

Chapter 1. Introduction

1.1 Background

- 1.1.1 The Tata Steel Limited is a power distribution licensee for Jamshedpur, where it has its integrated steel manufacturing plant, along with associated facilities.
- 1.1.2 Tata Steel Limited (TSL) provides and maintains basic civic amenities in the city of Jamshedpur primarily through its 100% subsidiary Jamshedpur Utility Services Company Limited (JUSCO) including the supply and maintenance of the electricity distribution services in its licensed area.
- 1.1.3 Tata Steel Limited is distributing electricity in Jamshedpur through License granted under section 14 of The Electricity Act 2003. Tata Steel has been managing the power distribution system in Jamshedpur since 1923. This sanction was granted under section 28(1) of the erstwhile Indian Electricity Act, 1910. Post enactment of Electricity Act 2003, , Tata Steel Ltd has been regularly filing the petitions before Hon'ble Commission as per prevailing Tariff Regulations and directions of Hon'ble Commission.
- 1.1.4 The Hon'ble Commission in November 2010 has issued JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2010 (hereinafter referred as JSERC Tariff Regulations 2010) which are applicable for Transition Period (FY 2011-12 and FY 2012-13) and Control Period (FY 2013-14 to FY 2015-16).
- 1.1.5 JSERC (Terms & Conditions of Distribution Tariff) Regulation 2010 has a provision for True-up of depreciation and return on capital only at the end of the Control Period. The relevant clause of the regulation is as reproduced below:-

"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;"

1.1.6 The Hon'ble Commission in January 2016 has issued JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2015 (hereinafter referred as JSERC Tariff Regulations 2015) which are applicable for the Control Period (FY 2016-17 to FY 2020-21).

1.1.7 JSERC (Terms & Conditions of Distribution Tariff) Regulation 2015 has a provision of periodic reviews during the Control Period (FY2016-17 to FY 2020-21). The relevant clause of the regulation is as reproduced below:-

"9.1 To ensure smooth implementation of the Multi Year Tariff (MYT) Framework, the Commission may undertake periodic reviews of Licensees' performance during the Control Period, to address any practical issues, concerns or unexpected outcomes that may arise;

9.2 The Licensee shall submit the Annual Performance Review report as part of annual review on actual performance as per the timelines specified in the Section 11 of these Regulations, to assess the performance vis-à-vis the targets approved by the Commission at the beginning of the Control Period. This shall include annual statements of its performance and accounts including latest available audited/authenticated accounts and the tariff worked out in accordance with these Regulations;
....."

1.1.8 As per Section A11 of the JSERC Tariff Regulations 2015, Distribution companies are supposed to file their True-up / APR petition by 30th November of each year of the Control period.

1.2 Present Petition:

1.2.1 The Petitioner as per applicable regulations is now filing petition for True-up of FY 2015-16, Annual Performance Review of FY 2016-17, and ARR and Tariff Proposal for FY 2017-18.

1.2.2 The true-up of FY 2015-16, is based upon the annual audited accounts annexed at **Annexure I** of this petition and the Annual Performance Review of FY 2016-17 is based on the actual performance/ provisional accounts for FY 2016-17.

1.2.3 The ARR for FY 2017-18 has been revised to the extent of sales, power purchase cost and O&M Costs. Remaining parameters have been retained same, as per the figures approved by the Hon'ble Commission in MYT Tariff Order dated 28th February 2017.

Chapter 2. Truing up for FY 2015-16

2.1 Background

2.1.1 TSL hereby submits the actual financial performance for FY 2015-16 based on audited accounts for true-up. The subsequent sections summarise each of the components of ARR for FY 2015-16. A comparison of ARR elements essential for calculating final true-up i.e. figures approved by the Hon'ble Commission in MYT order dated 28th February 2017 and figures based on audited accounts are shown under relevant sections discussed herewith. The audited accounts for FY 2015-16 are provided at **Annexure I: Annual Audited Accounts of TSL for FY 2015-16**.

2.2 Sales, Consumers and Connected Load

2.2.1 The table below provides the details of actual no of consumers, connected load and respective sales for different consumer category for FY 2015-16 of TSL area as on 31st March 2016.

Table 1: Consumers, Connected Load & Sales – FY 2015-16

Consumer Category	No. of Consumers	Connected Load	Sales in MUs
Domestic	36,673	1,91,912	186
Domestic - DSHT	130	47,171	89
Commercial	8,629	42,061	60
Temporary Supply	-	-	2
High Tension I	77	18,011	29
High Tension II	23	39,854	130
High Tension III	14	3,10,900	1,822
High Tension IV	1	1,10,000	145
Utilities/Street Light	393	17,001	85
Sale to Other Licensee	1	-	340
Total	45,941	7,76,910.0	2,886.93

2.2.2 The sale approved in TSL Tariff order (APR) dated 28th February, 2017 was **2923.68** MUs whereas the actual sale for FY 2015-16 is **2886.93** MUs which is nearly in line with the sales approved by Hon'ble JSERC.

2.3 Energy Balance

2.3.1 In accordance with the same methodology as adopted by Commission in MYT order, distribution loss on sales to other licensee i.e. JUSCO & HT IV has been considered as NIL. The Energy Balance for FY 2015-16 is provided in the table below:-

Table 2: Energy Balance for FY 2015-16

Sr No	Particulars	APR Approved	Audited
		FY 2015-16	FY 2015-16
A	ENERGY REQUIREMENT		
1	Sales to Other Licensees	337.95	339.55
2	Distribution Losses on Sales to Other Licensees (%)	0.00%	0.00%
3	Unit Lost on Sales to Other Licensees	-	-
4	Energy Requirement for Sales to Other Licensees	337.95	339.55
5	Sales to HT - IV Category	91.75	144.77
6	Distribution Losses to HT - IV (%)	0.00%	0.00%
7	Unit lost on Sales to HT - IV	-	-
8	Energy Requirement for HT - IV Category	91.75	144.77
9	Sales to LT Consumers (Dom + Comm + Street light + Temp)	389.49	332.62
10	Sales to HT Consumers (Other than HT - IV) (DSHT + HT-I + HT-II + HT-III)	2,104.49	2,069.99
11	Total Sales to Consumers other than HT-IV & JUSCO (9 + 10)	2,493.98	2,402.61
12	Distribution Losses on Sales to Consumers other than HT-IV & JUSCO (%)	4.65%	4.20%
13	Unit Lost on Sales to Consumers other than HT-IV & JUSCO	121.71	105.25
14	Energy Requirement for Sales to Consumers other than HT-IV & JUSCO	2,615.69	2,507.86
15	Overall Sales (4 + 8 +11)	2,923.68	2,886.93
16	Overall Distribution Losses (%)	4.00%	3.52%
17	Overall Distribution Losses	121.71	105.25
18	Total Energy Requirement	3,045.39	2,992.18
B	ENERGY AVAILABILITY		
1	Tata Power Company Limited	1,534.30	1,489.21
<i>a</i>	<i>Unit - II</i>		770.91
<i>b</i>	<i>Unit - III</i>		718.31
2	Damodar Valley Corporation	1,487.49	1,484.92
<i>a</i>	<i>132 kV</i>	275.00	297.86
<i>b</i>	<i>400 kV</i>	1,212.49	1,187.06
3	TSW Captive	20.00	17.17
4	RPO	-	-
5	Open access / Other Sources	3.61	0.87
3	Total Pooled Energy Availability	3,045.39	2,992.18

2.3.2 The overall distribution loss is 3.52% as against the norm of 5.50% set by the Hon'ble Commission in clause 5.23 of JSERC Distribution Tariff Regulations 2010.

2.3.3 It is submitted that as per Tariff Regulations 2010, distribution loss is a controllable parameter and petitioner has achieved a significant reduction of loss compared to the target figures. The petitioner requests the Hon'ble Commission to kindly approve the energy balance as per the actual basis as submitted in Table No 2 above.

2.4 Power Purchase Cost

2.4.1 Tata Steel Limited has continued to procure electricity from Unit-II and Unit-III of Tata Power Company Ltd, 132 kV and 400 kV of Damodar Valley Corporation, Tata Steel Captive Power Plant and mandatory procurement of RECs for meeting Renewable Purchase Obligation.

Table 3: Power Purchase Cost FY 2015-16

Particulars		APR Approved	Audited
		FY 2015-16	FY 2015-16
Tata Power Company Ltd (A)			
Power Purchase - MUs	Unit-II	784.30	770.91
	Unit -III	750.00	718.31
	Total	1,534.30	1,489.21
Rate - Rs/kWh	Unit-II	3.95	3.95
	Unit -III	3.94	3.94
	Total	3.95	3.95
Cost - Rs.Crores	Unit-II	310.08	316.04
	Unit-II (Credit for FY 12 & 13)	-	(11.28)
	Total Unit II	310.08	304.76
	Unit -III	295.38	288.53
	Unit -III (Credit for FY 12 & 13)	-	(5.64)
	Total Unit III	295.38	282.90
	Total	605.46	587.66
Damodar Valley Corporation 132 KV (B)			
Power Purchase - MUs		275	297.86
Rate - Rs/kWh		5.10	5.12
Cost - Rs.Crores		140.13	152.54
Damodar Valley Corporation 400 kV (C)			
Power Purchase - MUs		1,212	1,187.06
Rate - Rs/kWh		4.02	3.91
Cost - Rs.Crores		487.83	463.83
TSW- Captive (D)			
Power Purchase - MUs		20.00	17.17
Rate - Rs/kWh		3.95	3.95
Cost - Rs.Crores		7.89	6.77
RPO (E)			
Power Purchase - MUs		-	
Rate - Rs/kWh			
Cost - Rs.Crores		34.77	35.08
Other / Open Access (F)			
Power Purchase - MUs		3.61	0.87
Rate - Rs/kWh		2.47	3.98
Cost - Rs.Crores		0.89	0.35
Total Pooled Power Purchase (G= A+B+C+D+E+F)			
Total Cost - Rs.Crores		1,276.97	1,246.23
Power Purchase - MUs		3,045.40	2,992.18
Rate - Rs/kWh		4.19	4.16

*In audited accounts, average rate of TPCL source of FY 2014-15 (as Rs. 3.88/unit) was taken for TSL Captive (D). The same is being revised in this table, in line with earlier orders of the Honble Commission to Rs. 3.95/unit, which is average cost of TPCL source for FY 2015-16.

2.4.2 The Power purchase cost claim is **Rs. 1246.23 Crs** as against Rs. 1276.97 Crs approved by Hon'ble Commission in APR order. The power purchase cost for FY 2015-16 is tabulated above.

2.4.3 **Power Purchase from Tata Power Company Ltd (TPCL):** TSL purchased **1489.21 MUs** at a total cost of **Rs 587.66 Crs**, which works out to average rate of **Rs.3.95** per unit.

2.4.4 The petitioner requests the Hon'ble Commission to kindly approve the total cost of **Rs.587.66 Crs**.

2.4.5 The actual Power Purchase Bills (for all sources) paid by TSL for FY 2015-16 are enclosed with **Annexure II: Copy of Power purchase Bills from TPCL Unit#2, #3 source for FY 2015-16**. Summary of all bills of TPCL Unit 2 and Unit 3 are given in table below.

Table 4: Summary of TPCL bills for FY 2015-16

Month & Year	Quantity	Fixed Charges	Energy Charges	Fuel Price Adjustments	Sub Total	Past Gap/(Surplus) adjustment, as approved vide TPCL Order dt 31.5.2015	Total Amount	Rate
	Mus	Rs. Crs	Rs. Crs	Rs. Crs	Rs. Crs	Rs. Crs	Rs. Crs	Rs/unit
Unit - 2 for FY 2015-16	770.91	105.93	145.08	65.03	316.04	-11.28	304.76	3.95
Unit - 3 for FY 2015-16	718.31	97.02	135.62	60.74	293.37	-5.64	282.9	3.94
Unit - 3 for FY 2015-16	Adjustment in capacity charges, due to adjustment in monthly availability for the month of May'15 & June'15					-4.84		
	1489.2	Total for FY 2015-16					587.66	3.95

2.4.6 **Power Purchase from DVC Source 132 kV:** TSL purchased **297.86 MUs** from DVC at 132 kV at a total cost of **Rs 152.54 Crs** which works out to an average rate of **Rs.5.12** per unit as against approved power purchase rate of **Rs.5.10** per unit in the APR Order of FY 2015-16. The Power purchase bills are attached as **Annexure - III A: Copy of Power purchase Bills from DVC 132 KV source for FY 2015-16**.

- 2.4.7 The petitioner requests the Hon'ble Commission to kindly approve the total cost of Rs **152.54 Crores** towards DVC 132 kV source.
- 2.4.8 **Power Purchase from DVC Source 400 kV:** TSL purchased **1187.06** MUs from DVC at 400 kV at a total cost of Rs **463.83** Crs which comes out to average rate of Rs.**3.91** per unit as against approved power purchase rate of Rs. **4.02** per unit in the APR Order of FY 2015-16. The Power purchase bills are attached as **Annexure III B:** Copy of Power purchase Bills from DVC 400 KV source for FY 2015-16, for the Hon'ble Commission's perusal. The petitioner is also attaching Copy of approvals from DVC regarding UI charges / payable/receivable from Tata Steel under DVC 400 kV source for FY 2015-16 as **Annexure – III C.** In addition, the petition is also attaching Statement of transmission line charges paid to POSOCO and Copy of bills for Transmission charges from PGCIL under DVC 400 KV source for FY 2015-16 as **Annexure – III D.**
- 2.4.9 The petitioner requests the Hon'ble Commission to approve the total cost of Rs.**463.83** Crs from DVC 400 kV source which is inclusive of cost related to PGCIL transmission charges, ERLDC Fees, and UI charges.
- 2.4.10 **Power Purchase from TSL Captive:** TSL licensee purchased **17.17** MUs from TSL Captive during FY 2015-16. As per the Hon'ble Commission's previous orders, Power Cost of this source is considered as equivalent of the power cost of TPCL source during the financial year. The power cost of TPCL source during FY 2015-16 is Rs. 3.95/unit.
- 2.4.11 Total cost considering unit rate of power purchase as Rs. 3.95/unit (average of TPCL for FY 2015-16), for 17.17 MUs, comes out to be Rs. 6.77 Crs.
- 2.4.12 The petitioner requests the Hon'ble Commission to kindly approve the total cost of Rs. **6.77 Crs** from TSL Captive.
- 2.4.13 We would like to bring to the notice of Hon'ble Commission that, in the audited accounts, the average rate of FY 2014-15 was taken in place of average rate of FY 2015-16, for calculation of power cost of TSL Captive source. We have now corrected the same, in this true up petition & request the Hon'ble Commission to kindly approve the same.
-

2.4.14 The Copy of statement of power quantum sourced from TSL Captive is attached as **Annexure IV**: Copy of statement of power quantum sourced from TSL Captive for FY 2015-16.

2.4.15 **Power Purchase from Open Access**: TSL purchased **0.87** MUs for amount of Rs **0.35** Crs which comes to an average rate of Rs **3.98** per unit. Such power purchase was on account of forced outage of Unit 7 of Mejia Thermal Power Station, and Unit 2 of Durgapur Thermal Power Station of DVC 400 kV source. The copy of bills and information letter to the Hon'ble Commission regarding the same, is attached as **Annexure V**: Copy of Bills for STOA through TPTCL for FY 2015-16.

2.4.16 **REC Procurement**: The petitioner would first like to carry forward RPO obligation from FY 2014-15 and thereafter the RPO fulfilment for FY 2015-16. The details are presented in the table below:

Table 5: Carry forward of past year RPO target to FY 2015-16

in MUs

	Target till FY 2014-15*	Actual achieved during FY 15	Carried forward to FY 2015-16
Total RPO	133.61	78.00	55.61
<i>Non-Solar</i>	85.22	51.00	34.22
<i>Solar</i>	48.39	27.00	21.39

*After accounting for adjustment of previous year

2.4.17 Apart from the above carry forward of RPO, there is a standalone RPO obligation to be met for FY 2015-16. The table below presents the cumulative RPO to be met for FY 2015-16.

Table 6: Cumulative RPO to be fulfilled for FY 2015-16

Particulars	Obligation as % of total energy requirement	Obligation for FY 2015-16	Carried Forward from FY 2014-15	Total to be met during FY 2015-16
Total Energy Requirement - MUs		2,992.18		
Less: Exempt source DVC 132 kV		297.86		
Net Energy Req't for RPO Compliance purpose - MUs		2,694.31		
RPO Energy - MUs	4.00%	107.77	55.61	163.38
<i>Non-Solar</i>	3.00%	80.83	34.22	115.05
<i>Solar</i>	1.00%	26.94	21.39	48.33
Equivalent RECs		107,773	55,611	163,383
<i>Non-Solar</i>		80,829	34,221	115,050
<i>Solar</i>		26,943	21,390	48,333

2.4.18 The petitioner submits that RPO is applicable on all sources other than DVC 132 kV source, since the power purchase cost of DVC 132 kV is approved by Commission taking into account its Renewable Purchase Obligation.

Accordingly petitioner has computed RPO on its energy requirement excluding DVC 132 kV source.

2.4.19 The Hon'ble Commission had allowed carry forward of RPO Obligation vide TSL Tariff Order dated 31st May 2015 under point no 7.25. The petitioner would like to submit that despite financial constraints, the petitioner has made all efforts to meet its RPO obligation in FY 2015-16 and hve fulfilled entire obligations including past years carry forward obligations.

2.4.20 The status of RPO Obligation for FY 2015-16 is provided in the table below:

Table 7: Summary of RPO Obligation met during FY 2015-16

in MUs

Financial Year	Cumulative RPO to be met (A)	RECs procured (B)	Carried forward to FY 2016-17 (A-B)
Solar RPO for FY 2015-16	48.33	48.89	-0.56
Non-Solar RPO for FY 2015-16	115.05	116.61	-1.56
Total RPO	163.38	165.50	-2.12

2.4.21 The month-wise details of purchase of Solar & Non-Solar RECs along with quantum and cost are provided in the table below:

Table 8: Actual RECs purchased and Procurement Cost for FY 2015-16

Actual RECs Purchase for FY 2015-16		MUs	Rate	Amount (Rs Cr)
Nov-15 _ Actual purchased	Solar	9.00	3500	3.15
	Non Solar	20.00	1500	3.00
	Commission to IEX			0.07
	TPTCL Success fee			0.02
Dec-15 _ Actual purchased	Solar	10.00	3500	3.50
	Non Solar	23.00	1500	3.45
	Commission to IEX			0.08
	TPTCL Success fee			0.02
Jan-16 _ Actual purchased	Solar	10.00	3500	3.50
	Non Solar	23.00	1500	3.45
	Commission to IEX			0.08
	TPTCL Success fee			0.02
Feb-16 _ Actual purchased	Solar	10.00	3500	3.50
	Non Solar	23.00	1500	3.45
	Commission to IEX			0.08
	TPTCL Success fee			0.02
Mar-16 _ Actual purchased	Solar	9.89	3500	3.46
	Non Solar	27.61	1500	4.14
	Commission to IEX			0.09
	TPTCL Success fee			0.02
Total purchased during FY 2015-16	Solar	48.89	3500	17.11
	Non Solar	116.61	1500	17.49
	Commission to IEX			0.38
	TPTCL Success fee			0.09
	Total	165.50		35.08

2.4.22 The total cost of RECs claimed in this petition for FY 2015-16 is Rs.**35.08** Crs as per audited accounts as shown in the table above. The copies of bills and certificate of RECs purchased in FY 2015-16 are provided at **Annexure VI: Copy of bills of REC & Certificates for FY 2015-16.**

2.4.23 **Total Power Purchase Cost:** TSL submits and requests Hon'ble Commission to approve the total Power Purchase Cost for the FY 2015-16 at Rs.**1246.23** Crs for purchase of **2992.18** MUs at average cost of Rs. **4.16** per kWh.

2.5 Operation and Maintenance Expenses

2.5.1 The Operation and Maintenance (O&M) Expenses is a combination of three different types of expenditures viz. Employee Cost, R&M Expenses and A&G Expenses. Majority of the Expenses related to the O&M activities of the licensed operations of TSL are undertaken by JUSCO.

2.5.2 As directed by Hon'ble Commission in paragraph number 6.38 to 6.42 of TSL tariff order dated 4th June 2014, TSL needs to segregate the common costs into employee expenses, R&M expenses and A&G expenses.

2.5.3 In view of the above directives, the Petitioner has tried to make separation of the accounts to the extent possible. The petitioner has segregated the expenses into employee costs, R&M and A&G as per their books of accounts.

Table 9: O&M cost for FY 2015-16

Rs.Crs

Particulars	APR Approved	Audited
	FY 2015-16	FY 2015-16
A & G Costs		
Total A&G Costs	20.39	24.05
R&M Expenses		
Total R&M Expenses	65.52	30.33
Employee Costs		
Employee Cost as per audited accounts	19.18	2.59
Employee Cost related to outsourced O&M activities to JUSCO		15.92
Arrears on employee cost for Jan'12 to Jan'16*		6.53
Total Employee Cost	19.18	25.04
Total O&M Cost	105.09	79.43

* As per Order of Conciliation Officer (Deputy Labour Commissioner, Jamshedpur, Government of Jharkhand), dated 05th February 2016

2.5.4 The petitioner would like to submit that employee expenses have two components viz Direct Employee and Outsourced Employee expenses. The direct expenses are expenses booked by petitioner for the employees on its payroll; whereas the outsourcing cost (payable to JUSCO) pertaining to employee expenses are termed as Outsourced Employee expenses. The petitioner would like to submit here that the Direct Employee expense as per the Audited accounts is Rs **2.59** Crs.

2.5.5 The outsourcing cost for O&M activities carried out by JUSCO are captured under R&M head of audited accounts. Total R&M cost is Rs. **52.78** crs, out of which amount paid to JUSCO is Rs. **45.67** Crs. Out of Rs. 45.67 Crs, the expenses in nature of employees cost of JUSCO is Rs **22.45**. The same is added to the employee expense and deducted from R&M expense of TSL accounts to arrive at employee cost and R&M expense for FY 2015-16. Thus the total employee expenses computes to Rs **25.04** Crs (Rs. 22.45 Crs + 2.59 Crs).

2.5.6 The amount of Rs. **22.45** Crs towards outsourced employee cost also includes arrear wages of outsourced employees, for the period January 2012 to January 2016 amounting to Rs. **6.53** Crs. Few sample of arrear wages paid to some of the employees are annexed as **Annexure - VII** . The arrear wages has been paid based on the Order of Conciliation Officer (Deputy Labour Commissioner, Jamshedpur, Government of Jharkhand), dated 05th February 2016. This Order was issued, as Memorandum of dispute settlement between JUSCO Union, and JUSCO management by conciliation proceedings held by Deputy Labour Commissioner Jamshedpur, Govt. of Jharkhand. A copy of this order has been attached with this petition, as **Annexure - VIII**.

2.5.7 The petitioner would like to mention, certain extracts of Order of conciliation proceedings held by Deputy Labour Commissioner, Jamshedpur, Govt. of Jharkhand. It refers to the process of dispute settlement followed by JUSCO Management and Union to arrive at the increase in wages for their employees.

“

Page 2 para 4 of the Order –

.....The company also informed the Union, that the recent changes in the regulatory norms had further accentuated the requirement to reduce costs, including wage cost, in order to get more business, and grow as also to remain competitive. The company further solicited the Union's co-operation in increasing employee productivity, with respect to Turnover and averred that, there was thus a pressing need, to align its wage policy, with the business imperatives.

..... Whereas during these discussions between the company and the Union, some differences between them remained; and

..... Whereas the parties have explained their respective view points to the Conciliation Officer, in the conciliation proceedings held in this regard, and

Whereas considering all the aspects of the matter, the conciliation officer made certain recommendations to the company and the Union, which they have agreed to accept, and abide by; and

Whereas it is necessary to enter into a Settlement with a view to continue sound and cordial relations between, the Company and the Union, so as to

promote the interests of the employees and the efficient operations of the Company's business."

"

2.5.8 The petitioner would like to state that, JUSCO had to follow this Order of Conciliation Officer (Deputy Labour Commissioner, Jamshedpur, Govt. of Jharkhand), and accordingly has paid the arrears, and revised the wages of its employees w.e.f January 2012.

2.5.9 The petitioner would also like to refer to the Regulation 6.9 clause (c) Note 2 of the JSERC Tariff Regulations 2010,

"

Note 2 - Any variation due to changes recommended by the pay commission etc. will be considered separately by the Commission.

"

2.5.10 Here the word pay commission etc., covers the wage agreement/ Order of Conciliation Officer or District Labour Commissioner for wage dispute settlement for private companies. As the Government employees are covered for wage revisions by "Pay Commissions", in the same way employees of private companies are covered for wage revision by Wage agreements/ Order of Conciliation Officer or District Labour Commissioner for wage dispute settlement.

2.5.11 The petitioner requests the Hon'ble Commission, to consider the wage arrear amount paid during FY 2015-16 for an amount of **Rs. 6.53 Crs**, as part of outsourced Employee expenses for FY 2015-16, as FY 2015-16 is being trued up now.

2.5.12 The petitioner requests the Hon'ble Commission to approve the total employee expenses of Rs. 25.04 Crs for FY 2015-16.

2.5.13 The actual R&M expenses are to the tune of Rs. **30.33 Crs** (Rs. 52.78 Crs – Rs. 22.45 Crs), which is substantially lower than the approved costs. The Hon'ble Commission is requested to approve the actual R&M expenses, and allow for incentive on reduction in total O&M cost for FY 2015-16.

2.5.14 **Total O&M Expenses:** The Hon'ble Commission has approved Rs. **105.09 Crs** as O & M expenses in the TSL tariff order dated 28th February 2017 for FY 2015-16 (APR). The actual expenditure now being claimed under true-up as per audited accounts for FY 2015-16 is Rs. **79.43 Crs**.

2.5.15 The O&M Expenditure for FY 2015-16 was controlled by various innovative measures such as best maintenance practice and better management of available resources. The major reasons for reducing O&M cost are indicated below:

1. Improved monitoring & Data Analysis:-

Frequent monitoring of critical parameters of major systems and equipment helps to reduce breakdown and prioritize maintenance activities. Thereafter a preventive maintenance schedule is prepared to take preventive steps to avoid breakdowns and major failures of HT / EHT equipment/ systems. TSL has used several inspection tools and inspection processes, which ensures that, failure points are captured at early stage, thereby taking timely preventive measures to avoid failures. This has reduced costs.

2. Knowledge sharing and Effective training:-

- The petitioner ensures that any maintenance activity big or small on transformer, cables, switchgear etc is shared with the entire O&M team so that the cycle time to address a similar maintenance activity elsewhere is reduced.
- The petitioner ensures effective and relevant training to its O&M staff from the OEM, external trainers and internal trainers to sufficiently equip them with the required skill sets to carry out the maintenance activity.

3. Developing good customer –supplier relationship:-

Developing good customer supplier relationships is paramount to ensure timely completion of maintenance activity. The petitioner ensures that it maintains a very good relationship with all its suppliers so that the materials are delivered on time and their services are utilized whenever necessary

4. Need Based Maintenance as against Time based Maintenance-

- In several part of network, concept of Need based maintenance has been adopted, as against conventional concept of time based maintenance, thus deferring unnecessary maintenance jobs based on test results;
- In addition to above major points, better co-ordination, higher level of supervision and reduction of wastages has resulted in reducing O&M cost.

2.5.16 As per provisions of Tariff Regulations 2010, O&M Expenses are controllable expenses and hence the petitioner requests the Hon'ble Commission to consider Efficiency/ Sharing of gains on lower O&M expenditure for FY 2015-16. The same is discussed in subsequent sections.

2.5.17 The petitioner therefore requests the Hon'ble Commission to approve the O&M expenditure at actuals i.e Rs **79.43** Crs and also allow sharing of gains as per the Distribution Tariff Regulation 2010.

2.6 Capital Work in Progress, Gross Fixed Assets and Depreciation

2.6.1 The Capital Work in Progress (CWIP), Gross Fixed Assets (GFA) and the depreciation on GFA for financial year 2015-16 has been arrived on the basis of audited accounts of the utility. The computation of depreciation is based on Straight Line Method of computation and as per rates provided in **Appendix I to the Tariff Regulations 2010**.

Table 10: CWIP, GFA and Depreciation for FY 2015-16

Rs.Crs

Particulars	APR Approved	Audited
	FY 2015-16	FY 2015-16
Capital Works in Progress (CWIP)		
Opening CWIP	12.87	12.87
Add: Capex during year	8.85	8.84
Total CWIP	21.72	21.71
Less: Trfd to GFA	16.34	16.34
Closing CWIP	5.38	5.37
Gross Fixed Assets (GFA)		
Opening GFA	503.99	503.99
Add: Trfd from CWIP excluding discarded assets	16.34	16.34
Closing GFA	520.33	520.32
Depreciation		
Depreciation for the FY	31.62	32.01
Less: Depreciation on Assets created out of consumer contribution	3.17	3.12
Net Depreciation	28.46	28.89

2.6.2 The Scheme wise capital expenditure and scheme wise capitalisation in FY 2015-16 is shown in table below:

Table 11: Scheme wise Capital Expenditure and Capitalisation for FY 2015-16

Summary of Capital Expenditure	FY 16 (Actual Capital Expenditure incurred) (Rs Cr)	FY 16 (Actual Capitalised) (Rs Cr)	Remarks
Installation of SCADA for power distribution in Township – Jamshedpur	0.27	0.29	Old scheme approved under Last MYT Order
Installation of Fire Fighting System	0.37	1.64	
Installation of 2nd , 45/56 MVA Power Transformer & Establishment of 415 V LT power source	3.67	7.77	
33 kV Substation at Northern town (Installation of new 1X16/20MVA, 33/6.6 kV)	1.49	-	Ongoing scheme - actual expenses and capitalisation
Other Assets through contribution from consumers (Self Financing Scheme)	3.04	6.64	
Total	8.84	16.34	-

2.6.3 The details of opening balance and closing balance of the GFA is as follows:-

Table 12: Break-up of GFA for FY 2015-16

Rs.Crs				
Particulars (Rs Cr)	GFA as on 01.04.15	Additions during FY 2015-16	Assets Obsoleted	GFA as on 31.03.16
Freehold Land and Roads	0.30	-	-	0.30
Buildings	34.34	0.40	-	34.74
Plant & Machinery	469.34	15.94	-	485.28
Total	503.99	16.34	-	520.32

2.6.4 The petitioner has capitalised assets of around Rs **16.34** Crs in FY 2015-16.

2.6.5 The depreciation costs proportionate to the extent of fixed assets being funded through Consumer Contribution, has been deducted from the total depreciation in order to arrive at the net depreciation allowable to be charged in the ARR.

2.6.6 The computation of depreciation as well as accumulated depreciation for FY 2015-16 is as follows:-

Table 13: Break-up of Depreciation for FY 2015-16

Rs.Crs

Particulars	Accumuated Dep as on 01.04.2015	Depreciation during year	Depr. during yr on Obsoleted Assets	Accumuated Dep as on 31.03.2016
Freehold Land and Roads	0.00	0.00	-	0.00
Buildings	3.35	1.05	-	4.39
Plant & Machinery	162.15	30.96	-	193.12
Total	165.50	32.01	-	197.51

2.6.7 The depreciation on account of asset created out of consumer contribution stands at Rs.3.12 Crores for FY 2015-16. Simultaneously, the net depreciation arrived is Rs.28.89 Crores. TSL requests Hon'ble Commission to approve the amount as per audited annual accounts.

2.7 Interest and Finance Charges

2.7.1 TSL has considered the same methodology as approved by Commission in MYT order. The deemed additions to the loan has been considered @70% of fixed asset addition after reducing assets created from consumer contribution amount received during the year. $\{(Total\ Assets\ Additions\ to\ GFA\ during\ the\ year - Assets\ Additions\ from\ Consumer\ Contribution\ during\ the\ year) \times 70\%\}$

2.7.2 The deemed repayment has been considered equivalent of the net depreciation cost for the financial year. . Accordingly, deemed addition to assets through debt becomes Rs. 10.28 Crs, and deemed additions to assets through Equity becomes Rs. 4.41 Crs for FY 2015-16, which has also been shown in table below.

Table 14: Own debt and equity addition for FY 2015-16

Rs.Crs

Transfer to GFA for FY 2015-16	
Transferred To GFA	16.34
Consumer Contribution	1.65
GFA (own)	14.69
Deemed Debt (@70% of own GFA)	10.28
Deemed Equity (@30% of own GFA)	4.41

2.7.3 **Interest on Normative Loan** - The normative interest is being computed on the average loan balance during the financial year 2015-16. The normative interest rate has been taken at **14.75%** as per clause 6.24(c) of JSERC Distribution Regulation 2010 which is SBI PLR prevailing on 01st April, 2015.

The table below provides calculation of Interest on Normative Loan for FY 2015-16.

Table 15: Interest on Normative Loan – FY 2015-16

Rs.Crs

Particulars	APR Approved	Audited
	FY 2015-16	FY 2015-16
Opening Balance of Normative Loan	175.59	167.47
Add: Deemed Additions during the FY	9.34	10.28
Less: Deemed Repayments	28.46	28.89
Closing Balance of Deemed Loans	156.47	148.87
Average Balance of Deemed Loans	166.03	158.17
Interest Rate (SBI Rate)	14.75%	14.75%
Normative Interest Amount	24.49	23.33

(Source of SBI Rate: <https://www.sbi.co.in/portal/web/interest-rates>)

- 2.7.4 The interest expenses on normative average loan balance works out to Rs. **23.33** Crs as against Rs. **24.49** Crs approved by Hon'ble Commission. The Hon'ble Commission is requested to kindly approve the above.
- 2.7.5 **Working Capital and Interest on Working Capital:** TSL submits that TSL has arrived at the Working Capital based on the JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2010.
- 2.7.6 The relevant applicable regulation for Interest on Working Capital is provided below:
- “6.29 Rate of interest on working capital shall be equal to the prime lending rate of SBI as applicable on the 1st April of the relevant financial year”.*
- 2.7.7 The Normative Interest on this Working Capital has been computed on the SBI PLR rate of **14.75%** as on 01st April 2015 according to clause 6.29 in Distribution tariff Regulation, 2010 and is presented in the table below:

Table 16: Working Capital and Interest on Working Capital for FY 2015-16

Rs.Crs

Particulars	APR Approved	Audited
	FY 2015-16	FY 2015-16
O&M Expenses (1 Month)	8.76	6.62
Maintenance Spares (1% of Opening GFA)	5.04	5.04
Expected Revenue at Existing Tariff (2 Months)	244.63	244.44
Less:		
Power Purchase Cost (1 Month)	106.41	103.85
Average Security Deposit	22.02	14.65
Total Working Capital	130.00	137.60
Prevailing SBI PLR as on 01.04.2015	14.75%	14.75%
Total Interest on Working Capital	19.17	20.30

(Source of SBI Rate: <https://www.sbi.co.in/portal/web/interest-rates>)

2.7.8 The Hon'ble Commission is requested to approve the working capital and interest on working capital for FY 2015-16 as per normative principles.

2.7.9 **Interest on Security Deposit** : The Petitioner has claimed interest on security deposit of Rs. **1.17** Crs which is actual amount that TSL has paid to the consumer in FY 2015-16.

2.7.10 The petitioner hereunder provides the detail of actual interest on security deposit amount for FY 2015-16 as per audited accounts and comparison of earlier projections and MYT approved figures.

Table 17: Interest on Security Deposit for FY 2015 -16

Rs.Crs

Interest on Security Deposit (Rs Cr)		
Particulars	APR Approved	Audited
	FY 2015-16	FY 2015-16
Opening Security Deposit		13.97
Security Deposit received		1.36
Closing Security Deposit		15.32
Average Security Deposit		14.65
Interest on Security Deposit (paid on prorata basis as per Regulation)	1.98	1.17

2.7.11 The Hon'ble Commission is requested to approve Interest on security deposit for an amount of Rs. **1.17** Crs, as per audited accounts for FY 2015-16.

2.7.12 Accordingly, the total Interest and Finance Charges for FY 2015-16 as computed by TSL is tabulated as under:

Table 18: Interest and Finance Charges for FY 2015-16

Rs.Crs

Particulars	APR Approved	Audited
	FY 2015-16	FY 2015-16
Interest on Normative Loan	24.49	23.33
Interest on Working Capital	19.17	20.30
Interest on Security Deposit	1.98	1.17
Total Interest & Finance Charges	45.64	44.80

2.7.13 Accordingly, the Hon'ble Commission is requested to approve the total interest and finance charge amount of Rs. **44.80** Crs for FY 2015-16.

2.8 Return on Equity (RoE)

2.8.1 TSL has considered the same methodology as approved by Commission in MYT order. The deemed additions to the equity has been considered @30% of total fixed asset addition after reducing assets additions from consumer contribution amount received during the year. $\{(Total\ Additions\ to\ GFA\ during\ the\ year - Assets\ Addition\ from\ Consumer\ Contribution\ during\ the\ year) \times 30\%\}$

2.8.2 The Normative Equity Capital and Return on Equity approved in TSL tariff order (APR) dated 28th February, 2017 and normative claim for FY 2015-16 are as shown in the below table:-

Table 19: Return on Equity for FY 2015-16

Rs. Crs

Particulars	APR Approved	Audited
	FY 2015-16	FY 2015-16
Opening Balance of Normative Equity	136.46	136.46
Add: Deemed Additions during the FY 2015-16	4.00	4.41
Closing Balance of Normative Equity	140.46	140.87
Average Balance of Normative Equity	138.46	138.67
Rate of Return on Equity	15.50%	15.50%
Normative ROE Amount -(A)	21.46	21.49

2.8.3 Accordingly, the Hon'ble Commission is requested to kindly approve the Return on Equity of Rs.**21.49** Crs for FY 2015-16.

2.9 Non-Tariff Income

2.9.1 Non-Tariff Income includes Meter Rent, Delayed Payment Surcharge, service charges, Supervision Charges and miscellaneous charges etc. The amount of Non-Tariff Income for FY 2015-16, as per audited annual accounts is Rs **5.32** Crs and Hon'ble Commission is requested to kindly approve the same.

2.10 Income Tax on Return on Equity for FY 2015-16 and Past Periods

- 2.10.1 The Hon'ble JSERC Distribution Tariff regulations 2010 provides for recovery of Corporate Income Tax as per the following stated provisions:-

“Corporate Income Tax

6.45 During the Transition period, tax on income, if any, on the licensed business of the Licensee shall be limited to tax on the allowed return on equity .

6.46 During the Control period, tax on income, if any, on the Licensed business of the Licensee shall be limited to tax on the allowed return on equity and consumer's share in the incentive earned by the Licensee. ;

6.47 The income tax actually payable or paid shall be included in the ARR. The actual assessment of income tax should take into account benefits of tax holiday, and the credit for carry forward losses applicable as per the provisions of the Income Tax Act 1961 shall be passed on to the consumers.”

- 2.10.2 As can be seen in the aforementioned provisions, JSERC Regulations provide for recovery of Income tax limited to tax on allowed Return on Equity and consumer's share in the incentive/ sharings of gains earned by the Licensee. Also the Regulation 6.47 says **that Income Tax payable or paid** shall be included in the ARR.

- 2.10.3 The petitioner would like to submit here that since the Power Business Division (PBD) of Tata Steel is not a separate entity under the Companies Act it does not pay income tax separately. The income and expenses of all the business divisions under Tata steel Ltd are aggregated, and then Tata steel pays Income tax as per provisions of the Income Tax Act 1961. Thus Income tax is not paid separately by Power Business Division (PBD) of Tata Steel.

- 2.10.4 Hence the petitioner would like to present the Income Tax payable by PBD, assuming it as a separate entity. The petitioner would also like to submit that it is operating the Distribution business under the Regulations framed by the Hon'ble Commission. The Distribution Tariff Regulation 2010 provides for a COST- PLUS approach for recovery of ARR of the Distribution Licensees. Cost plus means the Distribution licensees are allowed to recover all their legitimate costs (i.e after prudence check of the Commission) *plus* a return on the Equity component.

- 2.10.5 Thus it is the petitioner's submission that if the Tariff revisions were allowed on time, then the petitioner would have recovered its costs plus a return on

its equity and then the petitioner would have paid income tax on such Return on Equity.

2.10.6 In the past years i.e FY 2010-11 to FY 2013-14, the annual accounts submitted by the petitioner have shown negative Profit before Tax (PBT) and the Hon'ble Commission on the same premise had rejected TSL's claim on Income Tax on RoE. But in FY 2015-16, the petitioner has profit before tax of Rs. 113.25 Crs.

Table 20: Calculation of Profit Before Tax for FY 2015-16

S.No	Particulars	FY 2015-16
1	Revenue	1,471.98
1.1	Revenue from Operation	1,466.65
1.2	Other Income	5.32
2	Expenses	1,358.73
2.1	Power Purchase	1,246.12
2.2	Depreciation & Amortization	32.01
2.3	Interest on Security Deposit	1.17
2.4	O&M Expense	79.43
3	Profit Before Tax	113.25

2.10.7 The petitioner would like to submit here that such losses presented in the Annual Accounts of the petitioner for FY 2010-11 to FY 2013-14 is more of the nature of **unrecovered gap** on account of non-revision of the tariff by the Hon'ble Commission (in previous years). Such unrecovered gap along with carrying cost will be recovered from the consumers in future years.

2.10.8 The applicable income tax on ROE has been calculated for FY 2010-11 to FY 2015-16, as per actual payment of income tax during this period. TSL has paid normal income tax during FY 2010-11, FY 2011-12, and FY 2013-14, whereas TSL has paid MAT during FY 2012-13, FY 2014-15, and FY 2015-16. Table below shows the applicable tax rates with respective year's ROE amounts. Income tax paid on total PBT of Rs. 113.25 Crs with MAT rate of 21.3416% during FY 2015-16 for an amount of Rs. 24.17 Crs.

Table 21: Income tax on RoE for FY 2015-16 and Past Periods

Particulars	FY 2010-11	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	Total Income Tax on RoE till FY 2015-16
ROE Amount	5.08	5.70	10.53	20.23	20.88	21.49	29.68
Income Tax Rate/ MAT rate	33.22%	32.45%	20.01%	33.99%	20.96%	21.34%	
Income Tax on RoE	2.53	2.74	2.63	10.42	5.54	5.83	

2.10.9 The total applicable income tax on RoE by grossing up of RoE equals Rs. 29.68 Crs, for FY 2010-11 to FY 2015-16, whereas the income tax applicable on the profit before tax is Rs. 24.17 Crs. Therefore the petitioner requests the Hon'ble Commission to allow currently, the income tax on RoE to the extent of Rs. 24.17 Crs only. Rest amount of income tax on ROE of past periods of Rs. 5.51 Crs (Rs. 29.68 Crs – Rs. 24.17 Crs) shall be claimed next year.

2.11 Efficiency/ Sharing of Gains and Losses – Distribution Loss

2.11.1 TSL urges Hon'ble Commission to consider the efficiency/ sharing of gains as per provisions of Distribution Tariff Regulations 2010. The claim of TSL is in line with provisions of Tariff Regulations 2010 arising out of achieving lower distribution losses which is among **one of the best in the Industry**.

2.11.2 TSL submits Hon'ble Commission that, the T & D Loss level achieved has been among the lowest as compared to other utilities not only in the state, but also in the country. The actual losses are pegged at **3.52%** against the approved target set by the Hon'ble Commission of **5.50%** in the Distribution Tariff Regulations.

2.11.3 The initiatives taken to control distribution loss during FY 2015-16 are given under **Annexure – IX**, in the form of quarterly reports of work done.

2.11.4 Since its inception Tata Steel has been controlling its losses to the best in the Industry. This has been achieved by deploying various technical and management tools with tremendous sincere efforts to control the T&D losses. The same has been acknowledged by Indian Chamber of Commerce when TSL was awarded Innovation with Impact Award 2015 in 9th India Energy Summit held at New Delhi on 5th November 2015. The Award has been primarily introduced in order to acknowledge the Power Distribution Companies that have taken new and positive steps to increase its system efficiency and manage the supply - demand situation more effectively.

2.11.5 The relevant provisions for Incentive framework specified in the Tariff Regulations are extracted below for reference:

5.33 Various elements of the ARR of the Licensees' will be subject to incentive and penalty framework as per the terms specified in this section. The overall aim shall be to incentivise better performance and penalise poor performance, compared to the norms/benchmarks specified by the Commission;

2.11.6 Accordingly, TSL has considered a sharing of 60% to be added in its revenue requirement. For the purpose of computation, the petitioner has considered the target loss level for FY 2015-16 as 5.50% which was the norm set by the Hon'ble Commission in the Distribution Tariff Regulations 2010.

2.11.7 The Appellate Tribunal of Electricity (APTEL) in its judgement dated 19th February, 2016 in Appeal No 203 of 2014, in the matter of loss levels of the Distribution licensee, directed that the loss level considered by the Commission for determination of incentive/penalty should be the normative one and not the actual one and should be strictly in accordance with the relevant provisions of Distribution Regulations, 2010.

2.11.8 Based on the above mentioned APTEL judgement, the Hon'ble Commission in Tariff Order dated 28th February, 2017, allowed the sharing of gains on account of lower T&D loss on sales to other consumers (excluding HT-IV and JUSCO) achieved by the Petitioner against the target for FY 2014-15. The petitioner has adopted the same methodology to compute the savings in power purchase cost on account of lower T&D loss achieved in FY 2015-16. The calculation is provided as below:

Table 22: Computation of Sharing of Incentives – Distribution Loss

Particulars	Units	FY 2015-16
Total Energy Sales	MUs	2,403
Loss Target set by Commission	%	5.50%
Energy Requirement at targetted Loss level	MUs	2,542
Actual Achieved Distribution Loss (excl HT4 and JUSCO supply)	%	4.20%
Actual Energy Purchased (Above sales + loss)	MUs	2,508
Actual Power Purchase Cost	Rs. Crs	1,246
Actual Average Power Purchase Cost	Rs/kWh	4.16
Energy Saved/ Reduction in Power Purchase	MUs	34.59
Savings in Power Purchase Cost	Rs. Crs	14.41
Shared with Consumers - 40%	Rs. Crs	5.76
Incentive share of TSL - 60%	Rs. Crs	8.64

2.11.9 Hence the petitioner has proposed an amount of Rs.**8.64** Crs as its share (60% of the total savings in power purchase cost) towards savings in power purchase cost due to reduction/ lower distribution Losses for FY 2015-16.

2.12 Efficiency/ Sharing of Gains and Losses – O&M Expenditure

2.12.1 The petitioner submits that as explained earlier under O&M expenses section, it is claiming efficiency/ sharing of gains as per provisions of Distribution Tariff Regulations 2010. The computation is shown in the table below:

Table 23: Computation of Sharing of Incentives – O&M Expenditure

Rs.Crs	
Particulars	FY 2015-16 (Rs in Crs)
O&M Expenses Approved vide TSL Tariff Order dated 28th Feb 2017	105.09
Less: Actual O&M Expenses of FY 2015-16	79.43
Savings in O&M Expenses	25.66
Shared with Consumers - 40%	10.26
Incentive Share of TSL - 60%	15.40

2.12.2 The Hon'ble Commission is requested to approve an amount of Rs.**15.40** Crs as TSL's 60% share towards savings in O&M expenditure for FY 2015-16.

2.13 Revenue from sale of power

2.13.1 The figure of Revenue from Sale of Power as per audited annual accounts is Rs. **1466.65** Crs as against Rs.**1467.79** Crs approved by Hon'ble Commission for FY 2015-16 at existing tariff in Tariff Order (APR) dated 28th February, 2017.

Table 24: Revenue from Sales of Power for FY 2015-16 (Rs. Crs)

Consumer Category	No. of Consumers	Connected Load	Sales in MUs	Fixed Charges	Energy Charges	Penalty/ Rebate	Total Revenue
Domestic	36,673	1,91,912	190.5	0.54	64.96	(0.00)	65.50
Domestic - DSHT	130	47,171	90.4	0.06	36.94	(0.59)	36.41
Commercial	8,629	42,061	64.1	0.46	35.71	0.00	36.17
High Tension I	77	18,011	30.1	3.55	15.53	0.84	19.92
High Tension II	23	39,854	114.7	10.02	62.20	(1.58)	70.63
High Tension III	14	3,10,900	1,822.0	81.05	897.92	(55.55)	923.43
High Tension IV	1	1,10,000	144.8	25.87	72.57	(6.76)	91.67
Utilities/Street Light	393	17,001	87.8	0.00	34.38	(0.00)	34.38
Temporary Supply			3.1	0.00	2.21	(0.00)	2.21
Sale to Other Licensee	1		339.5	-	186.33	-	186.33
Total	45,941	7,76,910	2,886.93	121.55	1,408.74	(63.64)	1,466.65

2.14 Summarised ARR and Revenue Gap for FY 2015-16

2.14.1 The ARR and Revenue Gap for FY 2015-16 along with approved figures during APR in Tariff Order dated 28th February, 2017 are presented in the table below.

Table 25: Summarised ARR and Revenue Gap for FY 2015-16_Rs. Crs

Sr No	Particulars	FY 2015-16	
		Approved in APR	Audited / Normative
1	Power Purchase Cost	1,276.97	1,246.23
2	Operation & Maintenance Expenses	105.09	79.43
3	Depreciation	28.46	28.89
4	Interest and Finance Charges	45.64	45.03
5	Sub Total (1 to 4)	1,456.16	1,399.58
6	Add: Return on Equity	21.46	21.49
7	Less: Non Tariff Income	4.37	5.32
8	Add: Income tax on RoE for past periods and FY 2015-16	-	24.17
9	Aggregate Revenue Requirement (5+6-7+8)	1,473.26	1,439.92
10	Less: Revenue from Sale of Power @ Existing Tariff	1,467.79	1,466.65
11	Add: Sharing of Gains - O&M Expenses		15.40
12	Add: Sharing of Gains - Distribution Loss	-	8.64
13	Total Revenue Gap / (Surplus) (9-10+11+12)	5.47	(2.70)
15	Average Cost of Supply ((9+11+12)/sales)_Rs./unit		5.07

2.14.2 The petitioner requests the Hon'ble Commission to approve the total revenue surplus of **Rs. 2.70 Crs** for FY 2015-16 and allow recovery along with carrying cost, as requested through the present filing.

Chapter 3. True-up of Controllable Expenses at the End of Control Period

3.1 Introduction

3.1.1 The Petitioner had filed its petition for True-up of FY 2013-14 and FY 2014-15 on 01st November, 2014 and 15th December 2015 respectively. The Hon'ble Commission vide its Tariff Order dated 31st May, 2015 and 28th February, 2017 had carried out the True-up for FY 2013-14 and FY 2014-15 respectively.

3.1.2 However, as per Regulation certain elements of controllable costs are to be trued up at the end of control period, and therefore the Hon'ble Commission, indicated the same, in its order dated 28.02.2017, under section 5.38 for FY2014-15. The relevant part of regulation is reproduced below.

“

5.38 As per Regulation 11.3 of the Distribution Tariff Regulations 2010, the Depreciation and Return on Capital shall be trued up only at the end of Control period.

“

3.1.3 Also, the Hon'ble Commission, in its order dated 31.05.2015, under section 5.36 for FY 2013-14 indicated it, which is reproduced below.

“

5.36 As per Regulation 11.3 of the Distribution Tariff Regulations 2010, the Depreciation and Return on Capital shall be trued up only at the end of Control period.

”

3.1.4 As the first control period FY 2011-12 to FY 2015-16 is over now and TSL is filing its true-up petition for FY 2015-16, TSL is claiming true-up of Depreciation, Interest on Loan, Return on Equity, and Interest on Security deposit expenses for FY 2013-14 and FY 2014-15. The audited accounts of FY 2013-14 and FY 2014-15 have been attached as **Annexure X**.

3.2 Depreciation, Return on Equity, Interest on Loan for FY 2013-14 and FY 2014-15

3.2.1 TSL has calculated depreciation, return on equity, interest on loan again and has tabulated the same for FY 2013-14 and FY 2014-15.

3.2.2 The Hon'ble Commission in its Order dated 28.02.2017, had considered GFA as net of Consumer contribution received, while determining depreciation, interest on loan, Return on equity. In our earlier submissions, GFA was based on net of Consumer contribution capitalised, the values for Depreciation, Interest on

Loan, Return on Equity has been reworked, and is being submitted as below for true up.

- 3.2.3 **Depreciation:** The petitioner has determined the depreciation for FY 2013-14 and FY 2014-15 as per the Tariff Regulations, 2010 based on audited accounts for FY 2013-14 and FY 2014-15.

Table 26: Depreciation for FY 2013-14 and FY 2014-15_Rs. Crs

Particulars	FY 2014-15	FY 2013-14
Depreciation	32.18	33.92
Less: Dep on acc of consumer contribution	3.14	3.00
Net Depreciation(own)	29.05	30.92

- 3.2.4 **Interest on Loan:** The petitioner has determined the interest on loan for FY 2013-14 and FY 2014-15 as per the Tariff Regulations, 2010 based on audited accounts for FY 2013-14 and FY 2014-15.

Table 27: Interest on Loan for FY 2013-14 and FY 2014-15_Rs. Crs

Particulars	FY 2014-15	FY 2013-14
Opening Balance of Normative Loan	188.45	207.70
Deemed Addition during the year	8.07	11.67
Deemed Repayments	29.05	30.92
Closing Balance of Deemed Loan	167.47	188.45
Average balance during the Year	177.96	198.07
Interest Rate (%)	14.75%	14.45%
Interest Payment	26.25	28.62

- 3.2.5 **Return on Equity:** The petitioner has determined the return on equity for FY 2013-14 and FY 2014-15 as per the Tariff Regulations, 2010 based on audited accounts for FY 2013-14 and FY 2014-15.

Table 28: Return on Equity for FY 2013-14 and FY 2014-15_Rs. Crs

Particulars	FY 2014-15	FY 2013-14
Opening Balance of Normative Equity	133.00	128.00
Deemed Additions	3.46	5.00
Closing Balance of Normative Equity	136.46	133.00
Average Equity	134.73	130.50
RoE (%)	15.50%	15.50%
RoE	20.88	20.23

- 3.2.6 As per Tariff Order dated 28th February, 2017, the depreciation, interest charges, capital expenditure, return on equity were not trued up based on audited accounts for FY 2014-15.

3.3 True-up of Controllable Expenses for FY 2013-14 and FY 2014-15 at the end of Control Period

3.3.1 The petitioner submits to the Hon'ble Commission, that few controllable expenses, were not trued up during true up of FY 2013-14 & FY 2014-15 vide TSL tariff order dated 31.05.2015, and TSL tariff Order dated 28.02.2017 respectively. The table below compares the figures submitted by the petitioner during true-up, figures approved by the Hon'ble Commission, redetermined submission for true-up at the end of the control period and the difference between revised submission & approved figures during true-up of FY 2013-14.

Table 29: True-up of controllable expenses of FY 2013-14 at the end of control period

Particulars	Submitted by TSL for True-up of FY 2013-14	Approved in True-up of FY14 in T.O dt. 31.05.2015	Revised submission by TSL for True-up	Difference Claimed in this Petition
Depreciation	31.2	26.83	30.92	4.09
Interest on loans	28.11	29.29	28.62	-0.67
Interest on security deposit	1.21	1.27	1.21	-0.06
Return on equity*	30.65	20.23	20.23	0.00
Total Claim in this petition (Rs Crs)				3.36

*The difference between TSL's submission, and true up order is due to the grossing up of tax by TSL whereas the Hon'ble Commission has considered the rate of 15.5%. The income tax on ROE has been claimed separately, under section 2.10 of this petition.

3.3.2 Thus the petitioner requests the Hon'ble Commission to approve **Rs. 3.36 Crs** on account of true-up of controllable expenses of FY 2013-14 at the end of the control period.

Table 30: True-up of controllable expenses of FY 2014-15 at the end of control period

Particulars	Submitted by TSL for True-up of FY 2014-15	Approved in True-up of FY14 in T.O dt. 28.02.2017	Revised submission by TSL for True-up	Difference Claimed in this Petition
Depreciation	30.03	27.6	29.05	1.45
Interest on loans	27.14	27.34	26.25	-1.09
Interest on security deposit	1.17	1.61	1.17	-0.44
Return on equity	21.61	20.88	20.88	0.00
Total Claim in this petition (Rs Crs)				-0.08

3.3.3 Thus the petitioner requests the Hon'ble Commission to approve **Rs. -0.08 Crs** on account of true-up of controllable expenses of FY 2014-15 at the end of the control period.

Chapter 4. Annual Performance Review (APR) of FY 2016-17

4.1 Annual Performance Review of TSL for FY 2016-17

4.1.1 The Hon'ble Commission has approved the Business plan for the 2nd MYT control period from FY 2016-17 to FY 2020-21 in line with the Distribution Tariff Regulations 2015 on 28th February, 2017 containing approval for the load/sales growth, loss trajectory, power procurement plan, expected capital investment and collection efficiency targets. In the same Order dated 28th February, 2017, the Hon'ble Commission has also approved the ARR for the MYT Control Period FY 2016-17 to FY 2020-21. As the FY 2016-17 is over, TSL now submits the APR for FY 2016-17 based on provisional actuals for the entire year. This chapter summarises each of the component of ARR for FY 2016-17.

4.1.2 In each of the table shown in this section, a comparison of the figures approved for FY 2016-17 by the Hon'ble Commission in MYT tariff order dated 28th February 2017 for the Control Period FY 2016-17 to FY 2020-21 and provisional figures for FY 2016-17 are shown under relevant sections discussed herewith.

4.2 Sales, Consumers and Connected Load

4.2.1 The table below provides the details of category wise number of consumers, connected load, provisionl sales and approved sales for FY 2016-17 and also the actual sales for FY 2015-16.

Table 31: Consumers, Connected Load & Sales – FY 2016-17

Consumer Category	No. of Consumers	Connected Load (kW/kVA)	Provisional Sales (MUs)	Sales approved in MYT Order dt. 28.02.2017 (MUs)	Approved less Provisional FY 2016-17 (MUs)	Sales in FY 2015-16 (Mus)	% change in FY 2016-17 over FY 2015-16
Domestic	36,296	1,90,934	197.25	232.09	(34.84)	190.53	3.53%
Domestic - DSHT	137	48,816	91.98	111.65	(19.67)	90.42	1.73%
Commercial	8,799	43,935	64.26	73.82	(9.56)	64.11	0.23%
High Tension I	78	18,635	29.71	35.25	(5.54)	30.05	-1.15%
High Tension II	20	33,623	111.83	156.48	(44.65)	114.69	-2.50%
High Tension III	14	3,05,900	1,883.33	1864.3	19.03	1821.98	3.37%
High Tension IV	1	1,10,000	130.82	100	30.82	144.77	-9.63%
Utilities/Street Light	393	16,932	86.54	90	(3.46)	87.78	-1.41%
Temporary Supply	97	-	2.34	2	0.34	3.05	-23.38%
Sale to Other Licensee	1	-	279.29	337.95	(58.66)	339.55	-17.75%
Total	45,836	7,68,775	2,877.34	3,003.54	(126.20)	2,886.93	-0.33%

- 4.2.2 From the data above, it can be seen that even though FY 2016-17 sales in Domestic and Commercial segment have not reached the projected levels as envisaged there has been an increase of 2% to 4% over FY 2015-16.
- 4.2.3 Sale to HT category of consumers depends primarily on overall market conditions and production target of various industries. Sales in HT1, HT2 and HT4 category of consumers were lower than FY 2015-16. In HT3 category, sales were higher by 3% w.r.t . FY 2015-16.
- 4.2.4 Sale to other Licensee JUSCO had been lower by approximately 60MUs. This has happened due to lower power drawl by JUSCO in the month of Jun'16 to Aug'16, due to maintenance work undertaken by them on only 132kV feeder from Tata Steel source. TSL feeds power supply to JUSCO at 132kV and at 33kV level. Both these lines are single line and therefore any outage of these lines either planned or unplanned results into lower power drawl. This line was commissioned in 2008, and since then jumper tightening work was not done on this line due to want of opportunity. Between the period June'16 to Aug'16 line maintenance work was planned by JUSCO due to which there was lower power drawl during that period.
- 4.2.5 With respects to the projected targets approved by the Honb'le Commission for the year FY 2016-17, sales were lower by approximately 4% on overall basis, and 0.4% lower than actuals of FY 2015-16.
- 4.2.6 TSL Requests the Hon'ble Commission to approve the provisional sales of **2877.34** MUs for FY 2016-17.

4.3 Distribution Loss & Energy Requirement

- 4.3.1 In accordance with the methodology as adopted by Commission in MYT order, distribution loss on sales to other licensee i.e. JUSCO & HT IV has been considered as NIL.
- 4.3.2 The Energy Balance of TSL for FY 2016-17 is based on the Energy Sales, Distribution Loss % and Source-wise energy purchase during FY 2016-17. The Energy Balance as approved by Hon'ble Commission in MYT Order and that provisionally submitted by TSL in this petition is presented in the table below.

Table 32: Energy Balance for FY 2016-17

in MUs

Sr No	Particulars	ARR Approved	Provisional
		FY 2016-17	FY 2016-17
A	ENERGY REQUIREMENT		
1	Sales to Other Licensees	337.95	2.84
2	Distribution Losses on Sales to Other Licensees (%)	0.00%	0.00%
3	Unit Lost on Sales to Other Licensees	-	-
4	Energy Requirement for Sales to Other Licensees	337.95	279.29
5	Sales to HT - IV Category	100.00	130.82
6	Distribution Losses to HT - IV (%)	0.00%	0.00%
7	Unit lost on Sales to HT - IV	-	-
8	Energy Requirement for HT - IV Category	100.00	130.82
9	Sales to LT Consumers (Dom + Comm + Street light + Temp)	397.91	350.26
10	Sales to HT Consumers (Other than HT - IV) (DSHT + HT-I + HT-II + HT-III)	2,167.68	2,116.97
11	Total Sales to Consumers other than HT-IV & JUSCO (9 + 10)	2,565.59	2,467.23
12	Distribution Losses on Sales to Consumers other than HT-IV & JUSCO (%)	4.00%	3.54%
13	Unit Lost on Sales to Consumers other than HT-IV & JUSCO	106.90	90.44
14	Energy Requirement for Sales to Consumers other than HT-IV & JUSCO	2,672.49	2,557.67
15	Overall Sales (4 + 8 +11)	3,003.54	2,877.34
16	Overall Distribution Losses (%)	3.44%	3.05%
17	Overall Distribution Losses	106.90	90.44
18	Total Energy Requirement	3,110.44	2,967.78
B	ENERGY AVAILABILITY		
1	Tata Power Company Limited	1,608.34	1,423.92
<i>a</i>	<i>Unit - II</i>		716.98
<i>b</i>	<i>Unit - III</i>		706.94
2	Damodar Valley Corporation	1,482.10	1,459.20
<i>a</i>	<i>132 kV</i>	82.25	308.09
<i>b</i>	<i>400 kV</i>	1,399.85	1,151.11
3	TSW Captive	20.00	76.51
4	RPO	-	-
5	Open access / Other Sources	-	8.15
3	Total Pooled Energy Availability	3,110.44	2,967.78

4.3.3 As can be seen from the table above, overall energy requirement of 2967.78 MUs were met from TPCL Units and DVC. TSL would like to submit that, power off take from all of these sources, depends on the availability of sources and loads. During the year FY 2016-17, there was a planned shutdown of Unit#2 for 10 days. However the shutdown of Unit#3 which was planned in FY 2015-16 was also deferred and taken in FY 2016-17. Due to this Unit#3 was also under

maintenance shutdown for a period of approx 31 days. This resulted in relatively lower intake from Unit#2 and #3 than planned. During shutdown of Unit#2 and Unit#3, additional power requirement was met through DVC 132kV source.

- 4.3.4 On an overall basis, there was less requirement of power by 143 MU from the approved total requirement for FY 2016-17, which also reflects in the power drawl from individual sources.
- 4.3.5 We would also like to bring to the notice of the Hon'ble Commission that unlike generating units, the power drawl by the load depends upon the timing of load and availability of source at that point of time and such considerations need to be taken while planning for sourcing of power, based on historical trends of load and generation.
- 4.3.6 Based on the quantity of power purchased and sales shown in table above, the overall distribution loss comes as **3.05%** as against norm of **3.44%** as approved in MYT Tariff Order dated 28th February 2017.
- 4.3.7 It is submitted that as per Tariff Regulations 2015, distribution loss is a controllable parameter and petitioner has achieved a significant reduction of loss compared to the approved figures. The petitioner requests the Hon'ble Commission to kindly approve the energy balance as per the actual basis as submitted in Table No 33 above.
- 4.3.8 TSL has been and shall continue to be committed towards adopting the best possible measures to minimise its distribution losses by pro-active approach and adopting best practices prevalent in the distribution sector in India.

4.4 Power Purchase Cost

- 4.4.1 Tata Steel Limited has continued to procure electricity from Unit-II and Unit- III of Tata Power Company Ltd, 132 kV and 400 kV of Damodar Valley Corporation, Tata Steel Captive Power Plant and mandatory procurement of RECs for meeting Renewable Purchase Obligation.
- 4.4.2 This cost is a function of the energy requirement and price of available power from the different source for meeting the requirement. The Power purchase cost claim is Rs. **1227.67** Crs as against Rs. **1318.54** Crs approved by Hon'ble Commission in MYT order. The table below depicts the provisional actual power purchase cost and cost as approved by Hon'ble Commission in the MYT Order dated 28th February 2017.

Table 33: Power Purchase Cost for FY 2016-17

Particulars		ARR Approved	Provisional
		FY 2016-17	FY 2016-17
Tata Power Company Ltd (A)			
Power Purchase - MUs	Unit-II	804.17	716.98
	Unit -III	804.17	706.94
	Total	1,608.34	1,423.92
Cost - Rs.Crores	Unit-II	316.07	263.58
	Part of debit bills paid to TPCL U II (Debit for FY13, FY14 & FY15)*	-	3.17
	Total Unit II	316.07	266.74
	Unit -III	307.87	251.80
	Part of debit bills paid to TPCL U III (Debit for FY13, FY14 & FY15)*	-	3.73
	Total Unit III	307.87	255.53
	Total	673.98	522.27
Average Derived Rate - Rs/kWh	Unit-II	3.93	3.72
	Unit -III	3.83	3.61
	Total	4.19	3.67
Damodar Valley Corporation 132 KV (B)			
Power Purchase - MUs		82	308.09
Rate - Rs/kWh		9.38	5.14
Cost - Rs.Crores		77.17	158.26
Damodar Valley Corporation 400 kV (C)			
Power Purchase - MUs		1,399.85	1,151.11
Rate - Rs/kWh		3.75	4.43
Cost - Rs.Crores		524.91	509.64
TSW- Captive (D)			
Power Purchase - MUs		20.00	76.51
Cost - Rs.Crores		7.50	28.06
Average Derived Rate - Rs/kWh		3.75	3.67
RPO (E)			
Power Purchase - MUs		-	
Cost - Rs.Crores		34.98	7.64
Average Derived Rate - Rs/kWh			
Other / Open Access (F)			
Power Purchase - MUs			8.15
Cost - Rs.Crores			1.79
Average Derived Rate - Rs/kWh			2.20
Total Pooled Power Purchase (F= A+B+C+D+E+F)			
Power Purchase - MUs		3,110.44	2,967.78
Total Cost - Rs.Crores		1,318.54	1,227.67
Average Derived Rate - Rs/kWh		4.24	4.14

*Debit bills for FY13 FY14 FY15, as per TSL Tariff order dt.28.02.17;

Unit II - Includes previous year cost of Rs. 3.17 Crs for FY13,FY14, FY15;

Unit III - Includes previous year cost of Rs. 3.73 Crs for FY13,FY14, FY15

- 4.4.3 **Power Purchase from Tata Power Company Ltd (TPCL):** TSL purchased 1423.92 MUs at a total cost of Rs 522.27 Crs, which works out to average rate of Rs.3.67 per unit.
- 4.4.4 Total cost of **Rs. 522.27** Crs includes part of the previous years debit notes of Rs. 6.90 Crs for FY13, FY14, and FY15. Rs. 6.90 Crs have been paid to TPTCL, as per order of Hon'ble Commission, vide TSL tariff Order dated 28.02.2017.
- 4.4.5 The petitioner requests the Hon'ble Commission to kindly approve the total cost of Rs. 522.27 Crores.
- 4.4.6 The actual Power Purchase Bills (for all sources) paid by TSL for FY 2016-17 are enclosed with **Annexure – XI A:** Copy of Power purchase Bills from TPCL Unit #2, #3 source for FY 2016-17.
- 4.4.7 **Power Purchase from DVC Source 132 kV:** TSL purchased about **308.09** MUs for an amount of Rs **158.26** Crs. The average power purchase cost from DVC 132 kV source is approx. Rs. 5.14 per unit during FY 2016-17.
- 4.4.8 The copy of bills is enclosed as **Annexure XI B:** Copy of Power purchase Bills from DVC 132 KV source for FY 2016-17.
- 4.4.9 The Hon'ble commission is requested to kindly approve the total power purchase cost of Rs.**158.26** Crs from DVC 132 kV for FY 2016-17.
- 4.4.10 **Power Purchase from DVC Source 400 kV:** TSL purchased **1151.11** MUs from DVC at 400 kV at a total cost of Rs **509.64** Crs which comes out to average rate of Rs.**4.43** per unit.
- 4.4.11 The average actual power purchase cost for FY 2016-17, from DVC 400kV source is Rs. 4.43 per unit, including fixed and variable charges both, as compared to projections approved by Hon'ble Commission at 3.75 per unit.
- 4.4.12 The difference between projected and actual is primarily due to lower demand than projections approved and charges of Rs. 52.11 Cr. which were paid to PGCIL, ERLDC as transmission, scheduling and operating charges for 400kV source, but was not considered while approving the projections.
- 4.4.13 TSL would like to submit to the Hon'ble Commission that, while approving projected cost for FY 2016-17, transmission charges of PGCIL & ERLDC fees was

not considered in the total cost, which led to a relatively lower projections of per unit rate from DVC 400 kV source.

- 4.4.14 The Power purchase bills are attached as **Annexure XI C**: Copy of Power purchase Bills from DVC 400 KV source for FY 2016-17, for the Hon'ble Commission's perusal. The petitioner is also attaching Copy of approvals from DVC regarding UI charges / payable/receivable from Tata Steel under DVC 400 kV source for FY 2016-17 as **Annexure – XI D**. In addition, the petition is also attaching Statement of transmission line charges paid to POSOCO and Copy of bills from for Transmission charges from PGCIL under DVC 400 KV source for FY 2016-17 as **Annexure – XI E**.
- 4.4.15 The petitioner requests the Hon'ble Commission to approve the total cost of **Rs.509.64** Crs from DVC 400 kV source which is inclusive of cost related to PGCIL transmission charges, ERLDC Fees, and UI charges.
- 4.4.16 **Power Purchase from TSL Captive**: TSL licensee purchased **76.51** MUs from TSL Captive during FY 2016-17. The Hon'ble Commission had been allowing this power purchase at the average rate of TPCL units, which is the lowest cost, source of power from TSL Licensee, which is **Rs. 3.67/unit** for FY 2016-17. Total cost with average rate of **Rs. 3.67/unit**, for 76.51 MUs, comes out to be **Rs. 28.06 Crs**.
- 4.4.17 The Hon'ble Commission in it's Order dated 28.02.2017 and also in previous orders allowed TSL Captive to be purchased at the rate equivalent to lowest rate of power sourced from any source. Accordingly, rate of **Rs. 3.67/unit** has been considered for **76.51 MUs** purchased from TSL Captive source.
- 4.4.18 The petitioner requests the Hon'ble Commission to kindly approve the total cost of **Rs. 28.06** Crs from TSL Captive source. The Copy of Certificate is attached as **Annexure XII**: Copy of Certificate from TSL Captive Power Plant for FY 2016-17.
- 4.4.19 **REC Procurement**: As per JSERC (Renewable Purchase Obligation and its Compliance) Regulations, 2016 the Petitioner needs to purchase specified quantum of power from Renewable Energy Sources.
- 4.4.20 The petitioner would first like to discuss carry forward RPO obligation from FY 2015-16 and thereafter discuss the RPO fulfilment for FY 2016-17. The details are presented in the table below:

Table 34: Carry forward of past year RPO target to FY 2016-17

in MUS

Particulars	Target til FY 2015-16	Actual achieved till FY16	Surplus carryover to FY 2016-17
Total RPO	163.38	165.50	-2.12
<i>Non-Solar</i>	115.05	116.61	-1.56
<i>Solar</i>	48.33	48.89	-0.56

4.4.21 Apart from the above surplus achievement of RPO target in FY 2015-16, there is a standalone RPO obligation to be met for FY 2016-17.

4.4.22 The details of RPO to be fulfilled for FY 2016-17 by the petitioner are provided in the table below:

Table 35: RPO to be fulfilled for FY 2016-17

in MUs

RPO Computations for FY 2016-17				
Particulars	Obligation as % of total energy requirement	Obligation for FY 16-17	Carried Forward from 2015-16	Total to be met during FY 2016-17
Total Energy Requirement - MUs		2,967.78		
Less: Exempt source DVC 132 kV		308.09		
Net Energy Req't for RPO Compliance purpose - MUs		2,659.69		
RPO Energy - MUs	5.30%	140.96	(2.12)	138.85
<i>Non-Solar</i>	<i>3.50%</i>	<i>93.09</i>	<i>(1.56)</i>	<i>91.53</i>
<i>Solar</i>	<i>1.80%</i>	<i>47.87</i>	<i>(0.56)</i>	<i>47.32</i>
Equivalent RECs		1,40,964	(2,115)	1,38,849
<i>Non-Solar</i>		<i>93,089</i>	<i>(1,559)</i>	<i>91,531</i>
<i>Solar</i>		<i>47,874</i>	<i>(556)</i>	<i>47,318</i>

4.4.23 The petitioner submits that RPO is applicable on all sources other than DVC 132 kV source, since the power purchase cost of DVC 132 kV is approved by Commission taking into account its Renewable Purchase Obligation. Accordingly petitioner has computed RPO on its energy requirement excluding DVC 132 kV source.

4.4.24 The status of RPO Obligation for FY 2016-17 is provided in the table below:

Table 36: Summary of RPO Obligation met during FY 2016-17

in MUs

Particulars	Cumulative RPO to be met (A)	RECs procured (B)	Carried forward to FY 2017-18 (A-B)
Solar RPO for FY 2015-16	47.32	0.00	47.32
Non-Solar RPO for FY 2015-16	91.53	50.00	41.53
Total RPO	138.85	50.00	88.85

4.4.25 The month-wise details of purchase of Non-Solar RECs along with quantum and cost are provided in the table below:

Table 37: Actual RECs purchased and Procurement Cost for FY 2016-17

Month	Particulars	MUs	Rate	Amount (Rs Crs)
Feb-17 _ Actual purchased	Non Solar	50	1500	7.50
	Commission to IEX			0.10
	TPTCL Success fee			0.03
	Taxes			0.02
	Total	50		7.64

4.4.26 The total cost of RECs claimed in this petition for FY 2016-17 is **Rs. 7.64** Crs as per provisional accounts as shown in the table above. The copies of bills and certificate of RECs purchased in FY 2016-17 are provided as **Annexure XIII: Copy of bills of REC & Certificates for FY 2016-17**.

4.4.27 **Reason for deferment of RPO:** In order to fulfil RPO Compliance for FY 2016-17, TSL purchased 50,000 numbers of non-Solar RECs in February 2017. In the meantime Hon'ble CERC invited public comments through their Order dated 28.02.2017 in petition no. 02/SKP/2017 for determination of Forbearance & Floor price REC framework to be applicable from 1st April 2017, when CERC proposed the price of Solar RECs significantly lower than existing prices. In view of the expected lower prices, TSL deferred it's plan to procure RECs to FY 2017-18.

4.4.28 **Power Purchase from Open Access:** During outage of DVC 400 kV source between July-16 to September-16, the petitioner purchased power from open access to meet it's requirements. The petitioner has purchased about **8.15** MUs at a total cost of Rs. **1.79** Crs at a derived cost of Rs **2.20** per unit. The copy of bills is attached as **Annexure XIV: Copy of Bills for STOA through TPTCL for FY 2016-17**.

4.4.29 **Total Power Purchase Cost:** The petitioner requests the Hon'ble Commission to approve the total power purchase cost for FY 2016-17 at Rs.**1227.67** Crs for

purchase of **2967.79** MUs. The average power purchase rate works out to Rs. **4.14** per unit.

4.5 Operation and Maintenance Expenses

- 4.5.1 The Operation and Maintenance (O&M) Expenses includes Employee Cost, R&M Expenses and A&G Expenses as per the Distribution Tariff Regulations 2015. Majority of the Expenses related to the O&M activities of the licensed operations of TSL are undertaken by JUSCO.
- 4.5.2 The Hon'ble Commission had approved the component-wise O&M costs only provisionally, and the estimates were subject to true up during the Annual Performance Review/ True up based on the actual break-up of O&M cost provided in audited accounts.
- 4.5.3 The petitioner would like to submit that employee expenses have two components viz Direct Employee and Outsourced Employee expenses. The direct expenses are expenses booked by petitioner for the employees on its payroll; whereas the outsourcing cost (payable to JUSCO) pertaining to employee expenses are termed as Outsourced Employee expenses. The petitioner would like to submit here that the Employee expense as per the Audited accounts is Rs **1.98** Crs.
- 4.5.4 The outsourcing cost for O&M activities carried out by JUSCO are captured under R&M head of audited accounts. Total R&M cost is approx. **Rs. 45.71 Cr,** out of which amount paid to JUSCO is approx. **Rs. 40.94 Cr.** Out of this Rs. 40.94 Cr., Rs **17.00 Cr.** is of the nature of employee expense of JUSCO. The same is added to the employee expense and deducted from R&M expense of TSL accounts to arrive at a employee cost and R&M expense for FY 2016-17. Thus the total employee expenses computes to Rs **18.98** Crs (Rs. 17.00 Crs + 1.98 Crs).
- 4.5.5 We would like to bring to the notice of Hon'ble Commission that, TSL has incurred less cost for Salary & wages during FY 2016-17, as during the year, vacancies arisen out of superannuation couldn't be filled up in time, due to manpower study and related delay in internal recruitment process. As on March 2017, approx. 30 positions were vacant, for which necessary action has been initiated to fill up.
- 4.5.6 TSL would like to submit to the Hon'ble Commission that, while projecting the employee cost for FY 2017-18 onwards, suitable adjustment may be made in view of the above submission.

- 4.5.7 The total O&M expenditure for FY 2016-17 based on the provisional actuals for FY 2016-17 presented in the table below:-

Table 38: Operation and Maintenance Expenses for FY 2016-17

Rs.Crs

O&M Expenses (Rs Cr)			
Particulars	Audited	ARR Approved	Provisional
	FY 2015-16	FY 2016-17	FY 2016-17
A & G Costs			
Total A&G Costs	24.05	21.28	23.41
R&M Expenses			
Total R&M Expenses	30.33	25.00	28.71
Employee Costs			
Total Employee Cost	25.04	20.23	18.98
Total O&M Cost	79.43	66.51	71.11

- 4.5.8 **Submission to Review the O&M Cost Targets determined in MYT Order of TSL:**

We would further like to state that, O&M cost targets for MYT Period FY 2016-17 to FY 2020-21 was arrived considering the base year FY 2015-16 costs and indexation formula given as per prevailing regulations leaving other submissions by the Petitioner.

- 4.5.9 While doing so, for the purpose of determination of A&G and Employee costs targets the Hon'ble Commission only considered actual costs incurred in FY 2015 -16, leaving our submission of other consideration. Similarly for R&M cost, Cost incurred in FY 2014-15 has been considered, leaving all our other submissions, which should have been given due considerations.

- 4.5.10 TSL would like to submit that, it's O&M cost projections / targets need to be reviewed & revised based on the submission made in its earlier petition and submissions being made now.

- 4.5.11 **R & M Costs:** Section 6.4 of Distribution tariff Regulations 2015 states that -

Quote – “ 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;”-
Unquote.

- 4.5.12 In the above regulation, due consideration is given to prudence check & any other factor considered appropriate by the Commission. For determination of R&M cost targets, K factor is the key consideration. K factor of FY 2013-14, FY

2014-15 and FY 2015-16 was 6.28%, **4.80%** and 6.01% respectively. The Repair & Maintenance expenses were Rs. 29.32 Cr, **23.37 Cr.** and Rs 30.28 Cr, for the year FY 2013-14, FY 2014-15, and FY 2015-16 respectively.

4.5.13 Here it may be noted that, R&M cost of FY 2013-14 were lower than both its previous year and succession year. This had happened, as few key maintenance activities which were planned in FY 2014-15 were shifted to FY 2015-16, due to few uncontrollable external factors. This has resulted in lower R&M costs during FY 2014-15, and therefore this has benefited the consumer. For the purpose of projecting the R&M costs, Hon'ble Commission had considered FY 2014-15 costs as base costs, as per regulation.

4.5.14 However regulation also provide for considering other submission and prudence check. In view of the above, we request the Hon'ble Commission to please consider the past and succession year R&M costs, while setting the R&M costs targets for next control period. With current level of approved R&M cost target, it is extremely difficult for Licensee to operate with full maintenance requirement. Lower maintenance may lead to failure thereby having a cascading detrimental effect on costs and customer service.

4.5.15 In view with the above, we had requested Hon'ble Commission to consider average R&M expenses of FY 2014-15 and FY 2015-16 for arriving the Base R&M Cost target for control period. The same request was also submitted under **section 7.5.2 to 7.5.8 of TSL Business Plan petition dated 09.07.2016, which is reproduced below.**

Quote – “7.5.2 - The petitioner would like to mention here, few of the reasons of higher Repair & Maintenance expenses of FY 2015-16 w.r.t that of FY 2014-15.

- i. Road widening jobs inside city have started in FY 2015-16, and have increased significantly. Cost associated with cable damage, by road construction department, cable relocations/ shifting, repairs and other associated expenses has increased in FY 2015-16, which is expected to continue for next few years.
- ii. Few Repair & Maintenance jobs have been deferred from FY 2014-15 to FY 2015-16, for repairing / replacement of cables, circuit breaker etc.
- iii. Increase in service tax rate from 12% to 14.5%. This increase has led to additional payment of service tax for same quantity f works of R&M for about Rs. 60 lakhs.

7.5.3 So, we request the Hon'ble Commission to consider the R&M expenses of Base year FY 2014-15, as average of R&M expenses of FY 2014-15 and FY 2015-16 to calculate K – factor, based on which R&M cost of control period would be approved.

The k factor comes as 5.51%, with the average R&M cost of FY2014-15, and FY2015-16.

7.5.4 Cost of services is a major part (about 40%) of total R & M cost. Costs of services are increasing based on increase in minimum wages allowed, as per State Government notifications. So, it is a fact that, R&M expenses also get impacted because of inflation. However, the Hon'ble Commission in its regulation has not provided any provision for inflation. Thus, Tata Steel Ltd. requests the Hon'ble Commission, to consider Inflation factor also, while approving R&M cost for next control period, i.e. from FY 2016-17 to FY 2020-21.

7.5.5 The Tariff Regulations also need to make provision for abnormal statutory increases like minimum wages & labour charges, service tax levy, taxes & duties etc. while allowing the R&M expenses. It is submitted that such kind of increases has direct impact on the expenses of the company which are not in the control of the company.

7.5.6 The 'K' factor considered for the entire Control Period is 5.51%.

7.5.7 Based on the foregoing paragraphs, the R&M expense for the Control Period is shown in the table below.

Table 39 : R&M Expenses for Control Period

Particulars	FY2014-15	FY2015-16	FY2016-17	FY2017-18	FY2018-19	FY2019-20	FY2020-21
Repairs & Maintenance Exp							
Opening GFA	486.42	503.99	520.33	524.33	551.50	566.50	597.50
K' Factor	4.80%	6.01%	5.51%	5.51%	5.51%	5.51%	5.51%
Total R&M Expenses	23.37	30.28	28.70	28.92	30.41	31.24	32.95

7.5.8 The petitioner requests the Hon'ble Commission to approve the R & M Costs for the control period FY 2016-17 to FY 2020-21, same as per above submissions. – Unquote”.

- 4.5.16 **Employee Expenses** – While determining the target wage cost during the control period, the Hon’ble Commission had considered wage cost of FY 2014-15 at Rs. **18.80** Crs, and inflated the same with 1.98% (55%*CPI +45%*WPI for FY 2015-16), to arrive at the wage cost target of Rs. **19.18** Crs for FY 2015-16.
- 4.5.17 The derived wage cost of FY 2015-16 has been used to project the target wage cost of control period FY 2016-17 to FY 2020-21 at 4.36%.
- 4.5.18 As discussed in section 2.5.6 to section 2.5.12 of this petition, there had been a wage revision, to implement the order of Reconciliation officer, Govt of Jharkhand, which was signed & implemented in January 2016, but was effective from January 2012, for working employees. The arrears for the past period ie from January 2012 to January 2016 was also calculated and paid during FY 2015-16. Total arrear payment was **Rs. 6.53** Crs.
- 4.5.19 The impact of this wage revision will also continue in control period FY 2016-17 to FY 2020-21, but the Hon’ble Commission didn’t consider the same while projecting targets of FY 2015-16 onwards.
- 4.5.20 We would like to request the Hon’ble Commission to consider this wage increase and review/revise the target wage during the control period.
- 4.5.21 Out of total arrear wages paid of **Rs. 6.53 Crs** for last 4 years, the amount of arrear wages paid for FY 2015-16 was **Rs. 2.03 Crs**. Wage cost of Rs. 19.18 crs, which is actual / audited has been approved while truing up for FY 2015-16 doesn’t contain any amount of impact of wage revision.
- 4.5.22 So, to arrive at base year’s wage cost, total wage cost of FY 2015-16 should have been calculated as **Rs. 21.21 Crs** (Rs. 19.18 Crs + Rs. 2.03 Crs - arrears of FY 2015-16).
- 4.5.23 We request the Hon’ble Commission to kindly consider this fact, and revise the wage cost of FY 2015-16, as **Rs. 21.21 Crs**. Accordingly, wage cost of control period has been recalculated and shown the Target Wage Cost for the Control Period in table below.
- 4.5.24 Based on the above, we have worked out the total target O&M cost for the control period and request the Hon’ble Commission to kindly consider the same and revise the O&M cost targets approved vide table 54 of TSL tariff Order dated 28.02.2017 . Revised Table as per our calculation is given below-

Target O & M Expenses for MYT period FY 2016-17 to FY 2020-21_Rs. Crs

Particulars	FY2015-16	FY2016-17	FY2017-18	FY2018-19	FY2019-20	FY2020-21
A. A&G Cost	21.28	22.21	23.18	24.19	25.24	26.34
B. R&M Cost	30.28	28.7	28.92	30.41	31.24	32.95
C. Employee Cost						
Employee expenses-Base year		21.21	22.35	23.57	28.57	30.11
Inflation factor		4.36%	4.36%	4.36%	4.36%	4.36%
Employee expenses		22.13	23.33	24.60	29.81	31.42
Add- Additional manpower cost on account of increase in connected load / consumer base		0.22	0.24	0.46	0.3	0.25
Add- Additional compensation factor for worker's wage revision		0%	0%	14%	0%	0%
Total Employee Expenses	21.21	22.35	23.57	28.57	30.11	31.67
Total Target O&M Cost (A+B+C)	72.77	73.26	75.67	83.17	86.59	90.96

4.5.25 Total target O&M Cost of FY 2016-17 comes as **Rs. 73.26 Crs**, and so, the petitioner would like to request the Hon'ble Commission to revise the targets, as requested above.

4.5.26 **Total O&M Expenses:** The provisional expenditure now being reported under annual performance review as per provisional accounts for FY 2016-17 is **Rs.71.11 Crs**.

4.6 Capital Work in Progress, GFA and Depreciation

4.6.1 The Capital Work in Progress (CWIP), Gross Fixed Assets (GFA) and the depreciation on GFA for FY 2016-17 are discussed hereunder. The figures of CWIP and GFA have been derived from closing of FY 2015-16. The computation of depreciation is based on Straight Line Method of computation and as per rates provided in **Appendix I** to the **Tariff Regulations 2015**.

4.6.2 The table below provides the details of opening CWIP, Capital Expenditure incurred during the year, Capitalisation of Assets and the working of the depreciation for the year.

Table 40: CWIP, GFA and Depreciation for FY 2016-17

Rs.Crs

Particulars	ARR Approved	Provisional
	FY 2016-17	FY 2016-17
Capital Works in Progress (CWIP)		
Opening CWIP	5.38	5.37
Add: Capex during year	23.07	8.46
Total CWIP	28.45	13.83
Less: Trfd to GFA	3.50	4.91
Closing CWIP	24.95	8.92
Gross Fixed Assets (GFA)		
Opening GFA	520.33	520.32
Add: Trfd from CWIP	3.50	4.87
Closing GFA	523.83	525.19
Depreciation		
Depreciation for the FY	33.93	37.80
Less: Depreciation on Assets created out of consumer contribution	3.50	4.07
Net Depreciation	30.43	33.73

4.6.3 The Scheme wise capital expenditure and scheme wise capitalisation in FY 2016-17 is shown in table below:

Table 41: Capital Expenditure Incurred and Actual Capitalised in FY 2016-17

Summary of Capital Expenditure	FY 2016-17 (Actual Capital Expenditure incurred)	FY 2016-17 (Actual Capitalised)	Remarks
Scheme Title	(Rs Cr)	(Rs Cr)	
System Integration and automation of Power and Installation of Fire Fighting System	0.19	0.22	Old scheme approved under last MYT Order dated 4.6.14
33 kV substation at Northern Town	3.86	-	Ongoing capex approved in MYT Order dt 4.6.14.
Installation of 2nd , 45/56 MVA Power Transformer & Establishment of 415 V LT power source	0.97	2.03	
Articulated boom lifter for safe working at height in 400kV Bulk power receiving station	0.82	0.82	Completed
Other Assets through contribution from consumers (Self Financing Scheme)	2.62	1.85	ongoing scheme, expenses and capitalisation, as & when required by Consumers
Total	8.46	4.91	

4.6.4 The details of opening balance and closing balance of the GFA is as follows:-

Table 42: Break-up of GFA for FY 2016-17_Rs. Crs

Particulars	GFA as on 01.04.16 (Rs.Crs)	Additions during FY 2016-17 (Rs.Crs)	Assets Obsoleted during FY 2016-17	GFA as on 31.03.17 (Rs.Crs)
Office Equipment	-	0.02	-	0.02
Freehold Land and Roads	0.30	-	-	0.30
Buildings	34.74	-	-	34.74
Plant & Machinery	485.28	4.89	0.04	490.13
Total	520.32	4.91	0.04	525.19

4.6.5 The petitioner has capitalised assets of around Rs 4.91 Crs in FY 2016-17.

4.6.6 The depreciation costs proportionate to the extent of fixed assets being funded through Consumer Contribution has been deducted from the total depreciation in order to arrive at the net depreciation (Refer Table 38) allowable to be charged in the ARR.

4.6.7 The details of depreciation as well as accumulated depreciation for FY 2016-17 is as follows:-

Table 43: Break-up of Depreciation for FY 2016-17

Rs.Crs

Particulars	Accumuated Dep as on 01.04.2016	Depreciation during year	Depr. during yr on Obsoleted Assets	Accumuated Dep as on 31.03.2017
Office Equipment	-	0.01	-	0.01
Freehold Land and Roads	0.00	0.00	-	0.00
Buildings	4.39	1.06	-	5.45
Plant & Machinery	193.12	36.73	0.03	229.88
Total	197.51	37.80	0.03	235.35

4.6.8 The depreciation on account of asset created out of consumer contribution stands at Rs.**4.07** Crores for FY 2016-17. Simultaneously, the net depreciation arrived is Rs.**33.73** Crores. TSL requests Hon'ble Commission to approve the amount as per provisional annual accounts.

4.7 Interest and Finance Charges

4.7.1 TSL has considered the same methodology as approved by Commission in MYT order. The deemed additions to the loan has been considered @70% of fixed asset addition after reducing assets created from consumer contribution amount received during the year. $\{(Total\ Assets\ Additions\ to\ GFA\ during\ the\ year - Assets\ Additions\ from\ Consumer\ Contribution\ during\ the\ year) \times 70\%\}$

- 4.7.2 The deemed repayment has been considered equivalent of the net depreciation cost for the financial year. As the consumer contribution (Rs. 5.76 Crs) is more than the own asset addition in the FY, the deemed addition to assets through debt and deemed additions to assets through equity has been considered nil for FY 2016-17, which has also been shown in table below.

Table 44: Own debt and equity addition for FY 2016-17

Rs.Crs

Transfer to GFA for FY 2015-16	
Transferred To GFA	4.91
Consumer Contribution	4.91
GFA (own)	-
Debt	-
Equity	-

- 4.7.3 **Interest on Normative Loan** – The petitioner has considered opening of normative loan of FY 2016-17 as closing of normative loan of audited figures of FY 2015-16. Further, in accordance with the regulation 6.24 and 6.25 of Distribution Tariff Regulations, 2015, the interest on normative loan has been calculated on the average normative loan as outstanding during the year. The rate of interest for the year is considered as applicable SBI Base Rate plus 200 basis points as on April 1st, 2016 i.e. 11.30%. The normative interest rate has been taken at 11.30% , in accordance with regulation 6.24 and 6.25 of Distribution Tariff Regulations, 2015 for the computation of normative interest for the year. The interest on normative loan based on average loan balance works out to Rs.15.10 Crs. for FY 2016-17.

Table 45: Normative Interest on Loan for FY 2016-17

Rs.Crs

Particulars	ARR Approved	Provisional
	FY 2016-17	FY 2016-17
Opening Balance of Normative Loan	156.47	148.87
Add: Deemed Additions during the FY	1.05	0.00
Less: Deemed Repayments	30.42	33.73
Closing Balance of Deemed Loans	127.10	115.13
Average Balance of Deemed Loans	141.79	132.00
Interest Rate (SBI base Rate+200 bp)	11.30%	11.30%
Normative Interest Amount	16.02	14.92

- 4.7.4 The Hon'ble Commission is requested to kindly approve the Interest on normative loan balance of Rs. 14.92 Crs as given in table above.
- 4.7.5 **Working Capital and Interest on Working Capital** - TSL has arrived at the Working Capital based on the JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2015.

- 4.7.6 The normative working capital has been computed for wheeling business and retail business of electricity separately. The interest rate of SBI Base Rate as on 1st April 2016 plus 350 basis points i.e. 12.80% has been considered for determining the interest on working capital in line with Regulation 6.29 and 6.30 of Distribution Tariff Regulations, 2015. Accordingly, the Interest on Working Capital for FY 2016-17 has been computed at Rs.15.75 Crs (3.81 Crs + 11.94 Crs).

Table 46: Interest on Working Capital for FY 2016-17

Rs.Crs

Particulars	ARR Approved	Provisional
O&M Expenses (1 Month)		5.93
Maintenance Spares (1% of Opening GFA)		5.20
Expected Revenue at Existing Tariff (2 Months)		232.05
Less:		-
Power Purchase Cost (1 Month)		102.31
Average Security Deposit		17.81
Total Working Capital		123.06
SBI Base rate + 350 basis points		12.80%
Total Interest on Working Capital	16.53	15.75

- 4.7.7 The Hon'ble Commission is requested to kindly approve the Interest on working capital of Rs. 15.75 Crs as given in table above.
- 4.7.8 **Interest on Security Deposit** - In accordance with Regulation 8.2.16 of the JSERC Supply Code Regulations 2015, interest on security deposit has to be paid as per SBI Base Rate prevailing on the 1st of April of the particular year. Thus, TSL has computed the interest on security deposit at 9.30% p.a. for the FY 2016-17 based on SBI prevailing rate on 01st April 2016.
- 4.7.9 The petitioner hereunder provides the detail of actual interest on security deposit amount for FY 2016-17 as per provisional accounts and comparison of MYT approved figures.

Table 47: Interest on Security Deposit for FY 2016-17

Rs.Crs

Particulars	ARR Approved	Provisional
	FY 2016-17	FY 2016-17
Opening Security Deposit		15.32
Security Deposit received		4.97
Closing Security Deposit		20.30
Average Security Deposit		17.81
Interest on Security Deposit	1.49	1.26

4.7.10 The Hon'ble Commission is requested to approve Interest on security deposit for an amount of Rs. **1.26** Crs, as per the provisional accounts for FY 2016-17.

4.7.11 The Normative Loan and Interest and Finance Charges approved by the Hon'ble Commission in MYT Order for FY 2016-17 and as per provisional actual figures for FY 2016-17 are summarised in the table below.

Table 48: Interest on Normative Loans & Interest Costs for FY 2016-17

Rs.Crs

Particulars	ARR Approved	Provisional
	FY 2016-17	FY 2016-17
Interest on Normative Loan	16.02	14.92
Interest on Working Capital	16.53	15.75
Interest on Security Deposit	1.49	1.26
Total Interest & Finance Charges	34.04	31.92

4.7.12 Accordingly, the Hon'ble Commission is requested to kindly approve the Interest and Finance Charges of Rs. **31.92** Crs for FY 2016-17.

4.8 Return on Equity

4.8.1 TSL has considered the same methodology as approved by Commission in earlier MYT orders. The deemed additions to the equity has been considered @30% of total fixed asset addition after reducing assets additions from consumer contribution amount received during the year. $\{(Total\ Additions\ to\ GFA\ during\ the\ year - Assets\ Addition\ from\ Consumer\ Contribution\ during\ the\ year) \times 30\%\}$

4.8.2 In line with the Regulation 6.21 of Tariff Regulations 2010 and APTEL judgement dated 19th February, 2016 in Appeal No. 203 of 2014, the rate of return on equity at 15.5% post tax has been calculated by the petitioner in the table below.

4.8.3 The Normative Equity Capital and Return on Equity approved in MYT order dated 28th February, 2017 and normative claim for FY 2016-17 are as shown in the below table.

Table 49: Normative Equity & Return on Equity for FY 2016-17-

Rs.Crs

Particulars	ARR Approved	Provisional
	FY 2016-17	FY 2016-17
Opening Balance of Normative Equity	140.47	140.87
Add: Deemed Additions during the FY 2016-17	0.45	-
Closing Balance of Normative Equity	140.92	140.87
Average Balance of Normative Equity	140.70	140.87
Rate of Return on Equity	15.50%	15.50%
Normative ROE Amount -(A)	21.81	21.83
Income Tax Rate - (B)		33.99%
Normative ROE Amount with Income tax C=A/(1-B)	21.81	33.08

4.8.4 TSL has claimed pre-tax RoE, as business is generating taxable profit from the FY 2015-16.

4.8.5 Accordingly, the Hon'ble Commission is requested to kindly approve the Return on Equity of Rs. **33.08** Crs for FY 2016-17.

4.9 Non-Tariff Income

4.9.1 Non-Tariff Income includes Meter Rent, Delayed Payment Surcharge, service charges, Supervision Charges and miscellaneous charges etc. The amount of Non-Tariff Income for FY 2016-17, as per provisional actuals is Rs **5.38** Crs and Hon'ble Commission is requested to kindly approve the same.

4.10 Revenue from Existing Tariff for FY 2016-17

4.10.1 The consumer category-wise Revenue from Existing Tariff for FY 2016-17 as per provisional actual figures is given under:

Table 50: Revenue from Existing Tariff for FY 2016-17 (Rs.Crs)

Consumer Category	No. of Consumers	Connected Load	Sales	Fixed / Demand Charges	Energy Charges	Penalty/ Rebate	Total Revenue
	Nos.	kW/kVA	MUs	Rs. Crs	Rs. Crs	Rs. Crs	Rs. Crs
Domestic	36,296	1,90,934	197.25	0.56	67.91	0.00	68.47
Domestic - DSHT	137	48,816	91.98	0.16	37.40	0.00	37.55
Commercial	8,799	43,935	64.26	0.51	36.62	0.00	37.13
High Tension I	78	18,635	29.71	4.59	15.30	0.19	20.08
High Tension II	20	33,623	111.83	12.04	59.12	-1.76	69.40
High Tension III	14	3,05,900	1,883.33	85.28	987.27	-61.81	1,010.73
High Tension IV	1	1,10,000	130.82	33.74	67.71	-2.24	99.22
Utilities/Street Light	393	16,932	86.54	0.00	34.51	0.00	34.52
Temporary Supply	97	-	2.34	0.00	1.45	0.00	1.46
Sale to Other Licensee	1	-	279.29	-	123.99	0.00	123.99
Total	45,836	7,68,775	2,877.34	136.87	1,431.29	-65.61	1,502.55

4.10.2 The Revenue from Sale of Power as per provisional actuals is **Rs. 1502.55 Crs** as against **Rs.1542.85** Crs approved by Hon'ble Commission for FY 2016-17 at existing tariff in MYT Order dated 28th February, 2017. Accordingly the Hon'ble Commission is requested to approve the same for FY 2016-17.

4.11 Aggregate Revenue Requirement and Revenue Gap for FY 2016-17

4.11.1 In line with the cost allocation approved by the Hon'ble Commission in Tariff Order dated 28th February 2017, the ARR for FY 2016-17 has been segregated into wheeling business ARR and retail supply business ARR.

4.11.2 The wheeling business ARR and retail supply business ARR has been summarised below for FY 2016-17.

Table 51: Wheeling business ARR and Retail Supply business ARR for FY 2016-17

Rs.Crs

S. No.	Particulars	Wheeling %	Retail Supply %	FY 2017-18 (Rs Crs)	Wheeling (Rs Crs)	Retail Supply (Rs Crs)
1	Power Purchase Cost	0%	100%	1227.67	0.00	1227.67
2	Employee Cost	60%	40%	18.98	11.39	7.59
3	R&M Expense	90%	10%	28.71	25.84	2.87
4	A&G Expense	50%	50%	23.41	11.71	11.71
5	Depreciation	90%	10%	33.73	30.36	3.37
6	Interest on loan	90%	10%	14.92	13.42	1.49
7	Interest on WC	10%	90%	15.74	1.57	14.17
8	Interest on security deposit	0%	100%	1.26	0.00	1.26
9	Sub Total (1 to 9)			1364.43	94.29	1270.13
10	Add: Return on Equity	90%	10%	33.08	29.77	3.31
11	Less: Non Tariff Income	10%	90%	5.38	0.54	4.84
12	Aggregate Revenue Requirement (9+10-11)			1392.13	123.53	1268.60

4.11.3 TSL estimates its provisional Aggregate Revenue Requirement for FY 2016-17 at **Rs. 1392.14** Crs and revenue from sale of power at **Rs.1502.55** Crs resulting in revenue surplus for FY 2016-17 at **Rs. 110.41** Crs.

4.11.4 Based on the discussions in the preceding paragraphs of this chapter, the table below summarizes ARR for FY 2016-17.

Table 52: ARR for FY 2016-17

Rs.Crs

Sr No	Particulars	FY 2016-17	
		Approved ARR vide T.O dt 28.02.17	Provisional
1	Power Purchase Cost	1,318.54	1,227.67
2	Operation & Maintenance Expenses	66.51	71.11
3	Depreciation	30.43	33.73
4	Interest and Finance Charges	34.04	31.92
5	Sub Total (1 to 4)	1,449.52	1,364.43
6	Add: Return on Equity	21.81	33.08
7	Less: Non Tariff Income	5.86	5.38
8	Aggregate Revenue Requirement (5+6-7)	1,465.47	1,392.14
9	Less: Revenue from Sale of Power @ Existing Tariff	1,542.85	1,502.55
10	Revenue Gap / (Surplus) (8-9)	(77.39)	(110.41)

4.11.5 Accordingly, the petitioner requests the Hon'ble Commission to kindly approve the estimated revenue surplus of Rs. **110.41** Crs for FY 2016-17.

Chapter 5. Aggregate Revenue Requirement for FY 2017-18

This Chapter summarises the aggregate revenue requirement for the FY 2017-18 based on the figures approved by the Hon'ble Commission in MYT Order dated 28th February 2017 and the revised submission with regards to sales and power purchase in this petition.

5.1 Sales Projections

5.1.1 The sales approved by the Hon'ble Commission in the Tariff Order dated 28th February 2017 is **3080.96** MUs. But in light of the lower sales in FY 2016-17, the petitioner does not expect to achieve the approved sales for FY 2017-18. Therefore, TSL has projected the revised sales for the FY 2017-18 based on the growth trends in the past year and the reasonable growth envisaged for respective consumer categories.

5.1.2 TSL expects that, category wise sales in FY 2017-18 shall be lower than the approved sales of FY 2017-18. This reduction shall be with same quantity, as it has happened in FY 2016-17 from approved sales, except in case of Sales to Licensee JUSCO.

5.1.3 The table below contains category wise provisional sales of FY 2016-17, approved sales of FY 2016-17, and the reduction in sales during FY 2016-17 than approved sales. Based on the same category-wise reduction in quantum of sales during FY 2016-17 (except sale to licensee JUSCO), the expected sales of FY 2017-18 is calculated from approved sales of FY 2017-18. Thus, we expect that total sales during FY 2017-18 shall be **3013.42** MUs.

Table 53: Consumers, Connected Load & Sales – FY 2017-18

Particulars	Provisional Sales (MUs) for FY 2016-17	Sales approved in MYT Order dt. 28.02.2017 (MUs)	Approved less Provisional FY 2016-17 (MUs)	Approved Sales for FY 2017-18 in MYT Order dt. 28.02.17 (MUs)	Expected Sales of FY 2017-18 (MUs)
Domestic LT	196.90	232.09	(35.19)	244.38	209.19
Domestic - DS HT	92.94	111.65	(18.71)	115.49	96.78
Commercial	64.14	73.82	(9.68)	75.08	65.40
High Tension I	28.87	35.25	(6.38)	37.22	30.84
High Tension II	111.83	156.48	(44.65)	159.61	114.96
High Tension III	1,883.33	1,864.30	19.03	1,920.23	1,939.26
High Tension IV	130.82	100.00	30.82	100.00	130.82
Utility/Street Lights	86.39	90.00	(3.61)	89.00	85.39
Temporary Supply	2.84	2.00	0.84	2.00	2.84
Other Licensee/ JUSCO	279.29	337.95	(58.66)	337.95	337.95
Total	2,877.34	3,003.54	(126.20)	3,080.96	3,013.42

5.1.4 TSL requests the Hon'ble Commission to approve the above revised energy sales projection for FY 2017-18.

5.2 Energy Balance and Distribution Losses

5.2.1 The energy balance based on the sales projected in earlier section is tabulated below.

5.2.2 TSL requests the Hon'ble Commission to approve the energy balance and distribution loss projected below.

Table 54: Energy balance for FY 2017-18

S. No.	Particulars	Projection
		FY 2017-18
A	ENERGY REQUIREMENT	
1	Sales to Other Licensees	337.95
2	Distribution Losses on Sales to Other Licensees (%)	0.00%
3	Unit Lost on Sales to Other Licensees	-
4	Energy Requirement for Sales to Other Licensees	337.95
5	Sales to HT - IV Category	130.82
6	Distribution Losses to HT - IV (%)	0.00%
7	Unit lost on Sales to HT - IV	-
8	Energy Requirement for HT - IV Category	130.82
9	Sales to LT Consumers	362.81
10	Sales to HT Consumers (Other than HT - IV)	2,181.84
11	Total Sales to Consumers other than HT-IV & JUSCO (9 + 10)	2,544.65
12	Distribution Losses on Sales to Consumers other than HT-IV & JUSCO (%)	4.06%
13	Unit Lost on Sales to Consumers other than HT-IV & JUSCO	107.68
14	Energy Requirement for Sales to Consumers other than HT-IV & JUSCO	2,652.33
15	Overall Sales (4 + 8 +11)	3,013.42
16	Overall Distribution Losses (%)	3.45%
17	Overall Distribution Losses	107.68
18	Total Energy Requirement	3,121.10
B	ENERGY AVAILABILITY	
1	Tata Power Company Limited	1541.85
2	Damodar Valley Corporation	1504.25
a	132 kV	345.87
b	400 kV	1158.38
3	TSW Captive	40.00
4	RPO	0.00
5	Open access / Other Sources	35.00
3	Total Pooled Energy Availability	3121.10

5.2.3 TSL would like to bring to the notice of Hon'ble Commission that, in MYT tariff Order, the Hon'ble Commission had changed the energy balance submitted by TSL, without considering the technical and reliability constraints.

5.2.4 TSL would like to submit that, due to technical & reliability constraints, it is not feasible to bring down the power demand from DVC 132 kV source below a

certain limit, and accordingly, we have projected the source wise power purchase quantum for FY 2017-18, as given in table no. 54.

5.3 Power Purchase Cost

- 5.3.1 The following table summarises the power purchase cost projected for FY 2017-18 based on the revised energy requirement in line with revised sales projections.
- 5.3.2 The power purchase rates has been considered as per the rates approved by the Hon'ble Commission in Tariff order dated 28th February, 2017 for all the plants except for DVC 400kV and Open access.
- 5.3.3 Transmission charges are paid for wheeling of power from DVC generating station to our substation at Golmuri, Jamshedpur. These charges are fixed in nature. An additional Rs. 52.12 crs have been added as Fixed cost compenent of DVC 400 kV power source, which is actual transmission charges paid during FY 2016-17 to PGCIL (Power Grid company of India Limited), and ERLDC (Eastern Region Load Dispatch Center).
- 5.3.4 The rate for open access has been considered equal to FY 2016-17 provisional actual rate for open access.
- 5.3.5 Therefore, the petitioner requests the Hon'ble Commission to approve the power purchase cost of **Rs. 1455.51 Crs** for purchase of **3121.10** MUs at the average rate of **Rs. 4.66/unit**.

Table 55: Power Purchase Cost FY 2017-18

Particulars		Projection
		FY 2017-18
Tata Power Company Ltd (A)		
Power Purchase - Mus	Unit-II	760.00
	Unit -III	781.85
	Total	1,541.85
Per unit energy charge (Rs./kwh)	Unit-II	2.63
	Unit -III	2.64
Total Fixed Charges (Rs. Crs)	Unit-II	107.32
	Unit -III	98.29
	Total	205.61
Power Purchase Cost (Rs. Crs)	Unit-II	307.20
	Unit -III	304.70
	Total	611.90
Damodar Valley Corporation (132 kV) (B)		
Power Purchase	MUs	345.87
Per unit energy charge	Rs./kWh	3.51
Total Fixed / demand Charges	Rs. Crs	105.07
Power Purchase Cost	Rs. Crs	226.47
Damodar Valley Corporation (400 kV) (C)		
Power Purchase	MUs	1,158.38
Per unit energy charge	Rs./kWh	2.18
Fixed Charges	Rs. Crs	224.95
Transmission charges	Rs. Crs	52.12
Total Fixed Charges	Rs. Crs	277.07
Power Purchase Cost	Rs. Crs	529.60
TSW- Captive (D)		
Power Purchase	MUs	40.00
Cost	Rs. Crs	15.64
Average Rate	Rs./kWh	3.91
RPO (E)		
Power Purchase	MUs	0.00
Cost	Rs. Crs	57.91
Other / Open Access (F)		
Power Purchase	MUs	35.00
Cost	Rs. Crs	14.00
Average Rate	Rs./kWh	4.00
Total Pooled Power Purchase (F= A+B+C+D+E+F)		
Power Purchase	MUs	3,121.10
Total Cost	Rs. Crs	1,455.51
Average power purchase cost Rate	Rs./kWh	4.66

5.4 Aggregate Revenue Requirement for FY 2017-18:

5.4.1 The annual revenue requirement for FY 2017-18 as approved by the Hon'ble Commission in MYT Order dated 28th February, 2017 has been revised for only two group of costs, namely power purchase cost and O&M Cost.

5.4.2 The petitioner would like to submit to the Hon'ble Commission that, there was a need to revise the expected power purchase cost, due to lower sales and technical constraints in achieving the mix of power envisaged in TSL Order dated 28th February, 2017.

5.4.3 Also the petitioner would like to submit to the Hon'ble Commission that, based on the details submitted under section 4.5 (para 4.5.1 to 4.5.26) of this petition, the total O&M cost is expected to be in line with the revised target O&M cost submitted, which is given below.

Table – 55 – O&M Cost of FY 2017-18_Rs. Crs

S. No.	Particulars	Target Cost	Expected Cost
1	Employee Expenses	23.57	23.57
2	A&G Expenses	23.18	23.18
3	R&M Expenses	28.92	28.92
4	Total O&M Cost	75.67	75.67

5.4.4 So, we request the Hon'ble Commission to approve the Total O&M Cost of FY 2017-18 as **Rs. 75.67 Crs.**

5.4.5 Thus, keeping all other costs, as approved by the Hon'ble Commission, as per TSL Tariff Order dated 28.02.2017, except power purchase cost and O&M Cost, the ARR has been calculated and given in table below. Based on the allocation policy approved by the Hon'ble Commission in MYT Order, the petitioner has segregated this ARR into wheeling business and supply business for FY 2017-18.

Table 56: ARR for Wheeling & Retail supply for FY 2017-18

S. No.	Particulars	Wheeling %	Retail Supply %	FY 2017-18 (Rs Crs)	Wheeling (Rs Crs)	Retail Supply (Rs Crs)
1	Power Purchase Cost	0%	100%	1455.51	0	1455.51
2	Employee Expenses	60%	40%	23.57	14.142	9.428
3	A&G Expenses	50%	50%	23.18	11.59	11.59
4	R&M Expenses	90%	10%	28.92	26.028	2.892
5	Interest on Loan	90%	10%	13.12	11.808	1.312
6	Interest on consumer security deposit	0%	100%	1.6	0	1.6
7	Interest on Working Capital	10%	90%	16.55	1.655	14.895
8	Depreciation	90%	10%	30.93	27.837	3.093
9	Total Costs			1,593.38	93.06	1,500.32
10	Add: Return on Equity	90%	10%	22.14	19.926	2.214
11	Less: Non-tariff income	10%	90%	5.86	0.586	5.274
12	Net ARR			1,609.66	112.40	1,497.26

5.5 Revenue from existing tariff for FY 2017-18:

5.5.1 The revenue from existing tariff for FY 2017-18 is estimated at Rs. **1803.13** Crs.

Table 57: Revenue from existing Tariff for FY 2017-18

(Rs.Crs)

Consumer Category	No. of Consumers	Connected Load (kW)	Sales (Mus)	Fixed Charges	Energy Charges	Penalty/ Rebate	Meter Hire Charges	Total Revenue
Domestic	40,063	1,96,829	209.19	0.92	79.95		1.64	82.51
Domestic - DSHT	146	51,469	96.78	0.07	43.55		0.01	43.63
Commercial	9,074	40,851	65.40	0.69	42.84		0.40	43.93
Temporary Supply		-	2.84	0.00	1.63		-	1.63
High Tension I	90	20,149	30.84	5.80	19.43	0.56	0.08	25.86
High Tension II	20	34,816	114.96	10.03	71.85	(1.44)	0.02	80.45
High Tension III	14	3,03,981	1,939.26	89.22	1,202.34	(58.46)	0.01	1,233.12
High Tension IV	1	1,10,000	130.82	31.19	81.11	(4.50)	0.00	107.80
Utilities/Street Light	393	19,278	85.39	0.02	41.84		0.01	41.87
Sale to Other Licensee	1	-	337.95		143.29			143.29
Total	49,802	7,77,373	3,013.42	137.94	1,727.83	(63.84)	2.16	1,804.09

5.6 Revenue Gap for FY 2017-18:

5.6.1 The revenue gap for FY 2017-18 based on ARR approved and revenue at existing tariff is calculated below.

Table 58: ARR and Revenue Gap for FY 2017-18 (Rs. Crs)

S. No.	Particulars	FY 2017-18 (Projection in MYT Order)	FY 2017-18 (Being projected now)
1	Power Purchase Cost	1331.56	1455.51
2	Employee Expenses	21.35	23.57
3	A&G Expenses	22.21	23.18
4	R&M Expenses	25.16	28.92
5	Interest on Loan	13.12	13.12
6	Interest on consumer security deposit	1.60	1.60
7	Interest on Working Capital	16.55	16.55
8	Depreciation	30.93	30.93
9	Total Costs	1462.48	1,593.38
10	Add: Return on Equity	22.14	22.14
11	Less: Non-tariff income	5.86	5.86
12	Net ARR	1478.76	1,609.66
13	Revenue at Existing Tariff		1,804.09
14	Revenue Gap / (Surplus)		(194.43)

5.6.2 Therefore, TSL requests the Hon'ble Commission to approve the projected revenue surplus of Rs **194.43** Crs for FY 2017-18, on standalone basis, based on approved ARR and revenue estimated at existing tariff.

Chapter 6. Cumulative Gap / (Surplus)

6.1 Cumulative Gap till FY 2015-16

6.1.1 The cumulative gap till FY 2014-15 has been calculated as **Rs. 1108.58 Crs**, inclusive of addition on account of true-up of controllable expenses at the end of the control period. This cumulative gap till FY 2014-15 was approved by the Hon'ble Commission in the MYT Order dated 28th February 2017, as **Rs. 1104.79 Crs**.

6.1.2 Considering the above opening Revenue gap for FY 2015-16, the revenue gap determined in the present petition in Chapter 2 (based on the audited accounts), and following the Hon'ble Commission's approach as in MYT Order dated 28th February 2017, for computation of carrying cost, the cumulative revenue gap at the end of the Control Period is tabulated below, which comes as **Rs. 1269.40 Crs**.

Table 59: Cumulative Gap / (Surplus) along with Carrying Cost till FY 2015-16

(Rs. Crs)

Particulars	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Opening Revenue Gap as on 1st April	19.03	27.95	280.15	706.32	1108.58
Revenue Gap created during the year	6.05	231.04	348.6	277.67	-2.70
Add: Incentives on T&D Losses			7.97		
Add: true of controllable expenses at the end of the control period			3.36	-0.08	
Closing Gap	25.08	258.99	640.08	983.92	1105.88
Rate of Interest (SBI PLR rates for FY 12 to FY 16)	13.00%	14.75%	14.45%	14.75%	14.75%
Carrying Cost on Opening Balance	2.47	4.12	40.48	104.18	163.52
Carrying Cost on Additional Gap	0.39	17.04	25.76	20.48	
Total Carrying Cost	2.87	21.16	66.24	124.66	163.52
Total Gap / (surplus) incl. Carrying Cost	27.95	280.15	706.32	1108.58	1269.40

6.1.3 Therefore, TSL requests the Hon'ble Commission to approve the cumulative revenue gap of **Rs. 1269.40 Crs** at the end of the first Control Period.

6.2 Cumulative Gap till FY 2017-18

6.2.1 In accordance with the Distribution Tariff Regulations, 2015, National Tariff Policy and as per the methodology approved by the Commission in the previous Tariff Orders, the petitioner is claiming carrying cost on the gap at SBI Base Rate + 3.5% (As on 01st April) for FY 2016-17. Accordingly, the Cumulative Revenue Gap projected at the end of FY 2016-17 along with carrying cost is tabulated below.

Table 60: Cumulative revenue gap with carrying cost at the end of FY 2016-17_Rs. Crs

Particulars	FY 2016-17	FY 2017-18
Opening Revenue Gap as on 1st April	1269.40	1321.47
Revenue Gap/ (Surplus) created during the year	(110.41)	(194.43)
Add: Incentives on T&D Losses		
Closing Gap	1158.99	1127.05
Rate of Interest (SBI base rates + 3.50%)	12.80%	12.60%
Carrying Cost on Opening Balance	162.48	166.51
Total Carrying Cost	162.48	166.51
Total Gap incl. Carrying Cost	1321.47	1293.55

6.2.2 The total gap till FY 2017-18 including the carrying cost on the opening revenue gap at the SBI base rate + 3.50% as on 1st April is **Rs. 1293.55 Crores**. To realize the revenue gap, TSL proposes to increase the tariff for FY 2017-18 to liquidate a part of the regulatory assets by FY 2020-21.

6.2.3 Therefore the petitioner requests the Hon'ble Commission to approve the cumulative revenue gap of Rs. **1293.55 Crs** at the end of FY 2017-18.

6.3 Analysis of fixed and variable costs of Licensee & Tariff Rationalisation

6.3.1 Principally, Licensee should be able to recover its fixed costs by fixed component of the tariff, and variable costs by variable components of the tariff. In current tariff structure, the recovery of fixed charges is only limited to 13% of total revenue, whereas the total fixed costs of the petitioner is approx. 43% of total ARR.

6.3.2 The proportion of fixed and variable cost and revenue for the petitioner is calculated for FY 2016-17, and has been presented below.

6.3.3 The proportion of fixed cost out of total cost of all sources of power of FY 2016-17 are given in table below. It can be seen that out of total power cost of Rs. 1227.67 Crs, the portion of fixed cost is Rs. 427.27 Crs. Source wise fixed portion of power cost is given in table below.

Source of Power Purchase	Quantum Sourced in MUs	Fixed Cost in Rs. Crs
TPCL U#2	716.98	81.24
TPCL U#3	706.94	73.95
DVC 400 kV	1,151.11	222.34
DVC 132 kV	308.07	49.74
TSL Captive	76.51	-
STOA	8.15	
Total	2967.77	427.27

Table 61: Calculation of Fixed & Variable component of ARR for FY 2016-17

S. No.	Particulars	Fixed Portion_ %	Variable portion_ %	Total Cost_FY17 Crs	Fixed Cost_FY17 Crs	Variable Cost_FY17 Crs
1	Power Purchase Cost	43%	58%	1227.67	427.27	800.40
2	Operation & Maintenance expenses	100%	0%	71.11	71.11	0.00
3	Depreciation	100%	0%	30.43	30.43	0.00
4	Interest & Finance Charges	100%	0%	31.92	31.92	0.00
5	Total Costs	100%	0%	1361.13	560.73	800.40
6	Add: Return on Equity including income tax	100%	0%	33.08	33.08	0.00
7	Less: Non-tariff income	100%	0%	5.38	5.38	0.00
8	Add- Sharing of gains	100%	0%	0.00	0.00	0.00
9	Net ARR	100%	0%	1388.83	588.43	800.40
10	% Proportion of total ARR			100%	42%	58%

6.3.4 The proportion of fixed cost out of total cost of all sources of power of FY 2015-16 are also given in table below. It can be seen that out of total power cost of Rs. 1246.23 Crs, the portion of fixed cost is Rs. 462.03 Crs.

FY 2015-16			
S.No	Source of Power Purchase	Quantum Sourced in MUs	Fixed Cost in Crs
1	TPCL U#2	770.91	105.93
2	TPCL U#3	718.31	97.02
3	DVC 400 kV	1,187.06	210.81
4	DVC 132 kV	297.86	48.27
5	TSL Captive	17.17	-
6	STOA	0.87	-
Total		2992.18	462.03

Table 62: Fixed and Variable Component of ARR of FY 2015-16

S. No.	Particulars	Fixed Portion_ %	Variable portion_ %	Total Cost_FY16 Crs	Fixed Cost_FY16 Crs	Variable Cost_FY16 Crs
1	Power Purchase Cost	43%	58%	1246.23	462.03	784.20
2	Operation & Maintenance expenses	100%	0%	79.43	79.43	0.00
3	Depreciation	100%	0%	28.89	28.89	0.00
4	Interest & Finance Charges	100%	0%	45.03	45.03	0.00
5	Total Costs	100%	0%	1399.58	615.38	784.20
6	Add: Return on Equity including income tax	100%	0%	45.66	45.66	0.00
7	Less: Non-tariff income	100%	0%	5.32	5.32	0.00
8	Add- Sharing of gains	100%	0%	24.04	24.04	0.00
9	Net ARR	100%	0%	1463.96	679.76	784.20
10	% Proportion of total ARR			100%	46%	54%

6.3.5 Total revenue from fixed charges comes as 8% and 9% for FY 2015-16 and FY 2016-17 respectively, as given in tables below.

Table 63: Fixed and Variable component of Tariff Revenue for FY 2015-16

Particulars	Amount_Rs. Crs	% proportion
Total Tariff Revenue	1466.65	100%
Total Fixed / Demand charges	121.55	8%
Total energy charges & other Adjustments due to surcharge / rebate etc.	1345.10	92%

Table 64: Fixed and Variable component of Tariff Revenue for FY 2016-17

Particulars	Amount_Rs. Crs	% proportion
Total Tariff Revenue	1503.68	100%
Total Fixed / Demand charges	137.23	9%
Total energy charges & other Adjustments due to surcharge / rebate etc.	1366.45	91%

- 6.3.6 In view of the same, there is a need to increase fixed / demand charges relatively more than the energy charges.
- 6.3.7 Therefore, the petitioner would like to propose to increase the fixed / demand charges of all categories by **20%**, and few changes have been proposed in tariff structure as given in para 8.1.8 of this petition. The proposed increase shall have an overall impact of increase of **only 2%** of the average billing rate / yearly revenue.

Chapter 7. Tariff Proposal for FY 2017-18

7.1 Accumulated Revenue Gap till FY 2016-17

- 7.1.1 As discussed in Chapter 6, the revenue gap accumulated till FY 2016-17 including the carrying cost of previous years is **Rs. 1321.47 Crs** for the power business division.

7.2 Accumulated Revenue Gap till FY 2017-18

- 7.2.1 The accumulated revenue gap till March 2018 is **Rs. 1293.55 Crs.**, which is approx.. 75% of the annual revenue. Such Revenue gap is putting tremendous pressure on financial health of power distribution business, and therefore needs to be liquidated by appropriate level of tariff increase. However, the petitioner has proposed for average increase of only 2% currently, to avoid the tariff shock to consumers, as tariff increase has been allowed recently. The petitioner shall come with the tariff increase proposal next year with updated data.
- 7.2.2 The petitioner would like to submit that the Tata Steel Tariff Petition Formats are enclosed in **Annexure – XV** of this petition.

Chapter 8. Tariff Philosophy and Tariff Schedule for FY 2017-18

This chapter discusses the approach and philosophy for addition of categories, increases in tariffs.

8.1 Tariff Philosophy and Proposed tariff Schedule

8.1.1 As explained in previous chapters there is a need to increase the tariff to liquidate the regulatory assets created in the past. It is also submitted to the Hon'ble commission that, continuation of regulatory assets shall create additional burden of carrying cost on regulatory assets for the consumers.

8.1.2 Petitioner would like to quote two relevant section of National Tariff Policy-

- Clause 8.0 para 2 of the National Tariff Policy 2016 states- Quote-"----
"Making the distribution segment of the industry efficient and solvent is the key success of power sector reforms and provision of services of specified standard. Therefore, the regulatory Commission need to strike the right balance between the requirements of the commercial viability of the distribution licensee and consumer interests."-Unquote.
- Clause 8.3 para 2 of the National Tariff Policy 2016 states-
Quote-"-----"In terms of Section 61(g) of the Act, the Appropriate Commission shall be guided by the objective that the tariff progressively reflects the efficient and prudent cost of supply of electricity....."-Unquote.

8.1.3 The distribution losses are also one of the lowest in the country. Further the consumers of Jamshedpur receive 24x7 continuous, quality and reliable power supplemented with high quality services.

8.1.4 However, the current tariff is not sufficient to liquidate the regulatory assets in time. The petitioner would like to mention that, non-recovery of Fuel and Power Purchase Price Adjustment charges in past years (during FY 2012-13 to FY 2014-15) has led to increase in Regulatory Assets.

8.1.5 The petitioner submits that, it has been deprived of the revenue requirement / legitimate claims at proper time due to which the revenue gap has increased/ has been increasing. A small portion of Regulatory Assets have been recovered by providing tariff increase in last TSL Tariff orders.

8.1.6 The petitioner would also like to submit that, in past, revenue at revised tariff is approved at higher side as Rebates/ discounts/ load factor for HT Consumers were not considered by Hon'ble Commission, while processing earlier tariff orders.

8.1.7 The petitioner requests that Hon'ble Commission may kindly consider the effect of rebates/ discounts of power factor / load factor in this tariff order, while computing revenue from sale of revised power tariff.

8.2 Changes in tariff structure - Tariff Proposal

A. Analysis of Fixed and Variable component of costs, tariff and recovery

Petitioner would like to submit that historically the recovery of costs through fixed component of its tariff, have been very low as compared to its cost structure.

In TSL power distribution system, fixed component of costs remains at approximately 40% to 50% of total costs, and therefore tariff should be aligned in such a way that, recovery of fixed costs happens through fixed component of tariff.

However, revenue realization through its fixed component of tariff is approx. 8 to 9% only.

In support of the same, extracts from Table 50 is reproduced herewith.

Consumer Category	Connected Load (kVA)	Sales in MU	Revenue realized through Fixed Charges_Rs. Crs	Total Revenue _Rs. Crs	Revenue realized through Fixed Charges as percentage of Total Revenue (%)
Domestic	185934	196	0.56	68.47	0.81%
Domestic HT	42530	95	0.06	38.46	0.15%
Commercial	43935	64	0.51	38.41	1.33%
High Tension I,II,III,IV	469021	2154	139.14	1123.04	12.38%
Utilities	16932	86	0.00	34.52	0.00%

It clearly shows that revenue realization from fixed/demand component of tariff is lowest in DSHT category. For HT category, it is at 12.38% which is also very low compared to the cost structure. Such gaps need to be bridged progressively. This tariff proposal also aims to rationalize this aspect, as given below-

1. **Domestic Category (LTDS category):** Current recovery from fixed charges in domestic category is only 1% of total recovery, where as in the petitioner cost structure, fixed costs are approx. 42% of total costs. There is a need to align the

existing tariff of domestic consumers and therefore fixed charges in this tariff proposal are proposed in such a way that at least 5% of recovery is done through fixed charges.

As domestic tariff is a cross-subsidized category, a slight increase is proposed in energy charges for consumption above 400 units, whereas no change is proposed up to 400 units' monthly consumption. This has been proposed, to progressively reduce the element of cross-subsidy, at the same time, ensuring a relatively lower tariff for consumers with low consumption. This will also ensure that domestic category tariff is also brought within $\pm 20\%$ of average cost of supply as envisaged in "National Tariff Policy-2016". An overall increase of approx. 5% is expected for an average consumer of this category, from the proposed tariff.

2. **Domestic HT Service:** No Change is proposed in energy charges of domestic service HT supply. Under this category, it is proposed to charge the demand charge on per kVA per month basis in place of Fixed Charge per month. Such changes are proposed with dual objective-

- In absence of demand charge, there is a tendency to ask for more contract demand than what is actually needed currently. This disturbs the planning process, and also results in inefficient utilization of resources.

With the existing fixed charges on per connection/ month basis, there is practically negligible (0.15% only) revenue recovery through fixed component of tariff. The proposed demand charge will help in rationalize the existing tariff. An overall increase of approx. 8% is expected for an average consumer of this category, from the proposed tariff.

3. **Commercial Services:** No change is proposed in energy charge in commercial supply. However to align the commercial tariff, towards the existing cost structure of the TSL, it is proposed to change the fixed charges of Rs./consumer/month to Rs. /kW/month. At present consumer having 1 kW load is charged same fixed charges, as consumer having 85 kW sanctioned load, which need to be corrected. Current recovery of fixed charge in this category is negligible (approx. 1%). This need to be structured in such a way that, recovery from fixed charges increases, thereby making it more cost reflective.

In view of the same, it is proposed to charge ₹ 60/kW/month to commercial category of consumers. An overall increase of approx. 6% is expected for an average consumer of this category, from the proposed tariff.

4. **HT Category:** No tariff increase is proposed in energy charges in HT category. The recovery of revenue through fixed component of tariff for HT category of consumer is approx. 12% only, as against the petitioners fixed cost component of approximately

43%. In order to bridge this gap, increase in demand charges is proposed in such a way to recover approx. 5% more through fixed component of tariff. **With the proposed increase in demand charges, it is expected that revenue from demand charges will increase from Rs. 139 Cr to Rs. 167 Cr.** An overall increase of approx. 1% to 5% is expected for an average consumer of this category, from the proposed tariff.

Impact of proposed change in tariff for all category of consumers, with load & sales data of FY 2016-17, is estimated and has been shown in table below.

Impact of proposed tariff on typical consumer, with Category wise average demand and consumption								
Category	Nos. of Consumers	Contract Demand	Sales	Average demand / consumer	Average Consumption /month/ consumer	Existing Tariff	Proposed Tariff	% Increase
	Nos.	kw/kVA	M Us	kw/kVA	Units	Rs./unit	Rs./unit	%
Domestic	36,296	1,90,934	197	5	453	3.73	3.91	5%
Domestic HT	137	48,816	92	356	55951	4.51	4.88	8%
Commercial Supply_LT	8,799	43,935	64	5	609	6.66	7.08	6%
High Tension		-	-					
HT-1(100-500KVA)	78	18,635	30	239	31737	8.13	8.50	5%
HT-2(500-5000KVA)	20	33,623	112	1681	465951	7.12	7.29	2%
HT-3(5000KVA or more)	14	3,05,900	1,883	21850	11210278	6.72	6.76	1%
HT-4	1	1,10,000	131	110000	10901860	9.27	9.84	6%
Utility / Street Light	393	16,932	87	43	18350	4.90	4.90	0%
Temporary Supply		-	2			5.75	5.75	0%
Sale to Other Licensee	1	-	279					
Total	45,739	7,68,775	2,877					

B. Proposed changes in Disconnection/Reconnection Charges Under Miscellaneous charges:

TSL submits that disconnection of power supply is done in the case of consumers defaulting payment. A reasonable and cost reflective disconnection and reconnection charges are necessary, because --

- It acts as deterrent to payment default, and,
- It doesn't pass on the cost of defaults, on consumers who defaults, but it pass on cost of default on other regular paying consumers.

Estimation of Disconnection / Reconnection Charges -We have worked out the cost involved in disconnection and reconnection of power connections. A team of supervisors, two technicians / lineman, two Security staff with One Vehicle & additional support on requirement costs about Rs. 10000/- per day. In a day, this team disconnects / reconnects approximately 10 numbers of power connections. So, the average cost involved in disconnections are approximately Rs. 1000/-.

Also, while disconnecting the service line of a defaulting consumers, disconnection & reconnection of feeders are also required. This led to power outage for regular paying consumers, & revenue loss to the licensee.

Current Charges of Rs. 30/- per disconnection neither recovers the full cost of disconnection, nor provide adequate pressure on defaulting consumers to pay on time. Few consumers have become habitual of paying late, getting disconnections and again reconnections. These habits of defaulting consumers puts additional burden of power tariff to the good consumers. In view of the same, we have proposed disconnection / reconnection charges of Single phase, Three phase, Low Tension Industrial Supply, and HT supply, as Rs. 500/-, Rs. 700/-, Rs. 1000/-, and Rs. 1500/- per disconnection / reconnection respectively.

C. New Category: Provisional power supply at single point on sharing basis for Temporary Stalls/Tin sheds in market area -

In market area several vendors have made temporary stalls/Tin sheds etc., and need electricity to operate in mostly evening hours.

A special tariff need to be given, to these vendors as their requirement is only for part of the day and, also that their establishment is temporary.

As these are temporary in nature, it is proposed to provide the same on sharing basis, to a group of such temporary stalls/Tin sheds.

8.3 Proposed Tariff Schedule

The consumers classified under different categories will be charged different tariff for energy supplied to them as given below based on the nature of use of energy, supply voltage and demand of power.

8.4 Low & Medium Tension (LT & MT) Supply:

The tariff for LT & MT Supply will be charged under following categories:

Demand in kVA	Voltage of supply to be provided by licensee	Consumer Category	Nature of use of Energy
Upto 100 kVA	415 or 220V as per availability and discretion of licensee	DS Domestic Category	Domestic & Households, Educational Institutions and Hostels, Charitable & Social Welfare Institutions, Hospitals, municipal Services etc.
Upto 100 kVA	415 or 220V as per availability and discretion of licensee	CS Commercial Category	Trade, Business, Shops, Cinemas, Clubs, Hotels, Public Offices, Private Hospital. Business establishments in the premises of Educational Institutions, Hostels, Religious Institutions & Other Commercial or business establishments.

8.5 High Tension (HT) Supply:

The tariff for HT Supply will be charged under following categories:

Demand in kVA	Voltage of supply to be provided by licensee	Consumer Category
For demand more than 100 kVA for DS-HT consumers	6.6KV /33 kVas per availability and discretion of licensee	DS-HT
For demand more than 100 kVA and upto 500 kVA	6.6KV as per availability and discretion of licensee	HT – I
For demand more than 500 kVA and upto 5000 kVA	6.6kV/33kV as per availability and discretion of licensee	HT – II
For demand more than 5000 kVA	6.6 kV/ 33kV/ 132kV as per availability and discretion of licensee	HT – III
For power supplied to Steel Works of Tata Steel	For power supplied to Steel Works of Tata Steel	HT – IV

Interpretation/clarification

In case of doubt or anomaly, if any, in applicability of tariff or in any other respect, the matter will be referred to the Hon'ble Jharkhand State Electricity Regulatory Commission for clarification.

8.6 Domestic Supply (DS Category):

8.6.1 *Applicability:*

This schedule is applicable to Domestic & Households, Educational Institutions and Hostels, Charitable & Social Welfare Institutions and Govt. & Industrial Hospitals.

8.6.2 *Character of Service:*

AC 50 Hz three phase at 415V or 220V at single phase within the specified variation limits as far as practicable.

8.6.3 *Proposed Tariff:*

Description	Existing Fixed Charge (Rs/Month or part thereof)	Proposed Fixed Charge (Rs/Month or part thereof)
220 V single phase up to 5 kW	13	65
415 V three phase above 5 kW	26	130

Description	Existing Energy Charge (Rs/kWh)	Proposed Energy Charge (Rs/kWh)
0-100 units	2.30	2.30
101-400 units	3.95	3.95
Above 400 units	4.55	5.00

8.6.4 *Meter Hire Charges:*

Description	Existing Meter Hire Charge (Rs/Month)	Proposed Meter Hire Charge (Rs/Month)
220 V single phase up to 5 kW	20	24
415 V three phase above 5 kW	50	60

Note: The meter hire charge is applicable only in case the meter is purchased and installed by the licensee. No meter hire charges applicable in case of consumer purchased meters.

8.6.5 *Interest on delayed Payment:*

In accordance with Clause IV as provided in section on Terms and Conditions of Supply of the present petition.

8.7 Domestic Supply, HT Category (DSHT Category)

8.7.1 **Applicability:**

This schedule is applicable to Domestic & Households and Housing Co-operative societies.

8.7.2 **Character of Service:**

AC 50 Hz three phase at 6.6 kV / 33 kV within the specified variation limits as far as practicable in line with the IE Rules 1956 and grid constraints

8.7.3 **Proposed Tariff:**

Existing Fixed Charge (Rs/Consumer/Month)	Proposed Fixed Charge (Rs/KVA/Month)	Energy Charge (Rs/Unit)	
		Existing	Proposed
420	60	4.50	4.50

8.7.4 **Meter Hire Charges:**

Description	Existing Meter Hire Charge (Rs/Month)	Proposed Meter Hire Charge (Rs/Month)
Meter Hire	50	60

Note: The meter hire charge is applicable only in case the meter is purchased and installed by the licensee. No meter hire charges applicable in case of consumer purchased meters.

8.7.5 **Interest on delayed payment:**

In accordance with Clause IV as provided in section on Terms and Conditions of Supply of the present petition

8.8 Commercial Supply (CS Category)

8.8.1 **Applicability:**

This schedule applicable for Trade, Business, Shops, Cinemas, Clubs, Hotels, Public Offices, Private Nursing Homes and Hospitals, Business establishments in the premises of Educational Institutions, Hostels, Religious Institutions, and any other Commercial or business establishments

8.8.2 **Character of Service:**

AC 50 Hz three phase at 415V or 220V at single phase within the specified variation limits as far as practicable in line with the IE Rules 1956 and grid constraints.

8.8.3 **Proposed Tariff:**

Description	Existing Fixed Charge (Rs/Consumer/Month)	Proposed Fixed Charge (Rs/kW/Month)
220 V single phase up to 5 kW	50	60
415 V three phase above 5 kW	120	60

Description	Existing Energy Charge (Rs/kWh)	Proposed Energy Charge (Rs/kWh)
220 V single phase up to 5 kW	6.55	6.55
415 V three phase above 5 kW		

8.8.4 *Meter Hire Charges:*

Description	Existing Charge (Rs/Consumer/Month)	Proposed Charge (Rs/Consumer/Month)
220 V single phase up to 5 kW	20	25
415 V three phase above 5 kW	105	125

8.8.5 *Interest on delayed payment:*

In accordance with Clause IV as provided in section on Terms and Conditions of Supply of the present petition.

HIGH TENSION SUPPLY, (HT CATEGORY)

8.9 HT-1 Category

8.9.1 *Applicability:*

This schedule is applicable to Industrial and Commercial establishments and where contract demand agreement is more than 100 kVA and upto 500 kVA.

8.9.2 *Character of Service:*

AC 50 Hz three phase at 6.6 kV within the specified variation limits as far as practicable, in line with IE rules 1956 and grid constraints.

8.9.3 *Proposed Tariff:*

Category	Demand Charge (Rs/kVA/Month)		Energy Charge (Rs/kWh)	
	Existing	Proposed	Existing	Proposed
HT-1	320	385	6.30	6.30

Note: The billing demand shall be as per Clause I, as provided in section on Terms and Conditions of Supply of the present petition.

8.9.4 *Meter Hire Charges:*

Description	Existing Meter Hire Charge (Rs/Month)	Proposed Meter Hire Charge (Rs/Month)
Meter Hire Charges	700	840

Note: The meter hire charge is applicable only in case the meter is purchased and installed by the licensee. No meter hire charges applicable in case of consumer purchased meters.

8.9.5 **Power Factor Penalty/Rebate:**

In accordance with Clause II as provided in section on Terms and Conditions of Supply of the present petition.

8.9.6 **Electricity Duty:**

In accordance with Clause III as provided in section on Terms and Conditions of Supply of the present petition.

8.9.7 **Interest on delayed payment:**

In accordance with Clause IV as provided in section on Terms and Conditions of Supply of the present petition.

8.9.8 **Voltage Rebate:**

In accordance with Clause VI as provided in section on Terms and Conditions of Supply of the present petition.

8.10 HT-2 Category

8.10.1 **Applicability:**

This schedule is applicable to Industrial and Commercial establishments and where contract demand agreement is more than 500 kVA and up to 5000 kVA.

8.10.2 **Character of Service:**

AC 50 Hz three phase at 6.6KV/33kV within the specified variation limits as far as practicable, in line with IE rules 1956 and grid constraints.

8.10.3 **Proposed Tariff:**

Category	Demand Charge (Rs/kVA/Month)		Energy Charge (Rs/kWh)	
	Existing	Proposed	Existing	Proposed
HT-2	320	385	6.25	6.25

Note: The billing demand shall be as per Clause I, as provided in section on Terms and Conditions of Supply of the present petition.

8.10.4 **Load factor Rebate:**

Description	Rebate (%)
For all energy consumption above 65% and up to 70% load factor	5.00%
For all energy consumption above 70% load factor	7.50%

Note: The above rebate will be applicable on energy charges on monthly basis and consumer with arrears shall not be eligible for above rebate. However, the applicable rebates shall be allowed to consumers with outstanding dues, wherein such dues have been stayed by the appropriate authority/Courts.

8.10.5 **Meter Hire Charges:**

Description	Existing Meter Hire Charge (Rs/Month)	Proposed Meter Hire Charge (Rs/Month)
Meter Hire Charges	700	840

Note: The meter hire charge is applicable only in case the meter is purchased and installed by the licensee. No meter hire charges applicable in case of consumer purchased meters.

8.10.6 **Power Factor Penalty/Rebate:**

In accordance with Clause II as provided in section on Terms and Conditions of Supply of the present petition.

8.10.7 **Electricity Duty:**

In accordance with Clause III as provided in section on Terms and Conditions of Supply of the present petition.

8.10.8 **Interest on delayed payment:**

In accordance with Clause IV as provided in section on Terms and Conditions of Supply of the present petition.

8.10.9 **Voltage Rebate:**

In accordance with Clause VI as provided in section on Terms and Conditions of Supply of the present petition.

8.11 **HT-3 Category**

8.11.1 **Applicability:**

This schedule is applicable to Industrial establishments and where contract demand agreement is more than 5000 kVA or more.

8.11.2 **Character of Service:**

AC 50 Hz three phase at 6.6 kV/33kV within the specified variation limits as far as practicable.

8.11.3 **Proposed Tariff:**

Category	Demand Charge (Rs/kVA/Month)		Energy Charge (Rs/kWh)	
	Existing	Proposed	Existing	Proposed
HT-3	315	380	6.20	6.20

Note: The billing demand shall be as per Clause I, as provided in section on Terms and Conditions of Supply of the present Tariff Order.

8.11.4 **Load factor Rebate:**

Description	Rebate (%)
For all energy consumption above 70% load factor	7.50%

Note: The above rebate will be applicable on energy charges on monthly basis and consumer with arrears shall not be eligible for above rebate. However, the applicable rebates shall be allowed to consumers with outstanding dues, wherein such dues have been stayed by the appropriate authority/Courts.

8.11.5 **Meter Hire Charges:**

Description	Existing Meter Hire Charge (Rs/Month)	Proposed Meter Hire Charge (Rs/Month)
Meter Hire Charges	700	840

Note: The meter hire charge is applicable only in case the meter is purchased and installed by the licensee. No meter hire charges applicable in case of consumer purchased meters.

8.11.6 **Power Factor Penalty/Rebate:**

In accordance with Clause II as provided in section on Terms and Conditions of Supply of the present petition.

8.11.7 **Electricity Duty:**

In accordance with Clause III as provided in section on Terms and Conditions of Supply of the present petition.

8.11.8 **Interest on delayed payment:**

In accordance with Clause IV as provided in section on Terms and Conditions of Supply of the present petition.

8.11.9 **Voltage Rebate:**

In accordance with Clause VI as provided in section on Terms and Conditions of Supply of the present petition.

8.12 HT-4 Category

8.12.1 **Applicability:**

This schedule is applicable for consumption of Steel Works of Tata Steel/ to Industrial establishments and where contract demand agreement is more than 50000 kVA.

8.12.2 Character of Service:

AC 50 Hz three phase at 132kV/220kV/400 kV within the specified variation limits as far as practicable.

8.12.3 Proposed Tariff:

Category	Demand Charge (Rs/kVA/Month)		Energy Charge (Rs/kWh)	
	Existing	Proposed	Existing	Proposed
HT-4	315	380	6.20	6.20

Note: The billing demand shall be as per Clause I, as provided in section on Terms and Conditions of Supply of the present petition.

8.12.4 Meter Hire Charges:

Description	Existing Meter Hire Charge (Rs/Month)	Proposed Meter Hire Charge (Rs/Month)
Meter Hire Charges	700	840

Note: The meter hire charge is applicable only in case the meter is purchased and installed by the licensee. No meter hire charges applicable in case of consumer purchased meters.

8.12.5 Load factor Rebate:

Description	Rebate (%)
For all energy consumption above 70% load factor	7.50%

Note: The above rebate will be applicable on energy charges on monthly basis and consumer with arrears shall not be eligible for above rebate. However, the applicable rebates shall be allowed to consumers with outstanding dues, wherein such dues have been stayed by the appropriate authority/Courts.

8.12.6 Power Factor Penalty/Rebate:

In accordance with Clause II as provided in section on Terms and Conditions of Supply of the present petition.

8.12.7 Electricity Duty:

In accordance with Clause III as provided in section on Terms and Conditions of Supply of the present petition.

8.12.8 Interest on delayed payment:

In accordance with Clause IV as provided in section on Terms and Conditions of Supply of the present petition.

8.12.9 **Voltage Rebate:**

In accordance with Clause VI as provided in section on Terms and Conditions of Supply of the present petition.

8.13 Utilities/Street Light Category

8.13.1 **Applicability:**

The schedule is applicable to all utilities and municipal services like water and waste water, sewage treatment, street lights etc.

8.13.2 **Character of Service:**

AC 50 Hz three phase at 220V or 415V or 6.6 kV within the specified variation limits as far as practicable.

8.13.3 **Proposed Tariff:**

Category	Fixed Charge (Rs/month or part thereof)		Energy Charge (Rs/kWh)	
	Existing	Proposed	Existing	Proposed
220V Single phase up to 5 kW	35	42	4.90	4.90
415V three phase above 5 kW	35	42	4.90	4.90

8.13.4 **Meter Hire charge:**

Description	Existing Rs/Month	Proposed Rs/Month
220 V single phase up to 5 kW	20.00	24.00
415 V three phase above 5 kW	50.00	60.00

Note: The meter hire charge is applicable only in case the meter is purchased and installed by the licensee. No meter hire charges applicable in case of consumer purchased meters.

8.13.5 **Interest on delayed payment:**

In accordance with Clause IV as provided in section on Terms and Conditions of Supply of the present Tariff Order.

8.14 Temporary Supply

Applicability: Temporary supply connections are to be provided on request for an initial period of 6 (six) months maximum from the date of payment of estimated amount in advance and thereafter on discretion of the petitioner.

8.14.1 **Proposed Tariff:**

Fixed Charges (Rs/Month)		Energy Charge (Rs/kWh)	
Existing	Proposed	Existing	Proposed
1.5 times of applicable fixed charges	1.5 times of applicable fixed charges	1.5 times of applicable fixed charges	1.5 times of applicable fixed charges

Note: However for Durga Puja and other religious functions energy charge for temporary connections will be the highest slab of the prevailing domestic tariff.

8.15 Sale to Other Licensees

8.15.1 **Applicability:**

The schedule is applicable for sales to other licensees (JUSCO in present case).

8.15.2 **Proposed Tariff:**

The tariff for sale to other licensees shall be at the weighted average rate of power purchase cost of the petitioner and shall be reconciled during APR/ Truing up process.

8.16 Provisional power supply at single point on sharing basis for Temporary Stalls/Tinsheds in market area.

8.16.1 **Applicability:**

In market area, several vendors have made temporary stalls / tin sheds etc. and need electricity to operate in mostly evening hours.

A special tariff need to be given to these vendors as their requirement is only for part of the day & also that their establishment is temporary. As these are temporary in nature, it is proposed to provide the same on sharing basis, to a group of such temporary stalls / tin sheds.

8.16.2 **Proposed Tariff:**

Category	Fixed Charge (Rs/month or part thereof)	Energy Charge (Rs/kWh)
Temporary Stall/ Tin sheds in Market Area	200.00	6.55

Note: As these are temporary units/establishments, energy security will be calculated for 4 months of consumption.

8.16.3 Schedule for Miscellaneous Charges

S. No.	Purpose	Schedule of Charges (Rs)(Existing)	Schedule of Charges (Rs)(Proposed)	Manner in which payment will be realized
1	Application fee			
	Agriculture	10	10	Application should be given in standard requisition form of the Board which will be provided free of cost. Payable in cash in advance along with the intimation.
	Street light	20	20	
	Domestic	15 (KutirJyoti) 20 (Others)	15 (KutirJyoti) 20 (Others)	
	Commercial	20	20	
	Other LT Categories	50	50	
	HTS	100	100	
	HTSS, EHTS, RTS	100	100	
2	Revision of estimate when a consumer intimates changes in his requirement subsequent to the preparation of service connection estimate based on his original application			
	Agriculture	10	10	Payable in cash in advance along with the intimation for revision
	Domestic	30	30	
	Commercial	30	30	
	Other LT Categories	50	50	
	HT Supply	150	150	
3	Testing of Consumer Installation			
	First test and inspection free of charge but should any further test and inspection be necessitated by faults in the installation or by not compliance with the conditions of supply for each extra test or inspection.	100	100	Payable in cash in advance along with the request for testing.
4				Meter test when accuracy disputed by consumer
	Single Phase	40	40	To be deposited in cash in advance. If the meter is found defective within the meaning of the Indian Electricity Rules 1956, the
	Three Phase	100	100	

S. No.	Purpose	Schedule of Charges (Rs)(Existing)	Schedule of Charges (Rs)(Proposed)	Manner in which payment will be realized
	Trivector/special type meter	650	600	amount of advance will be refunded and if it is proved to be correct within the permissible limits laid down in the Rules, the amount will not be refunded.
5	Removing/Refixing the meter			
	Single Phase	50	50	Payable in cash in advance along with theintimation for revision
	Three Phase	100	100	
	Trivector/special type meter	300	300	
6	Changing of meter /meter equipment/fixing of sub meter on the request of the consumer/fixing of submeter			
	Single Phase	50	50	Payable in cash in advance along with theintimation for revision
	Three Phase	100	100	
	Trivector/special type meter	300	300	
7	Resealing of meter when seals are found broken			
	Single Phase	25	25	Payable with energy bill
	Three Phase	50	50	
	Trivector/special type meter	100	100	
8	Replacement of meter card, if lost or damaged by consumer	10	10	Payable with energy bill
9	Fuse call – Replacement			
	Board fuse due to fault of consumer	15	15	Payable with energy bill
	Consumer Fuse	15	15	
10	Disconnection/Reconnection			
	Single Phase	40	500	Payable in cash in advance along with the request by the consumer. If the same consumer is reconnected/ disconnected within 12 months of the last disconnection/ reconnection, 50% will be added to the charges
	Three Phase	100	700	
	LT Industrial Supply	400	1000	
	HT Supply	700	1500	
11	Security Deposit			As per clause 8.2.8 – 8.2.20 of the JSERC (Electricity Supply code) Regulations, 2015

8.17 Terms and Conditions of Supply

Besides the terms & conditions provided in the JSERC (Electricity Supply Code), Regulations, 2015, the following additional terms & conditions of supply is proposed:

- **Clause I: Billing Demand**

The billing demand shall be the maximum demand recorded during the month or 75% of contract demand whichever is higher. In case of the actual demand exceeding 110% of the contract demand, the consumer shall pay penal charges for the exceeded demand.

If the recorded demand exceeds 110% of Contract Demand, then the demand charge upto 110% of contract demand will be charged as per the normal tariff rate. The remaining recorded demand over and above 110% will be charged @ 1.5 times the normal tariff rate.

- **Clause II: Power factor Penalty/Rebate**

Power Factor Penalty:

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

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

Power Factor Rebate:

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

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

- **Clause III: Jharkhand Electricity Duty**

The charges in this tariff schedule do not include charges on account of Electricity Duty/ Surcharge to the consumers under the Bihar Electricity Duty Act, 1948 as adopted in Jharkhand vide S.O No. 117 dated 15.12.2000 and the rules framed there under as amended from time to time and any other Statutory levy which may take effect from time to time after making corrections for the loss in the distribution system.

- **Clause IV: Interest on Delayed payment**

The Delayed Payment Surcharge will be levied for all consumers at the rate of 1.5% per month and part thereof subject to a minimum value of Rs. 200 for all consumer categories. The due date for making payment of energy bills or other charges shall be fifteen days from the date of serving of bill. The bill should be generated and delivered on monthly basis. In

case, the licensee defaults in generating and delivering bills on monthly basis, DPS will not be charged for the period of default by licensee.

- **Clause V: Electricity Supply Code**

The Jharkhand State Electricity Regulatory Commission (Electricity Supply Code) Regulation 2015 as amended from time to time will be followed wherever applicable.

- **Clause VI: Voltage Rebate**

Voltage rebate to the High Tension consumers will be applicable as given below:

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

The above rebate will be available only on monthly basis and consumer with arrears shall not be eligible for the above rebates. However, the applicable rebates shall be allowed to consumers with outstanding dues, wherein such dues have been stayed by the appropriate authority/Courts.

- **Clause VII: Other Terms & Conditions**

Point of Supply

The Power supply shall normally be provided at a single point for the entire premises.

Dishonoured Cheques-

In the event of dishonoured cheque for payment against a particular bill, the Licensee shall charge a minimum of Rs. 300/- or 0.5% of the billed amount, whichever is higher. The DPS shall be levied extra as per the applicable terms and conditions of DPS for the respective category.

Stopped/ defective meters

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

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

Category	Load factor
Domestic Supply	0.10
Commercial Supply	0.20
Domestic Supply HT	0.15
High Tension Supply:	

Category	Load factor
11 KV	0.25
33 KV	0.30
132/220/400 KV	0.50

Sale of energy:

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

Release of new connections:

No new connections shall be provided without appropriate meter.

Conversion factors:

The following shall be the conversion factors, as and where applicable

- (PF=0.85):
- 1 Kilowatt (KW) = 1.176 Kilovolt ampere (kVA)
- 1 Kilowatt (KW) = 1 / 0.746 Horse Power (HP)
- 1 Horse Power (1 HP) = 0.878 Kilovolt ampere (KVA)

Fuel Price & Power Purchase Adjustment (FPPPA):

Applicable as per the Clause 6.59 to 6.65 of the Distribution Tariff Regulations, 2010 and Clause 6.60 to 6.68 of the Distribution Tariff Regulations, 2015 and as amended by the Commission from time to time.

Chapter 9. Status of Directives

9.1 The following table summarizes the status of compliance of earlier directives.

Directives as per MYT order dated June 4, 2014	Views of the Commission	Status submitted by the Petitioner
Separation of Accounts: The Commission directed the Petitioner to segregate its accounts in full and submit the same along with the auditor's report specifying any anomaly in practice of booking expenses etc. with the next tariff petition.	The Commission notes that the Petitioner has complied with this directive. The Petitioner is now directed to comply with the applicable provisions of JSERC (Power Regulatory Accounting) Regulations, 2015.	Complied
Sales Estimation and Projections: The Commission directed the Petitioner to submit a detailed report for load research and demand forecast study within 30 days from the date of the issue of the Order.	The Commission observes that the Petitioner in compliance to directives of Tariff Order dated 31 st May 2015, had submitted that it shall submit the final reports on technical study shortly. However, the Petitioner has now submitted that it submitted the report on technical study along with its Tariff Petition dated November 2014. Hence, the Commission finds discrepancy in the Petitioner's submission and directs the Petitioner to submit the final and updated report on Technical study within 6 months of the issue of this Tariff Order.	Demand forecast study for township area was done in 2014 to plan the network growth. The report was then submitted. The Load forecast for period FY 2017-21 was already submitted in our Business Plan dated 09th July 2016, copy of relevant part of Business Plan is enclosed as Annexure-XVII . We understand that this suffice the purpose. In case any specific study is required for some purpose, we request the Hon'ble commission to kindly provide the terms of reference and scope of this study.
Status of CGRF & DSM Initiatives: The Commission directed the	The Commission directs the Petitioner to continue submitting the quarterly reports to the Hon'ble Commission.	Ongoing compliance

Petitioner to continue to submit the quarterly reports on status of CGRF and DSM Initiatives		
Adjustment of Bills: The Commission directed the Petitioner to submit status of reconciliation of bills of TPCL to the Hon'ble Commission.	The Commission notes the compliance of the directive by the Petitioner. However, since it is a recurring process, the Petitioner is again directed to submit status of adjustment of bills for future period.	The petitioner submits that, adjustment of bills have been carried out, as per directives of the Hon'ble Commission.
O&M expenses: The Commission directed the Petitioner to clearly segregate O&M expenses so that such expenses may be clearly identifiable from books of accounts itself.	The Commission notes the compliance of this directive by the Petitioner.	Complied
Technical Study for Service Area: The Commission directed the Petitioner to submit timeframe for releasing all pending connections as per the relevant provisions of JSERC (Distribution Licensees' Standards of Performance), Regulations 2005. The Petitioner also directed the Petitioner to submit quarterly report to the Commission on the status of consumer applications pending and the reasons thereof.	The Commission directs the Petitioner to continue submitting the quarterly reports to the Hon'ble Commission.	Ongoing compliance
Data Adequacy : The Commission directed the Petitioner to submit the complete formats along with the next Tariff Petition in absence of which its Tariff Petition may not be accepted by the Commission.	The Petitioner should ensure in all the subsequent filings to the Commission that all the applicable regulatory formats are provided with the Petition in a timely manner.	All applicable formats are being submitted.
Typographical mistakes in the	Commission notes compliance of the	Extreme care is being

<p>Petition:</p> <p>The Commission directed the Petitioner to ensure that typographical mistakes are avoided in the Tariff Petition.</p>	<p>Petitioner and directs the Petitioner to take extreme care in future too in order to avoid mistakes.</p>	<p>taken.</p>
<p>Report on Distribution Loss</p> <p>The Petitioner is directed to proactively take measures for reduction of distribution losses and controlling theft in its licensed area and submit quarterly reports on the same to the Commission. The Petitioner should also report the distribution losses to the Commission on a quarterly basis.</p>	<p>The Commission directs the Petitioner to continue submitting the quarterly reports to the Hon'ble Commission.</p>	<p>Complied</p>
<p>Power Purchase Cost</p> <p>The Commission directed the Petitioner to evaluate options for reduction of its power purchase costs through short term and long term options and submit same to the Commission for approval within 3 months of issue of this Tariff Order.</p>	<p>The Petitioner has not adequately complied with the directive of the Commission. In view of favourable rates in the short term power market, the Petitioner should evaluate procurement from such sources if the same is feasible.</p> <p>The Petitioner should submit its findings in the form of a detailed note to the Commission within 1 month of the issue of this Tariff Order.</p>	<p>The petitioner has evaluated the options, by comparing Indian energy exchange (IEX) average Market clearing price (MCP) with the incremental unit cost of energy charges from long term sources. IEX average MCP in eastern region is approx..2.29/unit for FY 2016-17. Similar price we expect for FY 2017-18. Wheeling of IEX power to Jamshedpur also has additional charges of approx.. 40 to 60 paisa/unit and therefore total expected landed cost becomes Rs. 2.69/unit (2.29 +0.40), which is even higher than the incremental cost of power</p>

		from our current sources. TSL continuously evaluated options for cheaper power, and will continue to do the same.
Directives as per MYT order dated May 31, 2015	Views of the Commission	Status submitted by the Petitioner
RPO Compliance The Commission directed the Petitioner to comply with the renewable purchase obligation as stipulated for FY 2015-16 along with shortfall for FY 2014-15. The Commission stated that it shall not allow for any carry forward of RPO beyond the control period and failure to comply with it shall attract penalty.	The Commission noted with concern that the Petitioner has not been able to meet its RPO for FY 2014-15 due to financial constraints. The Petitioner should ensure compliance to RPO stipulated for FY 2015-16 along with shortfall of FY 2014-15 while submitting true up for FY 2015-16. The Commission shall not allow any carry forward of RPO beyond the Control Period and failure to comply shall attract strict penalty for the Petitioner.	The updated compliance is being submitted as Annexure XVIII with this petition, which is a copy of letter sent to JREDA on the same.
Details of Depreciation The Commission directed the Petitioner to submit report on reasons for amount of depreciation claimed under various heads specially related to foreign exchange variation within 1 month of issue of the Tariff Order.	The Petitioner should continue to follow relevant provisions of the applicable regulations while recording depreciation in its accounts.	Complied