equal to 100 kVA (or equivalent in terms of HP or kW).

The equivalent HP for 100 kVA shall be 114 HP and the equivalent kW for 100 kVA shall be 85.044 kW.

Service Character:

AC, 50 Cycles, Single Phase supply at 230 Volts or 3 Phase Supply at 400 volts. Demand Based tariff/Installation based tariff for sanctioned load upto 85.044 kW.

Tariff:

Installation Based Tariff: All consumers under this category and opting for Installation based tariff shall be required to pay fixed charges per HP as per the applicable tariff rates for this category. If the inspecting officer during the inspection of premises finds excess load (more than 114 HP) then the inspecting officer has to serve one month notice to the consumer for regularisation of excess load (above 114 HP). After the expiry of the said one month, the inspecting officer will inspect the premises again and if he still finds un-regularized load in the premises, action may be taken as per law.

Demand Based Tariff: All consumers under this category and opting for Demand Based tariff shall be required to pay Demand charges per kVA at the rate applicable to HT consumers drawing power at 11 kV. The restriction of connected load will not apply to consumers opting for Demand Based Tariff.

Delayed Payment Surcharge

For Low tension industrial and medium power category, the Delayed Payment Surcharge will at the rate of 1.5% per month and part thereof. The due date for making payment of energy bills or other charges shall be fifteen days from the date of serving of bill.

Power Factor Penalty

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

Power Factor Rebate

Power Factor rebate will be applicable in case of maximum demand meters. In case average power factor as maintained by the consumer is more than 85%, a rebate of 1% and if power factor is more than 95%, a rebate of 2% on demand and energy charges shall be applicable.

6.4. High Tension Voltage Supply Service (HTS)

Applicability:

The schedule shall apply for consumers having contract demand above 100 kVA.

Service Character:

50 Cycles, 3 Phase at 6.6 kV / 11 kV / 33 kV / 132 kV / 220 kV / 400 kV

The billing demand shall be the maximum demand recorded during the month or 75% of the contract demand, whichever is higher. In case higher actual demand is recorded for three continuous months, the same shall be considered as the basis for new contract demand of future months provided consumer gets into a new Agreement for the revised contracted demand after payment of necessary charges as applicable. The penalty on exceeding contract demand shall be 1.5 times the normal charges for actual demand exceeding 110% of the contracted demand both on energy commensurate to exceeded demand and exceeded demand;. For the purpose of calculating the penal charges exceed demand shall be the difference of the actual demand and Contract Demand.

Voltage Rebate

Consumer Category	Voltage Rebate
HT - 33 kV	3.00%
HTS - 132 kV	5.00%
HTS - 220 kV	5.50%
HTS - 400 kV	6.00%

Load Factor Rebate

Load Factor	Load Factor Rebate
40 - 60%	Nil
60 - 70%	7.5%
70 - 100%	10%

Delayed Payment Surcharge

For High tension service category, the Delayed Payment Surcharge will be charged on a weekly basis at the rate of 0.4% per week. The due date for making payment of energy bills or other charges shall be fifteen days from the date of serving of bill. The bill should be generated and delivered on monthly basis. In case, the licensee defaults in generating and delivering bills on monthly basis, DPS will not be charged for the period of default by licensee.

Power Factor Penalty

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

Power Factor Rebate

Power Factor rebate will be applicable in case of maximum demand meters. In case average power factor as maintained by the consumer is more than 85%, a rebate of 1% and if power factor is more than 95%, a rebate of 2% on demand and energy charges shall be applicable.

TOD Tariff for HTS Consumers

TOD tariff proposed for HTS Consumers is given below-

Off Peak Hours: 00: 00 Hrs to 08:00 Hrs and 20:00 Hrs to 24:00 Hrs. 85% of normal rate of energy charge. Peak Hours: 08:00 Hours to 20:00 Hours: 120% of normal rate of energy charge

6.5.Street Light Service (SS)

Applicability

This tariff schedule shall apply for use of Street Lighting system, including single system in corporation, municipality, notified area committee, panchayats etc. and also in areas not covered by municipalities and Notified Area Committee provided the number of amps served from a point of supply is not less than 5.

Service Character:

AC, 50 cycles, Single phase at 230 Volts or three phase at 400 Volts.

Category of Service:

S.S-I: Metered Street Light Service

S.S-II: Unmetered Street Light Service

Delayed Payment Surcharge

The delayed payment surcharge will be at the rate of 1.5% per month and part thereof. The due date for making payment of energy bills or other charges shall be fifteen days from the date of serving of bill. The bill should be generated and delivered on monthly basis. In case, the licensee defaults in generating and delivering bills on monthly basis, DPS will not be charged for the period of default by licensee.

Additional Clauses applicable across all tariff categories

1. Statutory Levy

Electricity Duty and any other duty shall be levied as per the Electricity Duty Act, 1948 (amended upto date) and other prevailing regulations as made applicable from time to time.

2. Billing Maximum Demand for HT Consumers

The billing demand shall be the maximum demand recorded during the month or 75% of the contract demand, whichever is higher. In case higher actual demand is recorded for three continuous months, the same shall be considered as the basis for new contract demand of future months provided consumer gets into a new Agreement for the revised contracted demand after payment of necessary charges as applicable.

The penalty on exceeding contract demand shall be 1.5 times the normal charges for actual demand exceeding 110% of the contracted demand both on energy commensurate to exceeded demand and exceeded demand;. For the purpose of calculating the penal charges exceed demand shall be the difference of the actual demand and Contract Demand.

3. Installation of Shunt capacitors

All consumers having aggregate inductive load greater than 3 HP (2.2 kW) and above (except domestic and street lights), shall install capacitors of required kVAR rating provided in the following table:

Rating of individual inductive load in HP	kVAR rating of LT capacitors
3 to 5	1
5 to 7.5	2
7.5 to 10	3
10 to 15	4
15 to 20	6
20 to 30	7
30 to 40	10
40 to 50	`10-15
50 to 100	20-30

For existing consumer, the Petitioner should first serve one month's notice to all such consumers who do not have or have defective shunt capacitors. In case the 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, 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.

4. Dishonoured Cheque

In the event of dishonored cheque for payment against a particular bill, the Licensee shall charge a minimum of 300 Rs 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.

5. Sale of energy

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

6. 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)

7. COMPLIANCE OF DIRECTIVES

Directive-1

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

SAIL 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.

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. 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.

Directive -2

Maintenance of Fixed Asset Register.

Fixed Assets Register has been prepared for the Steel Plant as a whole and it encompasses all the assets of SAIL- BSL.

Directive -3

Timeliness and Data Adequacy in Next tariff Petition.

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.

Directive -4

Sales estimates and projections

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.

Directive -5

Distribution Loss

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 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.**

In view of the above planning, the Petitioner has submitted its trajectory of loss reduction for the next MYT period in the present Petition.

Directive 6

Complaint Redressal Mechanism

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.

Directive 7

Capital Investment Plan

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.

Directive 8

Billing and Metering Related issues

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.

Directive 9

Cost of supply

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 position to calculate the category wise cost of supply.

Directive 11

Quality of Supply

It is submitted that the Petitioner has prepared a **'Contingency Plan for restoration of power'** wherein stepwise approach has been framed to restore power supply at different instances of events. Besides other details, the plan consists of aspects such as damage report preparation, preventive actions to be taken, priority wise feeder restoration, deployment of officers and availability of vehicles etc. The brief of the plan is annexed as **Annexure C.**

Further, the Petitioner has set objectives and targets in accordance with ISO 9001:2015 Quality Management System for the next MYT period. **Annexure D** is enclosed in this regard. The key features of these objectives and targets are as below:

Sl. No.	***Objectives***	***Targets (FY 2016-17)***

Sl. No.	Objectives	Targets (FY 2016-17)
1	A. 'No -Light' complaint in general to be attended between 8 AM to 10 PM same day. B. 'No -Light' complaint due to failure of Transformers and Feeder cables etc. within 24hrs.	100%
2	10% reduction in no. of No-Light complaints with respect to the previous year's complaints	13,830
3	6% reduction in no. of General complaints with respect to the previous year's complaints	35,185
4	5% reduction in breakdown of Transformers	47

**No-Light - The minimum criteria for 'No-Light' is that there should be no electricity in the whole premises of an occupant. Moreover it extends to no electricity in a block, more than a block, a sub-sector or area and a complete sector or area. Partial failure of Electricity in a Quarter is beyond the purview of 'No-Light'*

Similarly, steps are being taken to adhere with the industry-wide standards of performance for other parameters also.

Directive 12

Energy Audit

It is submitted that energy audit has been undertaken for the entire Steel Plant.

Directive 13

Sources of Power Purchase

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.

Directive 14

Presentation during the Public Hearing

SAIL- BSL will make presentation more informative this time in public hearing.

Directive 15

Customer Security Deposit

SAIL- BSL is not taking any security deposit from BSL employees and HT/LT utilities.

Directive 16

Renewable Purchase obligation

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.